U.S. DEPARTMENT OF EDUCATION

# State and Local Implementation of the *No Child Left Behind Act*

## Volume VIII—Teacher Quality Under *NCLB:* Final Report

# State and Local Implementation of the *No Child Left Behind Act*
## Volume VIII—Teacher Quality Under *NCLB*: Final Report

A report from the National Longitudinal Study of *No Child Left Behind* (NLS-*NCLB*) and the Study of State Implementation of Accountability and Teacher Quality Under *No Child Left Behind* (SSI-*NCLB*)

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# PREFACE

This report presents findings about teacher quality from two longitudinal studies, the National Longitudinal Study of *No Child Left Behind* (NLS-*NCLB*), and the Study of State Implementation of Accountability and Teacher Quality Under *No Child Left Behind* (SSI-*NCLB*). The research teams for these two studies have collaborated to provide an integrated evaluation of the implementation of key *NCLB* provisions at the state level (SSI-*NCLB*) and at the district and school levels (NLS-*NCLB*). Together the two studies are the basis for a series of reports on the topics of accountability, teacher quality, Title I school choice and supplemental educational services, and targeting and resource allocation.

This is the eighth volume in this report series. The first seven volumes are:

Volume I—Title I School Choice, Supplemental Educational Services, and Student Achievement

Volume II—Teacher Quality Under *NCLB*: Interim Report

Volume III—Accountability Under *NCLB*: Interim Report

Volume IV—Title I School Choice and Supplemental Educational Services: Interim Report

Volume V—Implementation of the 1 Percent Rule and 2 Percent Interim Policy Options

Volume VI—Targeting and Uses of Federal Education Funds

Volume VII—Title I School Choice and Supplemental Educational Services: Final Report

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The information in this report was provided through two studies done by independent research firms under contract to the U.S. Department of Education. Important contributions were made by:

- The National Longitudinal Study of *No Child Left Behind* (NLS-*NCLB*), led by Georges Vernez of the RAND Corporation and Michael Garet and Beatrice Birman of the American Institutes for Research, assisted by Brian Stecher (accountability team leader), Brian Gill (choice team leader), and Mengli Song (teacher quality team leader). Marie Halverson of the National Opinion Research Center directed data collections for the NLS-*NCLB*.
- The Study of State Implementation of Accountability and Teacher Quality Under *No Child Left Behind* (SSI-*NCLB*), led by Jennifer O'Day and Kerstin Carlson Le Floch of the American Institutes for Research. A team led by Elham-Eid Alldredge of REDA International assisted with state-level data collections.

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# EXECUTIVE SUMMARY

Ensuring that every child is taught by a highly qualified teacher is a central feature of the *No Child Left Behind Act of 2001* (*NCLB*), the most recent reauthorization of the *Elementary and Secondary Education Act of 1965* (*ESEA*). *NCLB* requires states to set standards for designating all public school teachers as highly qualified and requires districts to notify parents of students in Title I programs if their child's teacher does not meet these standards. The requirements apply to all teachers of core academic subjects—English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography—and to teachers who provide instruction in these subjects to students with limited English proficiency (LEP) and students with disabilities. To help improve the qualifications of teachers, *NCLB* provides funds that states can use for a wide variety of efforts, from improving certification systems to supporting strategies to recruit and retain highly qualified teachers. The law also supports ongoing professional development for all teachers regardless of their highly qualified status. Finally, *NCLB* sets standards for the qualifications of instructional paraprofessionals (teacher aides) who are employed with Title I funds—recognizing that, in many Title I schools, paraprofessionals play a substantial role in children's educational experiences. Taken together, the requirements of *NCLB* represent a federal commitment to providing the nation's children—in all states, districts, and schools—with teachers and paraprofessionals who will help them achieve at high levels of proficiency.

## KEY FINDINGS

Based on findings from two federally funded studies—the *Study of State Implementation of Accountability and Teacher Quality Under NCLB* (SSI-*NCLB*) and the *National Longitudinal Study of NCLB* (NLS-*NCLB*)—this report describes the progress that states, districts, and schools have made implementing the teacher and paraprofessional qualification provisions of *NCLB* through 2006–07. Generally, the studies found that:

- Most teachers met their states' requirements to be considered highly qualified under *NCLB*. According to state reports, 94 percent of teachers were highly qualified in 2006–07. However, state policies concerning highly qualified teachers varied greatly, both in the passing scores that new teachers must meet to demonstrate content knowledge on assessments and in the extent to which states' High, Objective, Uniform State Standard of Evaluation (HOUSSE) policies give existing teachers credit for years of prior teaching experience.
- The percentage of teachers who were *not* highly qualified under *NCLB* was higher for special education teachers and middle school teachers, as well as for teachers in high-poverty and high-minority schools. Moreover, even among teachers who were considered highly qualified, teachers in high-poverty schools had less experience and were less likely to have a degree in the subject they taught than teachers in more affluent schools.
- Despite *NCLB's* emphasis on sustained, intensive, classroom-focused professional development, a relatively small proportion of teachers[1] reported taking part in

[1] "Teachers" is a category that includes general education elementary teachers, middle school teachers (teaching English or mathematics or both subjects), and high school teachers (teaching English or mathematics or both subjects).

content-focused professional development related to teaching reading or mathematics for an extended period of time. For example, only 13 percent of elementary teachers participated for more than 24 hours in professional development focused on the in-depth study of topics in reading,[2] and only 6 percent received more than 24 hours of professional development on the in-depth study of topics in mathematics.

- According to state-reported data for 2005–06, 86 percent of Title I instructional paraprofessionals were qualified under *NCLB*. The percentage of Title I instructional paraprofessionals who reported they were qualified under *NCLB* was somewhat lower—63 percent in 2004–05 and 67 percent in 2006–07. However, in both 2004–05 and 2006–07, almost 30 percent (28 percent and 29 percent, respectively) of paraprofessionals reported that they did not know their qualification status under *NCLB* or did not provide a response. Most Title I instructional paraprofessionals reported working closely with a supervising teacher, but some indicated that they worked with students on their own without a teacher present.

In general, the SSI-*NCLB* and NLS-*NCLB* studies indicate that states and districts are working to implement and comply with *NCLB* requirements for teacher and paraprofessional qualifications. However, variation in state policies concerning highly qualified teachers continues to raise questions about whether some states have set sufficiently high standards for considering teachers to be highly qualified, and enduring inequities in access to highly qualified teachers continue despite *NCLB*'s goal of ensuring that all students are taught by knowledgeable and effective teachers.

This report presents findings from these two national studies and summarizes major issues in state-, district-, and school-level implementation of the teacher qualifications provisions of *NCLB*. This report addresses the following broad questions:

- How do states designate teachers as highly qualified? What is the capacity of states to collect data and accurately report on teacher and paraprofessional qualifications?
- What percentage of teachers meets *NCLB* requirements to be highly qualified (as operationalized by their states)? How does this vary across states, districts, schools, and types of teachers?
- What are states, districts, and schools doing to increase the number and distribution of highly qualified teachers?
- To what extent are teachers participating in high-quality professional development (e.g., professional development that is sustained, intensive, and content-focused)?
- What percentage of Title I instructional paraprofessionals meets *NCLB* qualification requirements? What are states, districts, and schools doing to help paraprofessionals meet these requirements?

## *NCLB* REQUIREMENTS

To ensure that public school teachers are highly qualified and paraprofessionals are qualified, *NCLB* sets requirements for their qualifications; requires the provision of information to

[2] For simplicity, the term "reading" is used throughout this report to refer to the set of subjects that may be variously known as reading, English, or language arts.

educators, parents and the public at large about these qualifications; and provides support for actions by states, districts, and schools.

To set teacher and paraprofessional qualifications, *NCLB* requires the following:

- States must have ensured that all teachers of core academic subjects were designated as highly qualified by the end of the 2005–06 school year.[3] Teachers hired after *NCLB* took effect in 2002 are expected to meet the law's requirements when hired.
- New elementary teachers must demonstrate subject-matter competency by passing a rigorous state test of elementary school subjects. New secondary teachers[4] must pass a state test in each core academic subject they teach and have completed an academic major, course work equivalent, or an advanced degree or have obtained advanced certification.
- Existing teachers (i.e., those "not new to the profession")[5] may either meet one of the requirements for new teachers or demonstrate subject matter competency through a High, Objective, Uniform State Standard of Evaluation (HOUSSE).
- Title I instructional paraprofessionals must have two years of postsecondary education, an associate degree or higher, or a passing score on a formal state or local academic assessment of ability to assist in teaching reading, writing, and mathematics.

To provide information about teacher and paraprofessional qualifications, *NCLB* requires the following:

- States and districts must report annually on progress toward the annual measurable objectives set forth in their state plans for ensuring that all teachers are highly qualified by the end of the 2005–06 school year.
- Parents of children enrolled in school districts that receive Title I funds must have access to information about the professional qualifications of their children's teachers, and parents of children who attend schools that receive Title I funds must be told whether their children are taught for four consecutive weeks by a teacher who is not highly qualified.

To improve knowledge and support ongoing learning among all teachers, *NCLB*:

- Requires that schools that have been identified for improvement spend at least 10 percent of their Title I allocations on professional development.
- Provides many sources of support that can be tapped to help teachers and paraprofessionals meet the law's requirements, as well as to enhance the knowledge and skills of the teaching force in general.

[3] In October 2005, the U.S. Department of Education announced that states making a good-faith effort to ensure that there was a highly qualified teacher in every classroom were invited to submit a revised state plan for accomplishing that goal by the end of the 2006–07 school year.

[4] In this report, the term "secondary teachers" refers to middle and high school teachers.

[5] States define "teachers not new to the profession" differently; thus, when the reader encounters this term, note that it encompasses approaches that vary by state.

## STATE POLICIES AND DATA SYSTEMS FOR HIGHLY QUALIFIED TEACHERS

### How do states designate teachers as highly qualified?

Although *NCLB* sets basic requirements for teachers to be designated as highly qualified and for paraprofessionals to be designated as qualified, states determine the specifics of how teachers may demonstrate content knowledge in each core subject they teach. By December 2004, all states had drafted criteria for determining whether teachers were highly qualified under *NCLB*. Since then, many state policies have been adjusted to take into account flexibility offered by the U.S. Department of Education.[6]

**State policies concerning highly qualified teachers varied greatly with regard to requirements for teachers to demonstrate content knowledge.**

The first two *NCLB* requirements for highly qualified teachers—that they have a bachelor's degree and full certification—are fairly straightforward, and all states incorporated these as basic elements of their policies for highly qualified teachers.[7] However, states approach the third *NCLB* requirement for highly qualified teachers—that they demonstrate adequate content knowledge in each core subject they teach—with great variation. By 2007, all 50 states, the District of Columbia, and Puerto Rico had developed HOUSSE[8] policies (though some states were phasing out their use of HOUSSE by that time), and the requirements in some of these policies were considerably more stringent than others. Even for new teachers, states differed dramatically in scores needed to pass tests used to determine teachers' knowledge. For example, on the Praxis II *Middle School Mathematics* test, the minimum passing scores ranged from 139 in South Dakota to 163 in Virginia (out of a maximum score of 200). This range of scores did not change from 2004–05 to 2006–07.

[6] See, for example, U.S. Department of Education. (March 15, 2004). *New, flexible policies help teachers become highly qualified.* Available online at: www.ed.gov/news/pressreleases/2004/03/03152004.html.

[7] Although state requirements for teacher certification vary across states, an analysis of teacher certification policies was not within the scope of the studies described in this report. Moreover, one aspect of the requirement that highly qualified teachers be fully certified, which pertains to new teachers who participate in certain alternative routes to teacher certification, may not be so straightforward. Section 200.56(a)(2) of the Title I regulations that the U.S. Department of Education published on Dec. 2, 2002, established that for purposes of being considered highly qualified under *NCLB*, teachers who are participating in alternative route programs that meet certain basic requirements for training and supervision are considered fully certified for up to three years while they work to meet state certification requirements. Thus, if these teachers have a bachelor's degree and demonstrate subject-matter content, they also are considered highly qualified for up to this same three-year period.

[8] Although new teachers can only be designated as highly qualified by passing an exam (elementary and secondary teachers) or majoring in a content area (secondary teachers only), *NCLB* offers teachers who are not new to the profession another option. This is in an attempt to acknowledge that while these teachers should not be required to meet a new set of standards, they should also not be grandfathered in to highly qualified status. As such, Congress developed HOUSSE to allow greater flexibility in determining how teachers who are not new to the profession can demonstrate that they are highly qualified.

### What is the capacity of states to collect data and accurately report on teacher and paraprofessional qualifications?

**In 2006–07, officials from 39 states, the District of Columbia, and Puerto Rico reported that their state data systems had improved since *NCLB* had been enacted.**

In 2006–07, more states reported that they could track variables critical to measuring teacher qualifications than in 2004–05. Most notably, 44 states could determine if a teacher was highly qualified in all subjects taught, up from 27 states in 2004–05. Likewise, 30 states could determine if a teacher had successfully passed HOUSSE requirements, an increase from 23 states in 2004–05. However, the number of states tracking course work equivalent to a major only increased slightly—to 19 states, the District of Columbia, and Puerto Rico.

**In 2006–07, 33 states, the District of Columbia, and Puerto Rico indicated that *NCLB* had stimulated changes in their teacher quality policies or practices.**

Thirty-four states and the District of Columbia reported that prior to *NCLB*, their certification requirements were already rigorous, and in some cases, exceed the requirements of the federal law. However, an equal number of states (33 states, the District of Columbia, and Puerto Rico) described instituting changes in their licensure and credentialing procedures to align their policies more closely with *NCLB* requirements for demonstrating subject matter competency. Common policy changes included adding testing or course work requirements, establishing middle school endorsements, phasing out emergency certification, and enhancing alternate certification routes.

## MEETING *NCLB* REQUIREMENTS FOR HIGHLY QUALIFIED TEACHERS

### What percentage of teachers meets the *NCLB* requirements to be highly qualified? How does this vary across states, districts, schools, and types of teachers?

Overall, most teachers were designated as highly qualified by 2006–07, but some important differences in the distribution of highly qualified teachers existed.

**According to state-reported data, 94 percent of elementary and secondary classes across the nation were taught by highly qualified teachers in 2006–07.[9]**

Forty states reported that the large majority (90 percent or more) of classes were taught by highly qualified teachers in 2006–07. Only Hawaii, Idaho, and the District of Columbia reported a figure of 75 percent or lower.

[9] Puerto Rico did not submit data regarding the percentage of classes taught by highly qualified teachers in 2006–07 and is not included in these analyses.

### Between 2004–05 and 2006–07, the percentage of teachers who reported being *not* highly qualified decreased from 4 percent to 2 percent.

Teachers' own reports indicate an improvement in their highly qualified status from 2004–05 to 2006–07. Of all general education teachers, 84 percent reported that they were considered highly qualified under *NCLB* in 2006–07, 2 percent reported that they were not highly qualified, and 14 percent reported that they did not know their status (see Exhibit S.1). Compared with 2004–05, these findings represent a significant increase in the percentage of teachers who reported they were highly qualified and a significant reduction in the percentage of teachers who reported they were not highly qualified or who did not know their status (see Exhibit S.1). The education credentials of teachers who did not know their highly qualified status under *NCLB* in 2006–07 were generally comparable with those of teachers who reported they were highly qualified. Middle school teachers were more than twice as likely as elementary school teachers to report that they were not considered highly qualified under *NCLB* in 2006–07.

**Exhibit S.1**
**Changes in Percentage of Teachers Reporting That They Were Considered Highly Qualified or Not Highly Qualified or That They Did Not Know Their Status Under *NCLB*, 2004–05 and 2006–07**

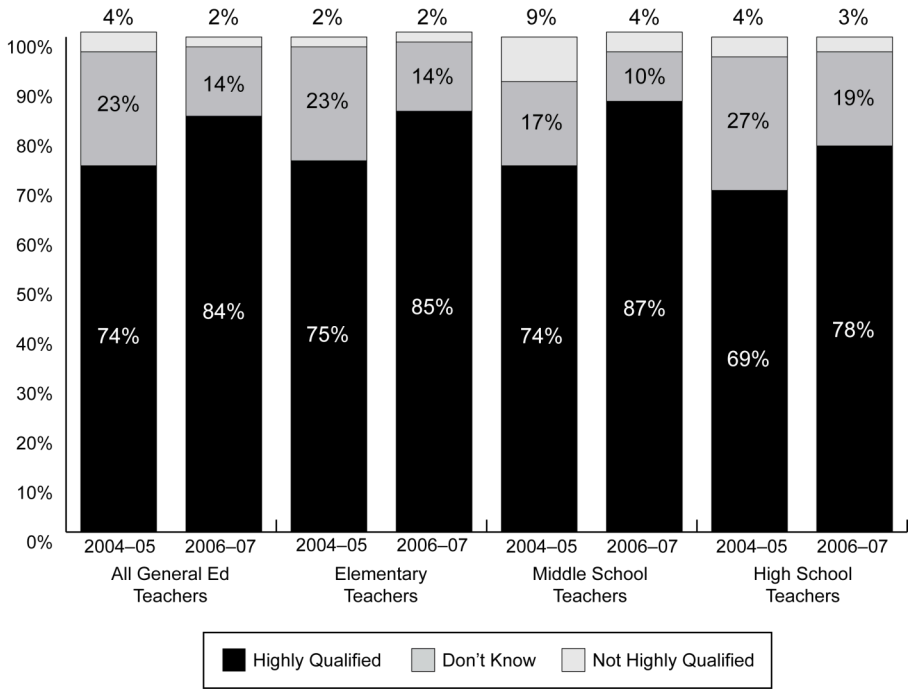



**Exhibit reads:** In 2004–05, 74 percent of general education teachers reported that they were considered highly qualified under *NCLB*, 4 percent reported that they were not highly qualified, and 23 percent reported that they did not know their status.

Note: For 2004–05, n = 7,340 (all general education teachers), 4,087 (elementary teachers), 1,887 (middle school teachers), and 1,386 (high school teachers). For 2006–07, n = 7,482 (all general education teachers), 4,121 (elementary teachers), 1,916 (middle school teachers), and 1,445 (high school teachers). Column totals may not sum to 100 percent due to rounding.

Source: NLS-*NCLB*, Teacher Survey.

### The percentage of special education teachers who reported they were highly qualified increased from 52 percent in 2004–05 to 72 percent in 2006–07.

In 2006–07, special education teachers were less likely than general education teachers to report that they were highly qualified (72 percent and 84 percent, respectively) and were much more likely than general education teachers to report that they were not highly qualified (10 percent and 2 percent, respectively). As in 2004–05, the qualification status of special education teachers in 2006–07 varied by school level. Special education teachers in elementary schools (83 percent) were more likely than special education teachers in middle schools (71 percent) and high schools (56 percent) to report they were highly qualified under *NCLB*.

### Teachers of LEP students and general education teachers reported being highly qualified at similar rates.

Teachers of LEP students[10] were as likely as teachers of non-LEP students to report they were highly qualified (84 percent for both) under *NCLB* in 2006–07. Under *NCLB*, teachers of LEP students are not required to be certified for English as a Second Language (ESL) or bilingual education. Nevertheless, 38 percent of teachers of LEP students had such certification in 2006–07, compared with 6 percent of teachers who did not teach LEP students. Only 3 percent of teachers of LEP students had a degree in a field related to the instruction of LEP students.

### In 2006–07, teachers considered highly qualified under *NCLB* were more likely to be fully certified, to have completed more college courses in their subject area, to have a degree in the subject they were teaching, and to be more experienced than teachers who were not highly qualified.

Among both general education teachers and special education teachers, those who reported being highly qualified under *NCLB* were more likely to report that they had earned either regular state certification or some kind of advanced certification (e.g., National Board for Professional Teaching Standards certification), compared with those not highly qualified in 2006–07 (88 percent and 53 percent, respectively, for general education teachers; and 92 percent and 81 percent, respectively, for special education teachers). Highly qualified secondary teachers were more likely to have a degree in the subject they taught than secondary teachers who were not highly qualified. However, in 2006–07, as was true in 2005–06, about half of all secondary teachers who reported being highly qualified under *NCLB* did not have a degree in the subject they taught. The percentage of highly qualified teachers with a degree in the subject they taught was particularly lower in middle schools than in high schools. For example, 35 percent of highly qualified middle school English teachers and 77 percent of highly qualified high school English teachers had a degree in English.

[10] Teachers of LEP students are defined as those who teach at least one of the following types of classes: (1) ESL class, (2) sheltered content class for students with LEP—regular academic content delivered using basic English, (3) bilingual class, and (4) class taught in student's primary language (other than English). Among 7,394 general education teachers who took the 2006–07 survey, 1,391 were teachers of LEP students, and 6,003 were teachers of non-LEP students.

**Compared with other schools, traditionally disadvantaged schools (i.e., high-poverty and high-minority schools) had higher percentages of teachers who were not considered highly qualified in 2006–07.**

Although the percentage of teachers who were highly qualified under *NCLB* or the percentage of teachers who did not know their status was similar in different types of schools, the percentage of teachers who were not highly qualified was higher in high-poverty and high-minority schools than in other schools in 2006–07. For example, teachers who were not highly qualified were more likely to be teaching in high-poverty schools than in low-poverty schools (5 percent compared with 1 percent), and more likely to be teaching in high-minority schools than in low-minority schools (4 percent compared with 1 percent).

**Highly qualified teachers in high-poverty and high-minority schools were more likely to be new to the profession than highly qualified teachers in low-poverty and low-minority schools in 2006–07.**

There was also some evidence of inequity in the distribution of teacher qualifications across different types of schools among teachers who were highly qualified under *NCLB* in 2006–07. For instance, the percentage of highly qualified teachers with fewer than three years of experience was 15 percent in high-minority schools, compared with 7 percent in low-minority schools. Moreover, schools identified for improvement, corrective action, or restructuring in 2006–07 had relatively more inexperienced, highly qualified teachers than schools that had not been identified for improvement.

## RECRUITMENT AND RETENTION OF HIGHLY QUALIFIED TEACHERS AND SUPPORT FOR TEACHERS WHO WERE NOT HIGHLY QUALIFIED

### What are states, districts, and schools doing to increase the number of highly qualified teachers?

Although high percentages of teachers reported being highly qualified under *NCLB*, some states and districts faced challenges recruiting and retaining teachers with high qualifications. To mediate these challenges, states and districts have undertaken a variety of actions to increase and maintain the proportion of highly qualified teachers.

**Between one-third and one-half of districts reported encountering workforce barriers to improving teacher qualifications in 2006–07.**

Districts reported several common challenges or barriers to improving or sustaining teacher qualifications, including inadequate teacher salaries (45 percent), competition with other districts (45 percent), and large numbers of retiring, "highly qualified" teachers (34 percent). Between 2004–05 and 2006–07, there was an increase in the proportion of districts reporting that improving teacher qualifications was hampered by an increase in the percentage of highly qualified teachers who were retiring.

**About half of districts reported difficulty recruiting highly qualified teachers in mathematics, science, and special education in 2006–07.**

In 2006–07, a smaller proportion of districts reported facing moderate or major challenges in attracting qualified applicants for teaching positions in ESL (35 percent) and reading or language

arts (14 percent) compared with mathematics (44 percent), science (53 percent), and special education (55 percent). More than 90 percent of high-minority districts reported difficulty attracting highly qualified applicants in science and mathematics in 2006–07.

### In 2006–07, nearly all states (47), the District of Columbia, and Puerto Rico reported using financial incentives to recruit teachers, and many of these incentives featured mechanisms to retain teachers.

The most common type of financial incentive that states offered in 2006–07 was tuition assistance—including scholarships, tuition waivers, and loan forgiveness programs—to help cover the cost of teachers' preservice college course work. Although only 24 states identified tuition assistance as a recruitment strategy in 2003–04, 42 states and the District of Columbia described administering such assistance in 2006–07.

### In 2006–07, 31 states described supporting special career advancement opportunities or teacher recognition programs as a means of retaining teachers. In addition, 41 states reported activities to promote favorable school working conditions.

Twenty-three states reported programs offering teachers opportunities to advance professionally. Often, these opportunities included career ladders that allowed teachers to advance in rank—such as from a new teacher to a career teacher to a mentor to a master teacher—and, in doing so, become eligible for additional responsibilities and commensurate pay. Recognizing the role of effective leadership in creating auspicious working environments, 39 states cited initiatives to strengthen the leadership skills of various school decision-makers, including principals, teacher leaders, and district superintendents.

### More than 75 percent of high-minority districts and large districts reported using streamlined hiring processes and human resource data systems to recruit highly qualified teachers in 2006–07.

Districts with streamlined hiring systems, such as reduced bureaucracy or Web sites that list current vacancies and feature online application procedures, likely have a distinct advantage in recruitment over districts with lengthy and burdensome hiring processes.[11] Furthermore, large districts tend to have more elaborate bureaucracies in need of such streamlining. Not surprisingly then, more than three-quarters of large districts and a similar proportion of high-minority districts reported using streamlined hiring systems or human resource data systems during the 2006–07 school year.

### Compared with 2004–05, principals in 2006–07 were almost twice as likely to report the transfer or dismissal of teachers who were not highly qualified.

In 2006–07, only about 20 percent of principals reported that they arranged for the transfer or dismissal of teachers who were not highly qualified. This figure is a notable increase from

[11] This strategy is consistent with suggestions made in the New Teacher Project's report, *Missed Opportunities: How We Keep High-Quality Teachers Out of Urban Classrooms*, which indicates that the failure of many large urban districts to make job offers in the early summer months is largely to blame for high-quality teacher candidates not accepting jobs in these districts. This report is available at: www.tntp.org/files/MissedOpportunities.pdf.

2004–05, when only 12 percent of principals reported taking such actions. In 2006–07, more than one-third of principals in high-minority schools, high-poverty schools, and schools identified for improvement arranged for the transfer or dismissal of teachers who were not highly qualified.

## PROFESSIONAL DEVELOPMENT FOR TEACHERS

### To what extent are teachers participating in high-quality professional development (e.g., professional development that is sustained, intensive, and content-focused)?

**Elementary teachers reported participating in more hours of professional development focused on reading than professional development focused on mathematics.**

On average, elementary teachers reported participating in more hours of professional development on reading and mathematics than on other academic subjects and participating in more hours of professional development on instructional strategies than on the in-depth study of topics in these two subject areas.[12] During the 2005–06 school year and the summer of 2006, elementary teachers reported spending an average 19.6 hours of professional development on instructional strategies for teaching reading and 11.7 hours on the in-depth study of topics in reading. During the same period, elementary teachers reported spending an average 10.1 hours of professional development on instructional strategies for teaching mathematics and 5.9 hours on the in-depth study of topics in mathematics.

**The majority of teachers reported that they participated in professional development in reading or mathematics but not for an extended period of time.**

During the 2005–06 school year and the summer of 2006, 72 percent of elementary teachers and 73 percent of secondary English teachers reported that they participated in at least one hour of professional development focused on the in-depth study of topics in reading. However, only 14 percent of elementary teachers and 16 percent of secondary English teachers reported that they participated in such professional development for more than 24 hours over that same time period. Research suggests that longer, extended professional development activities may be necessary to provide a meaningful focus on content (Garet, Porter, Desimone, Birman, and Yoon, 2001; Yoon, Duncan, Lee, Scarloss, and Shapley, 2007).

[12] The teacher survey did not define "in-depth study" of either reading or mathematics, but the intended meaning covers activities that are designed to build foundational knowledge in the subject area. For example, for reading, such foundational knowledge would include knowledge about language structure and the processes involved in learning oral and written language that teachers must have to understand *what* they are teaching. In contrast, professional development that focuses on instructional strategies for teaching reading addresses pedagogical knowledge of *how* to teach reading effectively.

**The majority of teachers reported that they participated in professional development that involved instructional strategies for reading or mathematics or in-depth study of topics in reading or mathematics. They reported more hours of professional development on instructional strategies for teaching these subjects than on the in-depth study of topics in these subjects.**

For example, over the 12 months spanning the 2005–06 school year and the summer of 2006, elementary teachers averaged 19.6 hours of professional development in instructional strategies for teaching reading and 11.7 hours on the in-depth study of topics in reading.

**The percentage of elementary teachers who reported participating in more than 24 hours of professional development on instructional strategies for teaching reading increased from 2003–04 to 2005–06.**

Nationally, during the 2005–06 school year, 26 percent of elementary teachers reported participating in more than 24 hours of professional development focused on instructional strategies for teaching reading. This percentage represents a significant increase from the 20 percent reported for 2003–04 (see Exhibit S.2). Nonetheless, nearly a third of elementary teachers reported participating in fewer than five hours of such professional development. Among secondary English teachers, 26 percent reported participating in more than 24 hours of professional development on instructional strategies for reading in 2005–06, about the same as in 2003–04.

**Exhibit S.2**
**Percentage of Teachers Participating in Professional Development Focused on Instructional Strategies for Reading, 2003–04 and 2005–06**

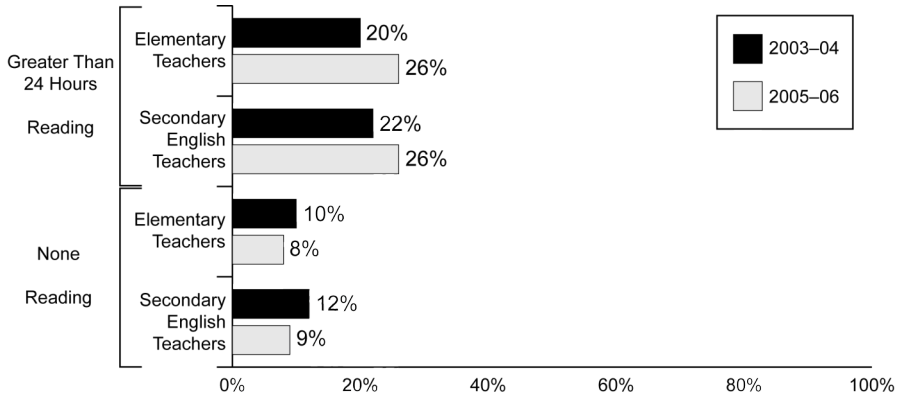



**Exhibit reads:** In 2003–04, 20 percent of elementary teachers reported that they received more than 24 hours of professional development focused on instructional strategies for teaching reading. In 2005–06, 26 percent of elementary teachers reported that they received more than 24 hours of such professional development.

**Note:** For 2003–04, n = 4,005 elementary teachers and 1,736 secondary teachers. For 2005–06, n = 4,047 elementary teachers and 1,790 secondary teachers.

Source: NLS-*NCLB*, Teacher Survey.

### The percentage of secondary mathematics teachers who reported participating in more than 24 hours of professional development on the in-depth study of topics in mathematics increased slightly from 2003–04 to 2005–06, but the percentage remained quite low.

Among teachers of mathematics, only 6 percent of elementary teachers and 15 percent of secondary teachers reported that they participated in the in-depth study of mathematics topics for more than 24 hours in 2005–06. For secondary mathematics teachers, this marks an increase from the 10 percent who reported participating in professional development on the in-depth study of mathematics in 2003–04, while the percentage of elementary mathematics teachers reporting such professional development remained the same between 2003–04 and 2005–06.

### In 2005–06, elementary teachers in schools identified for improvement, high-poverty schools, and high-minority schools were more likely to report participating in content-focused professional development in reading and mathematics that lasted more than 24 hours than elementary teachers in other types of schools.

Among elementary teachers, a greater percentage of teachers in schools identified for improvement under *NCLB* reported that they participated in 24 hours or more of professional development in instructional strategies for teaching reading than teachers in non-identified schools in 2005–06 (40 percent and 24 percent, respectively) (see Exhibit S.3). The same was true for mathematics (18 percent and 11 percent, respectively).

**Exhibit S.3**
**Percentage of Elementary Teachers Participating in More Than 24 Hours of Professional Development in Instructional Strategies for Teaching Reading, by School Characteristics, 2005–06**

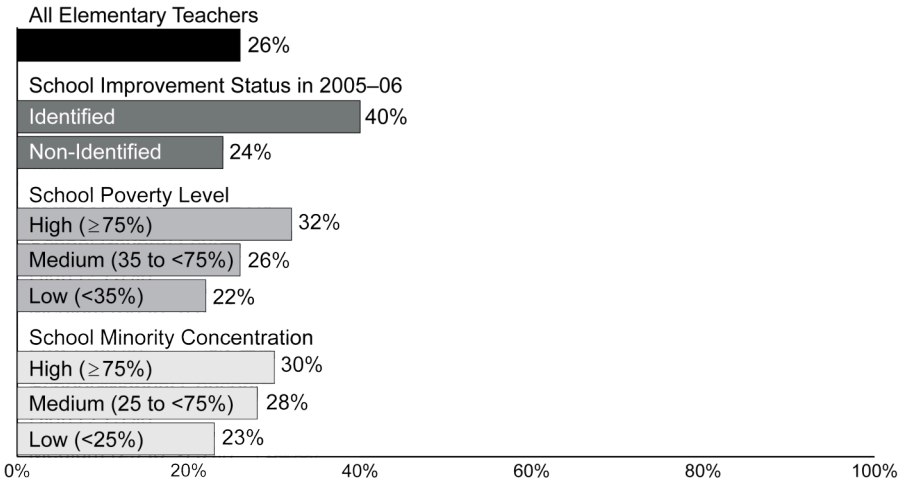



**Exhibit reads:** Twenty-six percent of elementary general education teachers participated in more than 24 hours of professional development on instructional strategies for teaching reading during the 2005–06 school year (including the summer of 2006).

Note: n = 4,047.

Source: NLS-*NCLB*, Teacher Survey.

## IMPLEMENTATION OF *NCLB* REQUIREMENTS FOR PARAPROFESSIONALS

### What percentage of Title I instructional paraprofessionals meets *NCLB* requirements? What are states, districts, and schools doing to help paraprofessionals meet these requirements?

Since the earliest years of Title I, teacher's aides—or paraprofessionals—have played a significant role in supporting the instructional activities of classroom teachers. In 2004–05, paraprofessionals made up about one-third of all staff in Title I-funded districts and schools (U.S. Department of Education, 2007).

**According to state-reported data for 2004–05, 86 percent of Title I instructional paraprofessionals were qualified under *NCLB*.[13]**

The percentage of paraprofessionals who reported on a survey that they were qualified under *NCLB* was somewhat lower than that obtained through state-reported data. Sixty-three percent of Title I paraprofessionals in 2004–05 and 67 percent of those in 2006–07 reported that they were qualified. However, nearly 30 percent (28 percent in 2004–05 and 29 percent in 2006–07) of such paraprofessionals reported that they did not know their qualification status under *NCLB* or did not provide a response. Most paraprofessionals who did not know or report their status were likely to be qualified, based on other information they provided about their qualifications and training.

In 2006–07, approximately 94 percent of all paraprofessionals reported holding a qualification that would meet the *NCLB* criteria (an associate degree, two or more years of college, or passing an assessment). Considering the qualifications separately, in 2006–07, 62 percent of paraprofessionals reported having completed an associate degree or two or more years of college, and 55 percent reported passing an assessment.

**Most Title I paraprofessionals reported working closely with a supervising teacher, but some indicated that they worked with students on their own without a teacher present.**

*NCLB* requires that paraprofessionals who support instruction should do so "under the direct supervision" of a teacher who is considered highly qualified. In 2006–07, over half (52 percent) of paraprofessionals reported that they were observed by a teacher on a daily or near daily basis during the previous school year. Additionally, 61 percent reported meeting informally with a teacher to discuss classroom activities and instruction at least once a week. Three-fourths of paraprofessionals reported being formally evaluated by a school principal, teacher, or other school staff. More than 80 percent of paraprofessionals indicated that they worked with students with a teacher present "all or nearly all" of the time (57 percent) or "most" of the time (27 percent) during the 2005–06 school year. However, 19 percent of paraprofessionals reported that they spent at least half of their time working with students in a classroom without a teacher present.

[13] These data are not weighted. The 86 percent is based on percentages provided by 48 states and the District of Columbia.

**The percentage of principals reporting school or district supports to paraprofessionals who were not qualified decreased between 2003–04 and 2005–06. Furthermore, the percentage of principals reporting school or district staffing adjustment actions aimed at those paraprofessionals increased during that time.**

In 2003–04, about two-thirds (66 percent) of principals reported that their schools or districts provided paraprofessionals who were not qualified with training related to classroom duties, but in 2005–06, only 54 percent of principals reported such support. A similar decline was observed in the percentage of principals who reported monitoring the progress of paraprofessionals who were not qualified (from 68 percent in 2003–04 to 55 percent in 2005–06). However, the percentage of district officials and principals who reported using staffing adjustments—such as transferring paraprofessionals who were not qualified to non–Title I schools, reassigning such paraprofessionals to noninstructional tasks, or dismissing them—increased sharply from 2003–04 to 2005–06. For example, the percentage of principals who reported that their schools or districts transferred Title I paraprofessionals who were not qualified to non–Title I schools more than doubled, from 6 percent in 2003–04 to 15 percent in 2005–06.

## CONCLUSION

In general, the findings of this study indicate that states and districts are working to implement and comply with the *NCLB* requirements for teacher qualifications: States have set guidelines for highly qualified teachers under *NCLB* and have been updating their data systems. According to states, 94 percent of teachers were designated as highly qualified under *NCLB* in 2006–07. In 2006–07, approximately 94 percent of all paraprofessionals reported holding a qualification that would meet the *NCLB* criteria. During this time, both states and districts were working to develop strategies designed to recruit and retain highly qualified teachers, particularly in traditionally disadvantaged schools.

If the goal of having an improved teaching workforce and better-served students is to be fully realized, several issues warrant attention. First, variations among state policies concerning highly qualified teachers raise questions about whether some states have set high enough standards for teacher qualifications under *NCLB* to ensure that teachers have a solid understanding of the subjects they teach. Second, variation in teachers' highly qualified status across types of teachers and schools highlights enduring inequities in access to highly qualified teachers. Third, because many teachers were not aware or notified of their *NCLB* status, they may not have taken necessary steps to become highly qualified. Finally, the low proportion of teachers participating in content-focused professional development over an extended period of time suggests that more can be done to deepen teachers' content knowledge. The potential for the *NCLB* provisions to effect positive change in the nation's teaching workforce depends, in part, on addressing these issues.

# I. INTRODUCTION

Ensuring that every child is taught by a highly qualified teacher is a central feature of the *No Child Left Behind Act of 2001* (*NCLB*), the most recent reauthorization of the *Elementary and Secondary Education Act of 1965* (*ESEA*).[14] *NCLB* "recognizes that teacher quality is one of the most important factors in improving student achievement and eliminating achievement gaps."[15] Title I of *NCLB* requires states to set standards for all public school teachers to be highly qualified. The requirements apply to all teachers of core academic subjects and to teachers of limited English proficient (LEP) students and students with disabilities. Title II, Part A, of *NCLB* provides funds that states can use to support a wide variety of efforts to improve the qualifications of teachers, from improving certification systems to supporting efforts to recruit and retain highly qualified teachers. Title I and several other programs authorized under *NCLB* provide funds to support ongoing professional development for all teachers.[16] By setting requirements and providing support for teachers to become highly qualified, *NCLB*'s provisions are intended to ensure that all students are taught by teachers with needed subject matter knowledge who are teaching in their areas of expertise.

This report describes the ways in which states, districts, and schools are implementing the teacher qualification provisions of *NCLB* and analyzes the progress the nation is making toward the goal of having a highly qualified teacher in every classroom. The report also describes the actions that states, districts, and schools are taking to improve teacher qualifications, such as recruiting and retaining highly qualified teachers, providing support to those who are not highly qualified, and providing teachers with professional development. Finally, the report analyzes implementation of the law's provisions to ensure that Title I paraprofessionals are qualified. This report builds on an earlier report on the implementation of *NCLB*'s teacher qualification provisions; companion reports address *NCLB* implementation and progress in the areas of accountability, Title I school choice and supplemental educational services, and targeting and resource allocation (see Preface for the list of reports).

## OVERVIEW OF TEACHER AND PARAPROFESSIONAL QUALIFICATION PROVISIONS OF *NCLB*

*NCLB* goes beyond prior reauthorizations of the *ESEA* in its emphasis on teachers—the need for teachers to have subject matter knowledge, the critical role of sharing information about teacher qualifications, and the breadth of activities allowable to improve teacher qualifications. The law's provisions rest on three key premises: (1) setting requirements for the qualifications of teachers will help identify those teachers who do not have adequate subject matter knowledge; (2) widely available information about teachers who are not highly qualified will prompt states,

[14] Throughout this report, the use of the term "highly qualified" refers to the provisions of *NCLB* that describe how teachers are to be determined "highly qualified."

[15] Policy Letter from former Secretary of Education Margaret Spellings to the Chief State School Officers, Oct. 21, 2005. Posted at http://www.ed.gov/policy/elsec/guid/secletter/051021.html.

[16] The term "professional development" in this report refers to "activities to enhance professional career growth." Such activities may include both formal and informal activities, and may individual development, continuing education, and in-service education, as well as curriculum writing, peer collaboration, study groups, and peer coaching or mentoring. This definition of professional development may be somewhat more general than the statutory definition provided in Section 9101(34) of the *ESEA* (see Appendix D).

districts, schools, and parents to take actions to improve teacher qualifications; and (3) the actions taken to support better teachers—such as providing teachers with professional development or stepping up efforts to recruit highly qualified teachers—will improve teacher qualifications and the quality of their teaching (see Exhibit 1). Similar premises underlie the provisions for paraprofessional qualifications. *NCLB* provides many sources of support for helping teachers and paraprofessionals to meet the law's requirements and for improving the knowledge and skills of the teacher workforce more generally.

**Exhibit 1**
***NCLB* Strategies for Improving Teacher Quality**

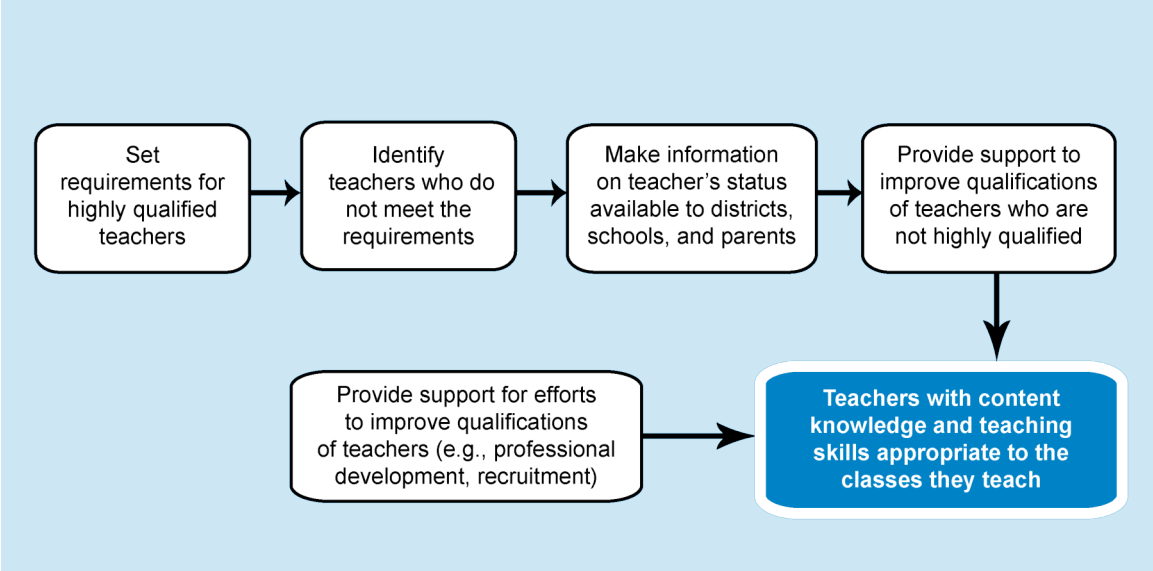



**Exhibit reads:** The above characterizes the sequence of key requirements of the *No Child Left Behind Act of 2001* related to highly qualified teachers.

Source: Public Law 107-110, Jan. 8, 2002.

## Set requirements for teacher and paraprofessional qualifications

While *NCLB* sets basic requirements for teachers to be designated as highly qualified and for paraprofessionals to be designated as qualified, states determine many of the specifics.

### Requirements for highly qualified teachers

The *NCLB* requirements for designating teachers as highly qualified focus in large part on demonstrating subject matter knowledge, and differ somewhat for new teachers compared with existing teachers, and for elementary compared with secondary teachers.

- *NCLB* requires that states implement plans under which all teachers of core academic subjects were to be highly qualified by the end of the 2005–06 school year. In October 2005, the Department declared that states would not be penalized for not reaching this goal provided that they were implementing the law and making a good-faith effort to ensure that there was a highly qualified teacher in every

classroom.[17] In general, a highly qualified teacher must have state certification and at least a bachelor's degree and must have demonstrated subject competency in each core academic subject that he or she teaches (Title IX, Part A, Section 9101(23)). Demonstrating competency differs for new teachers and existing teachers, and by grade level:

- New elementary teachers must demonstrate competency by passing a rigorous state test in reading, writing, mathematics, and other areas of the basic elementary school curriculum.
- Elementary teachers not new to the profession must pass a rigorous state test or demonstrate subject matter competency through a High Uniform Objective State Standard of Evaluation (HOUSSE) process developed by their state.[18]
- New secondary teachers must have passed a state test in each subject they teach, completed an academic major or course work equivalent, acquired an advanced degree in the subject(s) taught, or obtained advanced certification.
- Secondary teachers not new to the profession must pass a rigorous state test, complete an academic major, a graduate degree, course work equivalent to an undergraduate academic major, advanced certification, or demonstrate subject matter competency through a High Uniform Objective State Standard of Evaluation (HOUSSE) process developed by their state.

- *NCLB* requires that teachers who primarily teach LEP students or students with disabilities must meet these same requirements if they teach core academic subjects to these students. These teachers also must meet additional requirements appropriate to the special needs of their students. However, these are not requirements for teachers to be considered highly qualified under *NCLB*.
  - Teachers who teach in programs for LEP students funded under Title III of *NCLB* must have fluency in English and any other language in which they provide instruction, including written and oral communication skills (Title III, Part A, Section 3116(c)).
  - Teachers who teach students with disabilities must have full state certification as special education teachers, as required by the *Individuals with Disabilities Education Improvement Act* (*IDEA*, Title I, Part A, Section 602(10)).[19]

[17] States were invited to submit a revised state plan for accomplishing the goal of 100 percent of teachers highly qualified during the 2006–07 school year. By July 2006, all states had submitted a revised plan; and by July, 2007, the teacher quality plans from all 50 states and the District of Columbia had been approved by the Department. Puerto Rico's plan was approved in August 2008.

[18] On May 12, 2006, the Department formally asked states to phase out HOUSSE. In a policy letter released on Sept. 5, 2006, Secretary Spellings indicated that the Department will not push to require the HOUSSE phaseout and will instead seek to address it in *NCLB* reauthorization. However, she encouraged states to continue phasing out the system.

[19] The *IDEA* reauthorization provides that for any public elementary or secondary school special education teacher teaching core academic subjects, the term "highly qualified" has the meaning given the term in section 9101 of *NCLB*. The definition of "highly qualified special education teacher" in the final Part B regulations of *IDEA* issued in August 2006 contains requirements for special education teachers teaching core academic subjects, special education teachers teaching to alternate achievement standards, and special education teachers teaching multiple subjects, which cross-reference the requirements in Section 9101(23) of the *ESEA* and

### Requirements for qualified paraprofessionals

The *NCLB* requirements for designating paraprofessionals as qualified address their educational background and knowledge, as well as the roles that they may play in the classroom. Prior to *NCLB*, paraprofessionals funded by Title I were required only to have a high school diploma or GED within two years of being employed, their classroom responsibilities were not clearly defined, and there were no specific limits on the types of activities in which they could engage.

- *NCLB* requires that Title I paraprofessionals must have at least two years of postsecondary education, an associate degree or higher, or a passing score on a formal state or local academic assessment of ability to assist in teaching reading, writing and mathematics. All new paraprofessionals must meet these requirements upon hiring; existing paraprofessionals had until the end of the 2005–06 school year to do so.
- *NCLB* further specifies the allowable duties of paraprofessionals, noting that they may not provide "instructional services" except under the direct supervision of a highly qualified teacher (Title I, Part A, Section 1119(g)(3)(A)).

## Make information available on teacher and paraprofessional qualification status

As with other parts of *NCLB*, the teacher quality provisions include the premise that the availability of information about teacher and paraprofessional qualifications will prompt actions by educators, parents or other stakeholders. *NCLB* requires the following:

- States and local education agencies must report annually to the public on the percentage of classes taught by teachers in the state, districts, and schools, who are not highly qualified (Title I, Part A, Section 1111(h)).
- States and local education agencies must report annually on progress toward the annual measurable objectives, set forth in their state plans, to ensure that all teachers teaching in core academic subjects were highly qualified by the end of the 2005–06 school year (Title I, Part A, Section 1119(a) and (b)).
- School districts must notify parents of children in schools receiving Title I, Part A, funds that they may request information regarding the qualifications of their children's teachers and of paraprofessionals providing services to their children; schools also must notify parents if their child has been taught for four consecutive weeks by a teacher who is not highly qualified (Title I, Part A, Section 1111(h)).

## Provide support to improve teacher qualifications

The law provides many sources of support to help teachers and paraprofessionals meet the law's requirements, as well as enhance the knowledge and skills of the teaching force. Title II, Part A, of *NCLB* provides nearly $3 billion annually to states for a wide variety of strategies to improve teacher qualifications.

34 CFR §200.56 of the *ESEA* regulations. For further information on the "highly qualified special education teacher" requirements in the Part B regulations of *IDEA*, please go to http://idea.ed.gov.

- *NCLB* requires that schools that have been identified for improvement spend at least 10 percent of their Title I allocations on professional development (Title I, Part A, Section 1116(b)(3)(A)(i)).
- School districts—which receive nearly 95 percent of all Title II, Part A, funds allocated to each state—may use them for strategies to assist schools in recruiting and retaining highly qualified teachers; providing scholarships, signing bonuses, or other financial incentives; providing professional development to improve the knowledge of teachers, principals, and in some cases, paraprofessionals; and developing initiatives that promote the retention of highly qualified teachers and principals (Title II, Part A, Subpart 1, Section 2113(c)).
- States use nearly 2.5 percent of Title II, Part A, funds for activities to improve teacher qualifications, including reforming teacher and principal certification; carrying out programs that establish, expand or improve alternate routes for state certification; implementing strategies to assist school districts and schools in recruiting and retaining highly qualified teachers; and providing professional development for teachers, among others (Title II, Part A, Subpart 1, Section 2113(c)).
- All districts that receive Title III funds must conduct two required activities: providing a language instruction educational program, and providing high-quality professional development to classroom teachers, principals, administrators, and other school or community-based personnel. (Title III, Section 3115 (c)(2)).

Through all of these provisions, *NCLB* represents a federal effort to provide the nation's children with teachers and paraprofessionals who will help them learn and achieve at high levels of proficiency in core academic subjects.

## POLICY CONTEXT FOR THE IMPLEMENTATION OF TEACHER QUALIFICATION PROVISIONS

Implementing *NCLB*'s highly qualified teacher provisions is a shared responsibility of all three levels of government[20] (see Exhibit 2). The federal government monitors implementation of state plans and activities and provides assistance to states in their implementation of *NCLB* provisions. States assume primary responsibility for establishing specific policies to implement the highly qualified teacher requirements and for monitoring district implementation of *NCLB* requirements. Districts are also active in ensuring that teachers have taken appropriate steps to attain the highly qualified status.

States have been negotiating the implementation of teacher qualification provisions in an evolving policy environment (see Exhibit 3). In July 2003, the U.S. Department of Education began sending its Teacher Assistance Corps (TAC)—a team of education experts, researchers, practitioners, and ED staff—to all 50 states plus the District of Columbia and Puerto Rico, to assist in interpreting *NCLB* teacher provisions. In March 2004, former Secretary of Education Rod Paige reported that the TAC found "Many states were not using the full flexibility of the law, especially to help their middle school and experienced teachers demonstrate they are highly

[20] Schools also have responsibilities for implementing the teacher qualification provisions of *NCLB*, for example, by assigning teachers to classes that they are qualified to teach.

qualified."[21] In August 2005, former Education Secretary Margaret Spellings released non-regulatory guidance that incorporated information from TAC and monitoring visits to address challenges that states had reported. In October 2005, Secretary Spellings issued a policy letter assuring states that they would not lose federal funds even if they did not reach the 100 percent goal in 2005–06 if they could show evidence of a "good faith effort" toward meeting a number of criteria.[22] Such states were then provided the opportunity to develop a revised plan for meeting the 100 percent goal in 2006–07 and beyond, and by July 2007, all 50 states and the District of Columbia had in place Revised State Highly Qualified Teacher Plans to have all teachers highly qualified in 2006–07. Puerto Rico's plan was approved in August 2008. These plans also documented strategies to "ensure that poor and minority students were not more likely than other children to be taught by inexperienced, unqualified, or out of field teachers," as required under *NCLB* (Section 111 (b)(8)(C)).

[21] U.S. Department of Education. (March 15, 2004). *New, flexible policies help teachers become highly qualified.* Available online at: www.ed.gov/news/pressreleases/2004/03/03152004.html.

[22] Policy letter from former Secretary of Education Margaret Spellings to the Chief State School Officers, Oct. 21, 2005. Available online at: http://www.ed.gov/policy/elsec/guid/secletter/051021.html.

## Exhibit 2
## Overview of Federal, State, and Local Roles in Identifying Highly Qualified Teachers

| Federal | State | District |
|---|---|---|
| *NCLB* sets the standard for highly qualified teachers:<br><br>• A bachelor's degree<br>• Full state certification, as defined by the state<br>• Demonstrated competency, as defined by the state, in each core academic subject the teacher teaches<br><br>*NCLB* sets a deadline:<br><br>• All new teachers of core academic subjects in Title I programs hired beginning with the 2002–03 school year must meet the requirements before entering the classroom.<br>• All teachers of core academic subjects hired before the 2002–03 school year, and all teachers hired after the beginning of the 2002–03 school year and not working in Title I programs, must meet the requirements by the end of the 2005–06 school year. (Special considerations may apply for multi-subject teachers or those in eligible small, rural schools.)<br><br>The secretary of education is responsible for monitoring state plans and providing assistance to states as they seek to meet these requirements. | States set policies for highly qualified teachers according to the requirements of *NCLB*.<br><br>States determine what is "full state certification." For example, they may streamline requirements to make it less burdensome for talented individuals to enter the profession.<br><br>States develop a plan with goals for their districts, detailing how they will ensure that all teachers of core academic subjects will be highly qualified by the deadline. As part of the larger plan, states develop an "Equity Plan" that lays out the specific steps to ensure equitable distribution of highly qualified teachers.<br><br>States determine ways in which teachers can demonstrate competency in the subjects they teach, according to the requirements in *NCLB*. (For example, states choose whether or not to adopt their own high, objective, uniform state standard of evaluation [HOUSSE] for teachers not new to the profession and determined the passing score for state content tests.) | Districts ensure that newly hired teachers in Title I schools or programs meet their state's policy for highly qualified teacher before beginning to teach.<br><br>Districts that accept Title I, Part A, funding must, at the beginning of each school year, notify parents of students in Title I schools that they can request information regarding their child's teacher, and all Title I schools must notify parents of children who are taught for more than four consecutive weeks by a teacher who is not highly qualified.<br><br>Districts work with states to support teachers who do not meet the highly qualified teacher guidelines in the subjects they teach, providing opportunities or options for them to meet the requirements by the end of the 2005–06 school year. Districts must develop their own plans for having all teachers of core academic subjects highly qualified by the end of the 2005–06 school year. |

Source: Improving Teacher Quality State Grants, *ESEA* Title II, Part A, Non-Regulatory Guidance, Revised, Oct. 5, 2006 (http://www.ed.gov/programs/teacherqual/guidance.pdf).

## Exhibit 3
## Timeline of Federal Activities With Regard to Highly Qualified Teachers Under *NCLB*

| Date | Activity |
|---|---|
| **2002** | |
| Jan. 8, 2002 | The *No Child Left Behind Act* (*NCLB*) is signed into law: A highly qualified teacher (HQT) is defined as one who (1) has a B.A., (2) is fully certified, and (3) has demonstrated subject matter competency in each core academic subject he/she teaches. |
| Beginning of 2002–03 School Year | Any new teachers hired and working in a program supported by Title I funds must be "highly qualified." |
| **2003** | |
| July 15, 2003 | U.S. Department of Education announces the creation of the Teacher Assistance Corps (TAC), a team of education experts, researchers, practitioners, and ED staff, to assist states in HQT implementation. |
| Sept. 1, 2003 | Consolidated applications due to Department of Education with baseline numbers of HQTs in states. Seven states did not report baseline data. |
| **2004** | |
| March 15, 2004 | Secretary Paige reports that the TAC found "many states were not using the full flexibility of the law, especially to help their middle school and experienced teachers demonstrate that they are highly qualified". |
| April 2004 | TAC visits 50th state. |
| Sept. 1, 2004 | Consolidated State Performance Reports due to Department with percentage of classes taught by HQTs. |
| Dec. 3, 2004 | The reauthorized *Individuals with Disabilities Education Act (IDEA*) was signed into law, and the provisions of the law that pertain to subject-matter knowledge of highly qualified teachers became effective.[23] |
| **2005** | |
| Aug. 3, 2005 | Secretary Spellings publishes an expanded version of the non-regulatory guidance and with detailed questions and answers addressing definitions, assessments and use of funds. |
| Oct. 21, 2005 | Secretary Spellings issues a policy letter announcing a one-year delay in enforcing penalties on states that have not yet met teacher quality requirements, if states submit plans and show evidence of a good faith effort toward (1) establishing a definition of a HQT, (2) implementing a reporting system for parents and the public, (3) ensuring complete and accurate data reported to U.S. Department of Education, and (4) taking steps to ensure that experienced and qualified teachers are equitably distributed among classrooms with poor and minority children and classrooms of their peers. |
| End of 2005–06 School Year | All teachers in core academic subjects required to be "highly qualified" according to *NCLB* statute. |
| **2006** | |
| July 2006 | All states, the District of Columbia, and Puerto Rico had submitted revised Highly Qualified Teachers State Plans detailing what actions they would take to get teachers highly qualified in the 2006–07 school year and beyond. Revised state plans also were required to include State Equity Plans documenting strategies to ensure an equitable distribution of experienced and qualified teachers. |
| **2007** | |
| July 2007 | The revised state plans from all 50 states and District of Columbia were approved by the Department. |
| **2008** | |
| August 2008 | Puerto Rico's revised plan was approved by the Department. |

Source: Documents on the U.S. Department of Education Web site, http://www.ed.gov (accessed July 2006 and November 2008).

[23]See Footnote 19 for further information on these provisions.

## EVALUATION QUESTIONS

This report presents the final, cumulative findings on the implementation of *NCLB*'s highly qualified teacher and qualified paraprofessional provisions from two federally funded studies—the *Study of State Implementation of Accountability and Teacher Quality Under NCLB* (SSI-*NCLB*) and the *National Longitudinal Study of NCLB* (NLS-*NCLB*). The report describes the progress that states, districts, and schools have made in implementing these provisions through 2006–07, addressing the following broad questions:

- How do states designate teachers as highly qualified? What is the capacity of states to collect and accurately report on teacher and paraprofessional qualifications? (Chapter II)
- What percentage of teachers meet *NCLB* requirements to be highly qualified (as operationalized by their states)? How does this vary across states, districts, schools, and different types of teachers? (Chapter III)
- What are states, districts and schools doing to increase the number of highly qualified teachers? (Chapter IV)
- To what extent are teachers participating in high-quality professional development (e.g., professional development that is sustained, intensive and content focused)? (Chapter V)
- What percentage of instructional paraprofessionals meet the *NCLB* requirements to be qualified? What are states, districts and schools doing to help paraprofessionals meet these requirements? (Chapter VI)

## DATA SOURCES

The SSI-*NCLB* and the NLS-*NCLB* provide the data for this final report. Taken together, the purpose of these two studies is to provide an integrated longitudinal evaluation of the implementation of key *NCLB* provisions by states, districts and schools, with particular focus in four areas: (1) accountability, (2) teacher quality, (3) Title I school choice and supplemental educational services, and (4) targeting and resource allocation. This report focuses on the second of these areas, while companion reports address the others.

The SSI-*NCLB* examined state implementation of *NCLB* in the areas of accountability and teacher quality through analysis of school performance data and state documents (including Web sites and consolidated applications and reports), and telephone interviews with state officials responsible for implementation of the accountability, teacher quality, Title III, and supplemental educational services requirements of *NCLB*. Administrators in all 50 states, Puerto Rico and the District of Columbia were interviewed during the fall and winter of 2004–05 and again in 2006–07.

The NLS-*NCLB* assessed the implementation of *NCLB* provisions in districts and schools through analysis of survey data collected from a nationally representative sample of 300 districts, and about 1,500 elementary, middle and high schools from those districts. In each school, six general education teachers were randomly selected to receive surveys: one teacher in each grade 1–6 at the elementary school level and three English teachers and three mathematics teachers at the secondary school level. This teacher sample is referred to as "all general education teachers" in this report. In addition, one special education teacher was surveyed in

each school and one paraprofessional was surveyed in each Title I school in the study sample. [24] For simplicity, this report uses the term "teachers" to refer to general education teachers as opposed to special education teachers, unless otherwise noted. The NLS-*NCLB* surveys were administered in 2004–05 and again in 2006–07. Response rates across all groups surveyed ranged from 82 percent to 96 percent in 2004–05 and from 84 percent to 99 percent in 2006–07. See Appendix A for further details about the study sample and response rates in the two waves of data collection.

## Technical Note

Data presented in this report represent national estimates for districts, schools, and teachers in the study sample. All differences between numbers, percentages, or means derived from survey data that are referred to specifically in the text (e.g., special education teachers were less likely to report that they were highly qualified (72 percent) than were general education teachers (84 percent)) are significant at the 0.05 level. The significance level reflects the probability that a difference between groups as large as the one observed could arise simply due to sampling variations, if there were no true differences between the groups in the population. Differences in means between groups in a given year were tested using a t test and differences in proportions were tested using a chi-square test. Differences across years were tested using a McNemar test for district data, chi-square for principal and paraprofessional data, and chi-square or paired-sample t tests for teacher data. Further details about analytic methods are provided in Appendix A, and means and standard errors for all relevant figures and exhibits are provided in Appendix B.

[24] Special education teachers are those who teach students with disabilities, including any part-time or itinerant special education teachers who might share their time with another school.

# II. STATE POLICIES AND DATA SYSTEMS FOR HIGHLY QUALIFIED TEACHERS

Ensuring that all students are taught by highly qualified teachers is a central goal of the *No Child Left Behind Act of 2001*. *NCLB* seeks to establish a high standard for the teaching workforce: all teachers of core academic subjects were to attain highly qualified status by the end of the 2005–06 school year. However, in October 2005 the U.S. Department of Education announced that states making a good-faith effort to ensure that there was a highly qualified teacher in every classroom were invited to submit a revised state plan to work toward achieving the 100 percent goal. By the summer of 2007, the revised highly qualified teacher plans of all 50 states and the District of Columbia had been approved. Puerto Rico's plan was approved in August 2008.

Under *NCLB*, a highly qualified teacher is one who (1) has a bachelor's degree, (2) is fully certified, and (3) has demonstrated subject-matter competency in each of the academic subjects that she or he teaches. The *NCLB* requirements for highly qualified teachers apply to all teachers of core academic subjects, which according to statute include English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography. Beyond these federal requirements, each state has the flexibility to set its own criteria for highly qualified teachers, and states play a critical role in the implementation of the teacher quality provisions of *NCLB*.

## Key Findings

- As of 2006–07, all states had tests of teacher content knowledge, but the passing scores differed from state to state.
- By 2006–07, all 50 states, the District of Columbia, and Puerto Rico had developed HOUSSE policies to recognize the expertise of teachers not new to the profession—but some policies were more demanding than others. In 27 states, teachers could accumulate 45 to 50 percent of the required points simply for having classroom experience, as permitted under *NCLB*.
- By 2006–07, state policies for highly qualified teachers became more detailed in their requirements for teachers in special circumstances, for example, teachers in alternative schools or charter schools.
- State officials reported that their data systems had improved by 2006–07, but many still could not connect variables related to teacher qualifications to other data, such as student achievement. Moreover, 41 states reported challenges associated with collecting and maintaining data on teacher qualifications.
- In 2006–07, state officials described ongoing challenges associated with recruiting highly qualified middle school teachers, those in rural settings, teachers of students with disabilities, and teachers of students with limited English proficiency.
- In 2006–07, officials in the majority of states indicated that *NCLB* had stimulated changes in their teacher quality policies or practices.

## STATE POLICIES FOR HIGHLY QUALIFIED TEACHERS UNDER *NCLB*

By December 2004, all states, the District of Columbia and Puerto Rico had drafted criteria for identifying highly qualified teachers under *NCLB*. Since then, many of these state policies were adjusted to take into account new flexibility offered by the U.S. Department of Education. The flexibility afforded by the federal government has resulted in state guidelines that hold teachers to very different standards.[25]

The first two *NCLB* requirements for highly qualified teachers—that they have a bachelor's degree and full certification—are fairly straightforward,[26] and all states incorporated these as basic elements of their policies for highly qualified teachers.[27] However, the third *NCLB* requirement for highly qualified teachers—that they demonstrate adequate content knowledge for every subject taught—revealed the greatest variation in how states approached their policies concerning highly qualified teachers (see Appendix Exhibit C.1 for further details).

### Demonstrating content knowledge

When *NCLB* was passed, the federal statute set distinct requirements for how teachers must demonstrate subject-matter competency depending on whether they were new to the profession or more experienced. However, the statute does not explicitly define what it meant to be new to the profession, and federal policy guidance confirms that states may define this term (U.S. Department of Education, 2005). States most frequently defined a new teacher as one who had less than one year of teaching experience (17 states). (Thirteen states, the District of Columbia, and Puerto Rico did not specify the definition of new teachers in policy documents available on the Internet as of the fall of 2007.)

There are several ways in which teachers may demonstrate content knowledge, including passing a rigorous state test, completing an undergraduate major or course work equivalent to a major, or completing a graduate degree in the subject taught. While these requirements are intended to develop teachers' subject-matter knowledge, the extent to which the course work content, graduate studies, or tests are actually aligned with state content standards is unclear.

[25] The analysis of state definitions of highly qualified teachers was based on a review of policies posted on state education agency Web sites, collected primarily in August and September 2007.

[26] One aspect of the requirement that highly qualified teachers be fully certified, which pertains to new teachers who participate in certain alternative routes to teacher certification, may not be so straightforward. In section 200.56(a)(2) of the Title I regulations that the Department published on Dec. 2, 2002, the Department established that for purposes of being considered highly qualified under *NCLB*, teachers who are participating in alternative route programs that met certain basic requirements for training and supervision are considered fully certified for up to three years while they work to meet state certification requirements. Thus, if these teachers have a bachelor's degree and demonstrate subject-matter content, they also are considered highly qualified for up to this same three-year period.

[27] State requirements for teacher certification vary across states, but an analysis of teacher certification policies was not within the scope of the studies described in this report.

## Teacher assessments

### By 2007, all states had tests of teacher content knowledge, but large variation in the required passing scores for prospective teachers persisted.

For elementary teachers new to the profession, the *NCLB* statute provides only one option to demonstrate content knowledge: they must pass a teacher assessment in reading, writing, mathematics, and other areas of the basic elementary school curriculum. As recently as 2005, nine states did not yet require assessments for new elementary teachers, but by 2007, all had adopted such tests.

The Praxis II test series was the most common test of teacher content knowledge. Based on an analysis of the ETS Web site and state Web sites in November of 2007, 39 states and the District of Columbia used one or more of the various Praxis II examinations, including 29 (and the District of Columbia) that used the Praxis II exams alone and 10 that used the Praxis II exams as well as other exams. Eleven states and Puerto Rico did not use the Praxis II exams but used other exams, such as tests developed for use in specific states (e.g., the Massachusetts Test for Educator Licensure). Between 2004–05 and 2006–07, states added new tests from the Praxis series to their roster of approved teacher assessments: for example, nine states added the *Middle School Language Arts* test and four states added the *Middle School Mathematics* test.

States varied considerably in the qualifying scores they used on Praxis II subject assessments for initial teacher certification and for determining whether teachers are highly qualified under *NCLB* (see Exhibit 4). States set different qualifying scores (often called cut scores or passing scores) for reasons involving each state's individual context and challenges. Each state assembles a panel of experts that reviews the test and recommends a cut score to the state licensing board or state department of education. As of November 2007, 22 of the 36 states that used the Praxis II *Mathematics Content Knowledge* exam set their cut scores below the national median score for everyone who took the test between October 2004 and November 2007, and nine states set theirs below the 25th percentile (ranging from the 12th to the 24th percentile). In contrast, three states set their cut scores above the national median. (For a list of states that offered Praxis II content exams and the minimum passing score set by each state, see Appendix Exhibit C.2.)

**Exhibit 4**
**State Cut Scores for Praxis II *Mathematics Content Knowledge* Assessment**

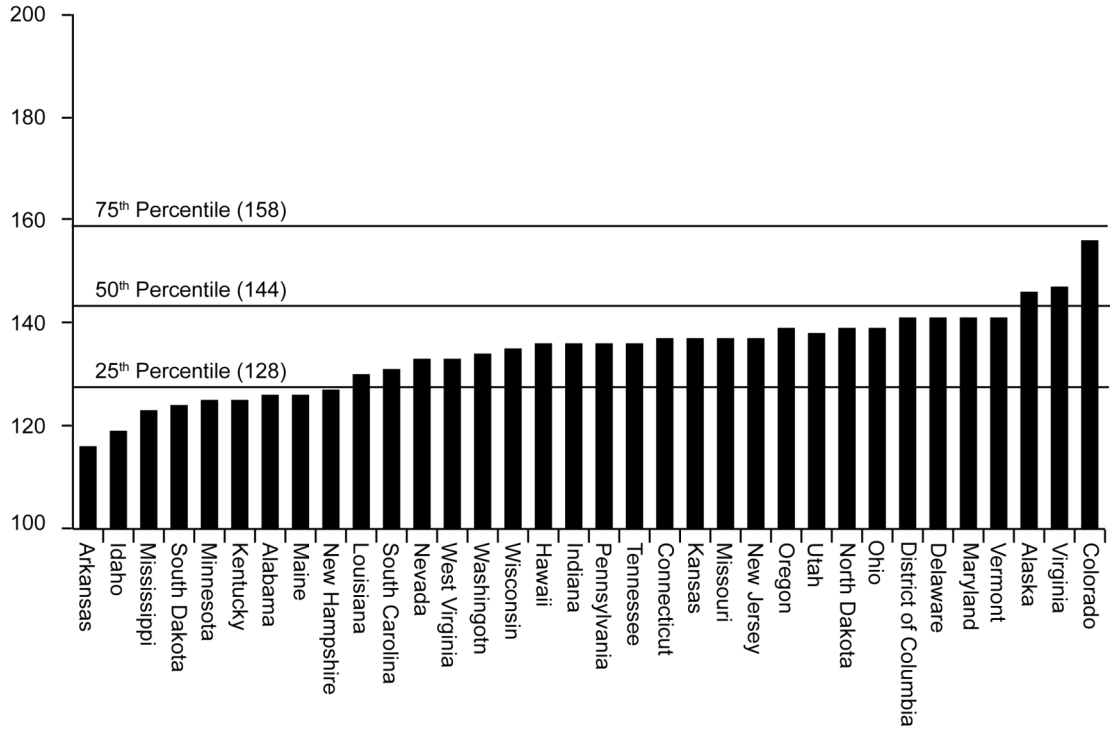



**Exhibit reads:** State-level cut scores on the Praxis II: Mathematics Content Knowledge assessment vary considerably; nine states set their cut scores below the score that reflects the 25th percentile of all test takers between October 2004 and July 2007, while three states set their cut scores above the 50th percentile.

Note: Praxis scores may vary from a minimum of 100 to a maximum of 200.

Source: Educational Testing Service, unpublished data provided on Aug. 19, 2005. The national median scores were based on scores of all individuals who took these tests from Oct. 1, 2001, to July 31, 2004.

## Academic majors, graduate degrees and advanced certification

The *NCLB* statute delineates options for new secondary teachers to demonstrate subject knowledge in each of the core subjects taught. The five options include: (1) a subject-matter test, (2) an academic major, (3) course work equivalent to a major, (4) advanced certification (e.g., certification through the National Board of Professional Teaching Standards), or (5) a graduate degree in the field of teaching.

States' definitions of "course work equivalent to a major" for new secondary teachers varied greatly. Among the 32 states and the District of Columbia that specified the amount of course work needed to be equivalent to a major,[28] requirements ranged from 15 to 42 credit hours, with the majority citing 30 credit hours (Exhibit 5). Four states and the District of Columbia also mandated the number of credit hours of advanced level course work. For example, in Maryland, course work equivalent to a major is considered to be 30 credit hours, 50 percent of which are expected to be "at the upper division level." In North Dakota, the number of required hours varied by level and subject, from as few as 12 hours for middle school science to 42 hours for high school science or social studies majors.

**Exhibit 5**
**State Requirements for Credit Hours Equivalent to a Major for Secondary Teachers, 2006–07**

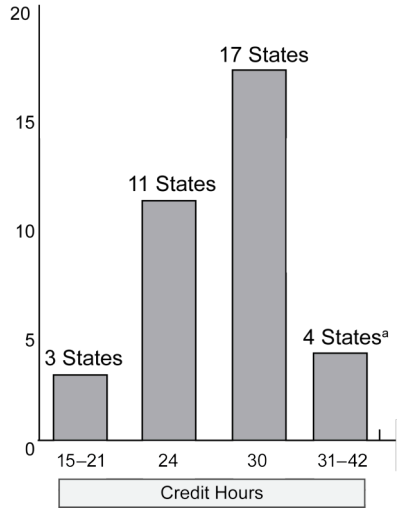



**Exhibit reads:** Three states reported that 15–21 credit hours were equivalent to a major.

Note: These data are based on the 34 states and the District of Columbia whose guidelines for highly qualified teacher specified the number of hours equivalent to a major.

[a] Indicates that the District of Columbia is included.

Source: SSI-*NCLB*, analysis of state policies for highly qualified teachers, fall 2007.

## High Objective Uniform State Standard of Evaluation (HOUSSE)

Another *NCLB* option to demonstrate content knowledge, available only to teachers not new to the profession, was to satisfy what is known as the HOUSSE, a state-identified measure of content knowledge. Inclusion of the HOUSSE option in the federal statute enabled states to identify and give credit to teachers who were not new to the profession and who could demonstrate their content knowledge in other ways.

[28] Twenty-seven states and the District of Columbia specified this information in their state definitions of highly qualified teachers under *NCLB*, as posted on state education agency Web sites. These data could not be located on the Web sites of the remaining states and Puerto Rico.

**By 2006–07, 50 states, the District of Columbia, and Puerto Rico had developed HOUSSE policies (though some states were phasing out their use of HOUSSE by that time), and some of those policies were considerably more stringent than others.**

As of November 2006, all 50 states, the District of Columbia and Puerto Rico offered a HOUSSE option for experienced teachers. Section 9101(23) of the *ESEA*, which defines the term "highly qualified teacher," contains the minimum requirements for state HOUSSE policies, specifying that each HOUSSE system must do the following:

- Measure grade appropriate subject-matter knowledge and teaching skills.
- Be aligned with K–12 learning standards.
- Provide objective, coherent information on teachers' subject matter competency.
- Be applied uniformly.
- Take into consideration, but not be based primarily on, the time a teacher has been teaching a subject.
- Be made available to the public.

HOUSSE also may, but is not required to, involve multiple, objective measures of teacher competency.

Broadly speaking, almost all HOUSSE systems in 2006–07 could be categorized into one of four approaches: (1) point system, (2) performance-based evaluation, (3) certification, or (4) a menu of options (see Exhibit 6).

**In 2006–07, a majority of states opted for a HOUSSE system based on the accumulation of points for such accomplishments as years of experience, college course work, professional development, and, in some states, improved student achievement.**

**Exhibit 6**
**Number of States Offering Various Types of HOUSSE Options for Determining Whether Existing Teachers Are Highly Qualified Under *NCLB*, 2006–07**

| | Number of states |
|---|---|
| | 2006–07 |
| **State offered a HOUSSE option** | 52 |
| Used a point system for HOUSSE[a] | 39 |
| Used teacher performance evaluation as a HOUSSE | 5 |
| Used teacher certification systems (or the ongoing evaluation components of those systems) as an official HOUSSE | 2 |
| Menu of options for demonstrating "highly qualified" status | 10 |
| Professional development log | 1 |

**Exhibit reads:** Of the states offering a HOUSSE option in 2006–07, 39 used a point system.

Note: Of the states with HOUSSE policies similar to a "menu of options," five included a point system as one of the options, thus, these states are counted in both categories.

[a] Indicates that the District of Columbia and Puerto Rico are included.

Source: SSI-*NCLB* (n = 52).

As of November 2006, the most common type of HOUSSE policy was based on a point system, through which experienced teachers could accumulate points for

accomplishments such as years of experience, professional development or college course work, publications in professional journals, or other activities. Thirty-four states offered a point system as their only option, and five additional states offered teachers a point system in conjunction with other HOUSSE options (n = 39). Most states allowed points to be earned retroactively for such activities as successful completion of college courses (39 states), other professional development (39), years of teaching experience (37), receiving teaching awards or honors (25 states), and publishing articles or making presentations at conferences (26 states). Four states (Florida, Georgia, Minnesota, and Oklahoma) allowed teachers to earn some points for evidence of improved student achievement, and a fifth state (Tennessee) allowed evidence of improved student achievement to be used as one of their "menu of options" for meeting HOUSSE.

In 2006–07, nearly all states using a point system allowed teachers to accrue points for prior teaching experience. States varied greatly, however, in the proportion of the total points that teachers could earn through years of experience alone. In 27 states, teachers could receive 45 to 50 percent of their points for prior experience (a maximum of 50 percent is permitted under the law). (See Appendix Exhibit C.4).

In 2006–07, states also differed considerably in the number of points teachers could earn for other activities. For example, among states that required a total of 100 points, six allocated one point for each professional development activity, while 16 allocated three or more points for each documented activity. In Minnesota, teachers earned one point for each three-hour activity, with a maximum of 50 points out of the required 100 points (so a Minnesota teacher would have to engage in 150 professional development hours to reach the maximum). In contrast, New York teachers earned 10 points for every five contact hours; a total of 25 hours of professional development would enable those teachers to attain 50 of the required 100 points.

### In 2006–07, HOUSSE requirements in five states were based on a performance evaluation.

In 2006–07, for existing teachers in five states (Connecticut, Iowa, North Carolina, South Carolina, and West Virginia) demonstrating subject matter competency by means of their state's HOUSSE required an evaluation in which they must exhibit content knowledge. For example, South Carolina's evaluation system is based on five performance dimensions: long-range planning, assessment planning, using instructional strategies, providing content, and monitoring and enhancing learning. Teachers are evaluated by a team, using a process that is aligned with South Carolina's system for Assisting, Developing, and Evaluating Professional Teaching (ADEPT).

### Ten states offered a "menu of options" to demonstrate content knowledge.

For teachers in ten states demonstrating subject knowledge by means of their state's HOUSSE entailed choosing from a list of possible activities offered by the state and meeting the criteria for that particular activity. For example, the Nevada HOUSSE policy required teachers to have three years of verified full-time teaching experience by the end of the 2005–06 school year in the subject area(s) and the appropriate grade spans. In addition, teachers could be approved through HOUSSE by completing one of the following: (1) a graduate degree, (2) a "professional license" issued by Nevada State Licensing, (3) NBPTS certification, or (4) 150 hours of professional development (in the subject taught) after initial licensure.

In six of these states, a point system was one of the options that teachers could choose. In Tennessee, for example, teachers could meet the HOUSSE requirement through one of three options: (1) completion of a "Professional Matrix" that allowed teachers to accumulate points for a variety of activities and accomplishments related to their content area; (2) demonstration of competence through "teacher effect data," a statistical means of estimating the teacher's effect on student achievement on the Tennessee Value-Added Assessment System (TVAAS); or (3) successful completion of the "Framework for Evaluation and Professional Growth" which involved observations of classroom performance, completion of a self-assessment by the teacher, and the creation of a professional growth plan.

### In 2006–07, two states considered full certification to fulfill requirements of HOUSSE, a decline from eight states in 2004–05.

As of 2004–05, for existing teachers in eight states (Idaho, Montana, Nebraska, Oregon, Pennsylvania, South Dakota, Washington, and Wisconsin), demonstrating subject knowledge by means of their state's HOUSSE required full certification and appropriate assignment to classes for which they were certified. In policy documents, these states asserted that their teacher licensure approach already incorporated the requirements of HOUSSE.[29]

By 2006–07, however, only two states—Montana and Wisconsin—used their current, initial teacher certification systems as their official HOUSSE options.[30] These two states reported that their certification requirements currently contain high standards for subject-area expertise, and the Department of Education confirmed that these certification requirements met all of the statutory requirements for HOUSSE.[31] Of the other six states, four adopted point systems, and two developed a system based on a "menu of options."

### Massachusetts' HOUSSE policy was based on the accumulation of professional development experience.

In 2006–07, one state, Massachusetts, offered a HOUSSE that involved a log or record of professional development activities that a teacher has taken in his or her content areas(s). In Massachusetts, teachers were required to accumulate 96 professional development points in the core content areas that they teach. Many of the Massachusetts Department of Education's professional development programs offered 1.5 professional development points per clock hour.[32]

[29] These states, however, were not counted as "no HOUSSE" states, because they had policy documents indicating that they considered their certification or licensure system to be equivalent to HOUSSE.
[30] Pennsylvania's HOUSSE for elementary teachers relies on the initial certification process, but the state's HOUSSE for secondary teachers is a point system.
[31] In Wisconsin, teachers who were licensed following the approval of Public Instruction (PI) 34 in February 2000 should meet the *NCLB* requirements for a highly qualified teacher, according to Wisconsin policy documents, including the following explanation: "A highly qualified teacher meets all of the requirements of PI 34 for the subjects and levels that he/she is teaching. The requirements include but are not limited to a bachelor's degree, completion of an approved licensing program, and a rigorous exam in the subjects being taught." Available at: http://dpi.state.wi.us/esea/pdf/hqteachers.pdf.
[32] Massachusetts Department of Education (January 2000). "Recertification Guidelines for Massachusetts Educators." Available at www.doe.mass.edu/educators/resources.html.

## Discontinuation of HOUSSE

### By 2006–07, many states were discontinuing their use of HOUSSE procedures, except for specific groups of teachers.

In March 2006, former Assistant Secretary Henry Johnson issued a letter to chief state school officers, requesting that states limit future use of HOUSSE, stating, "As part of the plan, each State will explain how and when the SEA will complete the High Objective Uniform State Standard of Evaluation (HOUSSE) process for those teachers not new to the profession who were hired prior to the end of the 2005–06 school year, and how the SEA will limit the use of HOUSSE procedures for teachers hired after the end of the 2005–06 school year."[33] States' revised plans were to describe the restrictions they would place on their HOUSSE process, how they would complete HOUSSE procedures for teachers hired prior to 2005–06, and how they would limit their use of HOUSSE to the following three groups of teachers:

- Secondary teachers teaching multiple subjects in eligible rural districts who were highly qualified in one subject at time of hire,
- Special education teachers teaching multiple subjects who were highly qualified in language arts, mathematics, or science at time of hire,
- Teachers from other countries teaching in the United States on temporary basis.

In addition, under the *Individuals with Disabilities Education Act* (*IDEA*), states may develop a separate HOUSSE for teachers of special education students, provided that any adaptations of the state's HOUSSE would not establish a lower standard for the content knowledge requirements for special education teachers and meets all the requirements for a HOUSSE for regular education teachers.

In September 2006, after states had submitted their revised plans outlining the actions they would take with regard to HOUSSE, Secretary Spellings indicated that although states were still strongly encouraged to discontinue use of the HOUSSE provisions, the Department of Education would pursue further phase out of HOUSSE in the reauthorization of *No Child Left Behind*. Secretary Spellings also clarified the Department's rationale for discontinuing HOUSSE, explaining that (1) most teachers not new to the profession had already completed or soon would complete their state's HOUSSE procedures and that (2) the Department believed, based on findings from its state monitoring process, that many state HOUSSE procedures were significantly less rigorous than other methods for determining teachers subject-matter competency. [34]

In early 2007, eight states indicated that they were discontinuing HOUSSE entirely, and another 11 states were discontinuing HOUSSE except for the three allowable categories of teachers listed above. However, 27 states, the District of Columbia, and Puerto Rico reported that while they were working to discontinue HOUSSE, they had identified additional specific groups of teachers for whom they anticipated that further use of HOUSSE would be necessary. As one state official commented, "Our limited English proficient HOUSSE was just adopted last fall. I

[33] U.S. Department of Education, Letter to Chief State School Officers, March 21, 2006. Available at: http://www.ed.gov/programs/teacherqual/cssoltr.doc.

[34] Letter from former Secretary Spellings to Chief State School Officers dated Sept. 5, 2006. Available at: http://www.ed.gov/policy/elsec/guid/secletter/060905.html

don't think the intent of the department was to say eliminate something that was just developed and close the door on these teachers who've been waiting." In addition, some states allowed teachers to continue using HOUSSE if a state-approved content knowledge exam was not available in their subject area, which typically applied to teachers of foreign languages, such as Latin. In other cases, states extended their HOUSSE deadline for teachers who were returning to the classroom after a long absence, such as retirement or extended leave.

## State policies for specific groups of teachers

**By 2006–07, state policies for highly qualified teachers became more detailed in their requirements for teachers in special circumstances, for example, teachers in alternative schools or charter schools.**

Early in the implementation of *NCLB*, state officials were presented with the daunting task of drafting broad new policies to ensure all teachers were highly qualified. The requirements, consequences, and flexibility were relatively unfamiliar. However, by 2006–07, state officials were more familiar with the requirements of the law and with the specific challenges faced by groups of teachers in their states. As one official explained, "A few years ago, we were worried about getting what I'm going to call the mass of people to meet the federal definition of being highly qualified and…reviewing our tests and reviewing situations but now…most of our teachers do meet that. Now, in pockets where they might not, how do we get the right people there?"

Indeed, in 2006–07, 25 states had detailed highly qualified teacher (HQT) policies for teachers beyond the standard groups of elementary, middle, and high school teachers. For example, Georgia's policy for highly qualified teachers specified requirements for teachers in alternative schools, psychoeducational programs, juvenile institutions, rural schools, early intervention programs, technology-based programs, hospital-based programs, and charter schools. In these cases, the policy indicated how to determine the "teacher of record," who provided instruction in core academic subjects, and who would be required to be highly qualified. Colorado, like other states, detailed HQT requirements for teachers who teach in facilities serving neglected and delinquent youth.

### Special education teachers

**In 2006–07, as in 2004–05, special education teachers faced particular challenges in becoming highly qualified.**

Special education teachers who teach core academic subjects faced particular challenges in attaining highly qualified status: Federal law requires those who teach core academic subjects to meet the highly qualified requirements *and* to obtain special education certification in their state as required under *NCLB* and *IDEA*. Specifically, *NCLB* requires special education teachers providing instruction in core academic subjects to meet the same requirements as general education teachers and does not designate special education as a core academic subject. In addition, the highly qualified provisions of *IDEA* (34 CFR 300.18(b)) require that each special education teacher:

> Obtain full State certification as a special education teacher (including certification obtained through alternative routes to certification), or pass the State special education

teacher licensing examination, and hold a license to teach in the State as a special education teacher.[35]

In March 2004, the U.S. Department of Education issued guidance that allowed current multiple-subject teachers, including special education teachers, to demonstrate subject knowledge through a single HOUSSE covering multiple subjects. Under *IDEA* (signed into law in December 2004), this flexibility was extended to new special education teachers as well, provided that they were already considered highly qualified in reading, mathematics, or science at the time of hire. Under this policy, special education teachers who were new to the profession and highly qualified in reading, mathematics, or science also had two additional years from the date of employment to become highly qualified in other core academic subjects. In 2006–07, officials from 34 states and Puerto Rico indicated that their state policies made use of this HOUSSE flexibility extending the deadline for special education teachers.

*IDEA* also provides special education teachers with another way to meet the *NCLB* HQT requirements if they teach core academic subjects exclusively to students who are assessed against alternate achievement standards. These teachers can meet the *NCLB* requirements applied to elementary teachers and in addition, in case of instruction above the elementary level, have subject matter knowledge appropriate to the level of instruction being provided and needed to effectively teach to those standards.

In 2006–07, the HQT policies in 24 states incorporated details or special provisions unique to special education teachers. Most often, states drafted a separate policy document for highly qualified special education teachers, established different HOUSSE provisions for special education teachers, or created "frequently asked questions" or other informal policy guidance for special education teachers. Generally, states did not create new policies for special education teachers; rather, they sought to clarify existing regulations and the ways in which those regulations applied to special education teachers.

## Teachers of limited English proficient students

### Teachers of limited English proficient students must become highly qualified under Title I and demonstrate language fluency under Title III.

Teachers who provide instruction in core academic subjects to LEP students may also face a dual set of requirements: if they teach in Title III–funded districts, they must demonstrate content knowledge required under Title I and meet fluency requirements codified under Title III. Specifically, the Title III–funded districts must ensure that teachers of LEP students are fluent in English and any other language of instruction, including written and oral communication skills.

This requirement is critical for English as a second language (ESL) programs (in which English is typically the only language of instruction) and for the 40 states that have a bilingual or heritage language program, each of which provided at least some of the instruction in the student's native language (*Title III Biennial Report,* 2005). The statute does not, however, specify how states or districts must determine language fluency.

[35] U.S. Department of Education, Office of Special Education Programs (2006). HQT Topic Brief. Retrieved December 2008 from: http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C20%2C.

In 2006–07, the most common method for determining both English fluency and fluency in other languages was through a university certification or licensure process with a specific assessment that must be passed (22 states), followed by 13 states allowing the local level to determine English fluency. States also determined fluency through university certification or licensure without specific assessment (six states and the District of Columbia), a combination of activities or an assessment or only through certification (seven states), and one state cited no specific method.

In contrast, a number of states indicated they did not have measures to determine fluency in languages *other than* English (18). Among the states that did measure fluency in languages other than English 15 determined fluency in other languages through a university certification or licensure process with specific assessment, and 12 did so through the local level. Five states used a number of methods such as requiring university licensure, passing an assessment, and interviewing with the state director.

In 2006–07, seven states indicated that they incorporated unique provisions for teachers of LEP students in their highly qualified teacher policies. For example, Colorado specifies that a "linguistically diverse education" teacher may be considered highly qualified by virtue of a full Colorado licensure plus an endorsement in linguistically diverse education. In Kansas, ESL educators developed a HOUSSE checklist which allows ESL teachers of core content classes the opportunity to demonstrate depth of content without adding the general education endorsement or taking the content test.

## Middle school teachers

**As of 2006–07, at least 10 states had begun to develop specific policies and procedures for middle school teachers.**

*NCLB* distinguishes between elementary and secondary teachers with regard to the requirements for highly qualified teachers. However, the law does not make a distinction between middle school and high school teachers. Thus, middle school teachers—who may teach multiple subjects, or have K–8 certification—are generally held to the same content knowledge requirements as high school teachers. Because of this, one state official commented that, "Our middle school teachers got hit very hard."

Most state policies for highly qualified middle school teachers read exactly the same as do their policies for high school teachers, with one key difference: middle school teachers are required to pass a test that is designed specifically for middle school content. A total of 34 states allow middle school teachers to take one of the Praxis II assessments designed specifically for this level, including *Middle School English Language Arts, Middle School Mathematics,* or *Middle School Science.*

Aside from recognizing a test of teacher content knowledge designed for middle school teachers, few states developed distinct policies for determining if middle school teachers were highly qualified. In 2006–07, eight states had somewhat different requirements for middle school teachers to be considered highly qualified than for high school teachers. For example, in Georgia, "an academic major in a middle grades concentration area is defined as a minimum of 15 semester hours," whereas 21 semester hours were required of secondary teachers. In Nevada, the requirements to which a teacher was held depended on the level at which the school had been designated: if Nevada designated a school as an elementary school, then the teachers in

grades 7 and 8 were expected to meet the highly qualified requirements for elementary teachers. If the 7th and 8th grades had been designated as a middle school, for example, in the context of a "school-within-a-school," then the teachers were required to meet the requirements of middle school teachers. Indeed, Nevada staff explained that prior to *NCLB*, the state did not have middle school license, but they developed "the middle school license so [teachers] wouldn't necessarily have to have the secondary license….We've got the new middle school license for *NCLB* purposes."

## Teachers in rural schools

**In 2006–07, as in 2004–05, state officials described challenges rural districts faced in ensuring that all teachers were highly qualified in all subjects they taught.**

Because teachers in small rural schools often teach multiple subjects, state officials reported that rural districts struggled to ensure that all teachers were highly qualified. In particular, state officials commented on the difficulties in finding teachers who met *NCLB* requirements in all subjects. As one state administrator explained,

> We have many rural school districts … and it's difficult for some of those districts to have all of their teachers meet the highly qualified guidelines. The hugest problem is in rural [parts of our state] where there are two-teacher schools. And a person has to be highly qualified in six to eight different areas. It's next to impossible to find someone with those qualifications.

Federal guidance issued in March 2004 extended flexibility to certain categories of rural teachers to become highly qualified. This provision applied to teachers who were not new to the profession who taught in districts eligible for the Small Rural School Achievement (SRSA) program. Such teachers often teach multiple subjects but may be highly qualified in only one; under this flexibility, they could take an additional three years to become highly qualified in the other subject areas they were teaching. Existing teachers in rural areas were, however, required to become highly qualified in at least one core academic subject by the 2005–06 deadline. The guidance also specified that new teachers had until their third year of teaching to become highly qualified in all of their core subjects, although they must be highly qualified in at least one to be hired. Although states welcomed these extensions, they did not alleviate staffing challenges in rural districts. As one state official commented, "… Passing a rigorous state test requirement (in all subjects) is simply … not going to happen in rural districts."

Furthermore, the extensions for determining rural teachers to be highly qualified did not apply as widely as some state officials had thought. Officials in three states were surprised to find they have no (or very few) "rural" school districts according to the federal definition. According to the flexibility provisions announced in March 2004, the federal government considers a district "rural" if (1) its average daily attendance is less than 600 or all schools in the district are located in counties with a population density of fewer than 10 persons per square mile and (2) all schools served by the district have a "school locale code" of 7 or 8 or all schools served by the district are located in an area defined as rural by the state.[36] Some states found this definition overly

[36] School locale code of 7 is defined as outside a Metropolitan Statistical Area (MSA) with a population of fewer than 2,500 persons. A school locale code of 8 is defined as inside an MSA with a population of fewer than 2,500 persons.

restrictive and expressed concern that it left many schools and districts unable to benefit from the federal flexibility, even though they were widely perceived as rural and faced the same challenges in meeting their highly qualified teacher goals.

To confront these challenges, by 2006–07 six states had crafted specific HQT requirements for rural teachers. For example, "Primarily to meet the needs of small schools, Alabama provides middle/secondary certification in three cross-discipline areas including English Language Arts, General Science, and General Social Science." If a teacher holds this broad certification and has a major (or equivalent) in one of these three subjects he or she may be deemed highly qualified in the other content areas. Such a provision may enable rural multi-subject teachers to be considered highly qualified in several subjects. Wyoming opted to maintain use of a one-year emergency credential, although *NCLB* discourages such practices. In their revised highly qualified teacher plan, Wyoming described this as "a tightly administered one-year emergency certification process that allows for emergency hiring of teachers only under strict protocols and all teachers so certified are required to become fully certified within one year. Only 54 emergency certificates were issued in 2006–07. This One-year Exception Authorization is in place to address emergency hiring needs such as student population surges, rural locations, late hires, and mid-year hires."

### COLLECTING AND REPORTING DATA ON TEACHER QUALIFICATIONS

For *NCLB* to function effectively, states must provide clear and accurate information to districts, schools and the public about performance, teacher status and other key components of the law. This necessitates both clear communication and sophisticated data management.

The *Higher Education Act of 1998* set in place the first accountability mechanisms for teacher preparation, requiring states to review teacher preparation programs, track licensure, and maintain teacher assessment data. Under *NCLB*, however, states have new responsibilities with regard to tracking teacher qualifications. Districts accepting Title I, Part A, funds must notify the parents of students in Title I schools of their right to request information about their child's teacher, and must notify parents of students taught by a teacher who is not highly qualified for four or more consecutive weeks. Moreover, state, district, and school report cards must include data on the percentage of classes taught by highly qualified teachers reported separately for high-poverty and low-poverty schools and districts. The implication of these new expectations and responsibilities is that state and local education agencies must maintain detailed disaggregated information about each teacher hired to work in the schools of the state.

## State data systems

Maintaining a record of teachers who were granted certification is an important responsibility of the state certification office. Traditionally, states have taken on other data responsibilities, including teacher supply and demand studies, and tracking teacher professional development hours. However, the most critical component of a state data system for teacher qualifications is a mechanism through which the state can track individual teachers—or a unique teacher identifier. For states to track all the variables associated with a teacher's status as a highly qualified teacher, they must have the capacity to connect all relevant variables through an identification code that is unique for each teacher in the state (see Exhibit 7 for examples of these variables).

### In 2006–07, officials from 39 states, the District of Columbia and Puerto Rico reported that their state data systems had improved since *NCLB* had been enacted.

Prior to *NCLB*, some states had very limited data capacity regarding teacher qualifications. As one state official explained, "We've essentially had to create [a database] when before we had nothing… *NCLB* gave us the mandate to do so." Other states reported that they improved the accuracy of their data, or the level of detail of their data. For example, state officials reported that following *NCLB*, they knew more about teacher assignments by subject, the demographics of the students taught, or the AYP status of a school.

In 2006–07, 45 states maintained data on teacher qualifications that included a unique teacher identifier. In addition, 47 states, the District of Columbia, and Puerto Rico reported that they were tracking the licenses or certification held by teachers, including the subject, grade, and date of certification. However, the complexities of "highly qualified teacher" policies require that states develop the capacity to connect certification and licensure information to other important variables. At a minimum, states need to track undergraduate degrees and teacher assessment results to determine highly qualified status. To determine the content knowledge requirements of secondary school teachers, states must also track information such as graduate degrees, teachers who have been certified by the National Board for Professional Teaching Standards, and fulfillment of HOUSSE requirements.

### In 2006–07, more states reported that they could track variables critical to measuring teacher qualifications than in 2004–05.

Most notably, 44 states could determine if a teacher was highly qualified in all subjects taught, up from 27 states in 2004–05. Likewise, 30 states could determine if a teacher had successfully passed HOUSSE requirements, an increase from 23 states in 2004–05. However, the number of states tracking course work equivalent to a major only increased slightly—to 19 states, the District of Columbia and Puerto Rico (see Exhibit 7).

**Exhibit 7**
**Number of States With Statewide Data Systems Containing Key Data Elements, 2004–05 and 2006–07**

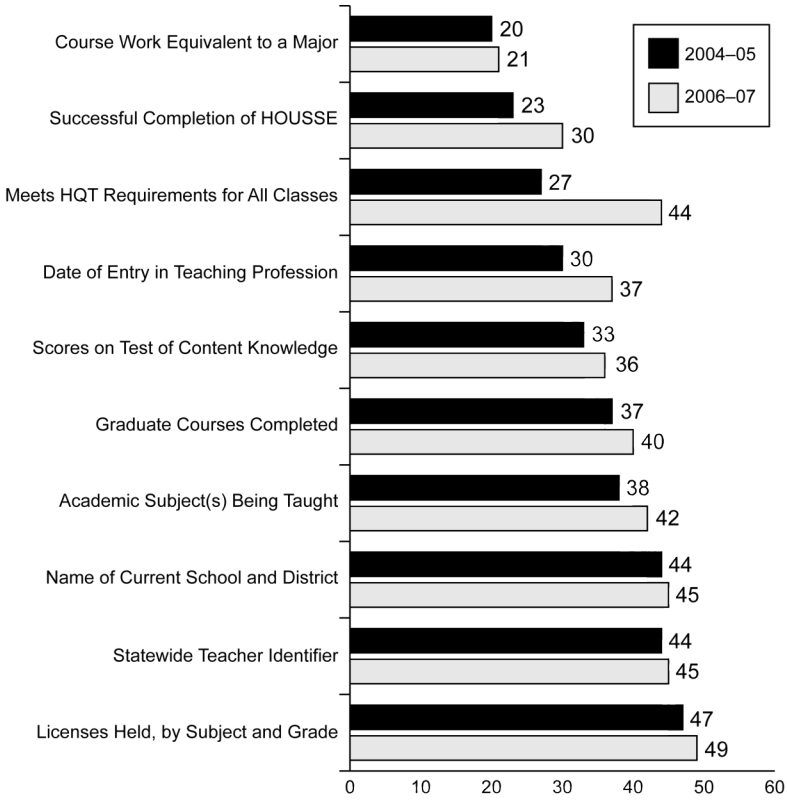



**Exhibit reads:** In 2004–05, 20 states maintained data on courses equivalent to a major.

Key: HOUSSE = High, Objective, Uniform State Standard of Evaluation; HQT = Highly Qualified Teacher.

Note: Data are based on responses from 48 states and the District of Columbia, 2004–05 and 2006–07.

Source: SSI-*NCLB*, Teacher Quality Introductory Materials (2005) and Teacher Interviews (2006).

Furthermore, few states were able to connect data on teacher qualifications to other important data. For example, in 2004–05, 10 states were able to link data on classes taught by highly qualified teachers to student test scores, which increased only slightly to 11 states in 2006–07. In 2006–07, only five states were able to connect data on teachers' professional development to other data elements. Connections between teacher qualifications, student achievement and professional development are not required under *NCLB* but may help districts target teacher recruitment initiatives and may inform school improvement strategies.

In 2006–07, 31 states and the District of Columbia[37] shared responsibility with districts for data on teacher qualifications. Districts were often responsible for collecting data and verifying teacher qualifications. In 2006–07, the ways in which states and districts collaborated on the compilation of data on teacher quality included the following approaches:

[37] One of these state education agencies is the District of Columbia. In this case, the agency relies on District of Columbia Public Schools (a separate local education agency) and charter schools (which, in turn, are local education agencies) to collect data on highly qualified teachers.

- The state collected data directly from teachers or schools and determined which teachers were highly qualified: seven states.
- Districts collected and submitted the data on teacher qualifications to the state, but the state determined which teachers were highly qualified: 23 states and the District of Columbia.
- Districts collected data on teacher qualifications, determined which teachers were highly qualified, and reported percentages to the state: eight states.

The remaining 10 states and Puerto Rico described approaches that were somewhat different. In Georgia, for example, districts complete a database on teacher assignments, while teachers submit data to the Professional Standards Commission, which then determines which teachers are highly qualified.[38]

### In 2006–07, 47 states, the District of Columbia and Puerto Rico reported challenges associated with collecting and maintaining teacher quality data.

States reported challenges associated with simply collecting the required data: officials indicated that the level of detail required to comply with reporting requirements—both for highly qualified teachers and professional development—was labor-intensive and time-consuming. Several states also noted that they did not have adequate data systems at the time that *NCLB* was passed and needed to develop more robust ways to manage data. Some of the challenges were amplified by reporting deadlines that were perceived as too tight, and the limited number of state and district personnel who could assist with processing data.

Specific challenges related to data systems and collection were cited by state officials in 2006–07. Many of the issues remained the same as those reported in 2004–05—data collection issues, issues related to developing data systems, inadequate resources and tight reporting deadlines, and insufficient personnel—and continued to affect the number of data elements that states were able to track. The following statements illustrate frustrations expressed by at least 10 state officials with respect to meeting the *NCLB* data requirements.

- **Collecting data** (reported by 17 states): "The process is still very manual (districts collect information once a year and enter it into system) so we would like to see a more continuous data stream; we need to make many phone calls to follow up with nonresponders and communication is often difficult, especially with rural districts; also, changes in data collection procedures make it difficult to compare data across years."
- **Developing data systems** (reported by 13 states): "We have faced challenges because our data system is effective, yet based on 1970s methodology—the whole system takes a long time. We'd like to update it but don't have the money. The assessment system has been the priority."
- **Securing district compliance** (reported by 15 states): "It really kind of depends on leadership and how people value data. I've got some superintendents who don't want one decimal point to be off, and there are other superintendents who are out, you know, picking flowers."

[38] Idaho and Missouri did not respond to this question.

Even with these challenges, most states reported that they were working to refine their data systems and that, despite reports of inadequate resources, they expected the quality of teacher data to improve over the coming years.

## REVISED STATE HIGHLY QUALIFIED TEACHER PLANS

On Oct. 21, 2005, in response to states' concerns that they might lose federal funding if they failed to meet *NCLB*'s goal of having 100 percent of core academic classes taught by highly qualified teachers by the end of the 2005–06 school year, Secretary Spellings sent a letter to chief state school officers explaining that states would not be penalized for not reaching the 100 percent goal during the 2005–06 school year, provided that states (1) could demonstrate that they had made a "good-faith effort" toward meeting the HQT goal by 2005–06 and (2) submitted a revised state highly qualified teacher plan outlining how they would reach the goal in the 2006–07 school year.[39]

From March to May of 2006, the Department assessed states' highly qualified teacher data to determine whether they were on track to meet the highly qualified teacher goal and whether they had demonstrated a "good faith effort," namely, that they had (1) developed an appropriate definition of a "highly qualified teacher," (2) publicly reported the number and percentage of classes taught by highly qualified teachers, (3) provided complete and accurate highly qualified teacher data reports to the Department, and (4) took measures to ensure that inexperienced, unqualified, or out-of-field teachers did not teach poor and minority students at disproportionately higher rates than their peers. In May, all states were asked to submit a revised plan because the Department had determined that, although most states had made significant advances over the past four years, none seemed likely to meet the *NCLB* requirement of having all classes in core academic subjects taught by a highly qualified teacher by the end of the 2005–06 school year.

To develop their revised highly qualified teacher plans, states were asked to conduct a detailed analysis of classes taught by teachers who were not highly qualified to determine whether any specific districts, schools, or groups of teachers faced particular challenges. Revised state plans also were required to describe how states would discontinue use of their HOUSSE provisions for teachers hired before the end of the 2005–06 school year and limit further use of HOUSSE to the categories of teachers eligible for federal flexibility.[40] Finally, to address *NCLB*'s goal of ensuring that poor and minority students are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than other students, states' revised plans were required to include a written equity plan that documented states' existing inequities in teacher assignment and presented evidence-based strategies to eliminate those inequities.

States' highly qualified teacher plans were peer reviewed in the summer of 2006 by panels of readers with expertise in teacher quality and education reform. The first set of peer reviewers' comments were released in July of 2006, and nine states' plans were fully approved in this initial

[39] Policy letter from former Secretary of Education Margaret Spellings to the Chief State School Officers, Oct. 21, 2005. Available online at: http://www.ed.gov/policy/elsec/guid/secletter/051021.html

[40] In September 2006, after states had submitted their revised plans outlining the actions they would take with regard to HOUSSE, former Secretary Spellings indicated that although states were still strongly encouraged to discontinue use of the HOUSSE provisions, the Department of Education would pursue further phaseout of HOUSSE in the reauthorization of *No Child Left Behind*.

round. Other states revised their plans, and were all approved by July, 2007, except Puerto Rico, which had its plan approved in August, 2008.

## Equity Plans

**In 2006–07, 49 states, the District of Columbia, and Puerto Rico reported inequities in their distribution of inexperienced, unqualified, or out-of-field teachers and developed or revised written plans to address those inequities.**

In 2005 and 2006, the Department of Education conducted Title II, Part A, monitoring visits to assess each state's compliance with *NCLB*'s teacher quality provisions. After the first several monitoring visits had been completed, the Department added the following question to its monitoring protocol to examine states' actions to promote an equitable distribution of qualified, experienced teachers:

> 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, or out-of-field teachers? Does the plan include measures to evaluate and publicly report the progress of such steps? (Critical Element 1.10).

During the Department's initial peer review of states' revised highly qualified teacher plans during the summer of 2007, a total of 30 states and the District of Columbia were reviewed as having not met the equity plan requirement. The reviewers determined that 13 states and Puerto Rico had partially met the requirement and that seven states had met the requirement.

Interviews with state officials suggested that they perceived the issue of equitable teacher assignments as "something that was given very little attention at the outset of this legislation." Some states officials indicated that their early efforts in implementing *NCLB*'s teacher quality provisions focused more on establishing definitions of a highly qualified teacher and creating strategies to collect and analyze appropriate data. By 2006–07, however, they had developed a better understanding of their teacher quality needs and equity gaps, and their focus shifted more toward equity concerns. States also perceived a heightened focus on equitable teacher assignments on the part of the U.S. Department of Education. In some cases, states cited a lack of clarity surrounding the requirements for addressing equity issues and developing equity plans as a major concern for implementation. As one official explained,

> Frankly, in the beginning…there was a reference…about the equity plan, and now all of a sudden that is a huge component. It's like okay, what is the game plan? What do you expect from states? What can you really expect from states and when they won't tell us what any ramifications are going to be, what do you tell a district?

An official from another state echoed this desire for clearer guidance from the Department of Education, remarking, "The feds wanted equity plans, they wanted the revised state plans. That's all fine, but it's a moving target, and there was little to no assistance as to what was to be in those plans."

## STATE PERCEPTIONS OF PROGRESS AND CHALLENGES

**In 2006–07, 33 states, the District of Columbia, and Puerto Rico indicated that *NCLB* had stimulated changes in their teacher quality policies or practices. States also perceived greater awareness regarding teacher quality issues as an outgrowth of their implementation efforts.**

Thirty-four states and the District of Columbia reported that prior to *NCLB*, their certification requirements were already rigorous, and in some cases, exceed the requirements of the federal law. However, an equal number of states (33 states, the District of Columbia, and Puerto Rico) described instituting changes in their licensure and credentialing procedures to align their policies more closely with *NCLB* requirements for demonstrating subject matter competency. Commonly reported policy changes included those associated with adding testing or course work requirements, establishing middle school endorsements, phasing out emergency certification options, and enhancing alternate certification routes. While some states cited federal law as the impetus for making such changes—for instance, one state official noted how *NCLB*'s teacher quality provisions had "raised the bar" in forcing the state to examine its teacher qualification requirements—others described leveraging *NCLB* to boost policies they were already considering or had in place. For example, one state reported that even though it had intended to add testing requirements for middle grade teachers, *NCLB* provided "a kick in the pants" for it to fully institute those requirements. Ten states credited *NCLB* and the weight of these federal requirements with affording them the "teeth" needed to enforce existing policies and raised awareness about teacher quality more generally. Finally, some states discerned ways in which *NCLB* requirements resonated with their own teacher quality goals and used the law to create an avenue for accomplishing those objectives.

In discussing the impact of *NCLB* within their state, officials in 13 states commented on how their work to incorporate the law's requirements into their credentialing procedures served a broader purpose of focusing attention at all levels on teacher quality issues, particularly with regard to teacher assignment and professional development practices. Some states emphasized how, in response to *NCLB*, district and school administrators were more thoughtful about how they hire and reassign teachers to ensure that teachers' placements reflected their content area experience and expertise. Other states reflected on increases in professional development activities surrounding teachers of diverse student learners.

Officials from four states pointed out how their efforts to implement *NCLB* had led to stronger cooperation among the various actors involved in the process. For example, since responsibility for implementing *NCLB*'s provisions often stretched across several divisions within states' education agencies, some administrators perceived greater communication among their internal divisions. Additionally, states noted that their implementation efforts had strengthened their relationship with local education agencies.

**In addition to reporting progress, most states (43 states, the District of Columbia, and Puerto Rico) voiced concerns over the implementation of *NCLB*'s teacher quality provisions.**

To realize their progress in implementing *NCLB*, states assumed a host of responsibilities that included developing an understanding of the law's requirements, aligning those requirements with existing state policy, actualizing changes at the state and local levels, and documenting

results. When asked to reflect upon these tasks, states described numerous challenges that affected their work, and three major factors appeared to be underlying these challenges. First, the requirements surrounding *NCLB*'s teacher quality provisions, as well as the process for complying with those requirements, involved a high level of *ambiguity*, which states believed was amplified by shifts in federal policy that occurred over the course of their implementation. Second, states expressed concerns regarding their *capacity* to effectively comply with the law's demands, given their limited time and resources. Finally, states struggled to manage the *consequences* of their implementation of *NCLB*'s highly qualified teacher policies, particularly in terms of the reactions it generated among their teaching force.

## Ambiguity

**Officials in 26 states commented that the complexity of *NCLB* law and ambiguity regarding federal requirements were challenges for state policy.**

As this chapter outlined earlier, the process for translating *NCLB*'s highly qualified teacher requirements into state practice involved several key tasks, namely establishing rigorous highly qualified teacher definitions; planning strategies to ensure that all teachers met those definitions; and instituting data collection and analysis procedures to monitor and report highly qualified teacher status. Each of these broad tasks entailed an array of more specific policy decisions and actions that typically cut across multiple stakeholders. Thus, state officials stressed the need for clear, detailed, and timely guidance around *NCLB*'s requirements—and the U.S. Department of Education's expectations for meeting those requirements—to inform their implementation work and potentially minimize the need to revise their approach.

Rightly or wrongly, state officials in 19 states perceived that communications with the U.S. Department of Education involved mixed messages and shifting requirements. State officials made comments such as, "Changing the rules in the middle of the game is unfair," or "The guidance has been all over the board." Another commented:

> Our overarching concern has been that there has been so much ambiguity. No one in [our state] disagrees with the idea that highly qualified, highly effective teachers are good—we just want to have what's expected of us laid out clearly.

These states emphasized the challenge of keeping up with federal policies and requirements that were still evolving while states were in the process of implementing the law. One state official explained, "ED is adding layers every year, and trying to predict things on our end is hard….ED doesn't seem to realize that every time they make a change, it has a huge impact on states."

Some common themes emerged in state officials' concerns regarding communications from the federal level. In nine states, these included concerns regarding data requests, the addition of new data elements after data systems had been established, and reporting deadlines that states perceived as unreasonable. One state official noted, "The Department has requested information on why teachers were not highly qualified for the past two CSPRs [Consolidated State Performance Reports], but in a different way each time." In nine states, officials' concerns focused on ambiguity regarding HOUSSE discontinuation—specifically, how even though the Department had indicated that it would wait until the reauthorization of *NCLB* to pursue further discontinuation of HOUSSE, it still included HOUSSE discontinuation as a requirement for states' revised highly qualified teacher plans. This produced uncertainty among state officials about how to proceed as they were preparing to resubmit their revised plans. One official

explained, "I'm taking something to my state board, and yet it's swirling all around me, "Well, the feds are backing off." So, how do you have any credibility with your state board?" Other states (4) reported a similar loss in credibility as they faced other state-level entities, including state legislatures and boards of education. One commented, "It is difficult to have credibility in front of the legislature when the Department seems to go back and forth on issues."

## Capacity

### Officials in 18 states and Puerto Rico expressed concern regarding their limited capacity to respond to *NCLB* teacher quality requirements.

In many cases, the ability of states to meet the complex demands of implementing *NCLB*'s teacher quality provisions was hampered by limited human and financial resources. As one state official summarized, "It's been a time and personnel overload." Several states indicated that responding to *NCLB* requirements had overextended their state education agency staff, especially in cases in which responsibility for these requirements fell upon a single individual or individuals with multiple other duties. Staff rotations or turnover posed additional challenges to state agencies' operating capacity. Furthermore, as states worked to institute *NCLB*'s teacher quality components, their education agencies were simultaneously encumbered with the task of implementing other *NCLB* provisions, which contended for agency staffs' attention and in some instances overshadowed their work on teacher quality. In 2006–07, one official described how, in the years initially following the passage of *NCLB*, the state was so focused on establishing structures for the law's accountability provisions that "Two years ago, [beyond developing HOUSSE requirements], I don't think we even had any idea…what was involved."

State officials raised concerns that funding limitations impaired states' ability to offer support. One state official concluded, "As the requirements for more technical assistance and professional development increase, without a significant increase in Title II-A for the state's share of Title II-A, it will be more and more difficult for the state to be able to provide enhanced services to local districts." Another state administrator described how *NCLB* had come to be perceived as an "unfunded mandate" because the cost of implementing its teacher quality requirements, particularly its data collection requirements, had exceeded the available federal funding, forcing the state to take money away from other areas.

## Consequences

### Officials in 15 states and Puerto Rico described some negative reactions from teachers with regard to the highly qualified teacher requirements.

A third major area of concern for state officials involved finding ways to manage negative perceptions of the highly qualified teacher requirements. State officials emphasized how many of their teachers took exception to the added layers of scrutiny required for demonstrating highly qualified status. Specifically, states described how teachers objected to what was seen an overly narrow definition of "highly qualified' that focused on content knowledge over pedagogical skills, and how they found it demeaning when individuals—who in some cases were recognized as master teachers or Teachers of the Year—were deemed not highly qualified. Moreover, depending on how well states' definitions of a highly qualified teacher aligned with their certification policies, teachers often faced additional work to satisfy their state's definition, and

the burden of this extra work—as well as the stigma of being labeled "not highly qualified"—typically fell unevenly across different groups of teachers, including middle school and special education teachers.

Another state encountered difficulty obtaining buy-in from recalcitrant teachers when disputes over the validity and feasibility of these requirements served as an excuse not to take them seriously. One state official pointed out:

> I think the first initial response was, "We are never going to be able to do this….We're just not going to do anything until it goes away because it'll go away." And our role for some time there was to say, "It isn't."

Enforcing highly qualified teacher requirements became a particularly salient problem for states with teacher shortages because some teachers chose to leave the profession in response to the demands placed on them.[41] As a result, some states looked to apply the highly qualified requirements in a manner that would minimize flight within their teaching force. "We have worked hard with districts to try to come up with ways to implement this so that we still have teachers in the state," one official explained. However, as some states tried to balance the need for rigorous qualification requirements with the consequences such requirements might have on their teaching force, states that chose to adopt stricter approaches to implementing *NCLB's* highly qualified requirements sometimes faced acrimony from teachers resentful for being forced to meet a higher standard.

In order to temper some of the push-back that the *NCLB* requirements had generated from teachers, several states highlighted how they were trying to make the process for becoming highly qualified more personally relevant for teachers so that it could be seen as providing a professional growth benefit rather than constituting mere "paper-pushing" to comply with the federal law. Indeed, reflecting on the experience of implementing *NCLB's* highly qualified teacher policies, one official related:

> I think some teachers who either were not in favor or resistant, some have chosen to retire, some of our veteran teachers. But, I think what we're getting closer to now is those teachers who are committed to staying and in trying to find some relevant ways in which they can earn their highly qualified status.

## DISCUSSION

Since *NCLB* was signed into law, states have developed and refined their policies for identifying "highly qualified teachers"—and more specifically, how teachers can demonstrate mastery of the subjects they teach. In all states, new elementary teachers are now required to pass a test of subject matter competency. For teachers not new to the profession, nearly all states developed HOUSSE policies to enable them to demonstrate content knowledge, although by 2006–07, a number of states began phasing out some of their reliance on HOUSSE. Since 2004–05, state policies for identifying highly qualified teachers have become increasingly specific, detailing the

[41] Although the national percentage of teachers who reported leaving the teaching profession because they were not highly qualified was rather low (see Chapter III of this report), the challenge of teacher turnover varies across states and districts (see, for example, Ingersoll, 2004 or Barnes, Crowe, and Schaefer, 2007). Thus, the nature of the challenge described by this state official may not be pertinent in all states.

way in which the provisions apply to middle school teachers, teachers in rural settings, special education teachers, and teachers of students with limited English proficiency.

While states reported some progress with regard to teacher quality policies, advances were often tempered by continuing challenges. For example, the majority of state officials reported improvements in their data systems for tracking information related to teacher qualifications. Yet officials from 47 states, the District of Columbia and Puerto Rico still reported problems with the collection and maintenance of teacher quality data. Likewise, officials from 33 states, the District of Columbia and Puerto Rico indicated that in response to *NCLB*, they had implemented "significant policy changes," most frequently to their licensure procedures. However, a similar number of state administrators reported frustration with limited state capacity and a complex policy environment.

In 2004–05, the rigor of state criteria for highly qualified teachers varied greatly, and there is no evidence that this variation was any less pronounced in 2006–07. Hence, the continued variation in state policies and criteria for highly qualified teachers raises questions about whether states have in fact set high enough standards for teacher quality under *NCLB* to ensure that all students are taught by teachers who have a solid understanding of the subject matter they teach.

# III. TEACHERS' HIGHLY QUALIFIED STATUS UNDER *NCLB*

In the years since *NCLB* became law, states have established their own requirements for what it means to be highly qualified under *NCLB* and determined the extent to which teachers fulfilled these requirements. Although the law requires that all teachers were to be highly qualified by 2005–06, in October 2005, Education Secretary Margaret Spellings announced that states would not be penalized in the 2006–07 school year for failing to reach the HQT goal in 2005–06, provided that they could demonstrate progress according to specific criteria. States are also required to develop strategies to ensure an equitable distribution of highly qualified teachers; indeed, in order to be eligible for Title I funds, each state must have a 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" (Section 111 (b)(8)(C)). Finally, *NCLB* includes provisions that require districts and schools to provide information to ensure that parents know whether their child's teachers are highly qualified under the law. In this chapter, we report findings on the progress that states, districts, and schools have made in meeting these objectives set forth in *NCLB*.

## Key Findings

- Thirty-nine states reported that at least 90 percent of classes were taught by teachers considered highly qualified under *NCLB* in 2005–06.
- Between 2004–05 and 2006–07, the percentage of general education teachers who reported being not highly qualified decreased from 4 percent to 2 percent, and the percentage of teachers who did not know their status decreased from 23 percent to 14 percent.
- Middle school teachers were more likely to report that they were not highly qualified (4 percent) than were elementary teachers (2 percent) in 2006–07.
- The percentage of special education teachers who reported they were highly qualified increased from 52 percent in 2004–05 to 72 percent in 2006–07. Nevertheless, special education teachers were more likely to report that they were not considered highly qualified (10 percent) than were general education teachers (2 percent) in 2006–07.
- Traditionally disadvantaged schools (i.e., high-poverty and high-minority schools) had higher percentages of teachers who were not considered highly qualified under *NCLB* than did other schools in 2006–07.
- Highly qualified teachers in high-poverty and high-minority schools were more likely to be new to the profession and less likely to have a degree in their field of teaching than highly qualified teachers in low-poverty and low-minority schools.
- About 30 percent of general education teachers and special education teachers were not notified of their highly qualified status under *NCLB* in 2006–07, although the notification rate improved substantially from two years before (48 percent and 57 percent not notified respectively).

## TEACHERS' HIGHLY QUALIFIED STATUS

# Percentage of highly qualified teachers under *NCLB*

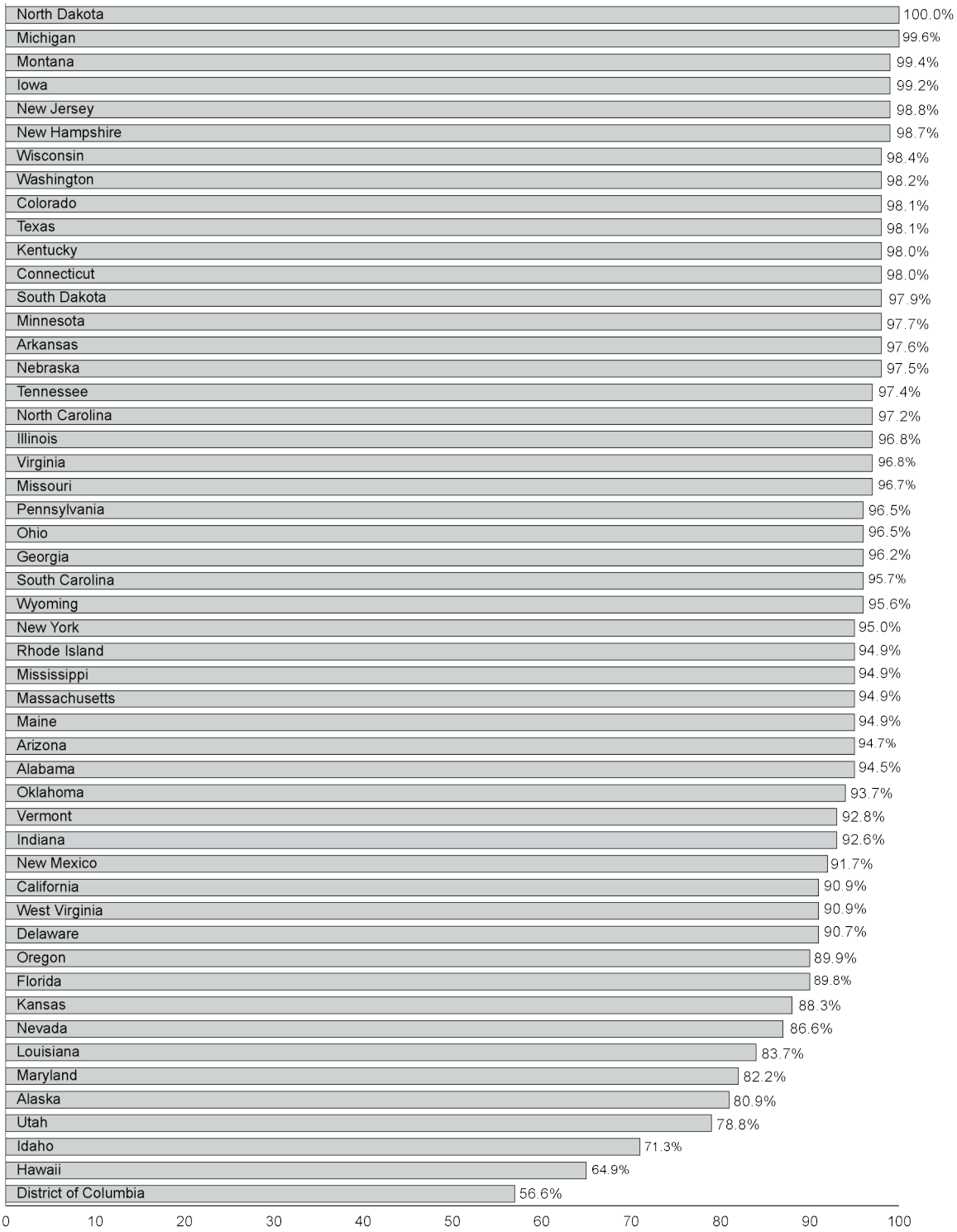
### Forty states reported that at least 90 percent of classes were taught by teachers considered highly qualified under *NCLB* in 2006–07.

According to state reports, 94 percent of all classes were taught by highly qualified teachers in 2006–07.[42] Despite the variations in state policies for highly qualified teachers, state reports indicated generally high percentages of teachers who met state requirements. As of 2006–07, 40 states reported that at least 90 percent of the classes in their states were taught by highly qualified teachers (compared with 33 states in 2004–05); only Hawaii, Idaho, and the District of Columbia reported that this percentage was below 75 percent (see Exhibit 8).[43]

[42] Analyses conducted by Westat for the U.S. Department of Education, based on data from states that reported both the total number of classes and the number of classes taught by highly qualified teachers. The state estimates of the percentage of classes taught by highly qualified teachers did not include respondents who did not know their qualification status. Puerto Rico did not submit complete data and was not included in these analyses.

[43] Data for Puerto Rico were not available at the time of the writing of this report.

## Exhibit 8
## Percentage of Classes Taught by Teachers Who Were Highly Qualified Under *NCLB*, as Reported by States, 2006–07




Source: Consolidated State Performance Reports under *NCLB*, 2006–07 (n = 51).

**Between 2004–05 and 2006–07, the percentage of teachers who reported they were considered highly qualified under *NCLB* increased from 74 percent to 84 percent; the percentage of teachers who reported being not highly qualified decreased from 4 percent to 2 percent; the percentage of teachers who did not know their status decreased from 23 percent to 14 percent.**

Teachers' own reports indicate an improvement in their highly qualified status. Of all general education teachers, 84 percent reported that they were considered highly qualified under *NCLB* in 2006–07, 2 percent reported that they were not highly qualified, and 14 percent did not know their status (see Exhibit 9). These findings represent a significant increase in the percentage teachers who reported they were highly qualified and a significant reduction in the percentage of teachers who reported they were not highly qualified or who did not know their status compared with two years before (see Exhibit 9).

**Exhibit 9**
**Changes in Percentage of Teachers Reporting That They Were Considered Highly Qualified or Not Highly Qualified, or That They Did Not Know Their Status Under *NCLB*, 2004–05 and 2006–07**

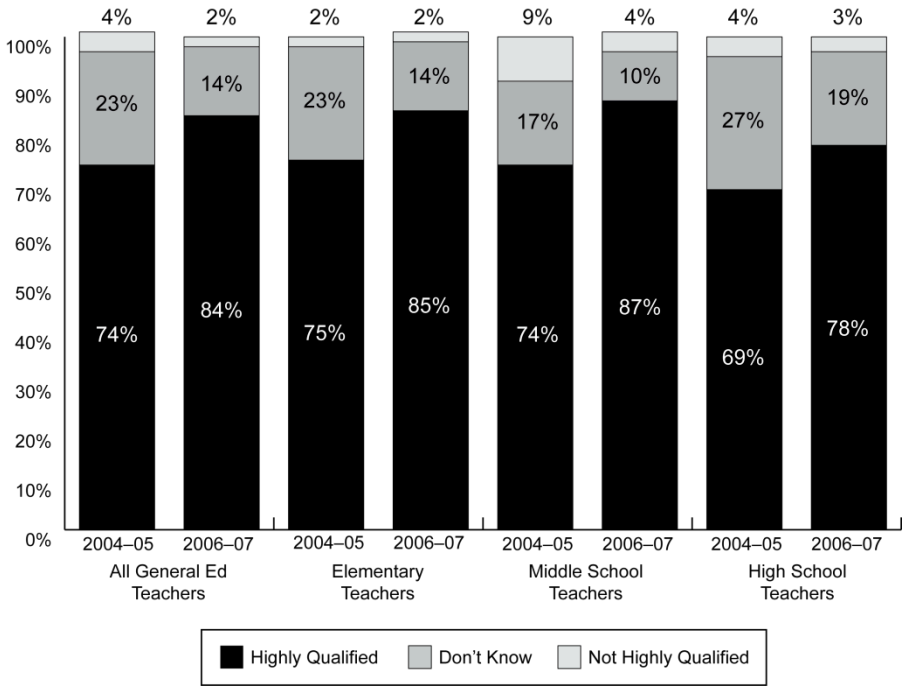



**Exhibit reads:** Seventy-four percent of general education teachers reported they were considered highly qualified under *NCLB*, 4 percent were not highly qualified, and 23 percent reported they did not know their status in 2004–05.

Note: n = 7,340, 4,087, 1,887, and 1,386 in 2004–05 for all general education teachers, elementary teachers, middle school teachers, and high school teachers respectively. n = 7,482, 4,121, 1,916, and 1,445 in 2006–07 for all general education teachers, elementary teachers, middle school teachers, and high school teachers respectively. Column totals may not sum to 100 percent due to rounding.

Source: NLS-*NCLB*, Teacher Survey.

### The qualifications of teachers who did not know their status under *NCLB* were similar to the qualifications of teachers who reported they were considered highly qualified in 2006–07.

The education credentials of teachers who did not know their highly qualified status under *NCLB* in 2006–07 were generally comparable with those of teachers who reported they were highly qualified. A similar percentage of teachers in both groups reported having full certification, possessing a master's degree, and having participated or being in alternate route programs. However, teachers who did not know their status were more likely to have fewer than three years of teaching experience than teachers who reported being highly qualified (16 percent compared with 10 percent) (see Appendix Exhibit B.2). These findings suggest that many of the teachers who did not know their status in 2006–07 might actually meet the requirements for highly qualified teachers under *NCLB*.

### Middle school teachers were more likely to report that they were not considered highly qualified under *NCLB* than were elementary teachers in 2006–07.

As was found in 2004–05, the percentage of teachers who reported being not highly qualified in 2006–07 was higher in middle schools than in elementary schools for both general education teachers (4 percent compared with 2 percent) and special education teachers (14 percent compared with 6 percent) (see Exhibits 9 and 10). This difference may reflect the greater challenges that middle school teachers face, who often teach multiple subjects and are required by the law to demonstrate subject-matter competency in every core subject that they teach.

### The percentage of special education teachers who reported they were highly qualified increased from 52 percent in 2004–05 to 72 percent in 2006–07. Nevertheless, special education teachers were more likely to report that they were *not* considered highly qualified (10 percent) than were general education teachers (2 percent) in 2006–07.

As was the case with general education teachers, the percentage of special education teachers who reported they were highly qualified also increased significantly between 2004–05 (52 percent) and 2006–07 (72 percent) (see Exhibit 10). Compared with general education teachers, however, special education teachers face particular challenges in becoming highly qualified. They not only have to meet the general requirements for highly qualified teachers under *NCLB*, but also have to obtain full state certification as special education teachers as required under the *Individuals with Disabilities Education Act* (*IDEA*) (*IDEA*, Title I, Part A, Section 602(10)). It was thus not surprising that special education teachers were less likely to report they were highly qualified than general education teachers (72 percent compared with 84 percent) and much more likely to report that they were not highly qualified than general education teachers (10 percent compared with 2 percent) in 2006–07 (see Exhibits 9 and 10).

**Exhibit 10**
**Changes in Percentage of Special Education Teachers Reporting That They Were Highly Qualified, Not Highly Qualified, or That They Did Not Know Their Status Under *NCLB*, 2004–05 and 2006–07**

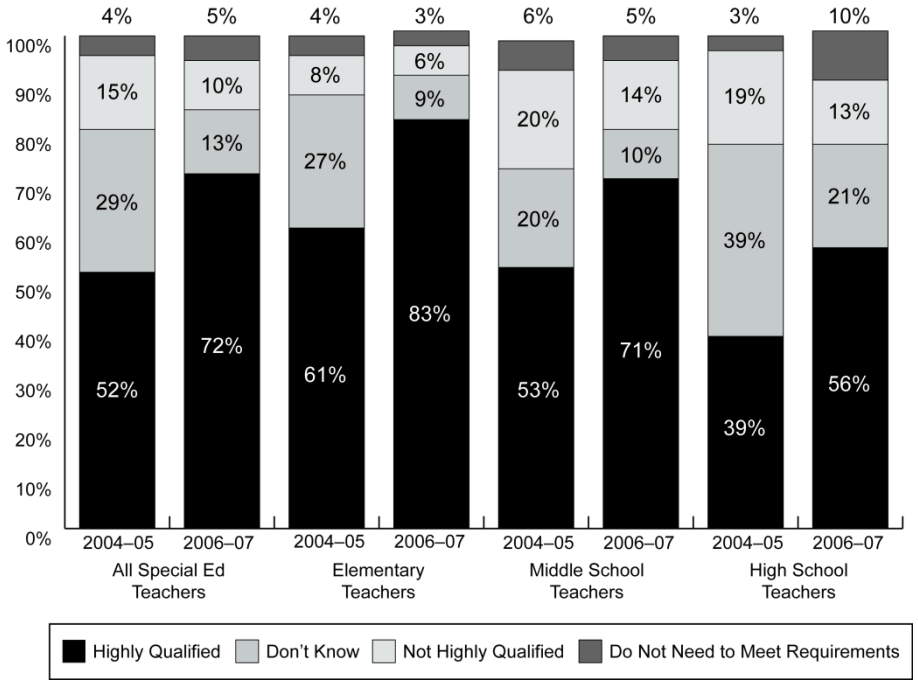



**Exhibit reads:** Fifty-two percent of special education teachers reported they were considered highly qualified, 29 percent reported they did not know their status, and 15 percent reported they were not highly qualified. An additional 4 percent of special education teachers indicated that they did not need to meet requirements for highly qualified teachers under *NCLB*.

Notes: n = 1,153, 673, 266, and 214 in 2004–05 for all special education teachers, elementary special education teachers, middle school special education teachers, and high school special education teachers respectively. n = 1,137, 678, 235, and 224 in 2006–07 for all special education teachers, elementary special education teachers, middle school special education teachers, and high school special education teachers respectively. Column totals may not sum to 100 percent due to rounding.

Source: NLS-*NCLB*, Teacher Survey.

As is the case with general education teachers, the percentage of special education teachers who did not know their qualification status also dropped—from 29 percent in 2004–05 to 13 percent in 2006–07 (see Exhibit 10). Many of the special education teachers who did not know their status may actually have met the requirements for highly qualified teachers, because their qualifications were similar to those of special education teachers who reported being highly qualified (see Appendix Exhibit B.2).

As in 2004–05, the qualification status of special education teachers in 2006–07 varied by school level. Special education teachers in elementary schools (83 percent) were more likely to report they were highly qualified under *NCLB* than special education teachers in middle schools and high schools (71 and 56 percent, respectively) (see Exhibit 10). Special education teachers in middle schools and high schools (14 and 13 percent, respectively) were more than twice as likely to report they were *not* highly qualified as were those in elementary schools (6 percent).

Five percent of all special education teachers reported they did not need to meet the state requirements for being highly qualified under *NCLB* in 2006–07. The percentage of such teachers ranged from 3 percent in elementary schools to 10 percent in high schools. These teachers were often teachers who did not provide instruction to special education students in core academic subjects and were thus exempt from *NCLB*'s provisions for highly qualified teachers, which only apply to teachers teaching core academic subjects.

### Teachers of LEP students[44] were as likely to report they were highly qualified or not highly qualified as were other general education teachers in 2006–07.

As was the case in 2004–05, teachers of LEP students were as likely as other general education teachers to report they were highly qualified (84 percent for both) under *NCLB* in 2006–07. Teachers of LEP students were also as likely to report they were not highly qualified or did not know their qualification status as were other general education teachers in 2006–07 (see Appendix Exhibit B.3), which was a notable change from the case two years ago when a higher percentage of teachers of LEP students reported being not highly qualified compared with other teachers. Changes in teacher qualification status over time among teachers of LEP students mirrored changes among other general education teachers: the percentage of highly qualified teachers increased (from 74 percent to 84 percent), the percentage of teachers not highly qualified decreased (from 6 percent to 3 percent), and the percentage of teachers who did not know their status also decreased (from 21 percent to 13 percent) between 2004–05 and 2006–07.

Under *NCLB*, teachers of LEP students are not required to have certification for English as a Second Language or bilingual education. Nevertheless, 38 percent of teachers of LEP students did have such certification in 2006–07, compared with 6 percent of teachers who did not teach LEP students. However, only 3 percent of teachers of LEP students had a degree in a field related to the instruction of LEP students (see Appendix Exhibit B.4).

### Over 90 percent of general education teachers and over 80 percent of special education teachers who did not know their highly qualified status under *NCLB* were not notified of their status in 2006–07.

The great majority of teachers who reported that they did not know their qualification status under *NCLB* were not notified of their status. Among teachers who did not know their status, 92 percent of general education teachers and 82 percent of special education teachers reported that they were not notified (see Appendix Exhibit B.5). Teachers' uncertainty about their qualification status thus may reflect primarily the lack of official notification. Without knowledge about their qualification status, teachers who were not highly qualified might not be able to take timely actions to address their deficiencies and become highly qualified.

[44] Teachers of LEP students are defined as those who teach at least one of the following types of classes: (1) ESL class, (2) sheltered content class for students with LEP—regular academic content delivered using basic English, (3) bilingual class, and (4) class taught in student's primary language (other than English). Of all 7,394 general education teachers who participated in the 2006–07 survey, 1,391 were teachers of LEP students, and 6,003 were teachers of non-LEP students.

## Education and credentials of teachers under *NCLB*

### Teachers considered highly qualified under *NCLB* were more likely to be fully certified than teachers who were not highly qualified in 2006–07.

Among both general education and special education teachers, those who reported being highly qualified under *NCLB* were more likely to report that they had earned either regular state certification or some kind of advanced certification (e.g., National Board for Professional Teaching Standards certification) than those not highly qualified in 2006–07 (88 compared with 53 percent for general education teachers, and 92 compared with 81 percent for special education teachers) (see Exhibit 11 and Appendix Exhibit B.2). Given the law's requirement that all highly qualified teachers must have full state certification, it is not surprising that highly qualified teachers were more likely to be fully certified compared with teachers who were not highly qualified; it is surprising, though, not *all* highly qualified teachers had full state certification.[45]

**Exhibit 11**
**Percentage of Teachers With Various Background Characteristics, by Teacher's Highly Qualified Status, 2006–07**

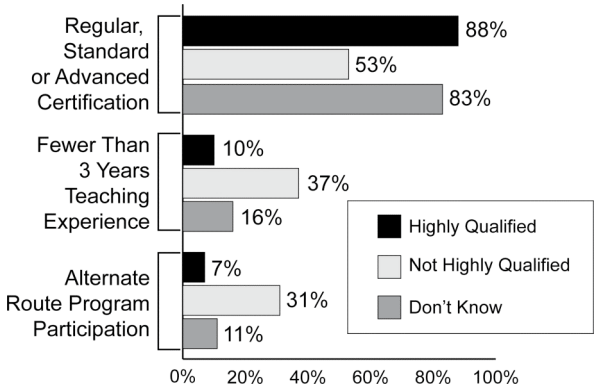



**Exhibit reads:** Eighty-eight percent of highly qualified teachers reported they had regular, standard or advanced certification.

Note: Teachers reporting "participation in alternative route programs" were teachers who were participating in alternative route programs or had participated in such programs at the time of the survey. Highly qualified n = 5,592 to 6,131; not highly qualified n = 207 to 265; don't know n = 875 to 996.

Source: NLS-*NCLB*, Teacher Survey.

There are several plausible reasons for the fact that some teachers reported that they were highly qualified even though they did not possess full certification. First, under federal regulations, teachers who participate in an approved alternate route program are considered to be fully certified for up to three years while they seek state certification, and thus may teach during this

[45] Note that with regard to highly qualified teachers, the U.S. Department of Education has interpreted "full certification" to mean that teachers should be fully certified in any subject and in any grade but not necessarily in the subject of instruction.

period as highly qualified teachers if they have a bachelor's degree and subject matter competence. Indeed, of the teachers who reported they were highly qualified but not fully certified, 18 percent were in an alternate route program. In addition, in some states the first teaching certificate is provisional. While this certificate reflects fulfillment of all teaching requirements for a first-year teacher, some beginning teachers with this provisional certificate may have responded that they were not yet fully certified because they had not yet fulfilled teaching and other professional development obligations needed to earn the actual full certification. Of the teachers who responded that they were highly qualified but not fully certified, 78 percent had probationary or provisional certification, and the remaining teachers had temporary, emergency or waiver, interim, or other types of nonstandard certification.

**Teachers who were not highly qualified under *NCLB* in 2006–07 were more likely to report participating or having participated in alternate route programs than were teachers who were highly qualified.**

In addition to difference in their certification status, teachers who were highly qualified and teachers who were not highly qualified also differed in their participation in alternate route programs. While 31 percent of teachers not highly qualified reported that they were participating or had participated in alternate route programs in 2006–07, only 7 percent of highly qualified teachers reported participation in such programs.

**Teachers who were not highly qualified under *NCLB* in 2006–07 were more likely to be new to the profession than teachers who were highly qualified.**

Studies on the relationship between student learning and teacher experience have found that students learn more from teachers with more experience (Greenwald, Hedges, and Laine, 1996), and learn less when their teachers are new (Jepsen and Rivkin, 2002) or have two or fewer years of experience (Rivkin, Hanushek, and Kain, 2001). In 2006–07, teachers who were *not* highly qualified under *NCLB* were more than three times as likely to report that they had fewer than three years of teaching experience (37 percent) as were teachers who were highly qualified (10 percent) in 2006–07 (see Exhibit 11).

**Highly qualified secondary teachers were more likely to have a degree in the subject taught than were secondary teachers who were not highly qualified. However, as was true in 2005–06, about half of all secondary teachers who reported they were considered highly qualified under *NCLB* did not have a degree in the subject they taught in 2006–07.**

Under *NCLB*, secondary teachers may demonstrate subject matter competency if they have an undergraduate major or graduate degree in the subject they teach.[46] As of 2006–07, only about half of highly qualified secondary teachers (55 percent of English teachers and 46 percent of mathematics teachers) reported having an undergraduate or graduate degree in the subject

[46] Under *NCLB*, secondary school teachers are required to be highly qualified for each core academic subject they teach; hence, teachers who taught both English and mathematics classes in a given year were included in the estimation of the percentage of highly qualified teachers for secondary teachers of English and for secondary teachers of mathematics. Thus, the two analytic categories of "Middle School English Teachers" and "Middle School Mathematics Teachers" were not mutually exclusive. Similarly, "High School English Teachers" and "High School Mathematics Teachers" were not mutually exclusive. For further details, see Appendix A.

taught.[47] These findings were similar to what was found two years ago (54 percent of English teachers and 41 percent of mathematics teachers). The percentage of highly qualified teachers with a degree in the subject they taught was particularly low in middle schools compared with high schools (see Exhibit 12). Among highly qualified middle school English teachers, for example, only 35 percent had a degree in English compared with 77 percent of highly qualified high school English teachers.

The percentage of teachers with a degree in the subject they taught was even lower among teachers who reported being not highly qualified in 2006–07. Among secondary English teachers, for example, 55 percent of teachers who reported being highly qualified had a degree in their field of teaching, whereas only 36 percent of teachers who reported being not highly qualified had such a degree. A similar difference also existed between secondary mathematics teachers who were highly qualified and secondary mathematics teachers who were not highly qualified (47 percent compared with 28 percent) (see Appendix Exhibit B.6).

**Exhibit 12**
**Percentage of Middle and High School Teachers With a Degree in the Subject They Taught, by Teacher's Highly Qualified Status and Teaching Assignment, 2006–07**

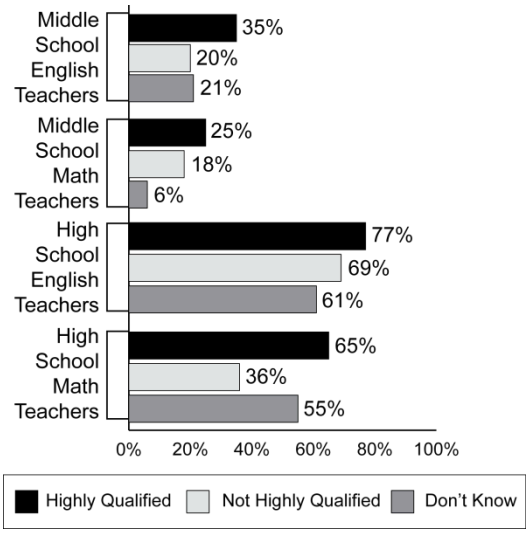



**Exhibit reads:** Thirty-five percent of middle school English teachers who were highly qualified had a degree in the subject they taught, compared with 20 percent of middle school English teachers who were not highly qualified.

Note: "Degree in the subject taught" includes bachelor's degrees (1st or 2nd), master's degree (1st or 2nd), professional diploma, certificate of advanced graduate studies, or doctoral degree in English or mathematics. It does not include undergraduate degrees in mathematics education or English and language arts education. Middle school n = 990 to 1,108; high school n = 713 to 736.

Source: NLS-*NCLB*, Teacher Survey.

[47] Given that the majority of teachers were highly qualified in 2006–07, the percentage of teachers with a degree in the subject they taught among all secondary teachers (54 percent for English and 44 percent for mathematics) was similar to that among highly qualified secondary teachers.

### Highly qualified teachers reported in 2006–07 that they had completed more college courses in subjects related to their teaching assignment than did teachers who were not highly qualified.

Teachers who reported they were highly qualified and those who reported they were not highly qualified under *NCLB* in 2006–07 also differed on another qualification indicating subject matter expertise. For each type of teaching assignment, except for middle school and high school English, teachers who reported being highly qualified had completed more courses related to their teaching assignment than had teachers who were not considered highly qualified (see Exhibit 13). For example, among high school mathematics teachers, those who reported being highly qualified had completed an average of 13.2 courses in mathematics, whereas those who were not highly qualified completed an average of 10.0 courses. Moreover, secondary teachers generally had completed more course work in their field of teaching than elementary teachers, regardless of their highly qualified status.

### Highly qualified high school English teachers had completed more course work in English based on their 2006–07 report compared with their 2004–05 report. Highly qualified elementary teachers, however, had completed less course work in both English and mathematics based on their 2006–07 report compared with their 2004–05 report.

Changes had occurred between 2004–05 and 2006–07 in the amount of course work that teachers reported they had completed in their field of teaching. Highly qualified high school English teachers, for example, reported more college English courses completed in 2006–07 (13.8 courses) compared with 2004–05 (12.5 courses). Highly qualified elementary teachers, however, reported fewer college courses completed—in both English and Mathematics—in 2006–07 than two years before (7.2 compared with 8.0 courses in English and 4.4 compared with 4.9 courses in mathematics). Changes among all general education teachers were similar to those among highly qualified teachers (see Appendix Exhibit B.7).

**Exhibit 13**
**Average Number of College Courses Completed by Teachers in English and Mathematics, by Teachers' Highly Qualified Status and Teaching Assignment, 2006–07**

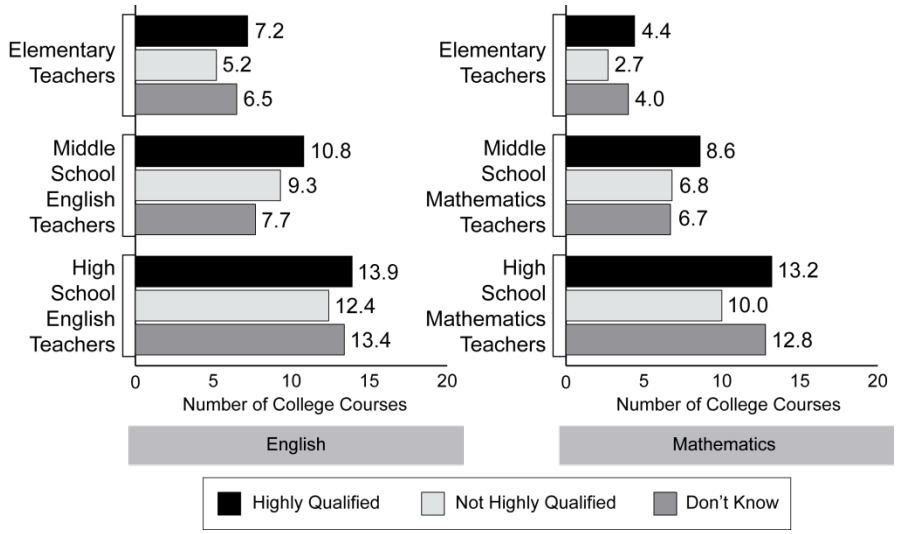



**Exhibit reads:** (First Panel) Among elementary teachers, those who were highly qualified reported having completed an average of 7.2 courses in English; those who were not highly qualified 5.2 courses; those who did not know their status 6.5 courses.

Notes: Respondents were asked to report the number of courses completed in the 2006–07 survey. The numbers then were recoded into the following categories in order to ensure comparability with the 2004–05 survey results: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category.

Elementary school n = 3,516 to 3,517; middle school n = 924 to 988; high school n = 616 to 689.

Source: NLS-*NCLB*, Teacher Survey.

Special education teachers who reported being highly qualified and those who reported being not highly qualified under *NCLB* in 2006–07 completed a similar number of college courses in reading, mathematics, and teaching students with disabilities (see Exhibit 14). Special education teachers, however, completed fewer courses in reading and mathematics than general education teachers overall (see Appendix Exhibits B.7 and B.8). Across all special education teachers, the average number of college courses completed in both reading and mathematics as reported by these teachers increased between 2004–05 and 2006–07 (from 5.8 to 6.7 courses in reading and from 3.1 to 3.8 courses in mathematics). The average number of college courses in teaching students with disabilities, however, declined from 9.5 courses in 2004–05 to 7.2 courses in 2006–07.

**Exhibit 14**
**Average Number of College Courses Completed by Special Education Teachers in Reading, Mathematics and Teaching Students With Disabilities, by Teacher's Highly Qualified Status, 2006–07**

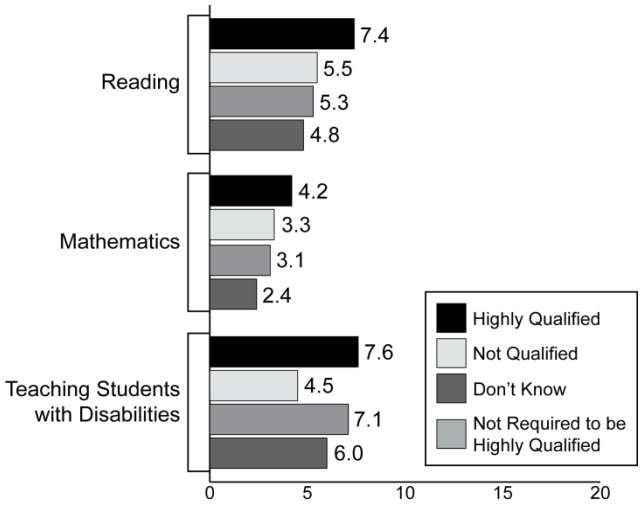



**Exhibit reads:** Among elementary school special education teachers, those who were highly qualified reported having completed an average of 7.4 college courses in English, those who were not highly qualified 5.5 courses, those who did not know their status 5.3 courses, and those who did not need to meet the requirements for highly qualified teachers 4.8 courses.

Notes: n = 956–968. Respondents were asked to report the number of courses completed in the 2006–07 survey. The numbers then were recoded into the following categories to ensure comparability with the 2004–05 survey results: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category.

Source: NLS-*NCLB*, Teacher Survey.

Under *NCLB*, teachers of LEP students are not required to undertake specific course work to prepare for teaching such students. However, 66 percent of teachers of LEP students reported in 2006–07 that they had taken course work on instructional strategies for teaching LEP students in their preservice preparation. In contrast, 31 percent of teachers who did not instruct LEP students had taken such course work.

## Reasons Teachers Were Not Yet Considered Highly Qualified, and Plans to Become Highly Qualified

The relatively small percentage of teachers who reported they were not highly qualified under *NCLB* in 2006–07 often attributed their status to the lack of full certification and insufficient demonstration of content knowledge. Over one-third of elementary teachers (37 percent), 28 percent of secondary English teachers, and 21 percent of secondary mathematics teachers who were not highly qualified reported the lack of full certification as a reason for being not highly qualified (see Exhibit 15). Secondary teachers who were not highly qualified also commonly attributed their status to insufficient demonstration of content knowledge in the subject they taught, although this explanation was reported by only 1 percent of elementary

teachers who were not highly qualified (see Exhibit 15). Lack of certification and insufficient demonstration of subject matter knowledge were also common reasons for failure to attain highly qualified status among special education teachers (see Appendix Exhibit B.9).

**Exhibit 15**
**Reasons Why Teachers Were Considered Not Highly Qualified, by Teacher Level and Subject Taught, 2006–07**

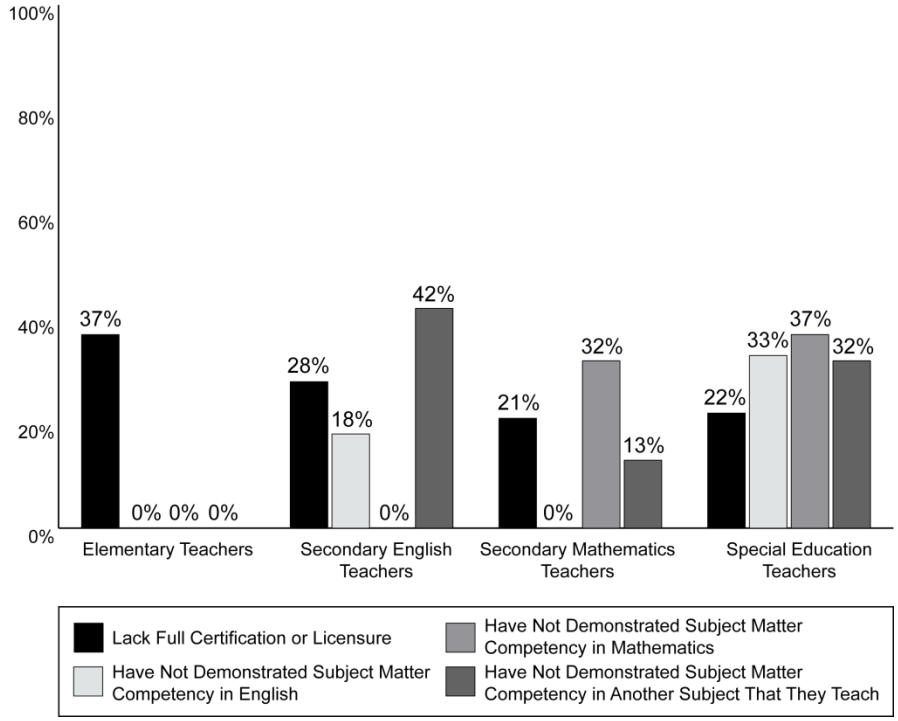



**Exhibit reads:** Thirty-seven percent of elementary teachers indicated they were not highly qualified under *NCLB* because they lacked full certification or licensure.

Note: N's for elementary, secondary English, secondary math, and special education teachers are 85, 92, 107, and 91, respectively.

Source: NLS-*NCLB*, Teacher Survey.

### Over 90 percent of teachers who were not highly qualified in 2006–07 reported taking actions or making plans to become highly qualified.

Over 90 percent of teachers (94 percent of general education teachers and 93 percent of special education teachers) who reported they were not considered highly qualified under *NCLB* in 2006–07 indicated they were taking actions or planning to take actions to improve their qualifications. Among general education teachers who were not highly qualified, the most commonly-reported action was to obtain full certification or licensure (35 percent) (see Exhibit 16). Earning a graduate degree was another common strategy for improving qualification status, particularly among elementary teachers (48 percent, compared with 25 percent of middle school teachers and 16 percent of high school teachers). Further, about a

quarter of general education teachers not yet highly qualified (24 percent) intended to demonstrate content knowledge in the subject they taught by taking a state test.

Earning a graduate degree and taking a state test to demonstrate content knowledge were also common action plans for special education teachers who were not highly qualified in 2006–07, reported by 25 percent and 31 percent of these teachers respectively. Special education teachers who were not highly qualified, however, were much less likely to report that they were planning to obtain certification or licensure in order to improve their qualifications than general education teachers who were not highly qualified (10 percent compared with 35 percent).

Among teachers who were not considered highly qualified under *NCLB* in 2006–07, fewer than 10 percent at any level were contemplating leaving the teaching profession, and only 2 percent of general education teachers and no special education teachers were planning to change schools (see Exhibit 16). Seven percent of general education teachers and 18 percent of special education teachers who were not highly qualified intended to seek a change in teaching assignments in order to meet the *NCLB* requirements for highly qualified teachers.

**Exhibit 16**
**Percentage of Teachers Reporting Taking Actions or Making Plans in Response to Their Own Not Highly Qualified Status Under *NCLB*, by Teacher Level and by Type, 2006–07**

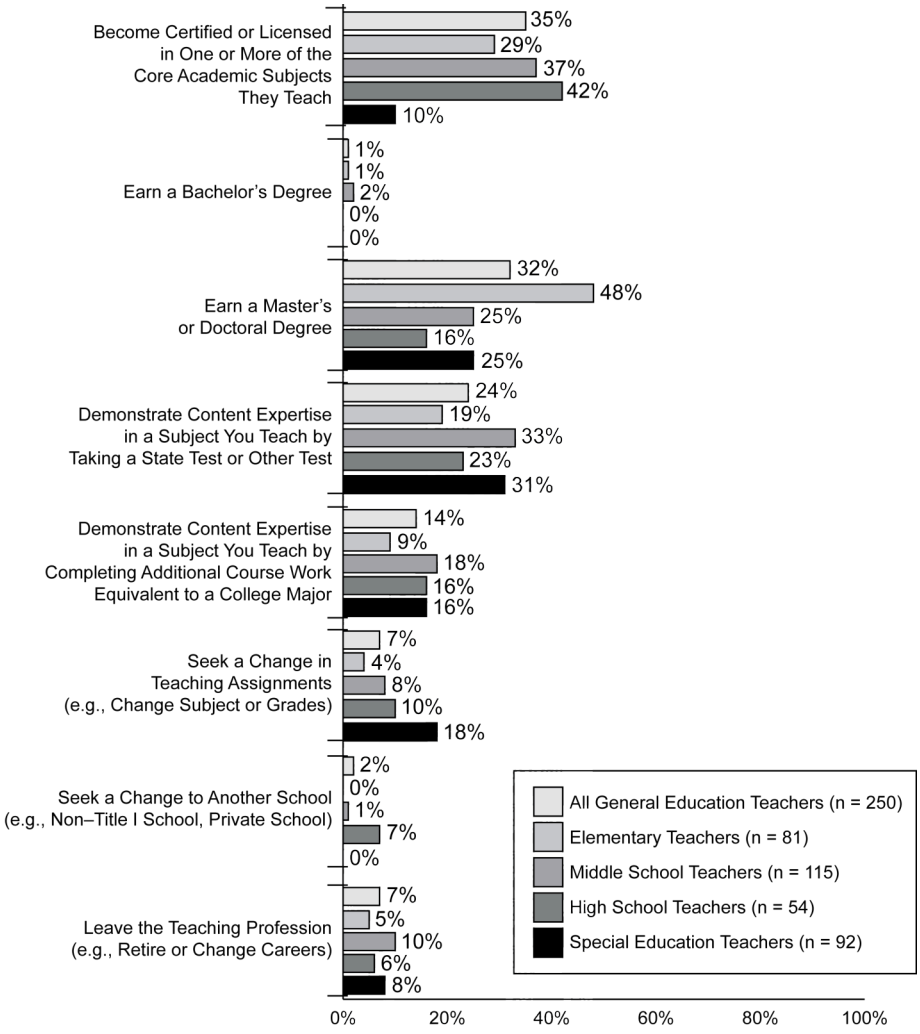



**Exhibit reads:** Thirty-five percent of all general education teachers indicated they would obtain licensure in their subject area to become highly qualified.

Note: Respondents were asked to "check all that apply."

Source: NLS-*NCLB*, Teacher Survey.

## ACCESS TO HIGHLY QUALIFIED TEACHERS

*NCLB* seeks to ensure that all students are taught by a highly qualified teacher. States are required to report on the percentage of classes taught by highly qualified teachers in high- and low-poverty schools, and Title II, Part A, funds may be targeted specifically to address inequities in the distribution of highly qualified teachers. Previous studies have found that the faculties of high-poverty and high-minority schools were more likely to include teachers who were the least

experienced, those who had the lowest scores on assessments and attended the least rigorous training programs, or were teachers on emergency certificates (NCES, 2004; U.S. Department of Education, 2003, 2004, 2005; Eide, Goldhaber, and Brewer, 2004).

### Traditionally disadvantaged schools had higher percentages of teachers who were not considered highly qualified than did other schools in 2006–07.

The percentages of teachers who were not highly qualified was higher in high-poverty and high-minority schools than in other schools in 2006–07 (see Exhibit 17), although the percentage of teachers who were highly qualified under *NCLB* or the percentage of teachers who did not know their status was similar in different types of schools. For example, teachers who were not highly qualified were more likely to be teaching in high-poverty schools than in low-poverty schools (5 percent compared with 1 percent), and more likely to be teaching in high-minority schools than in low-minority schools (4 percent compared with 1 percent). In addition, teachers who were not highly qualified were also more likely to be teaching in urban schools than in suburban schools (3 percent compared with 2 percent).

**Exhibit 17**
**Percentage of Teachers Who Were Highly Qualified, Not Highly Qualified, and Who Did Not Know Their Status, by School Characteristics, 2006–07**

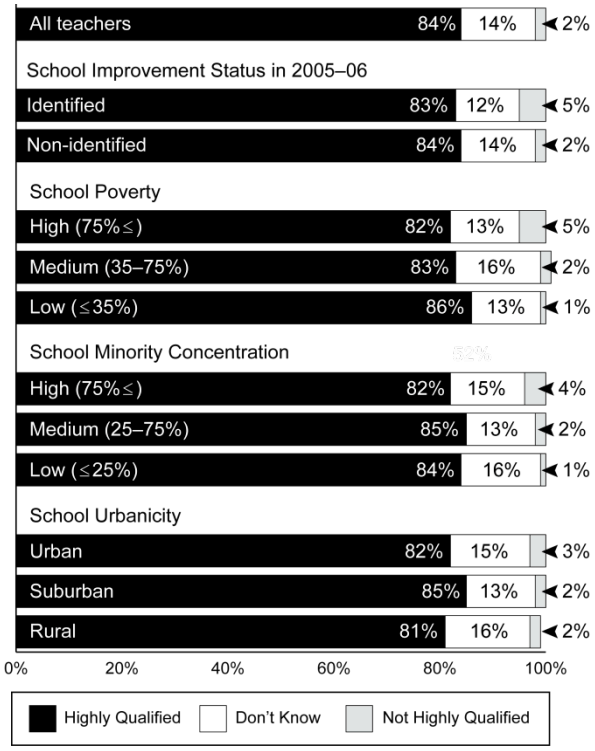



**Exhibit reads:** The percentage of all general education teachers who were highly qualified was 84 percent overall.

Note: n = 7,482 general education teachers.

Source: NLS-*NCLB*, Teacher Survey and SSI-*NCLB* IFI-AYP database.

The percentage of teachers who were not highly qualified was also related to schools' identification status. Teachers in schools that were identified for improvement, corrective action or restructuring in 2006–07 were more likely to report that they were not highly qualified under *NCLB* than were teachers in non-identified schools (see Exhibit 18). Only 2 percent of the teachers in non-identified schools, for example, reported they were considered not highly qualified, compared with 6 percent in schools that were in the first or second year of identification for improvement and 6 percent of schools identified for restructuring.

**Exhibit 18**
**Percentage of General Education Teachers Considered Not Highly Qualified Under *NCLB*, by School Improvement Status, 2006–07**

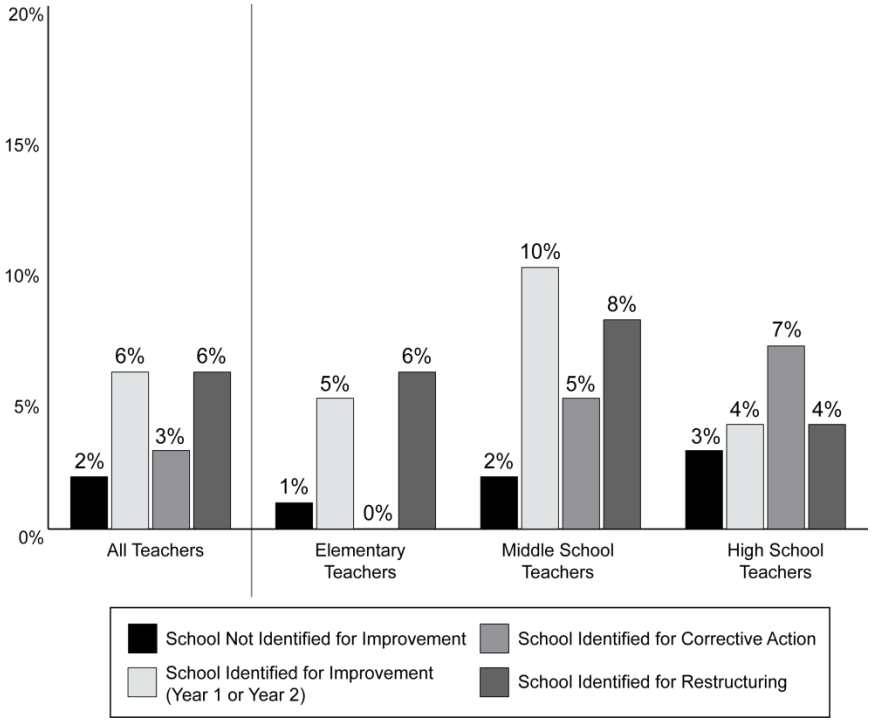



**Exhibit reads:** Two percent of general education teachers in non-identified schools reported they were not considered highly qualified, compared with 6 percent in schools that were in the first or second year of being identified for improvement.

Note: n = 7,456, 4,111, 1,905, and 1,440 for all general education teachers, elementary teachers, middle school teachers, and high school teachers respectively.

Source: NLS-*NCLB*, Teacher Survey.

### Highly qualified teachers in high-poverty and high-minority schools were more likely to be new to the profession than highly qualified teachers in low-poverty and low-minority schools in 2006–07.

Furthermore, the qualifications of highly qualified teachers themselves differed across different types of schools in 2006–07. Highly qualified teachers in high-poverty and high-minority schools, for instance, were more likely to have fewer than three years of experience than were highly qualified teachers in low-poverty and low-minority schools (see Exhibit 19).

The percentage of highly qualified teachers with fewer than three years of experience, for instance, was twice as high in high-minority schools as in low-minority schools (15 percent compared with 7 percent). Highly qualified teachers who lacked experience were also more likely to teach in urban schools than in rural schools. Moreover, schools identified for improvement, corrective action, or restructuring in 2006–07 had a disproportionate share of relatively inexperienced highly qualified teachers.

**Exhibit 19**
**Percentage of Highly Qualified Teachers With Fewer Than Three Years of Teaching Experience, by School Characteristics, 2006–07**

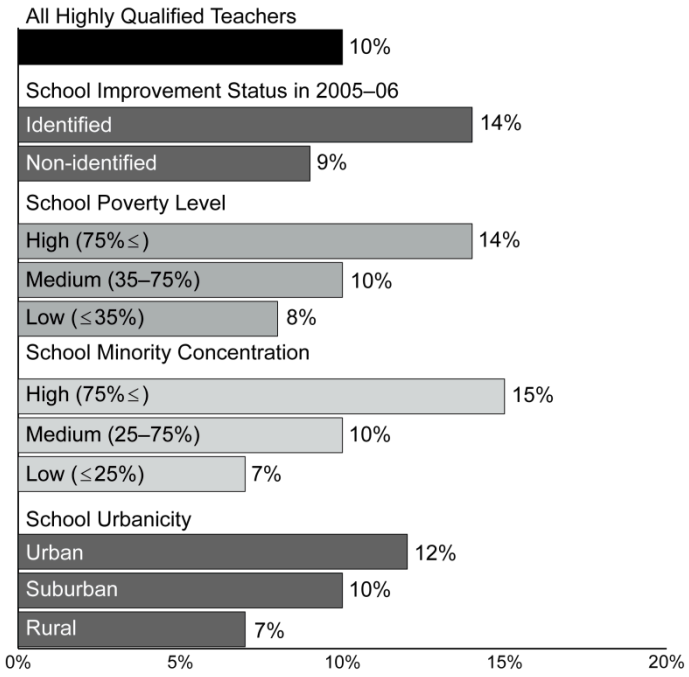



**Exhibit reads:** Ten percent of highly qualified general education teachers had fewer than three years of teaching experience.

Note: n = 6,052.

Source: NLS-*NCLB*, Teacher Survey.

### Highly qualified teachers in high-poverty schools were less likely to have a degree in their field of teaching than were highly qualified teachers in low-poverty schools in 2006–07.

Among highly qualified secondary teachers of English and mathematics, those teaching in high-poverty schools were less likely to have a degree in the field that they taught, compared with those in low-poverty schools (40 percent compared with 59 percent) in 2006–07 (see Exhibit 20 and Appendix Exhibit B.14). That is, high-poverty secondary schools had a higher percentage of English and mathematics teachers who did not have an undergraduate degree, master's degree, or further advanced degree in their field of teaching than low-poverty secondary schools. Other indicators of teacher training, such as the number of college courses completed or full certification, also differed among highly qualified teachers in different types of schools. Highly qualified elementary teachers in high-poverty schools, for example, reported

having completed fewer college courses than those in low-poverty schools in 2006–07 (6.3 courses compared with 7.9 courses in reading and 4.0 courses compared with 4.6 courses in mathematics) (see Appendix Exhibit B.15). Highly qualified middle school English teachers in high-poverty schools also reported fewer college courses in reading (9.3 courses) than those in low-poverty schools (11.5 courses). Further, highly qualified secondary teachers in urban schools were more likely to have full certification than were highly qualified secondary teachers in rural schools (84 percent compared with 93 percent).[48]

**Exhibit 20**
**Percentage of Highly Qualified Secondary English and Mathematics Teachers With a Degree in the Field in Which They Taught, by School Characteristics, 2006–07**

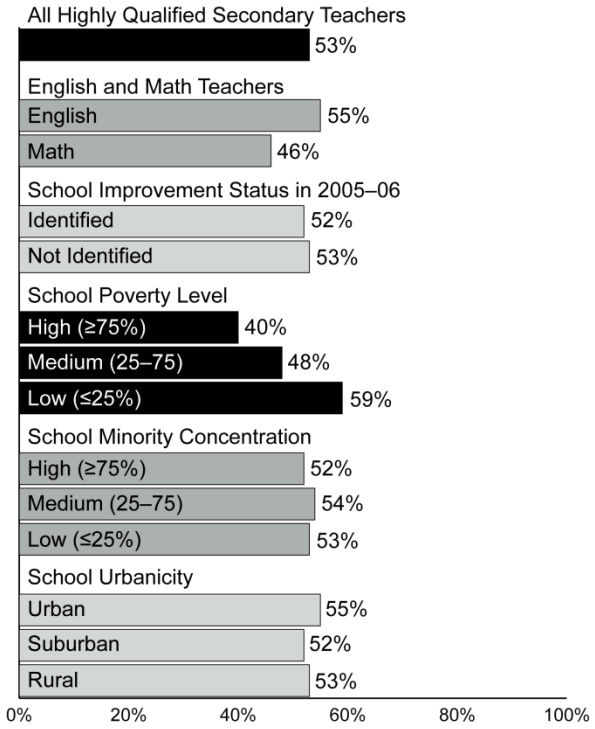



**Exhibit reads:** Fifty-three percent of highly qualified secondary general education teachers have a degree in the field in which they teach (either English or mathematics).

Note: n = 2,635 to 2,686. Analyses did not include teachers with undergraduate degrees in mathematics education or English language arts education.

Source: NLS-*NCLB*, Teacher Survey.

[48] Under *NCLB*, teachers enrolled in alternate certification programs may be considered highly qualified for three years before receiving full certification.

## NOTIFYING TEACHERS AND PARENTS ABOUT *NCLB* REQUIREMENTS FOR HIGHLY QUALIFIED TEACHERS

## Notification of teachers

### Teachers' awareness of state requirements for highly qualified teachers increased between 2004–05 and 2006–07 (from 83 to 91 percent).

There was an increased awareness among teachers of their state's requirements to be considered highly qualified under *NCLB* in 2006–07 compared with two years before. The percentage of general education teachers who reported being aware of the requirements for highly qualified teachers in their state increased from 83 percent in 2004–05 to 91 percent in 2006–07 (see Exhibit 21). As was the case in 2004–05, high school teachers were still least likely to be aware of their state requirements (84 percent) compared with middle and elementary school teachers (92 percent and 94 percent, respectively) in 2006–07.

Awareness of state requirements for highly qualified teachers also increased among special education teachers. As of 2006–07, 98 percent of special education teachers reported that they were aware of the requirements for being highly qualified under *NCLB*, compared with 83 percent two years before. Most special education teachers (82 percent) were also aware of state requirements for highly qualified teachers under *IDEA*, and 76 percent of the teachers were aware of state requirements for highly qualified teacher under both *NCLB* and *IDEA*.

States, districts, and schools adopted various strategies for communicating with teachers about state requirements and for informing teachers about their status. Hawaii, for example, had a Web-based questionnaire that enabled each teacher to immediately determine his or her qualification status. Elsewhere, district and school administrators reported they assumed responsibility for determining teacher qualifications and notifying teachers in a timely manner.

**Exhibit 21**
**Changes in Percentage of Teachers Who Were Aware of Their State's Requirements for Them to Be Considered a Highly Qualified Teacher Under *NCLB*, by Teacher Type and Grade Level, 2004–05 and 2006–07**

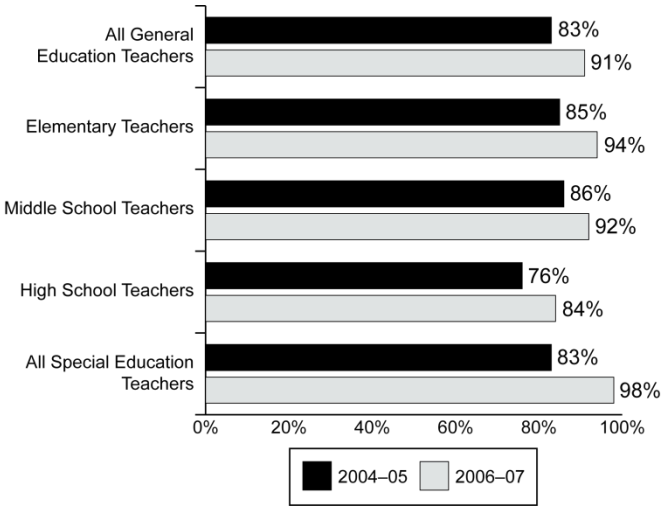



**Exhibit reads:** Eighty-three percent of all general education teachers reported in that they are aware of their state's requirements for highly qualified teachers under *NCLB* in 2004–05.

Note: n = 7,340, 4,087, 1,887, 1,366, and 1,186 for all general education teachers, elementary teachers, middle school teachers, high school teachers, and all special education teachers, respectively, in 2004–05. n = 7,538, 4,139, 1,943, 1,456, and 1,138 for all general education teachers, elementary teachers, middle school teachers, high school teachers, and all special education teachers, respectively, in 2006–07.

Source: NLS-*NCLB*, Teacher Survey.

Teachers most commonly learned about the requirements for highly qualified teachers under *NCLB* from their principals or administrators (75 percent of general education teachers and 70 percent of special education teachers) (see Exhibit 22). The second most commonly reported source for such information was professional development sessions, which was reported by 37 percent of general education teachers and 47 percent of special education teachers. Other sources of information about the requirements for highly qualified teachers included fellow teachers, colleges or universities, or the media.

**Exhibit 22**
**Percentage of Teachers Who Reported Sources Through Which They Learned About Requirements to Be Considered a Highly Qualified Teacher Under *NCLB*, by Teacher Type, 2006–07**

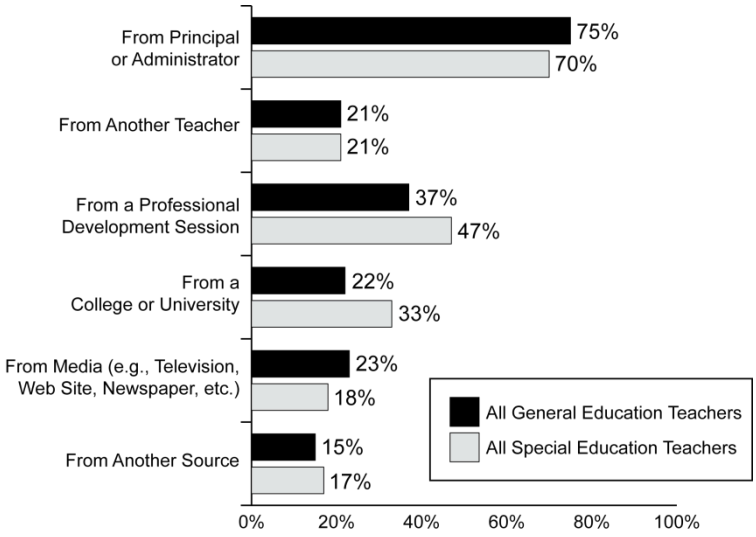



**Exhibit reads:** Seventy-five percent of all general education teachers reported they learned about the requirements of *NCLB* through a principal or administrator.

Note: Teachers could select more than one response, so percentages do not sum to 100. General education teachers n = 6,888; special education teachers n = 1,077.

Source: NLS-*NCLB*, Teacher Survey.

### About 30 percent of teachers were not notified of their highly qualified status under *NCLB* in 2006–07, although the notification rate improved substantially from two years before.

In 2006–07, over two thirds of general education teachers (69 percent) reported being notified of their qualification status under *NCLB*, which represented a significant improvement from 2004–05 (52 percent) (see Exhibit 23). The increase in the notification rate was even higher among special education teachers: from 43 percent to 72 percent. The improved notification may partly account for the substantial decrease in the percentage of teachers who did not know their qualification status between 2004–05 and 2006–07 (from 23 to 14 percent for general education teachers and from 29 to 13 percent for special education teachers). Nevertheless, there were still about 30 percent of teachers who were not notified in 2006–07 (see Appendix Exhibit B.18).

**Exhibit 23**
**Changes in Percentage of Teachers Who Were Notified of Their Highly Qualified Status, by Teacher Type and Grade Level, 2004–05 and 2006–07**

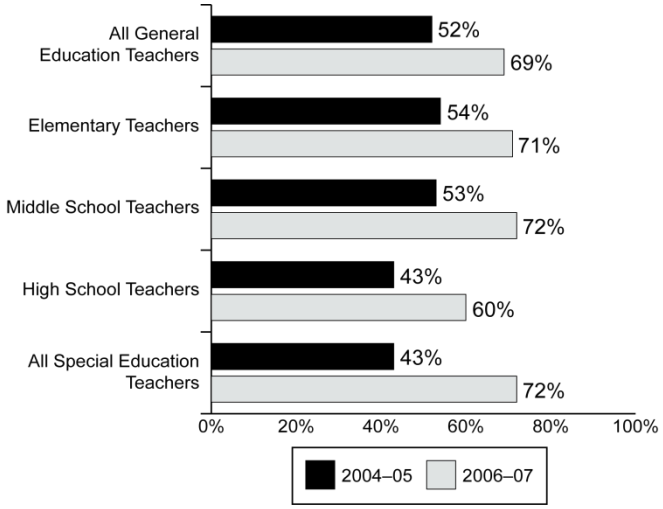



**Exhibit reads:** Fifty-two percent of all general education teachers reported that they had been notified of their own highly qualified teacher status under *NCLB*.

Note: n = 7,207, 4,021, 1,843, 1,343, and 1,153 for all general education teachers, elementary teachers, middle school teachers, high school teachers, and all special education teachers, respectively.

Source: NLS-*NCLB*, Teacher Survey.

## Notification of parents

*NCLB* requires that districts that receive Title I funds notify parents that they have the right to access information about the qualifications of the teachers who are responsible for their children's instruction. Such communication can serve as an explicit incentive for teachers to become highly qualified themselves or for principals to staff classes with highly qualified teachers. The notification requirements of Section 1111(h)(6) of *NCLB* are specific; the law states that each local education agency receiving Title I funds must make parents aware of their right to request the following information:

i. Whether the teacher has met state qualification and licensing criteria for the grade levels and subject areas in which the teacher provides instruction.

ii. Whether the teacher is teaching under emergency or other provisional status through which state qualification or licensing criteria have been waived.

iii. The baccalaureate degree major of the teacher and any other graduate certification or degree held by the teacher, and the field of discipline of the certification or degree.

iv. Whether the child is provided services by paraprofessionals and, if so, their qualifications.

In addition, if a school received Title I funds, the district must also provide "timely notice" to each parent if his or her child is assigned to or has been taught for four or more consecutive weeks by a teacher who is not highly qualified.

**About 30 percent of districts and schools did not notify parents of students taught by teachers who were not highly qualified as required under *NCLB*.[49]**

While only about half (52 percent) of the schools with teachers who were not highly qualified reported having notified parents of the qualification status of their child's teacher in 2004–05, over two thirds (71 percent) of the schools did so in 2006–07. The percentage of districts reporting having notified parents of students who were taught by teachers who were not highly qualified, however, remained stable between 2004–05 (68 percent) and 2006–07 (67 percent). High-poverty districts and schools with teachers who were not highly qualified were more likely to report that they notified parents of the highly qualified status of their child's teachers than were low-poverty districts and schools (75 percent of high-poverty districts compared with 46 percent of low-poverty districts and 93 percent of high-poverty schools compared with 33 percent of low-poverty schools) (see Appendix Exhibits B.19 and B.20).

## DISCUSSION

Even though the goal of 100 percent of teachers highly qualified by the end of 2005–06 had yet to be reached, the percentage of general education teachers who reported they were considered highly qualified under *NCLB* increased from 74 percent to 84 percent, and the percentage of teachers who reported being not highly qualified decreased from 4 percent to 2 percent between 2004–05 and 2006–07. Meanwhile, the percentage of teachers who did not know their status dropped significantly (from 23 percent to 14 percent), which may partly explain the increase in the percentage of teachers who reported being highly qualified, as most of the teachers who did not know their status in 2004–05 were likely to be highly qualified.

The decrease in the percentage of teachers who did not know their highly qualified status between 2004–05 and 2006–07 reflects improved notification rates over this period. Nevertheless, there were still about 30 percent of teachers who were not notified of their qualification status under *NCLB* in 2006–07, which might hinder those not yet highly qualified from taking effective actions to improve their qualifications.

Of greater concern, however, are the enduring inequities in access to highly qualified teachers. As was the case in 2004–05, teachers in high-poverty schools, high-minority schools, or schools identified for improvement were more likely to be *not* highly qualified than were teachers in other schools in 2006–07. Even among teachers who were considered highly qualified, those in high-need schools had less experience and were less likely to have a degree in their field of teaching. Thus, the designation of being highly qualified is not a guarantee that students will be taught by teachers with similar skills and knowledge, and the differences among teachers continued to disadvantage the students who were most in need.

[49] Under *NCLB*, the requirement to notify parents of students taught by teachers who were not highly qualified applies only to Title I schools.

# IV. STATE, DISTRICT AND SCHOOL ACTIONS TO IMPROVE THE QUALIFICATIONS OF THE TEACHER WORKFORCE

*NCLB* allows states and districts to use Title II, Part A, funds to implement strategies to improve teacher qualifications. Districts, which receive nearly 95 percent of these federal funds, can use the money to provide recruitment and retention incentives for highly qualified teachers as well as to provide support for teachers who are not considered highly qualified. This chapter discusses strategies and actions that states and districts have taken to increase the supply of highly qualified teachers and highlights changes in the strategies and actions taken by districts between the 2004–05 and 2006–07 school years.

## Key Findings

- Although the percentage of districts reporting a shortage of qualified applicants in reading or language arts and mathematics decreased between 2004–05 and 2006–07, about half of districts still reported facing challenges in recruiting highly qualified teachers in special education, mathematics, and science in 2006–07.
- Between one-third and one-half of districts reported in 2006–07 that they faced workforce challenges to improving teacher qualifications, such as competition with other districts, inadequate salaries and teacher retirement.
- There was an increase between 2004–05 and 2006–07 in the percentage of districts that reported using human resource data systems (21 to 41 percent), targeting efforts to hard-to-staff subject areas (35 to 48 percent), and streamlining hiring processes (34 to 51 percent) to recruit highly qualified teachers.
- Districts were more likely to report providing sustained mentoring programs (79 percent) and instructional coaching (64 percent) to retain highly qualified teachers in 2006–07 than in 2004–05 (70 percent and 51 percent, respectively).
- All states, the District of Columbia, and Puerto Rico reported having strategies, particularly alternate route certification programs and financial incentives, in place to increase the pool of highly qualified teachers in 2006–07, compared with 42 states and the District of Columbia in 2003–04. There was also an increase between 2003–04 and 2006–07 in the number of states reporting various teacher retention strategies.
- All states reported providing technical assistance to districts in 2006–07 to help them recruit and retain highly qualified teachers, but only about 15 percent of districts and one-third of schools reported needing such assistance. More than 80 percent of the districts and schools that received technical assistance found it sufficient.
- Districts and schools reported providing various types of support to teachers who were not highly qualified in 2006–07, and to a lesser extent, making staffing adjustments regarding these teachers.

## CHALLENGES TO IMPROVING TEACHER QUALIFICATIONS

Much has been written recently about the growing challenges associated with the teacher workforce. In 1997, the National Commission on Teaching and America's Future (NCTAF) predicted that U.S. schools would need to hire at least 2 million teachers over the next decade to counter rising student enrollments and the aging of the teacher workforce. Teacher recruitment and retention issues figured to become increasingly prominent for school systems, particularly in high-need subject and specialty areas and for schools serving high proportions of disadvantaged students, areas in which staffing problems tended to be more acute (NCTAF, 1997; Darling-Hammond et al, 1999). Later studies have confirmed that the overall demand for teachers has risen and that teacher turnover continues to be serious problem, especially in high-need schools and high-need subject and specialty areas (Ingersoll, 2004). The reasons teachers give for transferring to other schools or leaving the profession altogether include inadequate salaries, lack of autonomy, lack of administrative support and poor student discipline (RAND, 2004; Ingersoll, 2004).

Districts and schools continued to face many of these workforce and subject or specialty area challenges to staffing all classrooms with highly qualified teachers in the 2004–05 and 2006–07 school years.

### Between one-third and one-half of districts reported encountering workforce barriers to improving teacher qualifications in 2006–07.

Common challenges to improving or sustaining teacher qualifications included inadequate teacher salaries (45 percent), competition with other districts (45 percent), and large numbers of retiring, "highly qualified" teachers (34 percent) as barriers (see Exhibit 24).

**Exhibit 24**
**District-reported Workforce Challenges to Improving Teacher Qualifications, 2004–05 and 2006–07**

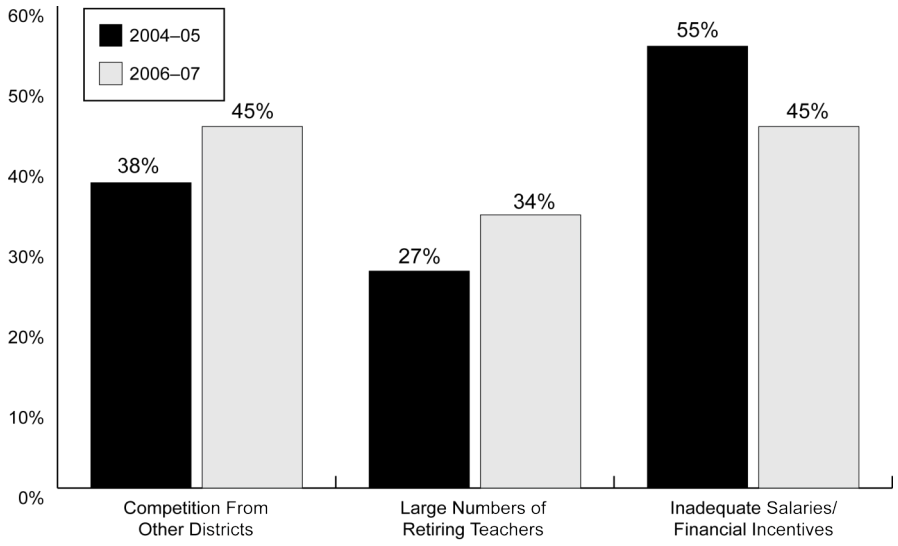



**Exhibit reads:** In 2004–05, 38 percent of districts reported competition from other districts as a moderate or major challenge to improving teacher quality.

Note: n = 274 to 278.

Source: NLS-*NCLB*, District Survey.

Between the 2004–05 and 2006–07 school years, there was an increase in the proportion of districts reporting that large numbers of retiring "highly qualified" teachers posed a barrier to improving teacher qualifications. About one-quarter of districts reported this challenge during the 2004–05 school year, compared with more than one-third of districts during the 2006–07 school year (see Exhibit 24). Although the percentage of districts reporting that inadequate salaries or financial incentives posed a challenge to improving teacher qualifications dropped from 55 to 45 percent between 2004–05 and 2006–07, the challenge remained considerable.[50]

Some of the workforce challenges differed by district characteristics. High-minority districts were about three times as likely as medium- and low-minority districts to report large numbers of retiring highly qualified teachers as a moderate or major challenge (86 percent compared with 27 percent and 28 percent, respectively). Urban districts were twice as likely as suburban districts to report inadequate financial incentives as a challenge to improving teacher quality (63 percent compared with 32 percent) (See Exhibit 25).

[50] The change was marginally significant ($p < .10$).

**Exhibit 25**
**Percentage of Districts Facing Financial and Teacher Retirement Challenges to Improving Teacher Qualifications, by District Characteristics, 2006–07**

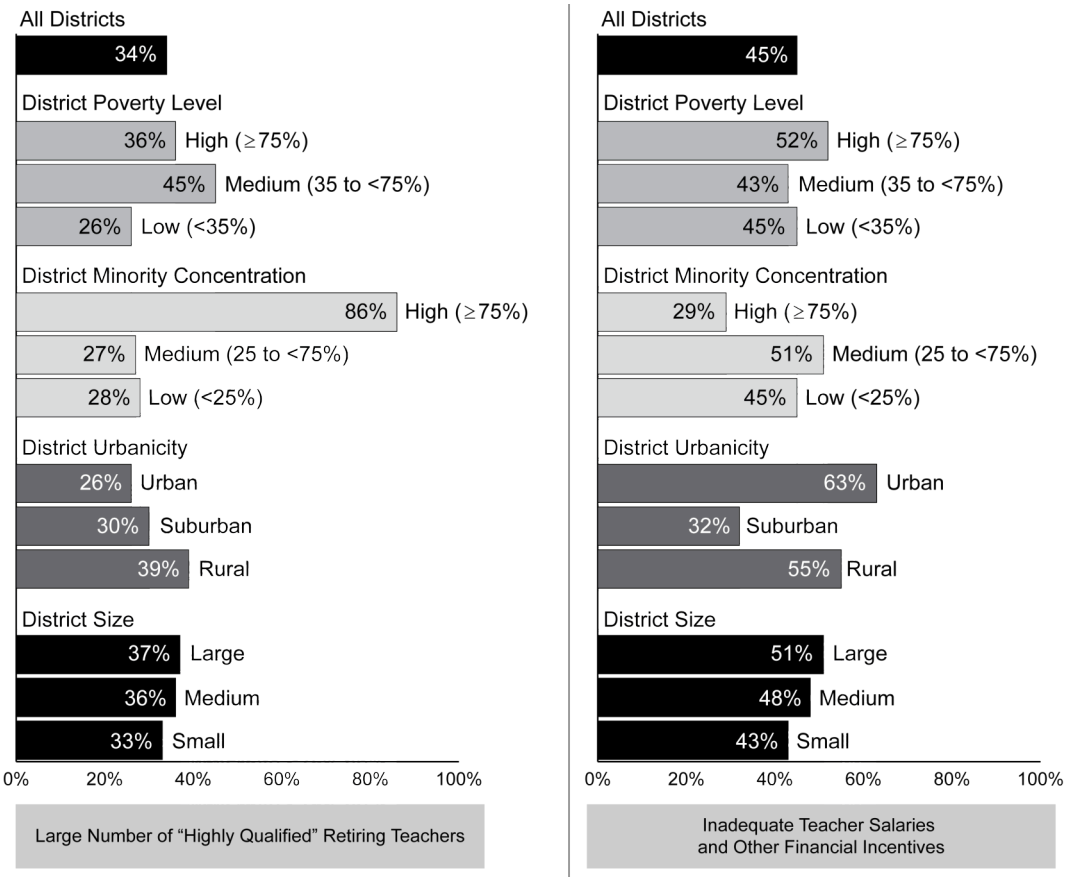



**Exhibit reads:** In 2006–07, 34 percent of districts reported large numbers of retiring highly qualified teachers as a major or moderate challenge to improving teacher quality.

Note: n = 274 to 278.

Source: NLS-*NCLB*, District Survey.

## About half of districts reported difficulty recruiting highly qualified teachers in mathematics, science, and special education in 2006–07.

A smaller proportion of districts reported facing moderate or major challenges in attracting qualified applicants for teaching positions in ESL (35 percent) and reading or language arts (14 percent) compared with mathematics, science, and special education.

**Exhibit 26**
**District-reported Subject and Specialty Area Challenges to Improving Teacher Qualifications, 2004–05 and 2006–07**

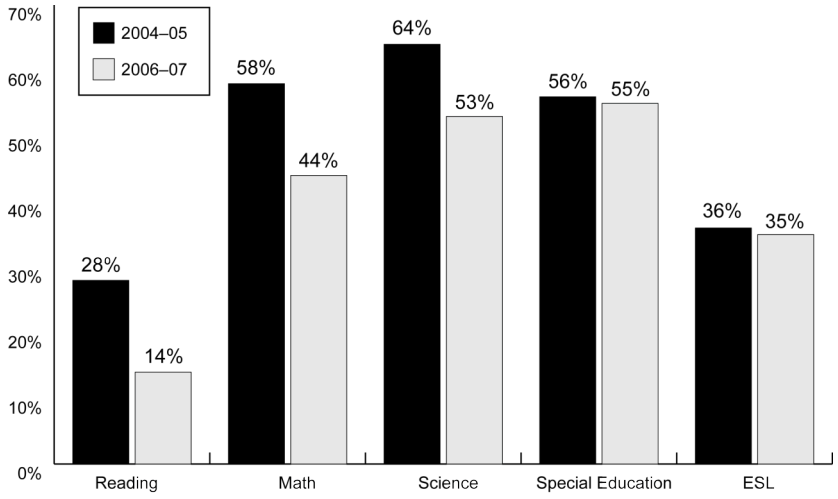



**Exhibit reads:** In 2004–05, 28 percent of districts reported recruiting highly qualified teachers in reading or language arts as a moderate or major challenge to improving teacher quality.

Note: n = 274 to 278.

Source: NLS-*NCLB*, District Survey.

The extent to which districts reported these subject and specialty area challenges differed between the 2004–05 and 2006–07 school years. The proportion of districts reporting a shortage of qualified applicants in reading or language arts as a barrier to improving teacher qualifications decreased by half between the 2004–05 and 2006–07 school years, from 28 to 14 percent. The percentage of districts reporting a shortage of qualified applicants in mathematics also dropped somewhat, although not as dramatically (from 58 percent to 44 percent).[51] The proportion of districts reporting shortages in science, special education, and ESL applicants continued to be substantial and comparable with 2004–05 levels (see Exhibit 26).

## Over 90 percent of high-minority districts reported difficulty attracting highly qualified applicants in science and mathematics in 2006–07.

The subject and specialty area challenges that districts reported during the 2006–07 school year also differed by district characteristics. More than 90 percent of high-minority districts, for example, reported challenges associated with attracting highly qualified applicants in mathematics and science, compared with about 40 percent of low-minority districts (see Exhibit 27). The differences between large districts and small districts also were substantial (79 percent compared with 49 percent for science and 74 percent compared with 36 percent for mathematics). Where the shortage of qualified reading teachers is concerned, almost half of high-poverty, high-minority and rural districts faced the challenge, compared with less than 30 percent of low-poverty and low-minority districts and 20 percent of urban districts (see Exhibit B.21).

[51] The change was marginally significant ($p < .10$).

**Exhibit 27**
**Percentage of Districts Facing Challenges in Recruiting Qualified Applicants in Science and Mathematics, by District Characteristics, 2006–07**

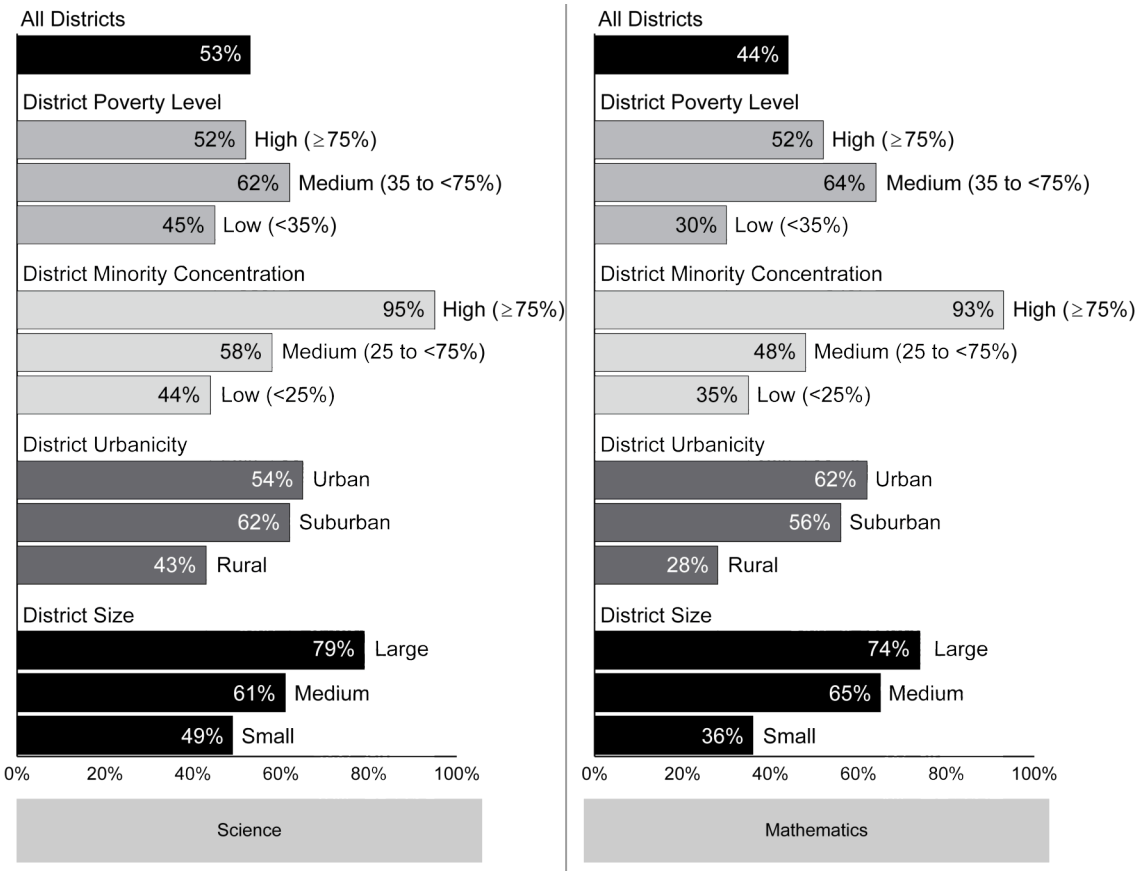



**Exhibit reads:** In 2006–07, 53 percent of districts reported recruiting highly qualified teachers in science as a major or moderate challenge to improving teacher quality.

Note: n = 274 to 278.

Source: NLS-*NCLB*, District Survey.

## STRATEGIES TO RECRUIT HIGHLY QUALIFIED TEACHERS

## State-level recruitment strategies

**In 2006–07, all 50 states, the District of Columbia, and Puerto Rico reported state-level activities, particularly teacher credentialing strategies, to enhance their supply of highly qualified teachers.**

States play a key role in cultivating a pool of qualified applicants to meet districts' staffing needs. In states' revised highly qualified teacher plans requested by the U.S. Department of Education in May, 2006, states were asked to describe the strategies they would use to achieve and maintain *NCLB*'s goals of (1) having 100 percent of core academic classes taught by highly qualified

teachers and (2) of ensuring that poor or minority students were not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than other students.[52]

The most widely reported strategy for increase states' supply of highly qualified teachers was the use of alternate routes to teacher certification, reported by all 50 states, the District of Columbia, and Puerto Rico in 2006–07 (See Exhibit 28). State-endorsed alternate route programs varied in focus, but typically aimed to attract highly qualified teachers to work in high-need districts and subject areas. Some alternate route programs were targeted to recruit specific types of individuals into the teaching force. Eight states, for instance, reported using alternate routes to attract underrepresented minorities to teaching, and 15 states described sponsoring programs to aid paraprofessionals in earning full teacher certification and highly qualified status. Many alternate route programs offered support or incentives—including tuition assistance, childcare, cost of living stipends, mentoring, job-placement, and bonuses—for completing the process.

Related state strategies to recruit highly qualified teachers involved efforts to simplify or remove common barriers to teacher preparation and certification processes. For instance, 12 states described activities to enhance college and university teacher preparation programs to better align them with state highly qualified requirements and teacher shortage needs.
Thirty-four states reported measures to improve access to teacher preparation course work, such as encouraging colleges and universities to offer night and weekend courses, and allowing the transfer of teacher preparation credits completed at local community colleges.

### A majority of states (43) reported employing communications or outreach strategies to promote teaching careers and positions within the state.

The most frequently identified communications strategy for recruiting teachers in 2006–07 involved providing access to a centralized job bank (41 states)—typically in the form of a searchable, online database advertising teaching opportunities within the state.
Twenty-one states described efforts to recruit teachers using marketing or public relations activities, such as hosting job fairs, developing informational videos and brochures, or airing television and radio public service announcements. Nearly half of these states indicated that their marketing strategies were geared toward recruiting teachers to work in hard-to-staff schools or subject areas (10 states). A total of 19 states described activities that reached out to high school students to promote careers in teaching.

[52] The discussions of state-level recruitment, retention, and technical assistance strategies that are featured in this chapter draw from an analysis of approved revised state plans for highly qualified teachers as well as interview data from the SSI-*NCLB*. Information regarding Puerto Rico's strategies in 2006–07 is based solely on SSI-*NCLB* interview data as Puerto Rico's Revised State Highly Qualified Teacher Plan had not yet been approved at the time of the writing of this report. See Chapter II for additional information about revised state plans for highly qualified teachers. For interviews conducted in 2004–05, state officials were asked about state strategies that were in place in both 2003–04 and 2004–05, and more states provided data for 2003–04, which are therefore presented in this report. In addition, we also present data about state strategies that were in place in 2006–07, which were the focus of interviews with state officials conducted in 2006–07.

**Exhibit 28**
**Number of States Reporting the Use of Selected Strategies to Recruit Highly Qualified Teachers, 2006–07**

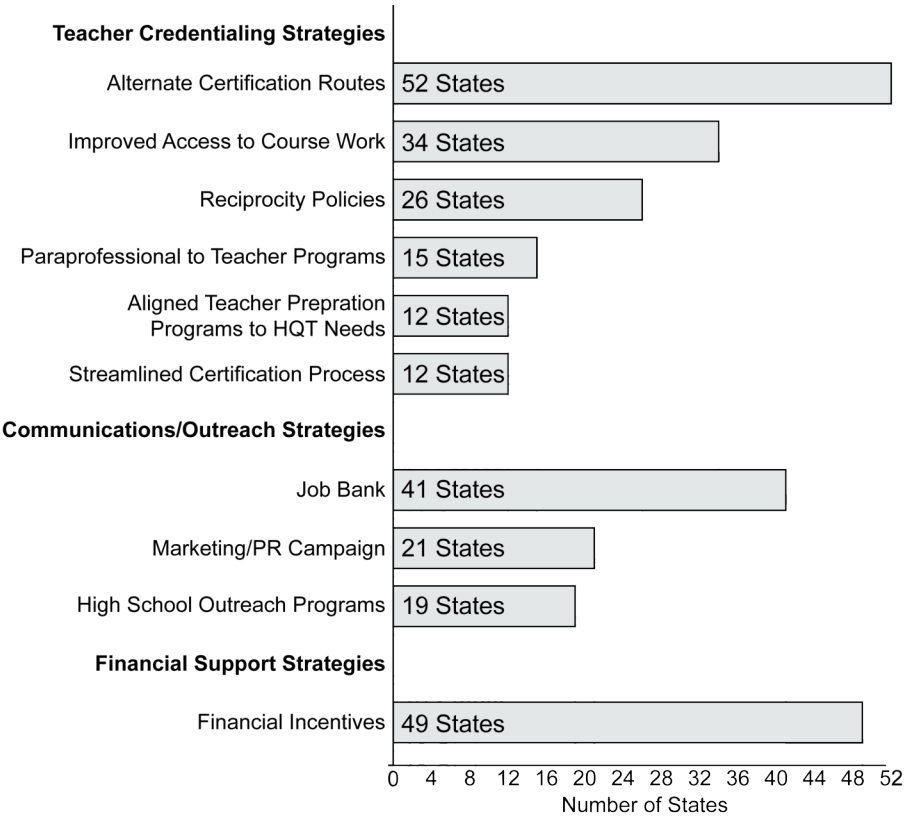



**Exhibit reads:** In 2006–07, 52 states reported using alternate routes to certification to recruit highly qualified teachers.

Note: n = 50 states, the District of Columbia, and Puerto Rico

Source: SSI-*NCLB* Interview data, Revised State Highly Qualified Teacher and Equity Plans

### In 2006–07, nearly all states (47), the District of Columbia, and Puerto Rico reported using financial incentives to recruit teachers, and many of these incentives featured mechanisms to retain teachers as well.[53]

The most common type of financial incentive that states offered in 2006–07 was tuition assistance—including scholarships, tuition waivers, and loan forgiveness programs—to help cover the cost of teachers' preservice college course work. In 2006–07, 42 states and the District of Columbia described tuition assistance as a recruitment strategy, compared with only 24 states in 2003–04 (see Exhibit 29).[54] In general, tuition assistance programs aimed to alleviate teacher

[53] According to SSI-*NCLB* interview data, the financial incentive reported by Puerto Rico in 2006–07 was intended primarily to promote teacher retention.

[54] Because the 2006–07 data were drawn in part from the strategies featured in states' Highly Qualified Teacher Revised Plans, states may have been more likely to include a broader range of tuition assistance opportunities available to their prospective teachers. For instance, states' plans often noted federal tuition assistance

shortages by financing teachers' education costs in exchange for a specified period of service in the classroom. Because of such service requirements, tuition assistance programs functioned as both recruitment and retention strategies. For instance, California's Assumption Program of Loans for Education offered teachers $2,000 in student loan repayment to teach in a hard-to-staff school or subject area for one year and then an additional $3,000 per year for up to three years of service afterward.

**Exhibit 29**
**Number of States Using Selected Financial Incentives to Recruit Highly Qualified Teachers and Number of States Using Those Financial Incentives to Recruit for Hard-to-Staff Areas, 2006–07**

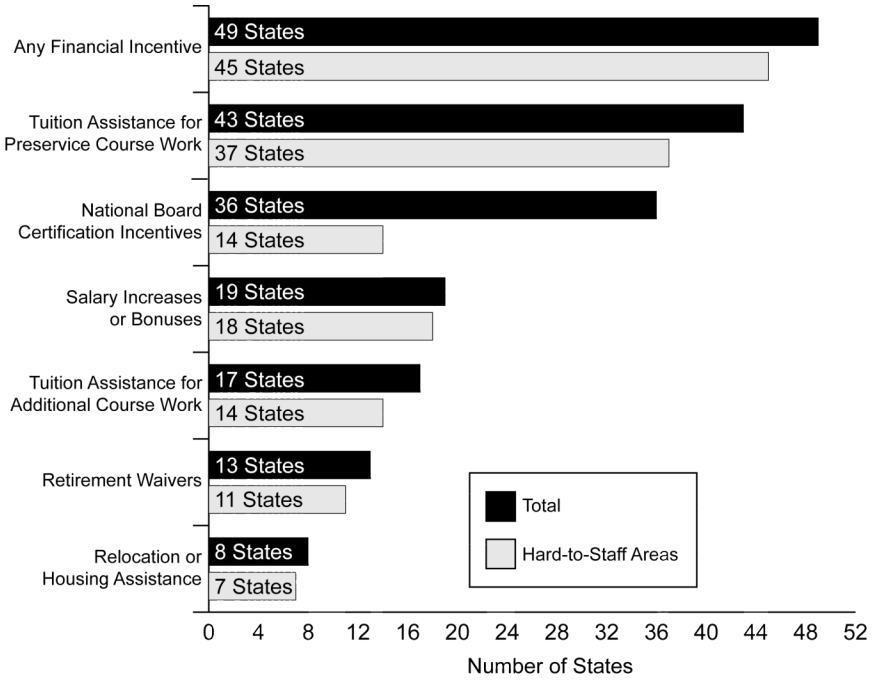



**Exhibit reads:** In 2006–07, 43 states reported offering tuition assistance for preservice course work, and 37 of those states reported using such assistance specifically to recruit teachers to hard-to-staff areas.

Note: n = 50 states, the District of Columbia, and Puerto Rico. The counts listed on the bars in the above exhibit include the District of Columbia and Puerto Rico. The term "hard-to-staff" refers to teaching positions in high-need schools or critical shortage subject areas.

Source: SSI-*NCLB* interview data, Revised State Highly Qualified Teacher and Equity Plans

States also looked to attract teachers with the promise of higher pay: 17 states, the District of Columbia, and Puerto Rico reported efforts to provide bonuses or raise teachers' salaries, and all but one of those states described using pay incentives specifically to support high-need schools and hard-to-staff subject areas. Oklahoma, for example, required districts to pay special education teachers at a rate 5 percent higher than other teachers. Other types of financial

opportunities, such as the Perkins Loan Cancellation Program and the Federal Teacher Loan Forgiveness Program, which support teachers who agree to work in state-identified shortage areas or low income schools.

incentives include subsidizing housing or moving expenses, particularly for teachers considering positions in hard-to-staff geographic areas, a strategy reported by eight states.

Incentives for teachers to become certified by the National Board for Professional Teaching Standards constituted another means for states to recruit and retain highly qualified teachers. Thirty-five states and the District of Columbia reported offering such incentives in 2006–07, which typically involved subsidies to cover teachers' certification fees or salary supplements for teachers who completed the certification process. Additionally, 13 states and the District of Columbia reported targeting their incentives for National Board Certification to teachers in high-need areas.

Last, states looked to support school and district staffing needs by reducing the effects of teacher retirement on the supply of available teachers. Thirteen states granted waivers allowing retired teachers to reenter the workforce or retirement-eligible teachers to remain in the classroom without sustaining a loss in their retirement benefits. States typically used such retirement incentives to address teacher shortages, and 11 of the 13 states that reported such incentives described using them specifically for hard-to-staff schools or subject areas.

## District-level recruitment strategies

Districts also employed a wide range of recruitment strategies in response to their workforce barriers and subject or specialty area challenges. The most common of these, reported by about half of districts in 2006–07, were to streamline the hiring process, to create partnerships with institutions of higher education, and to target efforts to hard-to-staff subject areas. About 40 percent of districts reported using human resource data systems, compared with about one-quarter that offered alternate routes to certification or financial incentives (see Exhibit 30).

**Compared with 2004–05, districts in 2006–07 were more likely to report that they used various recruitment strategies to attract highly qualified candidates.**

Generally, districts were more likely to report using various recruitment strategies in

**Exhibit 30**
**Percentage of Districts Reporting Selected Strategies to Recruit Highly Qualified Teachers, 2004–05 and 2006–07**

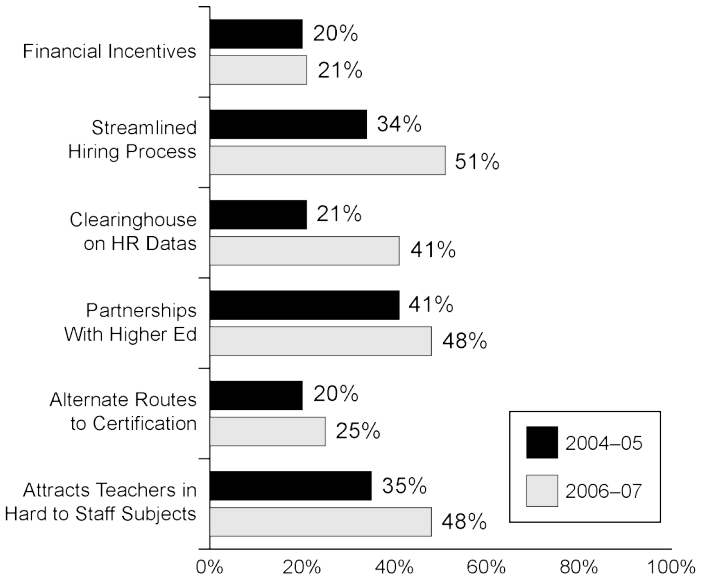



**Exhibit reads:** Twenty percent of districts in 2004–05 reported using financial incentives, such as increased teacher salaries, as a mechanism to recruit highly qualified teachers.

Note: n = 275 to 281.

Source: NLS-*NCLB*, District Survey.

2006–07 than they had been in 2004–05. For example, the percentage of districts that reported using a clearinghouse or human resource data systems to track available positions and place qualified applicants practically doubled, from 21 percent in 2004–05 to 41 percent in 2006–07, and the proportion of districts targeting recruitment efforts to attract applicants in hard-to-staff subjects increased from 35 to 48 percent. The proportion of districts that described using streamlined hiring process also increased substantially, from 34 percent in 2004–05 to 51 percent in 2006–07.[55]

### More than three quarters of high-minority districts and large districts reported using streamlined hiring processes and human resource data systems to recruit highly qualified teachers in 2006–07.

Districts with streamlined hiring systems, such as reduced bureaucracy or Web sites that list current vacancies and feature efficient online application procedures, are likely to have a distinct advantage in recruitment over districts with lengthy and burdensome hiring processes.[56] A clearinghouse or human resource data system that tracks and places qualified applicants is another type of resource that may make hiring more efficient. Because larger districts tend to have more elaborate bureaucracies in need of such "streamlining," it is not surprising that, during the 2006–07 school year, more than three-quarters of large districts and high-minority districts reported employing streamlined hiring systems or human resource data systems. Small and low-minority districts were only about half as likely to report using these strategies as were large and high-minority districts (see Exhibit 31).

### Large and medium-sized districts were much more likely than small districts to report that they engaged in partnerships with higher education as a recruitment strategy.

Districts can bolster recruitment efforts when they partner with institutions of higher education that feature teacher preparation programs. Districts differed, however, in the extent to which they reported forming such partnerships. More than 90 percent of large districts and about three-quarters of medium-sized districts in 2006–07 reported that they established partnerships with higher education institutions to recruit highly qualified teachers, compared with just over one-third of small districts (see Appendix Exhibit B.22).

### Large districts were more likely than medium and small districts to offer financial incentives and more likely than small districts to offer alternate certification routes to recruit highly qualified applicants.

Although districts reported offering alternate certification routes and financial incentives less frequently than other strategies, these strategies differed by district characteristics. For example, over 40 percent of large districts reported using financial incentives, such as increased salaries or signing bonuses, or housing incentives, to attract highly qualified candidates, whereas only 20 percent of medium and small districts reported offering such incentives in 2006–07. Large

[55] The change was marginally significant ($p < .10$).

[56] This strategy is consistent with suggestions made in the New Teacher Project's 2003 report, *Missed Opportunities: How We Keep High-Quality Teachers Out of Urban Classrooms*, which indicates that the failure of many large urban districts to make job offers in the early summer months is largely to blame for high-quality teacher candidates not accepting jobs in these districts. This report is available at: http://www.tntp.org/files/MissedOpportunities.pdf.

districts were also more likely than small districts to offer alternate or "fast track" certification routes as a strategy to attract highly qualified applicants. More than half (53 percent) of large districts offered these routes, compared with only about 20 percent of small districts that did so (see Appendix Exhibit B.22).

**Exhibit 31**
**Percentage of Districts Reporting the Use of Streamlined Hiring Processes to Recruit Highly Qualified Teachers, 2006–07**

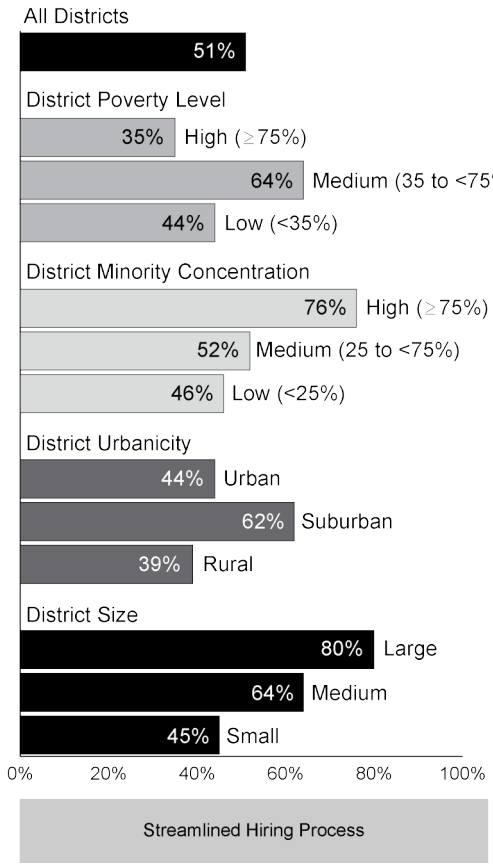



**Exhibit reads:** Fifty-one percent of districts reported in 2006–07 that they used streamlined hiring processes as a mechanism to recruit highly qualified teachers.

Note: n = 275 to 281.

Source: NLS-*NCLB*, District Survey

**Almost 90 percent of high-minority and large districts reported targeting recruitment efforts to increase the number of highly qualified teachers in hard-to-staff subjects, compared with about 40 percent of low-minority and small districts.**

Because a considerable proportion of districts reported facing challenges in recruiting science, mathematics, and special education teachers, it is not surprising that many districts targeted efforts to attract teachers in hard-to-staff subject areas. Overall, just under half of districts targeted recruitment efforts in hard-to-staff subjects. High-minority and large districts, however,

were more than twice as likely as low-minority and small districts to report such targeted recruitment efforts (more than 85 percent compared with about 40 percent) (see Exhibit 32).

**Just over 10 percent of districts reported placing a major or moderate emphasis on increasing the proportion of highly qualified teachers in the district's lowest-performing schools in 2006–07.**

Slightly more than 10 percent of districts reported placing a moderate or major emphasis on increasing the number of highly qualified teachers in the district's lowest-performing schools. However, there were differences by district characteristics, with about one-third of high-poverty and urban districts and about half of large districts reporting such an emphasis on the lowest performing schools in the district, compared with fewer than 10 percent of low-poverty, urban and small districts (see Appendix Exhibit B.23).

**Exhibit 32**
**Percentage of Districts Targeting Recruitment Efforts in Hard-to-Staff Subjects, 2006–07**

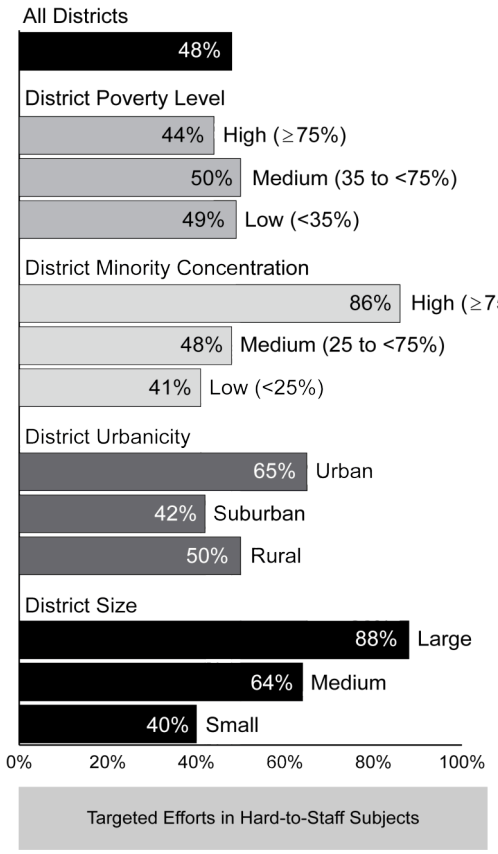



**Exhibit reads:** Forty-eight percent of districts reported in 2006–07 as targeting efforts to recruit highly qualified teachers in hard-to-staff subject areas.

Note: n = 277.

Source: NLS-*NCLB*, District Survey

## STRATEGIES TO RETAIN HIGHLY QUALIFIED TEACHERS

### State-level retention strategies

States reinforced teacher recruitment efforts with strategies to retain existing teachers: as noted in the previous section on state-level recruitment strategies, many of the financial incentives that states offered in 2006–07 served a dual purpose of attracting individuals to teaching positions within the state and then encouraging them to remain in such positions for at least several years. In addition to offering such financial incentives, states sought to retain highly qualified teachers by taking steps to enhance teachers' job preparedness, provide opportunities for performance recognition and career advancement, and improve daily working conditions.

### In 2003–04 and 2006–07, states' most commonly reported retention-building activities were mentoring and professional development opportunities.

Forty-six states and Puerto Rico described using teacher mentoring or induction programs to retain teachers in 2006–07 (See Exhibit 33), up from 27 states in 2003–04. A majority of states (30 and Puerto Rico) mandated the use of induction programs for all new teachers; however, states' policies toward these programs varied in how prescriptive they were. While some states required highly structured induction programs, others afforded districts more flexibility in designing their own programs or tailoring state models to meet their local needs. To promote quality and consistency across locally implemented programs, states often issued guidance or adopted statewide standards for teacher mentoring and induction. Typically, state policies on new teacher induction called for structures to facilitate teachers' transition into the classroom, such as mentorships or professional development opportunities, in conjunction with structures to evaluate their instructional preparedness, such as classroom observations.

**Exhibit 33**
**Number of States Using Selected Strategies to Retain Highly Qualified Teachers, 2006–07**

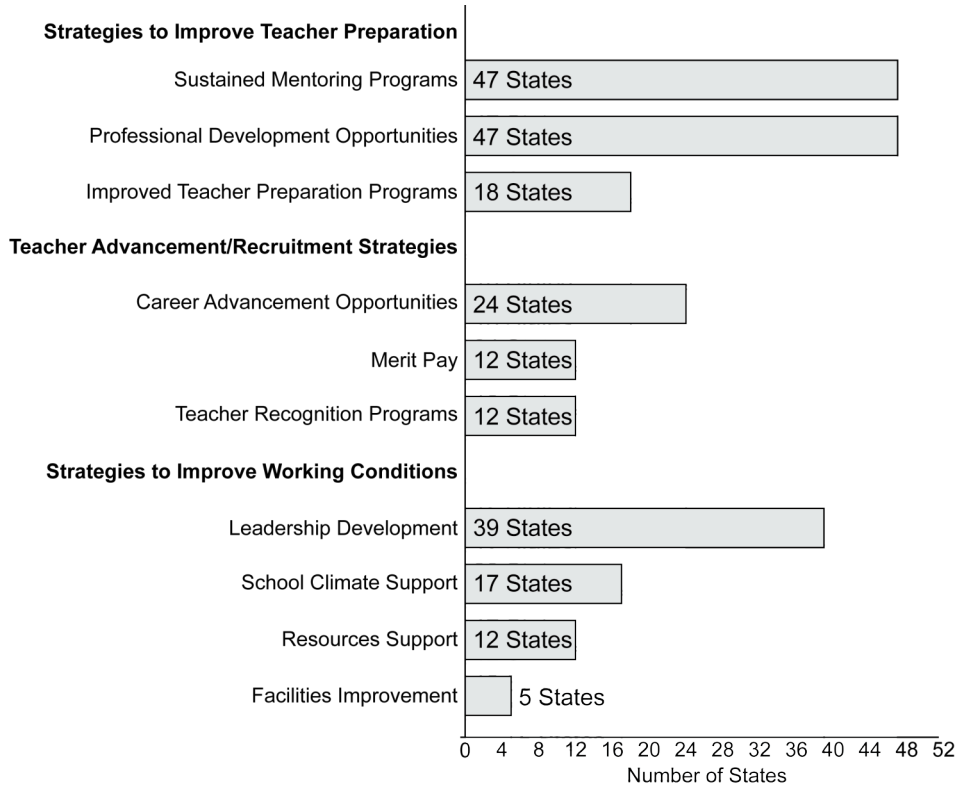



**Exhibit reads:** In 2006–07, 47 states reported using sustained mentoring programs to retain highly qualified teachers.

Note: n = 50 states, the District of Columbia, and Puerto Rico

Source: SSI-*NCLB* Interview data, Revised State Highly Qualified Teacher and Equity Plans

To foster growth among both new and experienced teachers, 46 states and the District of Columbia described coordinating professional development opportunities in 2006–07. This constituted an increase from the 41 states and Puerto Rico that reported providing such opportunities in 2003–04 and from the 43 states and Puerto Rico in 2004–05.[57] Many state-supported professional development programs included elements to improve teachers' content knowledge as well as their pedagogical skills.

While most states sought to heighten the effectiveness of their existing teachers with mentoring or professional development activities, 18 states strove to strengthen teachers' preparedness before they entered the classroom with measures to improve local college or university teacher preparation programs. Often, these measures involved implementing statewide teacher preparation standards to promote quality and consistency across programs.

**In 2006–07, 31 states described supporting special career advancement opportunities or teacher recognition programs as a means of retaining teachers, and 12 states reported supporting pay-for-performance programs.**

Nearly half of all states (23) reported programs offering teachers opportunities to move ahead professionally. Often, these opportunities took the form of career ladders that allowed teachers to advance increasingly higher in rank, such as from a new teacher to a career teacher to a mentor to a master teacher, and in so doing become eligible for additional responsibilities and commensurate pay. By differentiating salaries according to teachers' talents and job responsibilities, career ladder systems afforded teachers an alternative to more traditional compensation structures, which tend to base salaries almost solely on teachers' level of education and years of experience. Similarly, merit pay programs were designed to reward teachers financially for their demonstrated ability in the classroom. In 2006–07, 12 states reported supporting pay-for-performance programs that provided teachers higher pay based on their students' academic progress. North Carolina's ABC Bonuses program, for example, promised teachers $750 bonuses if their school met its student growth targets and $1,500 bonuses if their school exceeded those targets.

**In 2006–07, 41 states reported strategies to improve school working conditions, the most popular of which was to advance the quality of school or district leaders responsible for managing school operations (39 states).**

Recognizing the role of effective leaders in creating auspicious working environments, 39 states cited initiatives to strengthen the abilities of various school decision-makers, including principals, teacher leaders, and district superintendents. States' efforts to improve leadership quality tended to echo their efforts toward teacher quality in that they commonly involved enhancing certification policies, sponsoring principal mentoring opportunities, and organizing leadership development academies. Often, states used such policy changes and professional development activities to promote a set of state-endorsed leadership standards. Alabama, for example, required institutions of higher education to base their educator preparation programs on the Alabama Standards for Instructional Leaders so that certified school leaders would model the

[57]Data collection methods regarding states' involvement in teacher professional development changed between the SSI-*NCLB*'s 2004–05 and 2006–07 data collection periods. Whereas data on states' professional development activities in 2003–04 and 2004–05 were collected as part of the 2004–05 SSI-*NCLB* interview process, data on states' 2006–07 activities were primarily extracted from states' Highly Qualified Teacher Revised Plans.

state's definition of effective leadership. Though states often described their support for effective leadership as a means of improving the management of school teaching and learning conditions, states also acknowledged the stabilizing effect that skilled instructional leaders can have on school staff by fostering an atmosphere of collaboration and trust.

To further promote positive school climates, 17 of the 41 states undertaking efforts to improve school working conditions described activities to assist schools in developing more collegial and orderly operating cultures. Such efforts commonly involved activities to facilitate school-level support networks, such as professional learning communities. For instance, Louisiana highlighted its Learning-Intensive Networking Communities for Success (LINCS) program, which established infrastructures to provide with teachers ongoing, school-based professional development and support. Other state-level activities to improve school climate aimed to help educators manage social, behavioral, and emotional issues among their students.

States also reported policies and funding opportunities to improve school building facilities (five states) or instructional resources (12 states). For instance, Ohio noted its collaboration with the Ohio School Facilities Commission (OSFC) to provide funding and oversight to assist districts in ensuring all school buildings were clean and safe. To afford teachers adequate curricular and technological resources to support their instruction, states generally issued funding or mandates for local school systems to meet those needs.

## District-level retention strategies

**The majority of districts reported in 2006–07 that they used sustained mentoring, instructional coaching, collegial planning time, and financial incentives to retain highly qualified teachers.**

Like state-level retention strategies, district efforts to reduce teacher turnover often aimed to provide teacher support mechanisms and to promote professional communities among teachers. Districts' most frequently reported retention strategies in 2006–07 involved fostering collegial and supportive professional environments (88 percent) and providing mentoring or induction programs (79 percent). Over half of districts also reported using instructional coaching (64 percent) and financial incentives (63 percent) to retain highly qualified teachers, and about 40 percent of districts offered career enhancement opportunities (see Exhibit 34). The proportion of districts reporting sustained mentoring and instructional coaching programs (79 and 64 percent respectively) in 2006–07 represents a significant increase compared with two years before, when only 71 and 51 percent of the districts respectively reported using these strategies.

**Exhibit 34**
**Percentage of Districts Reporting Various Strategies to Retain Highly Qualified Teachers, 2004–05 and 2006–07**

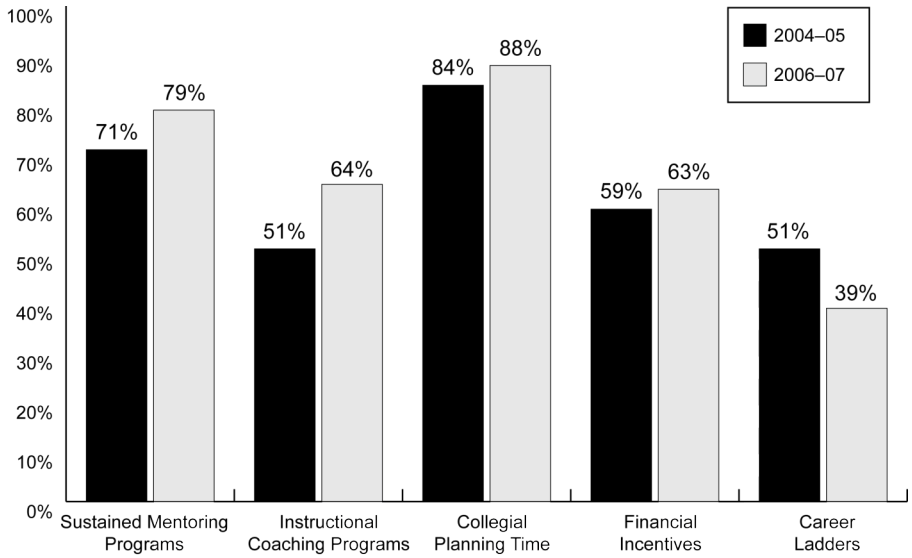



**Exhibit reads:** Seventy-one percent of districts reported in 2004–05 as using sustained mentoring programs to retain highly qualified teachers.

Note: n = 273 to 282.

Source: NLS-*NCLB*, District Survey.

### Almost all high-minority and urban districts offered instructional coaching and mentoring programs as strategies to retain highly qualified teachers.

With the exception of career ladders, the proportion of districts using these retention strategies varied by district characteristics. Virtually all high-poverty, high-minority, urban and large districts, for example, provided sustained mentoring or induction programs as a retention mechanism for highly qualified teachers, in contrast to less than three-quarters of low-poverty, low-minority, rural and small districts (see Exhibit 35). Furthermore, almost all high-minority and urban districts implemented instructional coaching or master teacher programs, but only about half of low-minority and rural districts did so.

Nearly all high-poverty, high-minority, urban and large districts (over 97 percent) offered collegial activities, such as common planning time, teacher networks or work groups, but low-poverty, low-minority, rural and small districts were less likely to do so (see Appendix Exhibit B.24). With regard to financial incentives, such as stipends for college course work, paid release time, and merit pay, more than 90 percent of high-minority districts and 80 percent of urban districts offered such incentives, in contrast with about 60 percent of low-minority districts and just over 50 percent of rural districts.

**Exhibit 35**
**Percentage of Districts Using Sustained Mentoring or Instructional Coaching to Retain Highly Qualified Teachers, 2006–07**

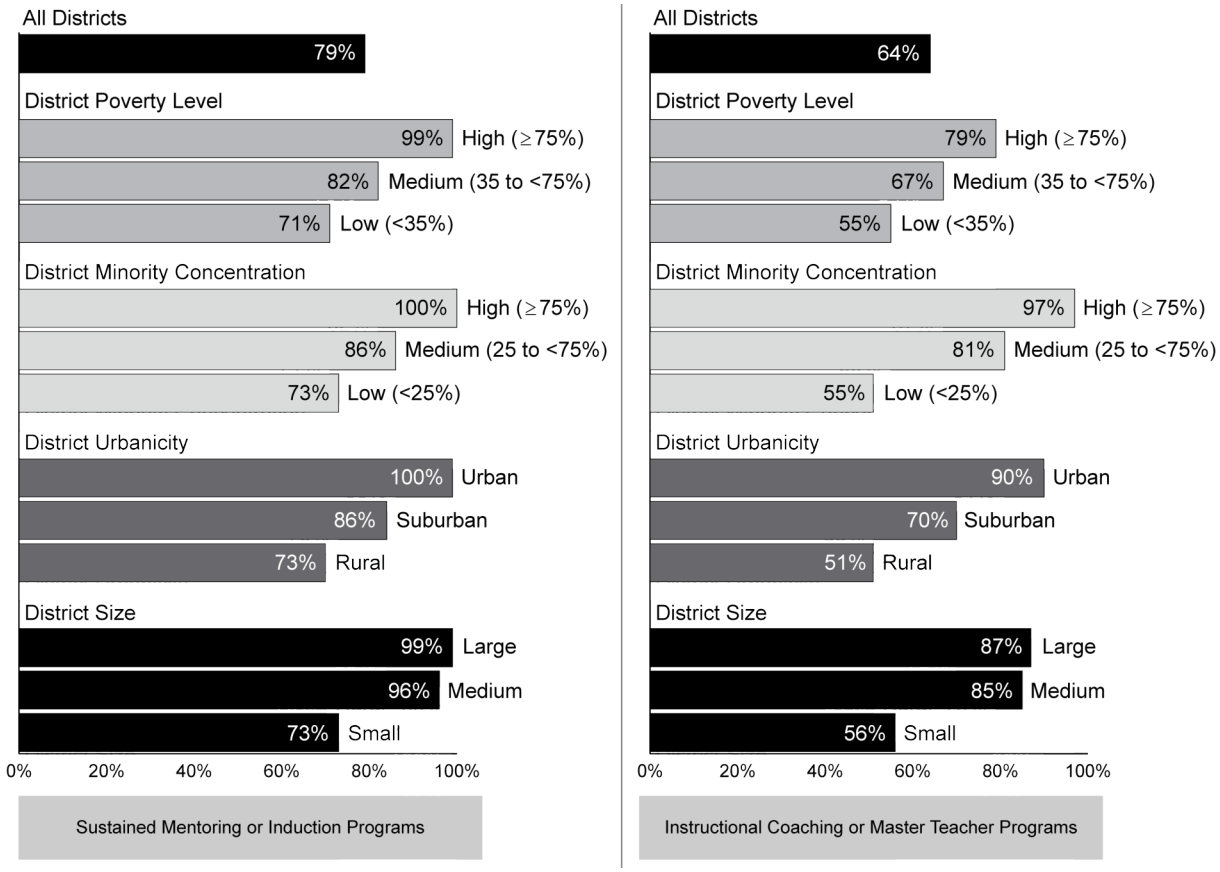



**Exhibit reads:** Seventy-nine percent of districts reported in 2006–07 they used sustained mentoring programs to retain highly qualified teachers.

Note: n = 273 to 282.

Source: NLS-*NCLB*, District Survey.

## TECHNICAL ASSISTANCE FOR IMPROVING TEACHER QUALIFICATIONS

## Technical assistance provided by states

**All states reported providing technical assistance to districts in 2006–07 to help them reach the goal of having 100 percent highly qualified teachers.**

Under *NCLB*, states must provide assurances in their Title I plans that the state education agency will carry out a statewide system of technical assistance to local education agencies (Title I, Part A, Section 1111(c)(3)). In 2006–07, all states reported providing technical assistance to districts to help them achieve their teacher quality goals. Most states also provided technical assistance in recruitment and retention (46 states and the District of Columbia),

assisted districts in evaluating or monitoring their strategies (44 states and the District of Columbia) and spent time explaining highly qualified teacher requirements to their districts (44 states). Nearly half of states (23 states and Puerto Rico) instructed districts on how to collect, analyze, and report on data, and about one-third (18 states) helped districts conduct needs assessments. Fewer states helped districts determine how to use funds (12 states) or provided technical assistance on other topics (4 states).

States varied little in the methods they used to deliver technical assistance on teacher quality. Most states reported offering training sessions or conferences (44 states and Puerto Rico), providing one-on-one consultation (44 states), providing written guidance or developing rubrics or templates (38 states and the District of Columbia), and providing technical assistance during monitoring visits (39 states and the District of Columbia). Twenty-four states provided technical assistance through a regional support system. On average, states that used a regional system of support for technical assistance had a higher percentage of highly qualified teachers than states that did not use such a system.[58] States that used a regional support system for technical assistance also tended to be larger in size and have more districts than states that did not use a regional support system.[59]

Other geographically larger states employed a strategy of personal attention at the district, school, or teacher level. For example, Idaho created a strategy that involved intensive work between state officials and districts to create and implement a plan to reach the goal of 100 percent highly qualified teachers. "Because Idaho's percentage of non-HQ teachers is 0.67 [percent], the State Department of Education is able to work with districts collaboratively to determine focused, one-on-one technical assistance, programs, and services."[60] Some geographically small states also chose a hands-on approach to technical assistance. In Vermont, administrators felt that because of the state's small size, direct contact between state staff and teachers was possible and they were "constantly on the phone" with superintendents to discuss the status of teachers and classes (SSI-*NCLB* Vermont interview 2006).

### Seven states created a multitiered triage system to deliver priority technical assistance to districts most in need.

In 2004–05, only 29 states used their data on teacher quality to target technical assistance, but in their revised teacher quality plans, all states were required to outline technical assistance to special groups for the 2006–07 school year. States had to describe how the staffing needs of schools and districts that had not made AYP would be given priority and how they would address the needs of the subgroups of teachers identified in the state as having large proportions or numbers of teachers who were not highly qualified. Seven states took this a step further and developed a triage system whereby districts, schools, or core content areas were categorized by their percentages of highly qualified teachers and other factors.[61]

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[58] The difference is marginally significant ($p<.10$) based on a t test.

[59] A chi-square test showed that the relationship between the number of districts and whether the state used a regional support system is marginally significant ($p=0.078$). The relationship between state size and whether the state used a regional support system is significant at the .05 level ($p=0.026$).

[60] Available at: http://www.ed.gov/programs/teacherqual/hqtplans/id.doc.

[61] To be counted here, states had to have included percentages of highly qualified teachers in their determination of a multitiered triage system. Other states described increasing technical assistance related to AYP accountability, but it was not always clear what role technical assistance to increase highly qualified

For example, in both South Carolina and Tennessee, districts and schools with 40 percent or more of classes taught by teachers who were not highly qualified were classified as Priority 1; 25–40 percent of classes taught by non–highly qualified teachers were Priority 2; 15–25 percent of classes taught by non–highly qualified teachers were Priority 3. Tennessee also provided lists of schools with their priority classifications to the nine regional Field Service Centers, whose *NCLB* consultants used the list to prioritize technical assistance to schools in their area. South Carolina prioritized technical assistance and monitoring visits based on districts' and schools' priority classifications.

States that did not create a triage system based on percentages of highly qualified teachers followed more general priorities. States planned to give priority for technical assistance to schools and districts not making AYP, those that had the highest numbers of non–highly qualified teachers, or those in which the percentage of non–highly qualified teachers was higher than a state-determined threshold.

## Technical assistance for recruitment and retention

In 2006–07, state-provided technical assistance for recruitment and retention most often involved issuing guides, online tools, or presentations to highlight research-based best practices for recruiting, hiring, and retaining teachers (reported by 25 states). Twenty states and the District of Columbia reported offering direct support to help districts select and implement strategies that could meet their particular staffing needs, and most of those states (15 and the District of Columbia) mentioned targeting this individualized support to districts with hard-to-staff areas. Fifteen states and the District of Columbia noted how districts' recruitment and retention practices were reviewed as part of their highly qualified teacher or district improvement planning processes. Finally, 20 states described providing training or assistance on specific recruitment or retention strategies, such as alternate routes to certification, job bank systems, induction programs, or financial incentive opportunities.

**Just over 15 percent of districts reported needing technical assistance for recruiting and retaining highly qualified teachers, with high-poverty, urban, and large districts most likely to report such a need.**

Only 16 percent of districts said they needed assistance in recruiting and retaining teachers. High-poverty districts (40 percent), urban districts (49 percent), and large districts (43 percent), however, were more likely to report this need than low-poverty districts (9 percent), suburban or rural districts (12 percent and 14 percent respectively), and small districts (8 percent) (see Appendix Exhibit B.25). Although only 28 percent of districts reported having received technical assistance from an outside source (federal, state, or independent sources) regardless of need, over half of large districts (57 percent) reported having received it, compared with only 20 percent of small districts. More than 80 percent of districts that received technical assistance found it to be sufficient.

teachers would play. West Virginia did relate the two, describing increasing technical assistance, including for highly qualified teachers, for schools and districts in each year of AYP accountability. However, the triage determination was made by AYP status, not highly qualified teacher status. All data were drawn from revised state plans for highly qualified teachers, available at: http://www.ed.gov/programs/teacherqual/hqtplans/index.html.

**In 2006–07, schools identified for improvement, high-poverty schools, and high-minority schools were more likely to report needing technical assistance to recruit and retain highly qualified teachers than were other schools.**

Overall, one-third of schools reported they were in need of technical assistance from an outside source to support their recruitment and retention efforts, while almost half (48 percent) reported that they received technical assistance in this area regardless of need. The overwhelming majority of schools (88 percent) that received the technical assistance found it sufficient (see Appendix Exhibit B.26).

There were differences by school characteristics in the need, receipt and sufficiency of technical assistance in the areas of recruitment and retention. More than half (55 percent) of the principals of schools identified for improvement in 2004–05 reported a need for state or district technical assistance during the 2005–06 and 2006–07 school years, compared with 30 percent of principals in schools not identified for improvement. Moreover, high-poverty and high-minority schools were more than twice as likely to report this need as were low-poverty and low-minority schools (see Appendix Exhibit B.26).

With regard to receiving technical assistance, more than 60 percent of schools identified for improvement (63 percent) and of high-poverty schools (63 percent) received technical assistance for recruitment and retention purposes, compared with 45 percent of schools not identified for improvement and 41 percent of low-poverty schools. Similar to the district data, a great majority of principals who received technical assistance (88 percent) found it sufficient, and there were no significant differences across school types (see Appendix Exhibit B.26).

## ACTIONS TOWARD TEACHERS WHO WERE NOT HIGHLY QUALIFIED

**Overall, a minority of districts reported providing targeted assistance for teachers who were *not* considered highly qualified; however, most large districts reported offering such support in 2006–07.**

In addition to efforts to recruit and retain highly qualified teachers, some districts and schools provided targeted support to teachers who were not highly qualified to meet state criteria for highly qualified teachers. About one-third of districts (34 percent), for example, provided increased amounts of professional development to those teachers, and a little less than one-quarter of all districts (23 percent) required new, not-yet-highly-qualified, teachers to participate in an induction or mentoring program. Furthermore, 18 percent of districts assigned teachers who were not highly qualified to an instructional coach or master teacher, and 15 percent provided such teachers with incentives (e.g., money, time, career enhancement opportunities) to improve their qualifications. Very few districts transferred teachers who were not highly qualified to other schools (4 percent) or dismissed these teachers (7 percent).

In general, high-poverty, medium-minority, and large districts were most likely to offer targeted assistance to teachers who were not highly qualified. About half of high-poverty and medium-minority districts (47 percent each) and over two-thirds of large districts (74 percent), for instance, required newly hired, not-yet-highly-qualified, teachers to participate in induction or mentoring programs, compared with fewer than 15 percent of low-poverty, low-minority and small districts (see Exhibit 36). Similarly, more than 40 percent of high-poverty districts, about

one-third of medium-minority districts, and about two-thirds of large districts reported assigning teachers who were not highly qualified to an instructional coach or master teacher, compared with roughly 10 percent of low-poverty, low-minority and small districts.

**Exhibit 36**
**Percentage of Districts Assigning an Instructional Coach for Teachers Who Were Not Highly Qualified or Requiring Participation of Newly Hired Teachers in Mentoring Programs, by District Characteristics, 2005–07**

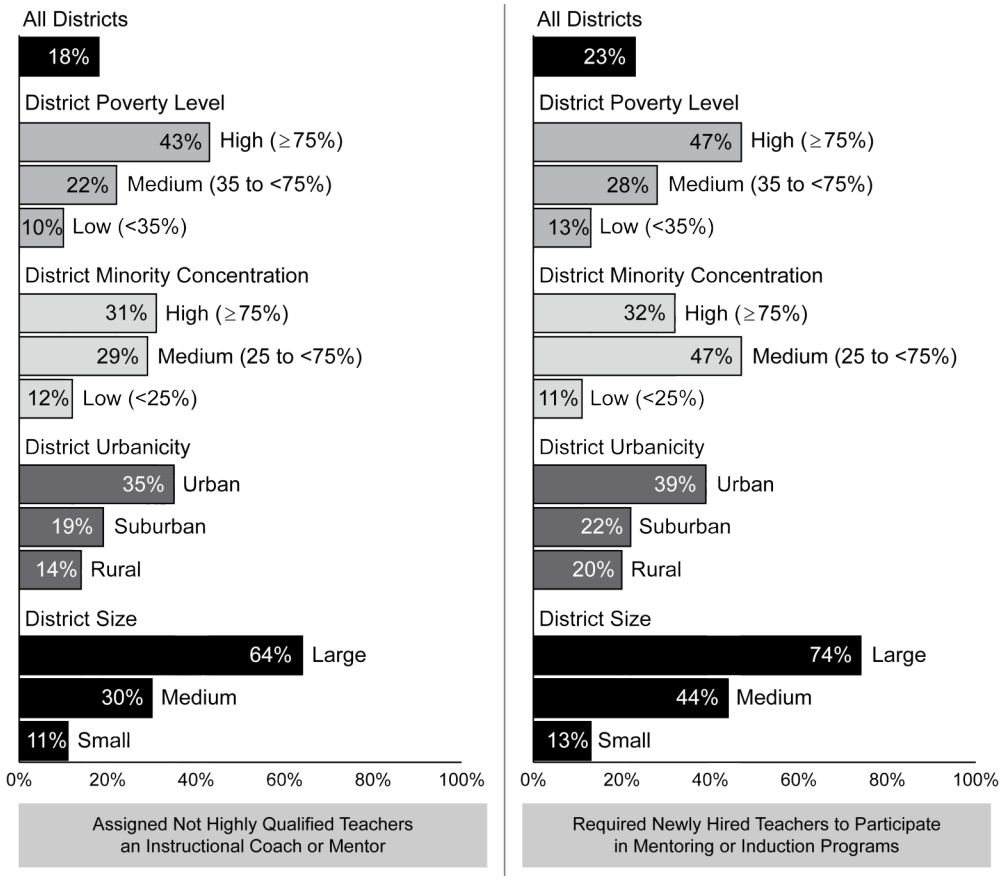



**Exhibit reads:** Eighteen percent of districts reported during 2006–07 that they assigned teachers who were not highly qualified an instructional coach or mentor during the 2005–06 or 2006–07 school year.

Note: n = 261 to 274.

Source: NLS-*NCLB*, District Survey.

Though a small proportion of districts reported transferring teachers who were not highly qualified based upon review of their qualifications, more than 10 percent of high-poverty, medium-minority and large districts reported taking such actions, compared with only about 1 percent of low-poverty, low-minority and small districts. Districts also rarely reported dismissing teachers who were not highly qualified in 2006–07, but high-poverty and medium-poverty districts (20 percent each) and large districts (17 percent) were much more

likely than low-poverty and low-minority districts (less than 5 percent each) and small districts (6 percent) to report such dismissals (see Appendix B.27).

### Compared with 2004–05, principals were more likely in 2006–07 to report offering increased amounts of professional development and providing incentives to increase qualifications for teachers who were not highly qualified.

Among principals of schools with teachers who were not highly qualified, 87 percent reported in 2006–07 that they provided these teachers with increased amounts of sustained, intensive, content-focused professional development. Almost three-quarters of principals reported assigning an instructional coach or master teacher, and about two-thirds provided incentives for teachers to increase their qualifications, such as money, release time or career enhancement opportunities (see Exhibit 37).

**Exhibit 37**
**Percentage of Schools Providing Support for Teachers Who Were Not Highly Qualified, Among Schools With Teachers Who Were Not Highly Qualified, 2003–05 and 2005–07**

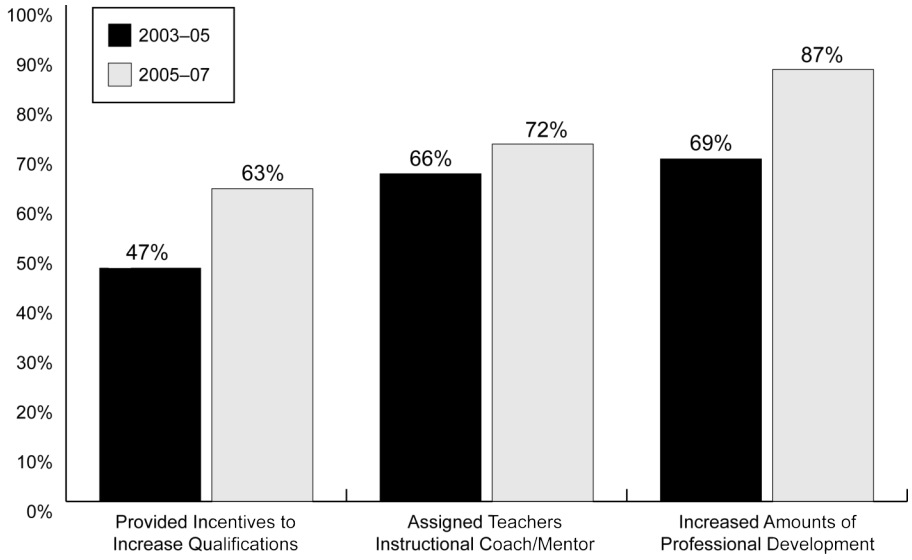



**Exhibit reads:** Forty-seven percent of schools with teachers who were not highly qualified provided such teachers with incentives in the 2003–04 or 2004–05 school year to increase their qualifications.

Note: n = 330 to 338.

Source: NLS-*NCLB*, Principal Survey.

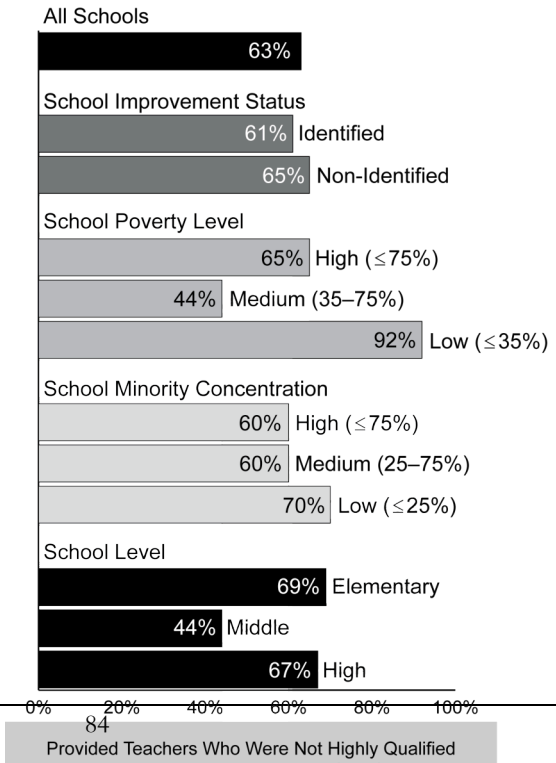
The degree to which principals reported providing some of these types of support and incentives differed between the 2004–05 and 2006–07 school years. For example, among schools with teachers who were not highly qualified, the proportion of principals who reported providing incentives, such as money, release time or career enhancement opportunities, increased by about one-third over this time period, from 47 percent to 63 percent. Principals were also more likely

in 2006–07 than in 2004–05 to report offering increased amounts of sustained, intensive and content-focused professional development to teachers who were not highly qualified. Almost 90 percent of principals in schools with teachers who were not highly qualified reported providing professional development to these teachers in 2006–07, compared to just below 70 percent in 2004–05.

### Principals in high-poverty and high-minority schools were more likely to report assigning instructional coaches, while principals in low-poverty schools were more likely to report providing incentives for teachers to increase their qualifications.

In addition to differences over time, there were differences by school characteristics in 2006–07 as to whether principals provided these types of supports for teachers who were not highly qualified. Though overall about three quarters of principals in schools with teachers who were not highly qualified assigned such teachers an instructional coach or mentor, principals in high-poverty (88 percent) and high-minority (90 percent) schools were more than twice as likely as principals in low-poverty (44 percent) and low-minority schools (40 percent) to designate coaches to teachers who were not highly qualified (see Appendix Exhibit B.28). On the other hand, more than 90 percent of principals in low-poverty schools with teachers who were not highly qualified reported offering incentives such as money or release time to those teachers to increase their qualifications. This was considerably higher than the proportion of principals in medium- and high-poverty schools who reported providing such incentives (44 percent and 65 percent, respectively) (see Exhibit 38).

**Exhibit 38**
**Percentage of Schools Providing Teachers Who Were Not Highly Qualified With Incentives to Increase Their Qualifications, Among Schools With Teachers Who Were Not Highly Qualified, by School Characteristics, 2005–07**



### Compared with the 2004–05 school year, principals in 2006–07 were almost twice as likely to report arranging for the transfer or dismissal of teachers who were not highly qualified.

In addition to providing support and incentives for teachers who were not highly qualified, schools reported whether they made staffing adjustments—such as reassignments, reducing teaching loads, transfer or dismissals—based upon review of teachers' qualifications. Half of the schools with teachers who were not highly qualified in 2006–07 reported reassigning those teachers to other subjects (see Exhibit 39). About 20 percent reduced the teaching loads or arranged for the transfer or dismissal of these teachers, which was a notable increase from 2004–05, when only 12 percent of principals reported taking these actions. Reassignment of teachers who were not highly qualified to other subjects did not increase as much proportionally as transfer or dismissal between 2004–05 and 2006–07, and the percentage of principals reducing teaching loads stayed relatively the same over this time period.

**Exhibit 39**
**Percentage of Schools Making Staffing Adjustments for Teachers Who Were Not Highly Qualified, Among Schools With Teachers Who Were Not Highly Qualified, 2003–05 and 2005–07**

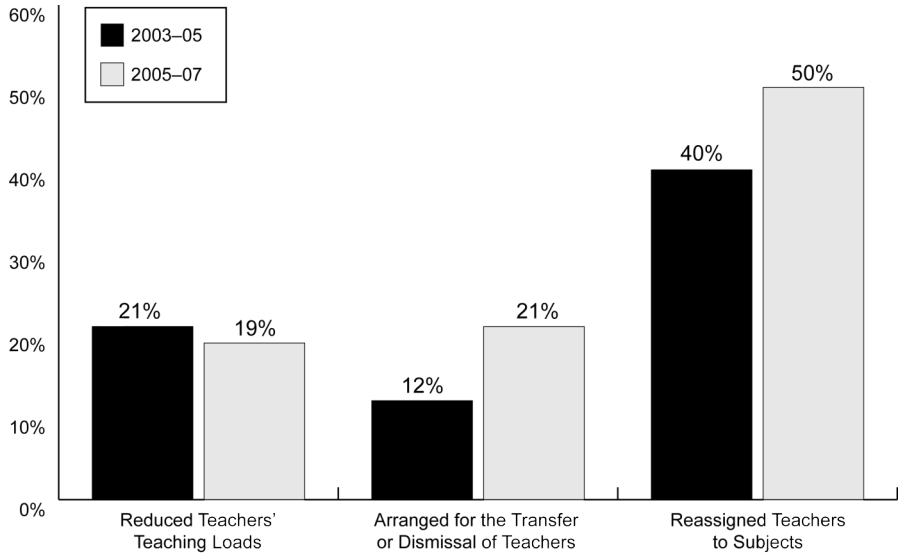



**Exhibit reads:** Twenty-one percent of schools reduced the teaching loads of teachers who were not highly qualified in the 2003–04 or 2004–05 school year.

Note: n = 328 to 338.

Source: NLS-*NCLB*, Principal Survey.

### In 2006–07, more than one-third of principals in high-minority, high-poverty and schools identified for improvement arranged for the transfer or dismissal of teachers who were not highly qualified.

Similar to the supports and incentives that principals provided to teachers who were not highly qualified, there were also differences by school characteristics regarding staffing adjustments in

2006–07. While only about 20 percent of principals in schools with teachers who were not highly qualified reported making arrangements to transfer or dismiss such teachers, approximately 35 percent of principals in schools identified for improvement and high-poverty and high-minority schools made such arrangements. These levels were substantially higher than those reported by principals in schools not identified for improvement (15 percent) and principals in low-poverty (6 percent) and low-minority schools (9 percent) (See Exhibit 40).

Though only about 20 percent of principals in schools with teachers who were not highly qualified reported reducing the teaching loads of these teachers in 2006–07, high-minority schools (30 percent) and schools identified for improvement (35 percent) were more than twice as likely as were low-minority schools (10 percent) and schools not identified for improvement (15 percent) to do so.

## DISCUSSION

Districts continued to face considerable challenges in staffing all classrooms with highly qualified teachers during the 2006–07 school year. Workforce barriers such as inadequate teacher salaries, competition with other districts and large numbers of retiring highly qualified teachers continued to be at least as problematic as they were in 2004–05. Despite reductions in the percentage of districts reporting challenges in attracting qualified applicants in reading and mathematics between 2004–05 and 2006–07, approximately half of districts reported that it was a challenge to staff all math classrooms with highly qualified teachers in 2006–07. Many of these challenges were much more severe in high-need districts, with a much higher proportion of high-minority, large and urban districts facing these difficulties than low-minority, small and suburban districts.

**Exhibit 40**
**Percentage of Schools That Arranged for Transfer or Dismissal of Teachers Who Were Not Highly Qualified, 2005–07**

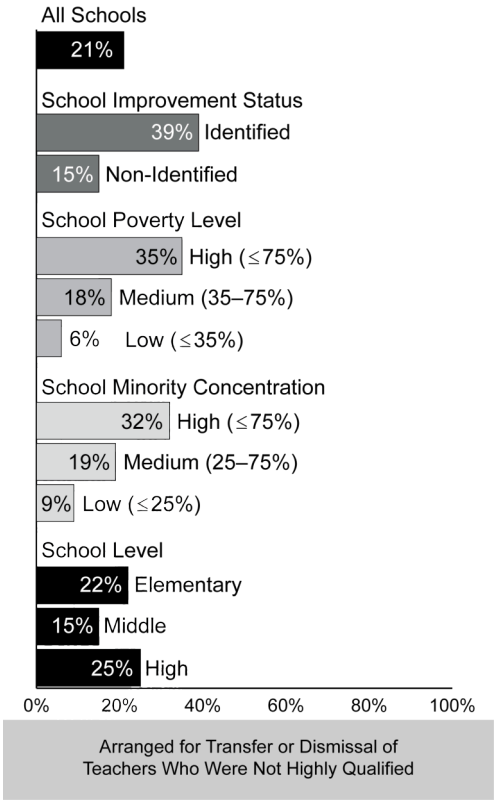



**Exhibit reads:** Twenty-one percent of schools with teachers who were not highly qualified arranged for the transfer or dismissal of such teachers in the 2005–06 or 2006–07 school year.

Note: n = 336.

Source: NLS-*NCLB*, Principal Survey.

In response to these challenges, states reported numerous activities to build their statewide supply of highly qualified teachers and to attract such teachers to hard-to-staff schools and subject areas. All states, the District of Columbia, and Puerto Rico described using alternate routes to certification to increase districts' pool of highly qualified teachers. Other state-level

strategies to recruit highly qualified teachers included activities to facilitate teacher credentialing procedures, activities to publicize state teaching opportunities, and activities to offer teachers enhanced financial support.

Districts—particularly high-poverty, high-minority, and large districts—also employed a variety of strategies to recruit highly qualified teachers. About half of the districts reported establishing partnerships with higher education institutions, streamlining the hiring process, and targeting recruitment efforts in hard-to-staff subject areas during the 2006–07 school year. To a lesser extent, they offered financial incentives and provided alternate routes to certification. Compared with the 2004–05 school year, a greater proportion of districts reported using various recruitment strategies during the 2006–07 school year, with high-need districts generally more likely to use these strategies than other districts. There was also an increase in state recruitment activities. All 50 states, the District of Columbia and Puerto Rico reported activities to expand the supply of highly qualified teachers in 2006–07, compared with 42 states and the District of Columbia in 2003–04.

State-level strategies to promote teacher retention often focused on providing teacher support structures, such as mentoring or professional development opportunities to better prepare teachers for their daily work in the classroom. States also encouraged teacher retention and growth by offering career advancement and recognition opportunities and by promoting positive school working conditions. Similarly, district retention strategies, which were more commonly reported than district recruitment strategies during the 2006–07 school year, included offering collegial learning activities, sustained mentoring or induction programs, financial incentives, instructional coaching or master teacher programs, and career ladders. With the exception of career ladders, these strategies were used by most of the districts, particularly high-poverty, high-minority, urban, and large districts. As was true with recruitment strategies, districts were more likely to report using retention strategies, sustained mentoring or induction, and instructional coaching, in 2006–07 than they were in 2004–05.

Although 46 states and the District of Columbia reported providing technical assistance to districts to help with the recruitment and retention of highly qualified teachers in 2006–07, only 15 percent of districts reported needing such assistance, and only about one-third of those districts received it. High-poverty, urban, and large districts were more likely to report needing such assistance. One-third of schools also reported needing technical assistance in the recruitment and retention of highly qualified teachers, and schools identified for improvement, high-poverty schools, and high-minority schools were especially likely to report such a need. Almost half of the schools reported that they had received technical assistance regardless of need, and nearly all districts and schools that received technical assistance found it to be sufficient.

In addition to efforts targeted at highly qualified teachers, districts and schools also provided various types of support to teachers who were not highly qualified. District-reported support for such teachers included assigning an instructional coach, providing sustained mentoring or induction programs, offering increased amounts of professional development, and offering incentives for teachers to improve their qualifications. Although a minority of districts reported providing these forms of targeted assistance, large and high-poverty districts were more likely to report providing such assistance than other districts. The majority of schools also reported providing targeted support to teachers who were not highly qualified, and such support was more common among high-poverty and high-minority schools than among other schools. To a lesser extent, schools reported making staffing adjustments regarding teachers who were not

highly qualified, such as reassigning those teachers to other subjects, transferring them to other schools, or dismissing them. Very few districts, however, made such staffing adjustments.

# V. PROFESSIONAL DEVELOPMENT FOR TEACHERS

Under *NCLB*, schools are held accountable for ensuring that all students reach proficiency on state assessments by 2013–14, so it is vital that teachers have the knowledge and skills needed to teach effectively. *NCLB* makes professional development a key strategy for improving teachers' knowledge and skills. It requires Title I schools identified for improvement under *NCLB* to spend at least 10 percent of their Title I funds on professional development or other strategies that directly support teachers—requirements that continued from the previous reauthorization of *ESEA*. Several other *NCLB* programs authorize the use of funds for professional development, ranging from large formula programs such as Title II, Part A, to a variety of smaller discretionary programs (see Chapter I for details).

The quality of the professional development that teachers receive is critically important if professional development is to have the intended effects of improving instruction and student learning. *NCLB* supports professional development for all teachers regardless of their highly qualified status; therefore, the current chapter examines professional development experienced by all teachers.

## Key Findings

- The majority of teachers reported that they participated in professional development that focused on instructional strategies for teaching reading and mathematics or in-depth study of topics in reading and mathematics. A relatively small proportion of teachers, however, reported participating in these content-focused professional development activities for more than 24 hours in 2005–06.
- Teachers were much more likely to report participation in professional development focused on instructional strategies for teaching reading and mathematics than in professional development focused on in-depth study of topics in these subjects.
- Elementary teachers in schools identified for improvement, high-poverty schools, and high-minority schools were more likely to report participating in more than 24 hours of professional development that focused on instructional strategies for teaching reading and mathematics than were elementary teachers in other schools.
- Fewer than half of teachers reported that they participated in professional development that often involved active learning opportunities. Professional development involving active learning was more common for teachers in schools identified for improvement, high-poverty schools, and high-minority schools.
- Most teachers reported that their professional development activities were often consistent with standards, assessments, and improvement plans, but fewer than one in five teachers reported that their activities often built on what they had learned in earlier professional development experiences.
- The percentage of special education teachers who reported participating in professional development focused on instructional strategies for teaching reading and mathematics increased between 2003–04 and 2005–06.

## HIGH-QUALITY PROFESSIONAL DEVELOPMENT UNDER *NCLB*

Professional development, as defined under *NCLB,* includes activities that, among other things:

> "Are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom; and are not 1-day or short-term workshops or conferences …." (*Title IX,* Section 9101(34)).

According to the law, professional development also includes activities that improve and increase teachers' knowledge of the academic subjects they teach and enable teachers to become highly qualified. It further includes activities that advance teachers' understanding of effective instructional strategies and activities that are an integral part of broad schoolwide and districtwide education improvement plans.

## RESEARCH ON PROFESSIONAL DEVELOPMENT

Research suggests that the features of professional development promoted by *NCLB* are related to self-reported changes in classroom practice (Desimone, Porter, Garet, Yoon, and Birman, 2002; Garet, Porter, Desimone, Birman, and Yoon, 2001); professional development that emphasizes content knowledge may also be correlated with changes in student achievement (Cohen and Hill, 1998; Kennedy, 1998).[62] Specifically, studies of the former Eisenhower Professional Development Program conducted by Garet et al. (2001) found that three core features of professional development activities were related to teachers' self-reported increases in knowledge and skills and changes in classroom practice. These core features include (1) a focus on teachers' knowledge of curricular content in their subject(s); (2) opportunities for active learning (e.g., observing classroom instruction, being observed while teaching a lesson, or reviewing student work); and (3) coherence with other learning activities. The following three structural features were related to the core features: (1) the duration of the activity, in terms of both the number of contact hours and span of time over which the activities were spread; (2) the form of the activity (e.g., workshop vs. study group); and (3) collective participation of teachers from the same school, grade, or subject. The following sections examine districts' and teachers' reports of the extent to which their professional development experiences included these core and structural features of professional development.

## CORE FEATURES OF PROFESSIONAL DEVELOPMENT

### Content focus

In both the *NCLB* definition of professional development and the research literature, an important aspect of professional development is its focus on academic content and content-specific instructional strategies. Furthermore, as all states that use a point system as part of their HOUSSE procedure allow teachers to count professional development hours toward their demonstration of required content knowledge, professional development focused on building teachers' content knowledge is at the core of the law's definition of a highly qualified teacher. In contrast to training focused mainly on processes for the delivery of instruction

[62] These and other existing studies generally were not designed to provide evidence of a causal impact of professional development on teacher or student outcomes.

(e.g., classroom management, use of technology, or planning), professional development focused on teachers' knowledge of academic subject matter and how students learn that content is more likely to be related to changes in classroom practice and enhanced student outcomes (Cohen and Hill, 1998; Corcoran, 1995; Kennedy, 1998; Garet, Porter, Desimone, Birman, and Yoon, 2001).

### About half of districts reported placing a major emphasis on professional development activities related to reading and mathematics, alignment of curriculum and instruction with standards, and analysis of student achievement data.

About half of districts reported that their district-supported professional development activities during 2005–06 placed a major emphasis on reading (52 percent) and mathematics (46 percent), the alignment of curriculum and instruction with standards (53 percent), and the analysis and interpretation of student achievement data (51 percent) (see Exhibit 41).[63] In contrast, only 10 percent of districts placed a major emphasis on professional development related to other academic subjects. Moreover, relatively few districts reported a major professional development emphasis on instructional strategies for teaching students with disabilities (17 percent) and for teaching LEP students (7 percent).

**Exhibit 41**
**Percentage of Districts That Reported Placing a Major Emphasis on Selected Professional Development Topics, 2005–06**

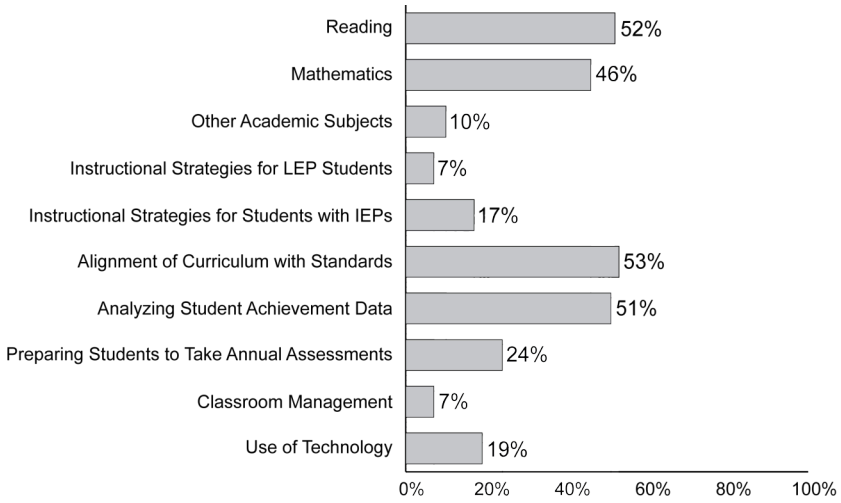



**Exhibit reads:** Fifty-two percent of districts placed a major emphasis on professional development activities related to reading during school year 2005–06.

Note: n = 272 to 277; only districts that responded to each topic item in both survey waves are included.

Source: NLS-*NCLB*, District Survey.

[63] While the other chapters in this report mainly discuss school year 2006–07, this chapter focuses on 2005–06. This is because survey respondents were asked about their professional development over the course of an entire school year, and 2005–06 was the most recently completed year at the time the survey was administered.

For the most part, districts' emphasis on each professional development topic in 2005–06 was similar to that in 2003–04. However, there was a decline in emphasis on academic subjects other than reading and mathematics (from 18 percent down to 10 percent). The percentage of districts that reported placing a major professional development emphasis on preparation of students to take annual assessments also declined, from 37 percent down to 24 percent. It is possible that the passage of time brought about greater familiarity with the assessment system, decreasing districts' perceived need to provide professional development on test preparation.

Districts with high proportions of minority students were more likely than other districts to report placing a major emphasis on each of several different professional development topics in 2005–06. For instance, 95 percent of high-minority districts reported a major emphasis on professional development in mathematics, as compared with 60 percent of medium-minority districts and 32 percent of low-minority districts. Differences in district emphasis on various professional development topics also existed between districts of different poverty levels (see Appendix Exhibit B.29). For example, 77 percent of high-poverty districts reported a major emphasis on professional development related to the alignment of curriculum and instruction with standards, as compared with 48 percent of low-poverty districts. Also, 59 percent of high-poverty districts reported a major professional development emphasis on preparation of students for annual assessments, as compared with 27 percent of medium-poverty districts and 14 percent of low-poverty districts.

Not surprisingly, the emphasis on professional development activities focused on instructional strategies for students of limited English proficiency varied by district proportion of LEP students. Among districts with a high concentration of LEP students (i.e., at least 7 percent of LEP students[64]), 31 percent reported that they placed a major emphasis on such professional development in 2005–06, compared with 3 percent of all other districts (see Appendix Exhibit B.30).

**The majority of teachers reported that they participated in professional development that involved instructional strategies for reading or mathematics or in-depth study of topics in reading or mathematics. They reported more hours of professional development on instructional strategies for teaching these subjects than on in-depth study of topics in these subjects.**

On average, elementary teachers reported more hours of professional development related to reading and mathematics than to other academic subjects, and more hours spent on instructional strategies than in-depth study in these two subject areas.[65] Over the 12 months spanning the 2005–06 school year and the summer of 2006, elementary teachers averaged 19.6 hours of professional development on instructional strategies for teaching reading and 11.7 hours on the in-depth study of topics in the subject of reading. During the same period, elementary teachers

[64] We define districts with a high concentration of LEP students as districts with at least 7 percent of LEP students. This rule was made based on data from the 2004–05 district survey, which indicated that one third of the districts in our study sample had at least 7 percent of LEP students.

[65] The teacher survey did not define "in-depth study" of either reading or mathematics, but the intended meaning was activities designed to build content knowledge, i.e., foundational knowledge of the subject area. For reading, for instance, such foundational knowledge would include knowledge about language structure and the processes involved in learning oral and written language that teachers must possess in order to understand *what* they are teaching. In contrast, professional development that focuses on instructional strategies for teaching reading addresses pedagogical content knowledge of *how* to teach reading effectively.

reported participating in 10.1 hours of professional development on how to teach mathematics and 5.9 hours on in-depth study of topics in mathematics. They also averaged 5.9 hours on professional development focused on all other academic subject areas (see Exhibit 42).

**Exhibit 42**
**Mean Hours Teachers Spent in Professional Development Focused on Specific Topics, 2005–06**

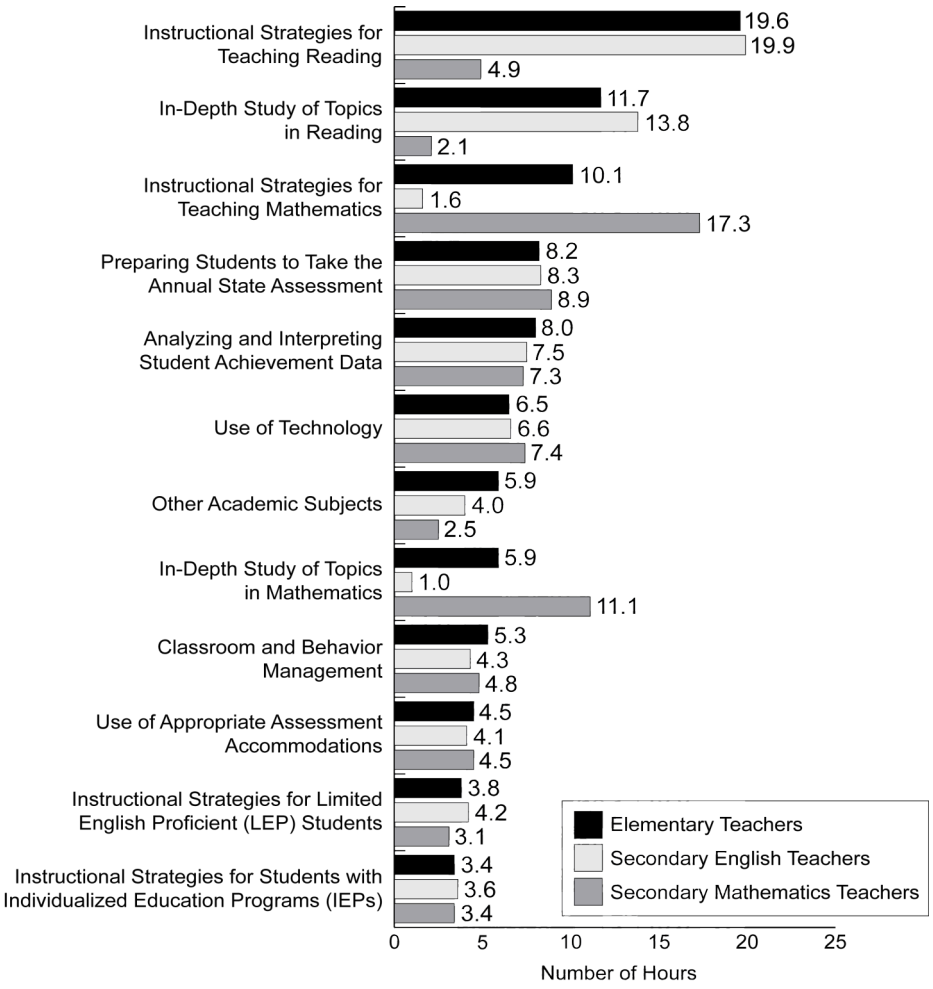



**Exhibit reads:** Elementary teachers spent an average of 19.6 hours in professional development focused on instructional strategies for teaching reading.

Note: Mean hours of professional development were calculated by recoding the original response categories (0, 1–5, 6–12, 13–24, 25–40, 41–80, more than 80 hours) to their midpoints (0, 3, 9, 18.5, 32.5, 60.5, 90 hours). n = 3,980 to 4,059 elementary teachers; 1,701 to 1,849 secondary English teachers; 1,691 to 1,707 secondary mathematics teachers.

Source: NLS-*NCLB*, Teacher Survey.

Secondary teachers, too, reported more professional development hours spent on instructional strategies than on in-depth study of their subject area. Secondary English teachers averaged 19.9 hours of professional development on instructional strategies for teaching English and

13.8 hours on in-depth study of English topics in 2005–06. Similarly, secondary mathematics teachers averaged 17.3 hours on instructional strategies for teaching mathematics and 11.1 hours on in-depth study of mathematics topics (see Exhibit 42).

### Teachers of LEP students participated in an average of 10.7 hours of professional development on instructional strategies for LEP students.

Teachers who receive professional development on how to teach students with limited English proficiency feel better equipped to teach these students (Gándara, Maxwell-Jolly, and Driscoll, 2005). Overall, general education teachers participated in an average of 3.8 hours of professional development on instructional strategies for students of limited English proficiency in 2005–06. However, general education teachers who taught LEP students participated in 10.7 hours of such professional development, compared with 2.7 hours for general education teachers who did not teach LEP students (see Appendix Exhibit B.32).[66] Similarly, 70 percent of the teachers of LEP students participated in at least one hour of professional development on instructional strategies for LEP students, and 12 percent participated in more than 24 hours of such professional development. The corresponding percentages for teachers who did not teach LEP students were 35 percent and 3 percent, respectively.

### The percentage of elementary teachers who reported participating in more than 24 hours of professional development on instructional strategies for teaching reading increased from 2003–04 to 2005–06.

Over the 2005–06 school year and the summer of 2006, 92 percent of elementary teachers and 91 percent of secondary English teachers reported that they participated in at least one hour of professional development focused on instructional strategies for teaching reading. However, research suggests that for professional development to provide a meaningful focus on content, longer, extended activities may be called for (Garet, Porter, Desimone, Birman, and Yoon, 2001; Torgeson et al., 2006). Nationally, over the 2005–06 school year, only about a quarter (26 percent) of elementary teachers reported participating in more than 24 hours of professional development focused on instructional strategies for teaching reading (see Exhibit 43).[67] This 26 percent, however, represented a significant increase from the 20 percent two years before. Among secondary English teachers, 26 percent reported participating in more than 24 hours of professional development on instructional strategies for reading in 2005–06, about the same as in 2003–04.

[66] Teachers of LEP students are defined as those who teach at least one of the following types of classes: (1) ESL class, (2) sheltered content class for students with LEP—regular academic content delivered using basic English, (3) bilingual class, and (4) class taught in student's primary language (other than English). Of all 7,394 general education teachers who took the 2006–07 survey, 1,391 are teachers of LEP students, and 6,003 are teachers of non-LEP students.

[67] The cut-off point of 24 hours was selected based on both the response options of the relevant survey question (i.e., 1–5 hours, 6–24 hours, 25–40 hours, 41–80 hours, and more than 80 hours) and findings from prior research. In a recent synthesis of studies of professional development programs, for example, Yoon, Duncan, Lee, Scarloss, and Shapley (2007) found that studies that involved over 30 hours of professional development showed a significant positive effect on student achievement and studies that involved fewer than 14 hours of professional development showed no significant effect on student achievement.

**The percentage of secondary mathematics teachers who reported participating in more than 24 hours of professional development on instructional strategies for teaching mathematics increased from 2003–04 to 2005–06. Meanwhile, the percentage of teachers who reported having *no* professional development on instructional strategies for teaching mathematics declined.**

**Exhibit 43**
**Percentage of Teachers Participating in Professional Development Focused on Instructional Strategies for Reading and Mathematics, 2003–04 and 2005–06**

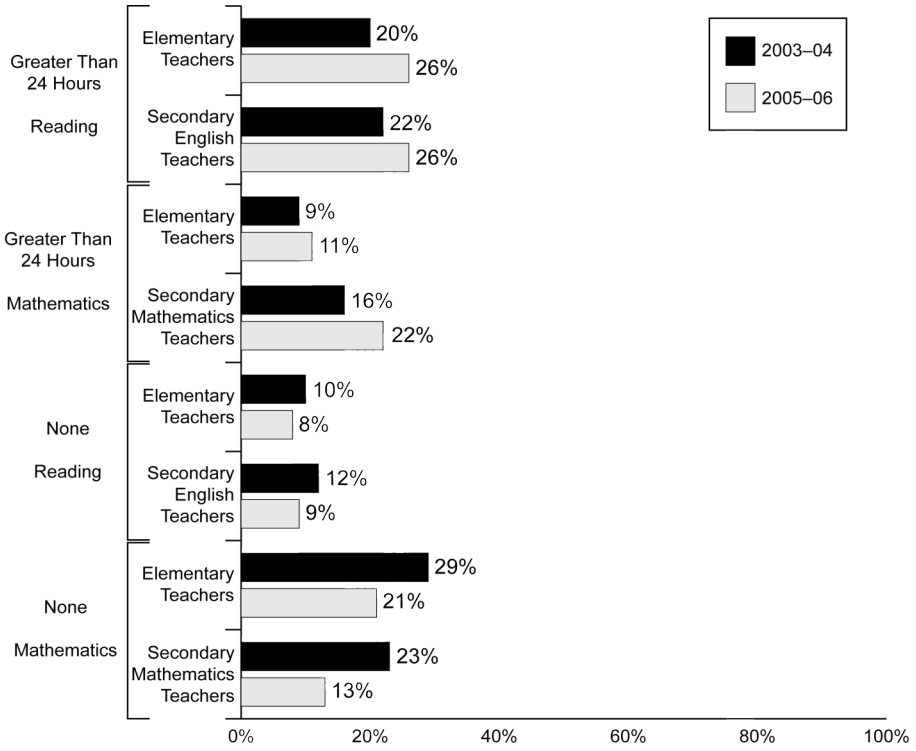



**Exhibit reads:** In 2003–04, 20 percent of elementary teachers reported that they received more than 24 hours of professional development focused on instructional strategies for teaching reading; in 2005–06, 26 percent of elementary teachers reported that they received more than 24 hours of such professional development.

**Note:** 2003–04: Reading n = 4,005 elementary teachers, 1,736 secondary teachers; mathematics n = 3,992 elementary teachers, 1,575 secondary teachers. 2005–06: Reading n = 4,047 elementary teachers, 1,790 secondary teachers; mathematics n = 4,043 elementary teachers, 1,699 secondary teachers.

Source: NLS-*NCLB*, Teacher Survey.

For professional development on instructional strategies for teaching mathematics, 11 percent of elementary teachers and 22 percent of secondary mathematics teachers reported that they participated in more than 24 hours of such professional development in 2005–06 (see Exhibit 43). Compared with 2003–04, there was no significant change for elementary teachers, but there was a significant increase for secondary mathematics teachers, from 16 percent to

22 percent. Moreover, the percentage of teachers who reported no professional development on instructional strategies in mathematics decreased for both elementary teachers (from 29 percent to 21 percent) and secondary mathematics teachers (from 23 percent to 13 percent) between 2003–04 and 2005–06.

**The percentage of secondary mathematics teachers who reported participating in more than 24 hours of professional development on in-depth study of topics in mathematics increased from 2003–04 to 2005–06, and the percentage who had none of this type of professional development declined.**

**Exhibit 44**
**Percentage of Teachers Participating in Professional Development Focused on In-Depth Study of Topics in Reading and Mathematics, 2003–04 and 2005–06**

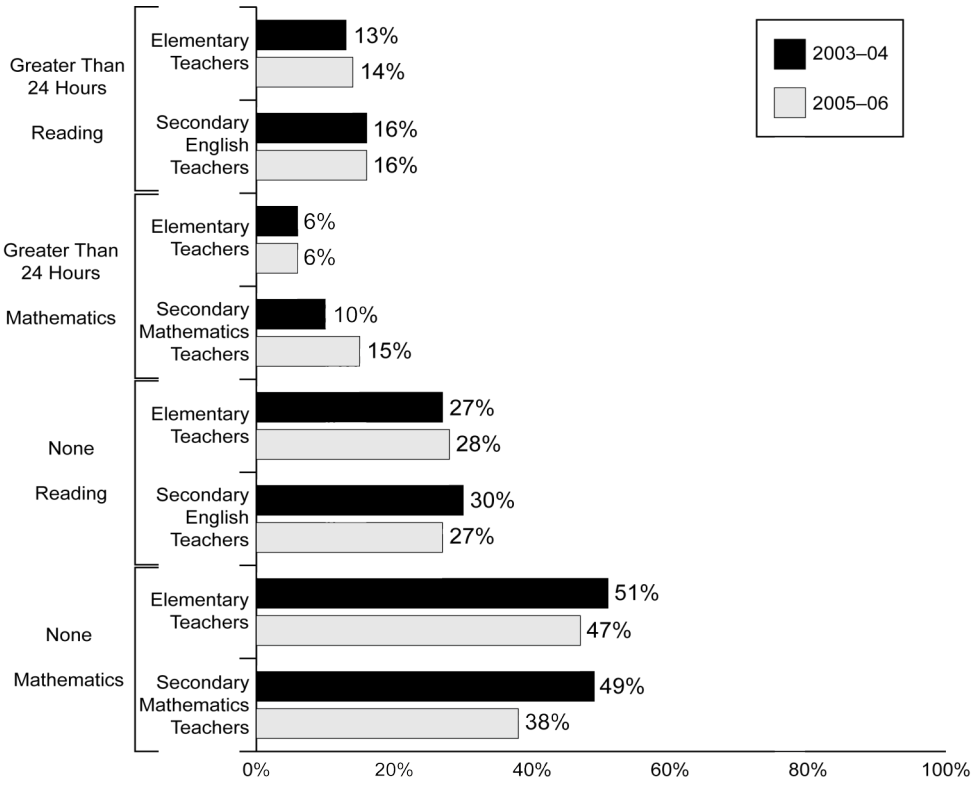



Exhibit reads: In 2003–04, 13 percent of elementary teachers reported that they received more than 24 hours of professional development focused on the in-depth study of topics in reading; in 2005–06, 14 percent of elementary teachers reported that they received more than 24 hours of such professional development.

Note: 2003–04: Reading n = 3,980 elementary teachers, 1,714 secondary teachers; mathematics n = 3,948 elementary teachers, 1,560 secondary teachers. 2005–06: Reading n = 4,007 elementary teachers, 1,776 secondary teachers; mathematics n = 3,980 elementary teachers, 1,694 secondary teachers.

Source: NLS-*NCLB*, Teacher Survey.

While the percentage of teachers who reported participating in more than 24 hours of professional development on in-depth study of topics in reading in 2005–06 was virtually identical to that in 2003–04 at both elementary (13 to 14 percent) and secondary (16 percent) levels, the percentage of secondary mathematics teachers who reported participating in more than 24 hours of professional development involving in-depth study of topics in mathematics increased significantly from 10 percent in 2003–04 to 15 percent in 2005–06 (see Exhibit 44). Meanwhile, the percentage of secondary mathematics teachers who reported *no* professional development on in-depth study of mathematics topics decreased from 49 percent in 2003–04 to 38 percent in 2005–06.

**Elementary teachers in schools identified for improvement, high-poverty schools, and high-minority schools were more likely to report participating in professional development that focused on instructional strategies for teaching reading and mathematics that lasted more than 24 hours than elementary teachers in other schools. This pattern, however, did not hold for secondary teachers.**

Among elementary teachers, a greater percentage of teachers in schools identified for improvement under *NCLB* reported that they participated in more than 24 hours of professional development in instructional strategies for teaching reading than teachers in schools not identified for improvement in 2005–06 (40 percent compared with 24 percent) (see Exhibit 45). The same was true for mathematics (18 percent compared with 11 percent) (see Appendix Exhibit B.35). Moreover, the percentages of elementary teachers who reported that they participated in such extended professional development in instructional strategies for teaching reading and mathematics were also higher in high-poverty schools than in low-poverty schools, and in high-minority schools than in low-minority schools (see Appendix Exhibit B.35). For reading, there was also a difference between urban schools and rural schools (32 percent compared with 22 percent).

**Exhibit 45**
**Percentage of Elementary Teachers Participating in More Than 24 Hours of Professional Development in Instructional Strategies for Teaching Reading, by Teacher, School and District Characteristics, 2005–06**

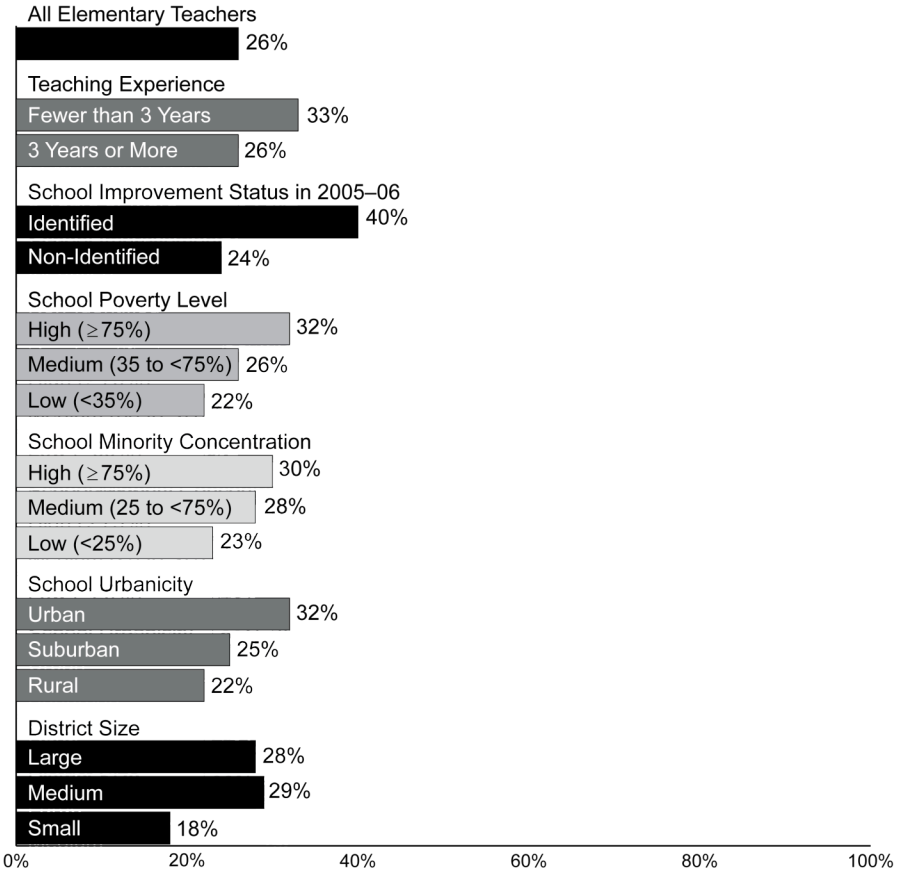



**Exhibit reads:** Twenty-six percent of elementary general education teachers participated in more than 24 hours of professional development on instructional strategies for teaching reading during the 2005–06 school year (including the summer of 2006).

Note: n = 4,047.

Source: NLS-*NCLB*, Teacher Survey.

The above pattern, however, did not hold at the secondary level. For middle school and high school teachers, there were no differences by school identification status or school poverty for professional development on instructional strategies for either reading or mathematics, but there were some differences by school minority concentration and school urbanicity (see Appendix Exhibit B.35).

Findings were similar with respect to professional development on in-depth study of subject area topics. Teachers in elementary schools identified for improvement were more likely to report participating for more than 24 hours in professional development on the in-depth study of reading topics in 2005–06: 24 percent of elementary teachers in schools identified for improvement as compared with 13 percent in schools not identified for improvement. Further, teachers in high-poverty and high-minority elementary schools were more likely to report more than 24 hours of professional development on in-depth study of reading than teachers in other elementary schools (see Appendix Exhibit B.36). For in-depth study of topics in mathematics, there was no difference between elementary teachers in identified schools and non-identified schools, but teachers in high-poverty and high-minority elementary schools were more likely to report that they received more than 24 hours of professional development in this area.

For in-depth study of reading and mathematics at the secondary level, there were no differences by school identification status, school poverty, or school minority for middle school teachers. There were a few differences among high school teachers, however. The percentages of high school English teachers reporting more than 24 hours of in-depth study of reading were higher in both high-minority schools (22 percent) and low-minority schools (21 percent) than in medium-minority schools (10 percent). The percentage of high school mathematics teachers reporting more than 24 hours of in-depth study of mathematics was higher in high-poverty schools (23 percent) than in low-poverty schools (10 percent).

### High percentages of teachers reported changing their teaching as a result of the professional development they experienced.

Among teachers who participated in professional development related to reading in 2005–06, 78 percent of elementary teachers and 74 percent of secondary English teachers reported that they had changed their teaching as a result of their participation in this professional development (see Exhibit 46).[68] Secondary English teachers with fewer than three years of experience were particularly likely to report that they had changed their teaching (89 percent as compared with 73 percent for more experienced secondary English teachers) (see Appendix Exhibit B.37).

Among participants in mathematics professional development, 62 percent of elementary teachers and 72 percent of secondary mathematics teachers reported that they had changed their teaching as a result of their participation (see Exhibit 46). Again, inexperienced secondary teachers were more likely to report an effect, with 85 percent of such participants reporting changed instructional practice, as compared with 69 percent for experienced secondary mathematics teachers (see Appendix Exhibit B.37). At the elementary level, teachers in schools identified for improvement (70 percent) were more likely than teachers in schools not identified for improvement (60 percent) to report changing their teaching as a result of participation in mathematics-related professional development. The same was true for teachers in high-poverty schools as compared to teachers in low-poverty schools (67 percent compared with 53 percent) and teachers in high minority schools as compared with teachers in low-minority schools (66 percent compared with 53 percent).

[68] It is unclear, however, whether instruction did change as reported and to what extent the changes, if any, were effective in improving student learning. According to prior research (e.g., Cohen, 1990), teachers tend to think that their instruction has changed more and in more meaningful ways than it actually has.

**Exhibit 46**
**Percentage of Teachers Who Reported Having Changed Their Teaching as a Result of Participation in Professional Development in Reading, Mathematics, and Various Topics, 2005–06**

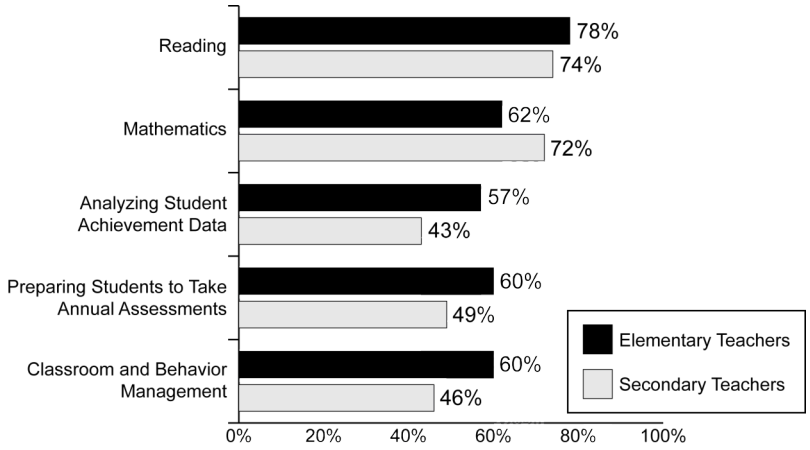



**Exhibit reads:** Among general education elementary teachers who participated in professional development on reading during school year 2005–06 (including the summer of 2006), 78 percent reported that they had changed their teaching as a result.

Note: n = 2,334 to 3,758 for elementary teachers. For reading, secondary teachers include secondary English teachers (n = 1,644). For mathematics, secondary teachers include secondary mathematics teachers (n = 1,530). For other subjects, all secondary teachers are included (n = 1,879 to 2,681).

Source: NLS-*NCLB*, Teacher Survey.

According to teachers' self-reports, professional development in non-academic-subject related areas, such as assessment and classroom management, appears to have had somewhat less of an effect on instruction, particularly for secondary teachers. For example, of secondary teachers who participated in professional development on analyzing and interpreting student achievement data, only 43 percent reported having changed their teaching as a result. However, the effect of this type of professional development on instructional practice would likely be indirect; the professional development would aim to help teachers learn to analyze data, and only as teachers became more adept at such analysis might they change their instruction as a result of their findings, rather than as a result of the professional development itself.

## Opportunities for active learning

### Fewer than half of teachers reported that they participated in professional development that often involved active learning opportunities.

According to research, professional development activities that engage teachers in the learning process by having them apply knowledge to real-world classroom tasks—referred to here as "active learning"—are more likely to facilitate instructional change on the part of teachers (Desimone, Porter, Garet, Yoon, and Birman, 2002). For the 2005–06 year, about one in five general education teachers reported that their professional development experiences often involved reviewing student work or scoring assessments. Similar percentage of teachers reported

that their professional development experiences often involved developing and practicing using student materials, practicing what they had learned and receiving feedback, or leading group discussions (see Exhibit 47). Fourteen percent reported participating in professional development activities in which participants conducted demonstrations of a lesson, unit or skill. However, for each of these five types of active learning activities, about two out of five teachers reported that the activity *sometimes* occurred during their professional development (see Appendix Exhibit B.38). Moreover, 44 percent of teachers reported that their professional development often involved at least one of these types of active learning activities.

Elementary teachers were more likely than high school teachers to report having taken part in professional development activities in which participants often engaged in at least one type of active learning, particularly reviewing student work or scoring assessments, developing and practicing using student materials, and practicing what they had learned and receiving feedback. There were no differences among elementary, middle, and high school teachers for either participants' often leading group discussions or for participants' often conducting a demonstration of a lesson, unit, or skill.

**Exhibit 47**
**Percentage of Teachers Whose Professional Development Experiences Often Involved Active Learning, 2005–06**

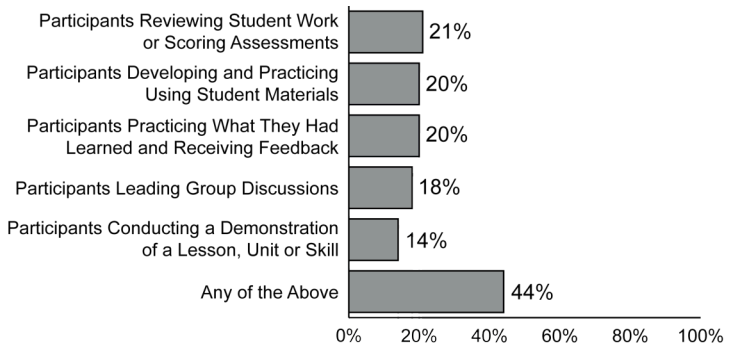



**Exhibit reads:** Twenty-one percent of general education teachers reported that their professional development activities (during the 2005–06 school year, including the summer of 2006) often involved participants reviewing student work or scoring assessments.

Note: n = 7,341 to 7,383.

Source: NLS-*NCLB*, Teacher Survey.

### Professional development experiences that often involved active learning were more common for teachers in identified schools, high-poverty schools, and high-minority schools than for teachers in other schools.

Teachers in identified schools were more likely than those in non-identified schools to report participating in professional development during the 2005–06 year that often involved developing and practicing using student materials (24 percent compared with 19 percent), practicing what they had learned and receiving feedback (24 percent compared with 19 percent), and leading group discussions (22 percent compared with 17 percent).

Differences in teachers' participation in professional development activities that often involved active learning were also present among schools of varying poverty levels. The percentage of teachers who had professional development experiences in which participants often reviewed student work or scored assessments was higher in high-poverty schools than in medium-poverty schools (25 percent compared with 19 percent). For the other four types of active learning

activities, teachers in high-poverty schools were more likely than teachers in both medium-poverty and low-poverty schools to report frequent occurrence of the activity in their 2005–06 professional development (see Exhibit 48). Overall, teachers in high-poverty schools were more likely than teachers in other schools to report having taken part in professional development activities in which at least one of the types of active learning often occurred.

**Exhibit 48**
**Percentage of Teachers Whose Professional Development Often Involved Active Learning, by School Poverty Level, 2005–06**

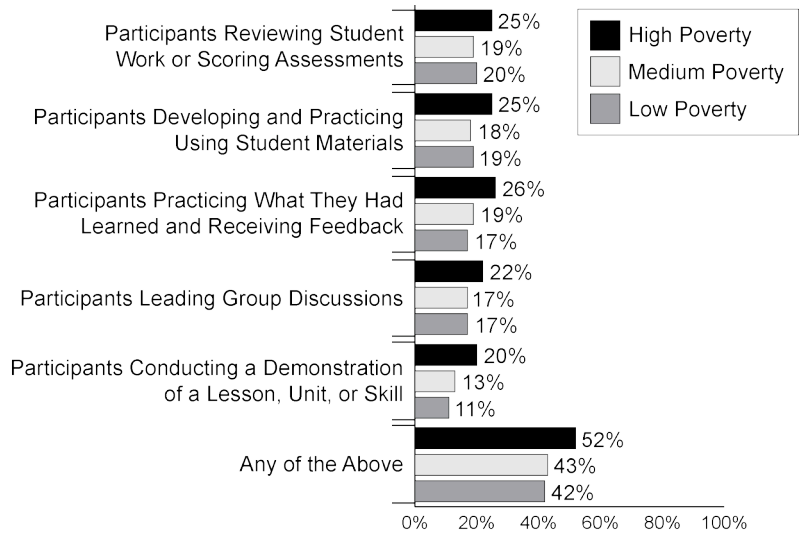



**Exhibit reads:** Twenty-five percent of teachers in high-poverty schools reported that their professional development activities (during the 2005–06 school year, including the summer of 2006) often involved participants reviewing student work or scoring assessments.

Note: n = 7,235 to 7,256.

Source: NLS-*NCLB*, Teacher Survey.

A similar pattern held for teachers in schools of high-, medium-, and low-minority concentrations. The percentage of teachers whose professional development in 2005–06 often involved a given type of active learning activity was higher in high-minority schools than in low-minority schools for each of the five types of active learning activities mentioned above. For instance, 26 percent of teachers in high-minority schools reported taking part in professional development in which participants often reviewed student work or scored assessments, compared with only 18 percent for teachers in low-minority schools. The percentage of teachers whose professional development often involved participants practicing what they had learned and receiving feedback was higher in high-minority schools than in both medium-minority and low-minority schools (see Appendix Exhibit B.38). The same was true for professional development in which participants conducted a demonstration of a lesson, unit, or skill.

There were also differences among teachers in different-sized districts: teachers in large districts were more likely than teachers in small districts to report that their professional development often involved each of the five types of active learning activities (see Appendix Exhibit B.38). The largest difference was for activities in which participants led group discussions, which

22 percent of teachers in large districts reported often experiencing, as compared to 11 percent of teachers in small districts.

## Coherence of professional development

The coherence of professional development concerns the extent to which teachers perceive that their professional development activities are a part of a logical, aligned and sequenced program of teacher learning. A coherent professional development activity is linked to standards and assessments, consistent with individual teachers' needs and goals, or designed to build on previous professional learning.

**Exhibit 49**
**Percentage of Teachers Whose Professional Development Experiences Were Often Coherent, 2005–06**

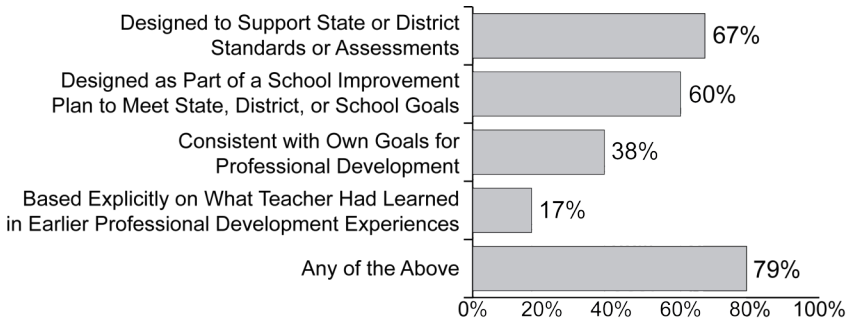



**Exhibit reads:** Sixty-seven percent of general education teachers reported that their professional development activities were often designed to support state or district standards and assessments during the 2005–06 school year, including the summer of 2006.

Note: n = 7,332 to 7,392.

Source: NLS-*NCLB*, Teacher Survey.

**Most teachers reported that their professional development activities were often consistent with standards, assessments and improvement plans, but fewer than one in five teachers reported that their activities often built on what they had learned in earlier professional development experiences.**

Two-thirds of general education teachers reported that their professional development during the 2005–06 school year was often designed to support standards and assessments, and 60 percent reported that it was often designed as part of a school improvement plan (see Exhibit 49). Fewer teachers (38 percent) reported that their professional development was often consistent with their own goals for professional development, despite the fact that *NCLB* requires professional development plans and activities to be developed with extensive participation of teachers. Furthermore, relatively few teachers (17 percent) reported that their professional development was often based explicitly on what they had learned in earlier professional development experiences. Thus, professional development activities were more

likely to be derived from standards and improvement plans but were less likely to explicitly build on earlier activities (see Appendix Exhibits B.39 and B.40).

Elementary, middle, and high school teachers differed in their reports about the coherence of their professional development experiences in 2005–06. Compared with high school teachers, both elementary and middle school teachers were more likely to report that their professional development experiences were often designed to support standards and assessment. And while 40 percent of both elementary and middle school teachers reported that their professional development experiences had often been consistent with their own goals, only 30 percent of high school teachers did. In addition, elementary teachers were more likely than both middle school and high school teachers to report that their professional development was often designed as part of a school improvement plan (65 percent, 56 percent, and 50 percent).

School improvement status, school poverty level, and district size were also related to the coherence of teachers' professional development experiences. Teachers in identified schools, for instance, were more likely than teachers in non-identified schools to report that the professional development activities in which they participated were often designed to support standards and assessments and were part of a school improvement plan. The same was true for teachers in high- and medium-poverty schools as compared with teachers in low-poverty schools and for teachers in large districts as compared with teachers in small districts (see Appendix Exhibit B.39).

## STRUCTURAL FEATURES OF PROFESSIONAL DEVELOPMENT

## Amount of professional development

Although there is little hard evidence on the minimum number of contact hours or duration necessary for professional development to have an impact on teaching practice and student achievement, existing research suggests that professional development is more likely to be effective if it involves a substantial number of contact hours spread over an extended period of time (U.S. Department of Education, Planning and Evaluation Service, 1999; Supovitz and Turner, 2000; Torgeson, Myers, Schirm, Stuart, Vartivarian, Mansfield, Stancavage, Durno, Javorsky, and Haan, 2006; Yoon, Duncan, Lee, Scarloss, and Shapley, 2007). In a recent synthesis of research on professional development programs, for example, Yoon and his colleagues (2007) identified nine rigorous studies (i.e., randomized controlled trials and quasi-experimental designs with a comparison group) that made an empirical link between teachers' in-service professional development and student achievement. They found that five of six studies that involved substantial contact hours of professional development (ranging from 30 to 100 hours) showed a significant positive effect of professional development on student achievement gains. The remaining three studies that involved the least amount of professional development (between 5 and 14 hours) showed no statistically significant effect on student achievement.

On average, teachers in the NLS-*NCLB* study spent a substantial amount of time on activities that provided opportunities for professional development. Such activities covered a broad range, including conferences, institutes, workshops, college courses, and internships, as well as informal professional learning opportunities that were often embedded in teachers' ongoing

work, such as coaching, classroom observations, and collaborative curriculum development and lesson planning.[69] Over the 12 months spanning the 2005–06 school year and the summer of 2006, general education teachers averaged 100 hours across this wide range of professional development activities.[70]

### New teachers spent more hours on professional development activities—formal and informal—than did experienced teachers.

The amount of time that teachers reported spending on professional development opportunities for the 2005–06 year differed by teacher, school, and district characteristics. Among all general education teachers, teachers with fewer than three years of experience generally took part in more hours of professional development activities than did teachers with three or more years of experience (117 hours compared with 98) (see Exhibit 50).

### Teachers in high-poverty schools and urban or suburban schools reported that they participated in more hours of potential professional development activities than teachers in medium-poverty schools and rural schools.

The amount of time that teachers in high-poverty schools reported spending on formal and informal professional development opportunities (106 hours) was higher than that reported by teachers in medium-poverty schools (91 hours), but similar to that reported by teachers in low-poverty schools (105 hours) (see Exhibit 50). Teachers in urban and suburban schools both reported spending more hours on potential professional development activities than did teachers in rural schools (108 hours, 102 hours, and 81 hours, respectively). Teachers in medium-size districts reported more hours than did teachers in small districts (104 hours compared with 90 hours).

[69] The actual learning aspects of these embedded forms of professional activities are often unknown. Many of these activities are likely to provide opportunities for, or to have as one of their purposes, teacher professional development, but this is not necessarily the case. Some of these activities may serve other purposes, and how these activities contribute to teacher learning varies greatly across contexts.

[70] Teachers' reports of total number of hours of professional development from the NLS-*NCLB* study are difficult to compare with those from other data sources. Unlike most previous professional development surveys, which have focused on the number of hours teachers spend in formal professional development activities, the NLS-*NCLB* surveys asked teachers to report on the total number of hours they spent across a wide range of potential professional development activities, both formal and informal.

**Exhibit 50**
**Average Number of Hours Spent on Professional Development Activities Reported by Teachers, by Teacher, School, and District Characteristics, 2005–06**

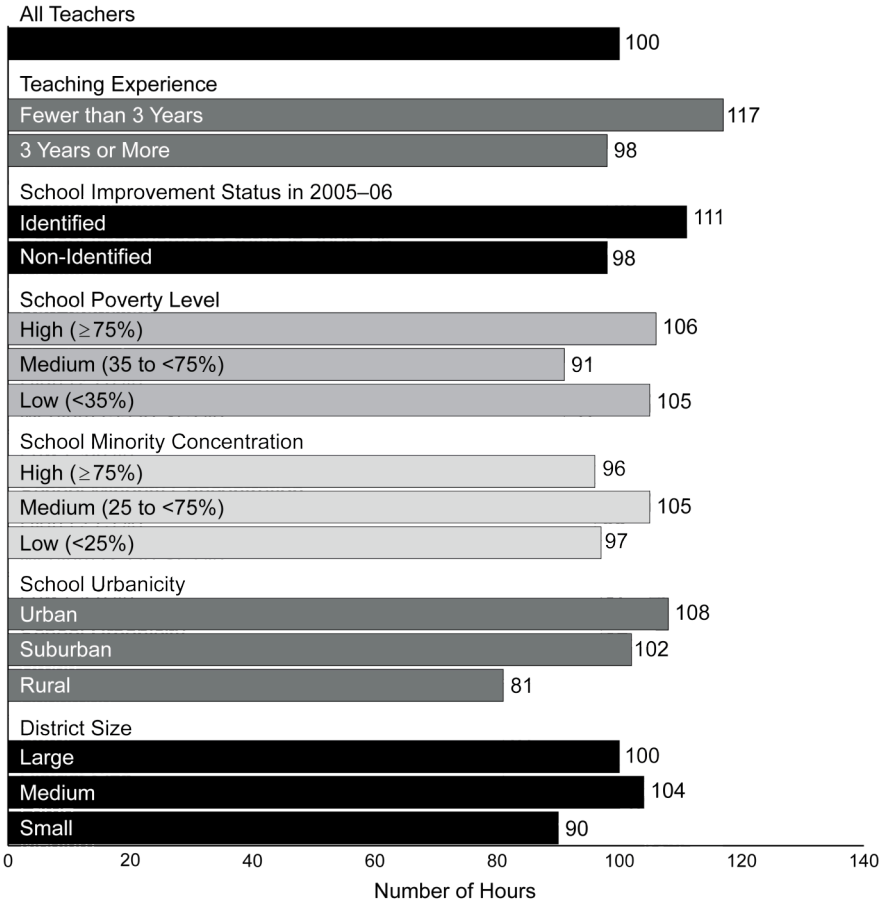



**Exhibit reads:** General education teachers participated in an average of 100 hours of professional development activities during the 2005–06 school year (including the summer of 2006).

Note: n = 6,785. Professional development in this study is defined broadly as all activities, both formal and informal, that are intended to help teachers develop and improve their content knowledge and classroom instruction.

Sources: NLS-*NCLB*, Teacher Survey.

## Sustained professional development

**Four out of five teachers took part in at least one formal professional development activity lasting two days or longer. Most teachers also participated in ongoing embedded professional development, such as planning lessons or courses with other teachers.**

Researchers and practitioners alike have questioned the value of short-term, "one shot" workshops as an approach to professional development (Whitehurst, 2002), and *NCLB*'s definition of professional development discounts the value of short-term workshops (workshops

lasting one day or less). Most general education teachers (82 percent) reported that they took part in at least one formal, course-like professional development activity (e.g., conferences, institutes, series of connected workshops, courses, and internships) that was at least minimally sustained—that is, it lasted two days or longer. For the other 18 percent of teachers, their formal professional development consisted *exclusively* of workshops or short-term professional development activities lasting one day or less.

Teachers in schools identified for improvement were more likely than teachers in non-identified schools to report participating in at least one sustained formal activity (88 percent as compared with 81 percent). Differences also existed between schools of different poverty levels and different minority concentrations, and between urban schools and suburban and rural schools. These differences, however, were generally not large (see Appendix Exhibit B.42).

In addition to formal types of professional development activities, many teachers participated in embedded forms of professional development that were sustained across the school year, such as collegial interaction, peer collaboration, or instructional coaching. Large majorities of teachers reported that at least once or twice a month they interacted and exchanged feedback with colleagues through consultations about individual students (91 percent), discussion of student work (84 percent), and joint planning of lessons or courses (74 percent) (see Exhibit 51). However, monthly exchanges were less likely to be based on observations of other teachers' instruction (48 percent). About the same percentage of teachers (47 percent) reported monthly participation in a learning community such as a teacher collaborative, network, or study group, although fewer reported monthly participation in a district or school committee focused on curriculum, instruction, or assessment (32 percent). Only 37 percent of teachers reported receiving coaching or mentoring on a monthly basis; interestingly, 42 percent reported *conducting* such coaching. As one might expect, however, there were large differences between teachers with different levels of experience in their coaching experience. For teachers with fewer than three years of experience, 74 percent reported receiving monthly coaching but only 15 percent reported conducting monthly coaching. Conversely, for teachers with three or more years of experience, only 32 percent reported receiving monthly coaching whereas 46 percent reported conducting it (see Appendix Exhibit B.44).

**Exhibit 51**
**Percentage of Teachers Participating in Embedded Forms of Professional Development At Least Once or Twice a Month, 2005–06**

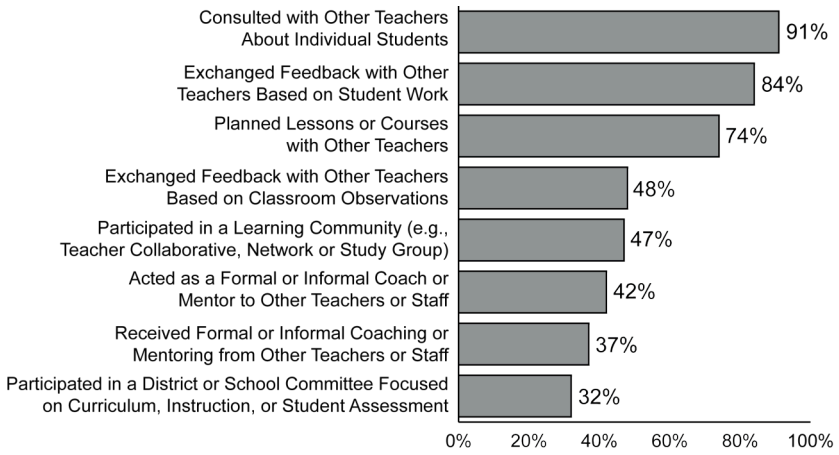



**Exhibit reads:** Ninety-one percent of general education teachers consulted with other teachers about individual students at least once or twice a month during the 2005–06 school year, including the summer of 2006.

Note: n = 7,384 to 7,448.

Source: NLS-*NCLB*, Teacher Survey.

Perhaps related to the coaching they received, teachers with fewer than three years of experience were more likely to report exchanging feedback with other teachers based on classroom observations (67 percent as compared with 45 percent for more experienced teachers). On the other hand, teachers with fewer than three years of experience were less likely than more experienced teachers to report that they consulted with other teachers about individual students at least once a month (83 percent as compared with 92 percent).

Teachers at high-poverty schools were less likely than teachers at low-poverty schools to report conducting monthly coaching but were more likely to report receiving such coaching. Teachers at high-minority schools were more likely than teachers at low-minority schools to report exchanging monthly feedback with other teachers based on classroom observations, but were less likely to report monthly consultations with other teachers about individual students. Similarly, teachers at identified schools were more likely than teachers at non-identified schools to report receiving coaching and exchanging classroom observation feedback at least once a month, but they were less likely to report conducting coaching and consulting about students at least once a month.

The percentage of teachers reporting monthly planning of lessons or courses with other teachers did not differ by teacher experience level, but did differ by school poverty level, school minority concentration, and school urbanicity. Teachers at high-poverty schools were more likely to report monthly planning sessions than were teachers at low-poverty schools (79 percent as compared with 72 percent); the same was true for teachers at high-minority schools in comparison with teachers at low minority schools (78 percent as compared with 71 percent), and for teachers at urban schools in comparison with teachers at rural schools (77 percent as compared with 59 percent).

## Collective participation

When teachers from the same school, particularly from the same department or grade level, participate together in a professional development activity, they may help one another implement and sustain what they learned, for instance, through follow-up discussions of problems encountered or applications to their curriculum and students' needs. Just over half (52 percent) of general education teachers reported that they often participated collectively in professional development with most or all of the teachers in their department or grade, and 38 percent reported often participating with most or all of the teachers in their school. For both types of collective participation, elementary teachers were more likely to participate collectively than were middle school teachers, and middle school teachers were more likely to participate collectively than high school teachers (for instance, 56 percent, 50 percent, and 41 percent, respectively, for frequent participation with most or all of the teachers in the respondents' department or grade level). Teachers with at least three years of experience were more likely to report frequent collective participation than teachers with less experience (see Exhibit 52).

**Exhibit 52**
**Percentage of Teachers Whose Professional Development Often Involved Collective Participation, by Grade Level and Teacher Characteristics, 2005–06**

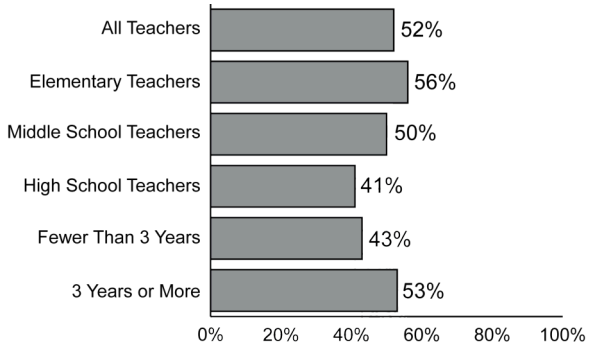



**Exhibit reads:** Fifty-two percent of general education teachers reported that they often participated in professional development activities together with most or all of the teachers in their department or grade level during the 2005–06 school year, including the summer of 2006.

Note: n = 7,386.

Source: NLS-*NCLB*, Teacher Survey.

## SUPPORT FOR PROFESSIONAL DEVELOPMENT

**Most teachers reported receiving release time to prepare for classes and to work with other teachers, but few reported receiving funding for higher education courses.**

Teachers may be more likely to participate in professional development opportunities if they are supported for doing so. Among general education teachers, most reported receiving release time to prepare for classes taught (75 percent), and many also reported receiving release time to work with other teachers (69 percent) in 2005–06 (see Exhibit 53). Few teachers reported receiving funding for higher education courses (13 percent).

**Exhibit 53**
**Percentage of Teachers Receiving Various Forms of Support for Professional Development, 2005–06**

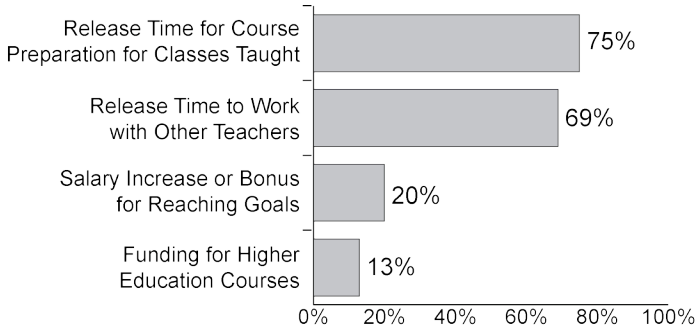



**Exhibit reads:** Seventy-five percent of general education teachers reported that they received release time for course preparation for the classes they taught during the 2005–06 school year, including the summer of 2006.

Note: n = 7,335 to 7,363.

Source: NLS-*NCLB*, Teacher Survey.

Elementary and middle school teachers were more likely than high school teachers to report receiving release time to work with other teachers (73 percent, 75 percent, and 53 percent, respectively). On the other hand, high school teachers were more likely than elementary teachers to report receiving funding for higher education courses (15 percent compared with 12 percent).

Teachers in high-poverty schools were more likely than teachers in low-poverty schools to receive release time for working with other teachers (74 percent as compared with 65 percent). The same was true for teachers in high-minority schools as compared with teachers in low-minority schools (see Appendix Exhibit B.46).

**More than half of all new teachers reported participating in a program of sustained mentoring or induction.**

## PROFESSIONAL DEVELOPMENT AND SPECIAL EDUCATION TEACHERS

On average, special education teachers reported that they participated in the same number of hours of professional development as other teachers (100 hours) in 2005–06, which represented a substantial increase from two years before (64 hours). As noted earlier, the increase may be related to a change in the survey instrument (see Footnote 70). Special education teachers were more likely than general education teachers to report participation in professional development experiences that focused on instructional strategies for teaching students with individualized education programs (89 percent as compared with 56 percent) (see Exhibit 54). Nevertheless, only about one in six special education teachers (17 percent) received more than 24 hours of professional development on instructional strategies for teaching students with individualized education programs (2 percent for general education teachers). Special education teachers were also more likely than general education teachers to report that they had

at least one hour of professional development on the use of appropriate assessment accommodations (76 percent compared with 66 percent).

**The percentage of special education teachers who reported participating in professional development focused on instructional strategies for teaching reading and mathematics increased between 2003–04 and 2005–06 (from 73 percent to 87 percent for reading and from 47 percent to 64 percent for mathematics).**

In 2003–04, special education teachers were less likely than general education teachers to participate in professional development focused on reading and mathematics. This was no longer true in 2005–06, as special education teachers reported considerably more reading- and math-focused professional development than two years before, nearly on par with general education teachers (see Exhibit 54). While in 2003–04, only 73 percent of special educators reported that they participated in at least some training on instructional strategies for teaching reading, that percentage rose to 87 percent in 2005–06, comparable with the 83 percent reported by general education teachers. Furthermore, whereas only 10 percent of special education teachers participated in more than 24 hours of professional development on instructional strategies for teaching reading in 2003–04, that figure increased to 17 percent in 2005–06.

Similar increases in professional development on mathematics instructional strategies were also reported by special education teachers. In 2003–04, only 47 percent of special education teachers reported participating in at least some professional development on this topic, and only 5 percent reported extended participation. In 2005–06, these percentages had risen to 64 percent and 9 percent, which were close to the figures reported by general education teachers (66 percent and 11 percent, respectively).

**Exhibit 54**
**Comparison of the Professional Development Experiences of Special Education and General Education Teachers, 2005–06**

| | Special Education Teachers | General Education Teachers |
|---|---|---|
| Average number of hours on potential professional development activities | 100 hours | 100 hours |
| Percentage of teachers participating in at least one hour of professional development on: | | |
| Instructional strategies for students with individualized education programs (IEPs) | 89% | 56% |
| Use of appropriate assessment accommodations | 76% | 66% |
| Instructional strategies for teaching reading | 87% | 83% |
| Instructional strategies for teaching mathematics | 64% | 66% |
| Percentage of teachers participating in more than 24 hours of professional development on: | | |
| Instructional strategies for students with individualized education programs (IEPs) | 17% | 2% |
| Use of appropriate assessment accommodations | 5% | 2% |
| Instructional strategies for teaching reading | 17% | 22% |
| Instructional strategies for teaching mathematics | 9% | 11% |
| Percentage of teachers whose professional development often involved active learning through: | | |
| Participants reviewing student work or scoring assessments | 13% | 21% |
| Participants developing and practicing using student materials | 14% | 20% |
| Percentage of teachers whose professional development was often coherent in that it was: | | |
| Designed to support state or district standards and/or assessments | 55% | 67% |
| Designed as part of a school improvement plan to meet state, district, or school goals | 48% | 60% |
| Percentage of teachers who participated in at least one professional development activity lasting two days or longer | 82% | 82% |
| Percentage of teachers who often participated in professional development together with: | | |
| Most or all of the teachers in their department or grade level | 36% | 52% |
| Most or all of the teachers in their school | 38% | 38% |

**Exhibit reads:** On average, special education teachers reported participating in 100 hours of professional development during the 2005–06 school year (including the summer of 2006). Eighty-nine percent of special education teachers participated in at least one hour of professional development on instructional strategies for students with IEPs.

Note: n = 964 to 1,138 for all special education teachers; n = 6,785 to 7,474 for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

As with general education teachers, however, there were some differences in the professional development experiences of special education teachers that were related to school characteristics. Among elementary special education teachers, participation in extended professional development on instructional strategies for teaching reading was higher in high-poverty schools than in low-poverty schools (26 percent and 12 percent, respectively), and higher in high-minority schools than in medium-minority schools (25 percent and 13 percent, respectively). Similar differences were also present in extended professional development in instructional strategies for teaching mathematics (see Appendix Exhibit B.48).

Moreover, at both the elementary and middle school levels, extended professional development on strategies for teaching reading (but not mathematics) was more common for special

education teachers in schools identified for improvement than in schools that were not identified for improvement. In elementary schools that were identified for improvement, 37 percent of special education teachers participated in such extended professional development, compared with 16 percent in schools that were not identified for improvement; the corresponding figures for middle school special education teachers were 29 percent and 13 percent, respectively.

**Special education teachers were less likely than general education teachers to report that their professional development incorporated active learning, involved collective participation, or was coherent.**

Special education teachers were less likely than general education teachers to report that their professional development often involved certain types of active learning activities in 2005–06, namely, reviewing student work or scoring assessments (13 percent compared with 21 percent) and developing and practicing using student materials (14 percent compared with 20 percent). Perhaps related, special education teachers were also less likely to report frequently participating in professional development with most or all of the teachers in their department or grade level (see Exhibit 54).

In addition, special education teachers were less likely than general education teachers to report frequently participating in professional development that was designed to support standards and assessments (55 percent compared with 67 percent) or that was designed as part of a school improvement plan (48 percent compared with 60 percent). Thus, on the whole, the professional development experienced by special education teachers was more limited than that experienced by general education teachers in the degree to which it involved active learning, involved collective participation, and was coherent. However, comparable proportions of special education and general education teachers (82 percent for both groups) experienced at least one formal professional development activity that was sustained (that is, it lasted two days or longer).

## PROFESSIONAL DEVELOPMENT FOR TEACHERS WHO WERE NOT HIGHLY QUALIFIED

**The professional development experiences reported by teachers who were and were not highly qualified were not significantly different in terms of content focus, active learning, coherence, the amount of professional development, and collective participation.**

When general education teachers of the same school level (elementary, middle, or high) were compared, teachers who reported that they were not highly qualified as of 2006–07 were no more likely than highly qualified teachers to report that they experienced extensive content-focused professional development in reading and mathematics during 2005–06. Teachers who were not highly qualified did not differ either from highly qualified teachers in the percentages reporting most of the other characteristics or types of professional development, such as those related to active learning, coherence, the amount of professional development, and collective participation.[71] It is important to note, however, that the small number of teachers

[71] There was a difference on professional development designed as part of a school improvement plan. Sixty-three percent of highly qualified teachers reported participating in professional development that often had this characteristic, as compared with only 46 percent of teachers who were not highly qualified. Moreover,

who were not highly qualified might make it difficult to detect differences between these teachers and highly qualified teachers in professional development experiences, particularly when the sample was broken down by subject area (reading and mathematics) and grade level (elementary school, middle school, high school).

Teachers who reported being not highly qualified and teachers who reported being highly qualified, however, did differ in their participation in some forms of embedded professional development. Teachers who reported being not highly qualified were more likely to report receiving coaching or mentoring at least once a month than were teachers who reported that they were highly qualified (52 percent as compared with 37 percent). Perhaps related, non–highly qualified teachers were also more likely to report exchanging monthly feedback with other teachers based on classroom observations than were highly qualified teachers (67 percent as compared with 47 percent).

## DISCUSSION

Most teachers reported that they participated in professional development in reading or mathematics. While relatively few teachers reported participating in these activities for more than 24 hours, there was some increase from 2003–04 to 2005–06 among elementary teachers. Teachers in elementary schools that were identified for improvement, those teaching in high-poverty schools, and those in high-minority schools were more likely to report extended participation in professional development in reading and mathematics than were teachers in less-challenged schools. This, however, was not true for teachers in secondary schools.

One of the key mechanisms of *NCLB* is to identify schools in need of improvement and encourage those schools to implement activities designed to improve instruction, and thereby increase student achievement. During the 2005–06 school year, teachers in schools identified for improvement were more likely than teachers in non-identified schools to report participating in professional development activities that often involved certain types of active learning (such as practicing what they had learned and receiving feedback) and that were often designed to support standards and assessments. Teachers in schools identified for improvement were also more likely to report participating in at least one sustained formal professional development activity and to receive coaching.

Teachers reported spending a total of 100 hours across a wide range of professional development activities, both formal and informal, during the 2005–06 school year. Teachers in high-poverty schools and urban or suburban schools reported that they participated in more hours of professional development than teachers in medium-poverty schools and rural schools. Likewise, new teachers reported participating in more professional development in 2005–06 than did experienced teachers.

Compared with general education teachers, special education teachers were just as likely to report that their professional development was focused on instructional strategies for teaching reading and mathematics, a change from two years ago. However, they were less likely to report participating in professional development that often involved active learning, required collective participation, or was often coherent.

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at the middle school level, there was a difference in the overall amount of professional development: highly qualified teachers reported participating in 109 hours of professional development, compared with only 78 percent of teachers who were not highly qualified.

While *NCLB* defines the types of activities that professional development should include, its definition leaves room for interpretation. If one interprets the definition to include activities with at least some focus on content, at least one characteristic of active learning or coherence, and at least one experience that is longer than a one-day workshop, then most teachers were receiving professional development consistent with the law's specifications. On the other hand, if professional development means participating in multiple sustained, active, coherent learning experiences that extensively focus on content, then most teachers were not receiving the type of professional development promoted by the law. There does appear to have been some improvements in teachers' professional development experiences between 2003–04 and 2005–06, but there is still a long way to go.

# VI. IMPLEMENTATION OF *NCLB* REQUIREMENTS FOR TITLE I PARAPROFESSIONALS

To ensure that instructional paraprofessionals in Title I schools have the appropriate education and training, *NCLB* set requirements that are more demanding than those in prior authorizations of the *ESEA* statute. For example, the *Improving America's Schools Act of 1994* required that paraprofessionals obtain a secondary school diploma within two years of becoming a paraprofessional. However, *NCLB* requires that all current and newly hired paraprofessionals must hold an associate degree, have completed two or more years of college, or pass a paraprofessional assessment. In addition, *NCLB* more clearly circumscribes the roles that instructional paraprofessionals can fulfill and requires that instructional paraprofessionals act under the direct supervision of highly qualified teachers.

*NCLB* initially set January 2006 as the date by which all paraprofessionals must be qualified. Subsequent guidance released by the U.S. Department of Education extended this deadline to the end of the 2005–06 school year to align it with the deadline for highly qualified teachers.

## Key Findings

- The percentage of paraprofessionals who reported they were qualified under *NCLB* remained relatively stable between 2004–05 (63 percent) and 2006–07 (67 percent). The percentage of paraprofessionals who reported they were not qualified, however, dropped from 5 percent to 1 percent over the two years.
- In both 2004–05 and 2006–07, almost 30 percent (28 percent and 29 percent, respectively) of paraprofessionals reported that they did not know their qualification status under *NCLB* or did not provide a response.
- Over 80 percent of Title I paraprofessionals reported that they worked with students with a teacher present most or all of the time. However, 19 percent of paraprofessionals reported that they spent at least half of their time working with students without a teacher present in 2006–07.
- The percentage of districts and schools reporting supports (e.g., providing incentives for improving qualifications and providing training related to classroom duties) to paraprofessionals who were not qualified decreased between 2003–04 and 2005–06. However, the percentage of districts and principals reporting staffing adjustments (e.g., school transfer, reassignment, and dismissal) targeted at paraprofessionals who were not qualified increased substantially between 2003–04 and 2005–06.
- Paraprofessionals who reported they were not qualified were more likely to report that they were provided with professional development and training opportunities than paraprofessionals who were qualified (96 percent compared with 73 percent) in 2005–06.

## WHAT IT MEANS TO BE A QUALIFIED TITLE I INSTRUCTIONAL PARAPROFESSIONAL

Since the earliest years of Title I, teacher's aides—or paraprofessionals—have played a role in supporting the instructional activities of classroom teachers. Although the total number of Title I–funded paraprofessionals declined from about 68,700 in 1997–98 to 62,000 in 2004–05, paraprofessionals still made up about one-third of Title I–funded district and school staff (U.S. Department of Education, 2007). Unfortunately, prior evaluations indicated that paraprofessionals in many Title I schools were often assigned instructional tasks for which they were not qualified (U.S. Department of Education, Planning and Evaluation Service, 2000). Prior to *NCLB*, paraprofessionals funded by Title I were required only to have a high school diploma or GED within two years of employment; their classroom responsibilities were not clearly defined, and there were no specific limits on the types of activities in which they could engage.

Under *NCLB*, all Title I instructional paraprofessionals[72] hired on or before Jan. 8, 2002, must have met *NCLB* requirements for qualified paraprofessionals by the end of the 2005–06 school year. Paraprofessionals hired after *NCLB* took effect were expected to meet *NCLB* requirements at the time of hire. Under *NCLB*, paraprofessionals are considered qualified if they have at least one of the following:

- Two years of study at an institution of higher education;
- An associate degree or higher; or
- A passing score on a formal state or local academic assessment of ability to assist in instructing reading, writing and mathematics.

*NCLB* has clearly defined the expected qualifications for Title I paraprofessionals and has also limited the range of their classroom responsibilities. *NCLB* specifies that Title I instructional paraprofessionals may only be assigned to do the following:

- Provide one-on-one tutoring for eligible students, if the tutoring is scheduled at a time when a student would not otherwise receive instruction from a teacher;
- Assist with classroom management, such as organizing instructional and other materials;
- Provide assistance in a computer laboratory;
- Conduct parental involvement activities;
- Provide support in a library or media center; and
- Serve as a translator.

[72] Hereafter, the term "paraprofessional" refers to Title I instructional paraprofessionals, which the U.S. Department of Education defines as "an employee of an LEA who provides instructional support in a program supported by Title I, Part A, funds" (U.S. Department of Education. [March 1, 2004]. *Title I paraprofessionals: Non-regulatory guidance.* Washington, D.C.: Author). There may be paraprofessionals who do not provide instructional support (e.g., those who serve as parent-school liaisons), who would therefore not fall into this category.

The Title I regulations further clarify the list of activities, noting that the term "qualified paraprofessional" applies to individuals performing instructional support duties and to paraprofessionals in both targeted assistance and schoolwide program schools supported by Title I, Part A, funds. Two exceptions exist: (1) for paraprofessionals who are proficient in English and a language other than English and provide services primarily to enhance the participation of students in Title I programs by acting as a translator, and (2) for paraprofessionals who are solely conducting parental involvement activities. These paraprofessionals are exempt from *NCLB* requirements for qualified paraprofessionals.

**States differed in their definitions for the requirement of two years of study at an institution of higher education but have set passing scores on paraprofessional assessments that are relatively consistent across states.**

The law offers states certain flexibility regarding the requirements for qualified paraprofessionals. For example, the law allows states to define what constitutes "two years of study" at a higher education institution. In 2006–07, 36 states and the District of Columbia opted to define the number of credit hours that constitute "two years of study" at an institution of higher education—of these, 27 states defined "two years" as 48 credit hours, eight states and the District of Columbia set the bar at 60 credit hours, and one accepted 32 credit hours.

One of the primary state responsibilities with regard to qualified paraprofessionals has to do with the authorization of paraprofessional assessments. States can either approve assessments for district use or leave the choice entirely to districts. By 2006–07, 45 states and the District of Columbia indicated that they had approved paraprofessional assessments (compared with 43 states in 2004–05). The number of states that allowed districts to use locally developed assessments, however, more than tripled between 2004–05 and 2006–07: from seven (plus the District of Columbia) to 24 (plus District of Columbia). A total of 19 states and the District of Columbia reported both options. Despite this option, districts generally have not developed their own assessments. As one state official reported, when it comes to developing their own assessments districts "can, but haven't."

Most states approved multiple paraprofessional assessments, thus extending additional flexibility to paraprofessionals seeking to become qualified under *NCLB*. Among the paraprofessional assessments authorized by states, ParaPro (by Educational Testing Service) remained the most widely used test, used in 34 states in 2004–05 and 39 states and the District of Columbia in 2006–07. In 2006–07, the passing scores for ParaPro assessment ranged from 450 (Louisiana) to 467 (Texas) (see Appendix Exhibit C.3). Other paraprofessional assessments approved by states as of 2006–07 include WorkKeys, ParaEducator, the Paraprofessional Assessment of Knowledge and Skills (PAKS), and the Western Governors University Exams. Several states developed their own paraprofessional assessments, such as the Kentucky Paraeducator Assessment, the New York State Assessment of Teaching Assistant Skills (ATAS) and a test developed through New Hampshire's Center for Paraeducator Professional Development.

Finally, instead of relying on particular tests, 15 states developed alternative approaches to determining if existing paraprofessionals were qualified under *NCLB*. For example, in Massachusetts, paraprofessionals are offered an option similar to the state's HOUSSE plan for teachers. Under this strategy, paraprofessionals may accumulate "paraprofessional training points," requiring a minimum of 360 points to demonstrate "qualified" status. In Tennessee, some districts sought a more rigorous standard for paraprofessionals, so they developed a year-long program, with six instructional components, each consisting of ten classes.

Paraprofessionals must pass an assessment at the end of each component before they may continue to the next. Because Knoxville and Nashville both participate in this program, it captures a high percentage of the Title I paraprofessionals in Tennessee. Additionally, four states use a portfolio evaluation to confer qualified status.

## STATUS, CHARACTERISTICS AND DISTRIBUTION OF QUALIFIED PARAPROFESSIONALS

### According to state-reported data for 2004–05, 86 percent of Title I instructional paraprofessionals were qualified.[73]

While state data for 2005–06 shows that 86 percent of Title I instructional paraprofessionals were qualified, according to paraprofessionals' reports, the percentage of paraprofessionals who were qualified was lower but remained relatively stable between 2004–05 (63 percent) and 2006–07 (67 percent) (see Exhibit 55). The percentage of paraprofessionals who reported that they were qualified was somewhat higher in elementary schools (70 percent) than in secondary schools (56 percent).[74] The percentage of paraprofessionals who reported they were not qualified, however, dropped significantly from 5 percent to 1 percent over the two years. State performance reports from 2005–06 showed that the percentage of paraprofessionals who were qualified varied among the 48 states and the District of Columbia that reported the data (see Exhibit 56).[75] While six states reported that all paraprofessionals were qualified, Arkansas reported that 14 percent of paraprofessionals were qualified, and the District of Columbia reported that 38 percent were qualified.

### In both 2004–05 and 2006–07, almost 30 percent (28 percent and 29 percent, respectively) of paraprofessionals reported that they did not know their qualification status under *NCLB* or did not provide a response.

Paraprofessionals often appeared to be unsure about their qualified status under *NCLB*. As was the case in 2004–05, almost 30 percent of paraprofessionals (29 percent) either said they did not know their status or did not respond to the relevant survey item in 2006–07 (see Appendix Exhibit B.49).[76] Most paraprofessionals who did not know or report their status were likely to be qualified, based on other information they provided about their qualifications and training. In 2006–07, approximately 94 percent of all paraprofessionals reported holding a qualification that would meet the *NCLB* criteria (an associate degree, two or more years of college, or passing an assessment). Considering the qualifications separately, 62 percent reported having completed an associate degree or two or more years of college, and 55 percent reported passing an assessment in 2006–07 (see Appendix Exhibit B.50).

[73] These data are not weighted. The 86 percent is based on percentages provided by 48 states and the District of Columbia.

[74] The difference is marginally significant ($p < .10$).

[75] These results, from the 2005–06 state performance reports, predate the results reported by principals and paraprofessionals in 2006–07. The state performance report results are thus not strictly comparable to the reports from principals and paraprofessionals. In addition, states may have had different methods for accounting for paraprofessionals whose qualified status was unknown.

[76] Of the paraprofessionals surveyed, 26.7 percent did not respond to the relevant survey question, and 2.3 percent did not know their qualified status.

**Exhibit 55**
**Paraprofessional Qualified Status, as Reported by Paraprofessionals, 2004–05 and 2006–07**

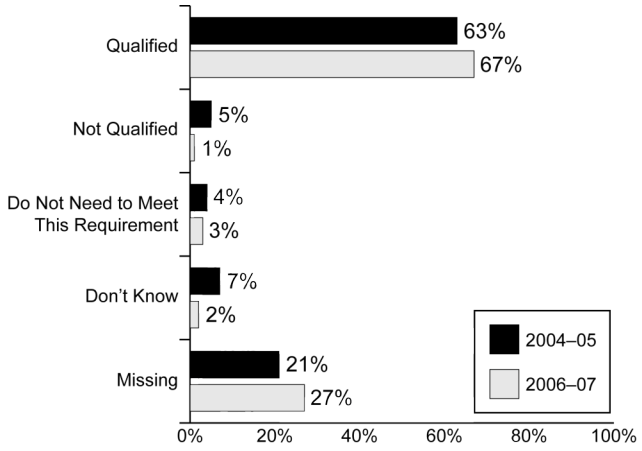


**Exhibit reads:** Sixty-seven percent of paraprofessionals reported they were qualified in 2006–07.

Note: n = 743 for 2004–05 and 781 for 2006–07.

Source: NLS-*NCLB*, Paraprofessional Survey.

## Exhibit 56
## Percentage of Paraprofessionals Who Were Qualified Under *NCLB*, as Reported by States, 2005–06

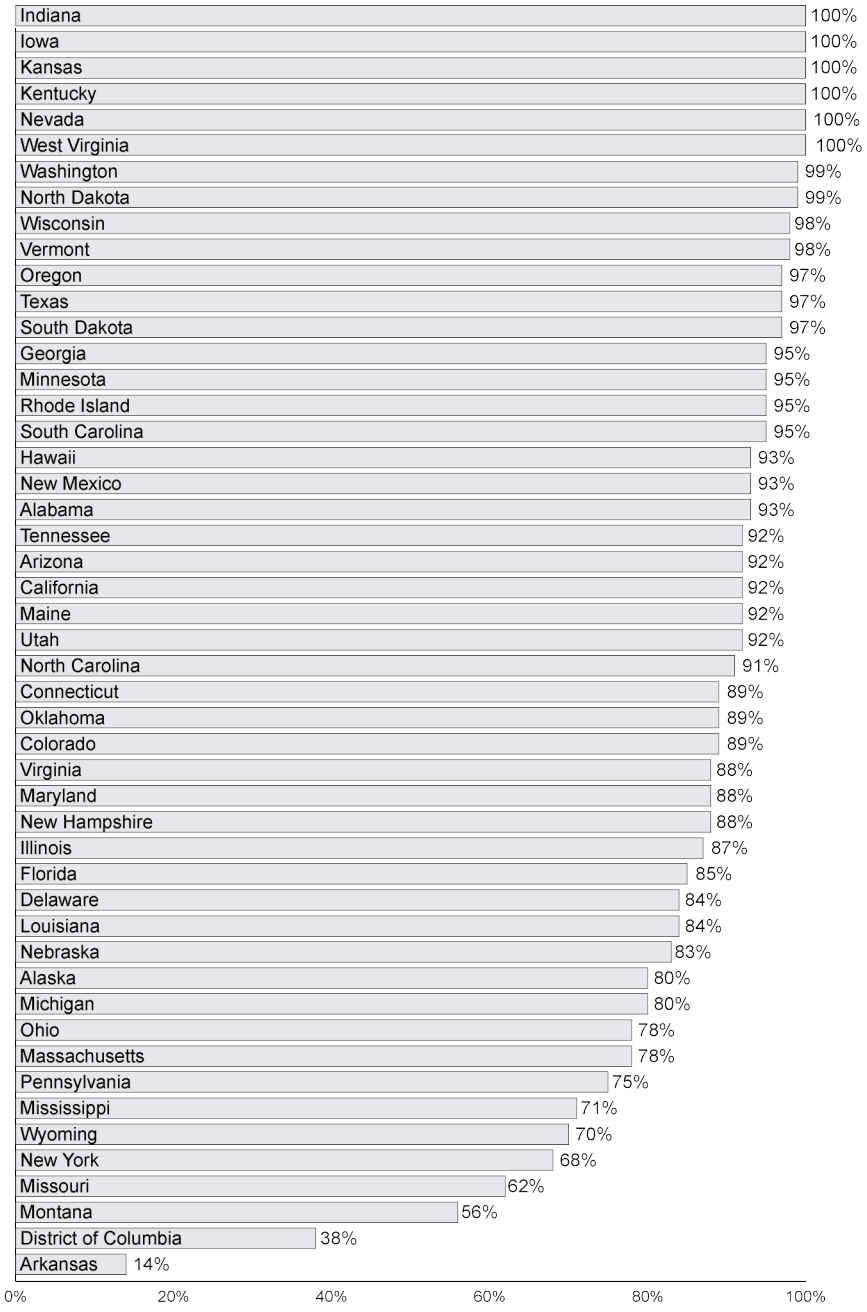


**Exhibit reads:** Indiana reported that 100 percent of paraprofessionals were qualified under *NCLB* in 2005–06.

Note: Exhibit is based on responses from the 48 states and the District of Columbia that reported the percentage of qualified paraprofessionals in 2005–06.

Source: Consolidated state performance reports, 2005–06.

### The majority of paraprofessionals worked with students at the elementary level. They spent most of their time working with students in groups or one-on-one.

In 2006–07, 79 percent of paraprofessionals served in elementary schools (see Appendix Exhibit B.51). A limited number (15 percent) served in middle schools, and very few (7 percent) served in high schools. While Title I paraprofessionals support the instructional activities of teachers in many different subjects, they most commonly reported providing support in reading (91 percent) and mathematics (82 percent).

Title I instructional paraprofessionals spent most of their time working with students in groups and tutoring students one-on-one. In 2006–07, 87 percent of paraprofessionals reported spending at least some time working with students in groups and 74 percent reported spending time tutoring students one-on-one on the most recent workday. On average, paraprofessionals spent 35 percent of their workday working with students in groups, and 21 percent of their workday tutoring students one-on-one. Less time was spent on communicating or meeting with parents (4 percent) or translating for LEP students (2 percent) (see Exhibit 57).

**Exhibit 57**
**Percentage of Title I Instructional Paraprofessionals With Selected Responsibilities, 2006–07**

| Responsibilities | Percentage of Paraprofessionals | Average Percentage of Paraprofessionals' Time |
|---|---|---|
| Working with students in groups | 87% | 35% |
| Tutoring students one-on-one | 74% | 21% |
| Preparing teaching materials or correcting student work | 71% | 14% |
| Testing students | 38% | 6% |
| Working with students in a computer lab | 31% | 7% |
| Communicating or meeting with parents | 24% | 4% |
| Working in a library or media center | 17% | 4% |
| Translating for LEP students | 12% | 2% |
| Other | 60% | 7% |

**Exhibit reads:** Eighty-seven percent of paraprofessionals reported working with students in groups.

Note: Because the categories were not mutually exclusive, the sum of column percentages may not add up to 100 percent (n = 721 to 743).

Source: NLS-*NCLB*, Paraprofessional Survey.

### Most Title I paraprofessionals reported working closely with a supervising teacher, but some indicated that they worked with students on their own without a teacher present.

*NCLB* requires that paraprofessionals who support instruction should do so "under the direct supervision" of a teacher who is considered highly qualified. A paraprofessional works under the direct supervision of a teacher if "(1) the teacher prepares the lessons and plans the instructional support activities the paraprofessional carries out, and evaluates the achievement of the students with whom the paraprofessional is working, and (2) the paraprofessional works in

close and frequent proximity with the teacher."[77] In 2006–07, paraprofessionals were asked to report on information from the previous school year, and over half of paraprofessionals reported that in 2005–06, they were observed by a teacher on a daily or near daily basis. Additionally, 61 percent reported meeting informally with a teacher to discuss classroom activities and instruction at least once a week. Three-fourths of paraprofessionals reported being formally evaluated by a school principal, teacher or other school staff, and of those, 13 percent were evaluated at least monthly (see Exhibit 58).

**Exhibit 58**
**Percentage of Title I Instructional Paraprofessionals Reporting on Time Spent Working With Supervising Teacher, 2005–06**

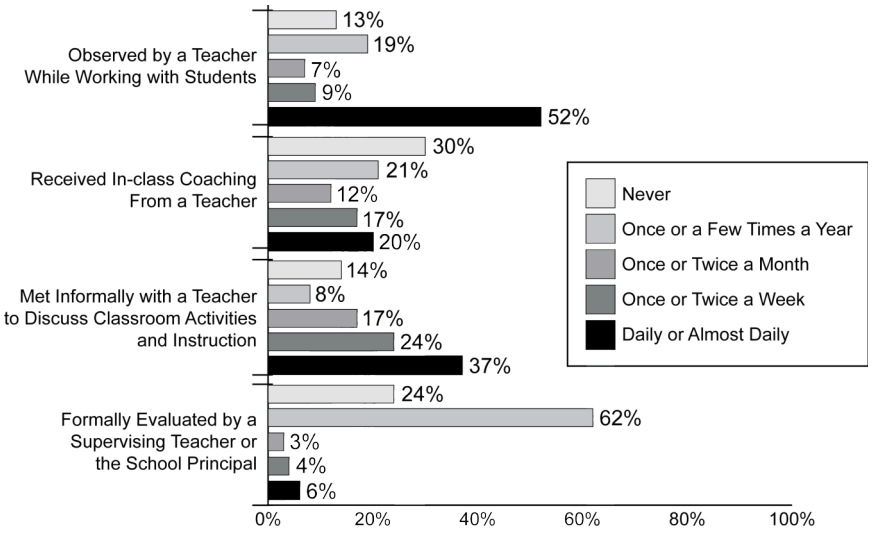


**Exhibit reads:** Thirteen percent of paraprofessionals reported that they were "never" observed by a teacher while working with students.

Note: n = 719 to 726.

Source: NLS-*NCLB*, Paraprofessional Survey.

Non-regulatory guidance issued in March of 2004 states, "[A] program where a paraprofessional works with a group of students in another location while the teacher provides instruction to the rest of the class would also be inconsistent with the requirement that paraprofessionals work in close and frequent proximity to a teacher."[78] In 2006–07, over 80 percent of Title I instructional paraprofessionals indicated that they worked with students with a teacher present "all or nearly all" of the time (59 percent) or "most" of the time (22 percent) (see Exhibit 59). However, 19 percent of paraprofessionals reported that they spent half of their time or more working with students in a classroom without a teacher present in 2006–07.

[77] U.S. Department of Education. (March 1, 2004). *Title I paraprofessionals: Non-regulatory guidance.* Washington, D.C.: Author.

[78] Ibid.

**Exhibit 59**
**Title I Paraprofessionals' Reports on How They Spend Their Time When Tutoring or Working With Students, 2006–07**

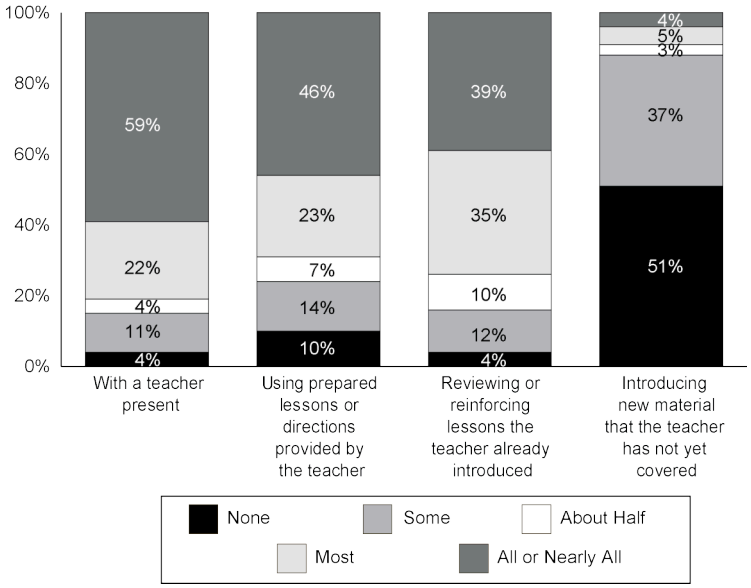


**Exhibit reads:** Fifty-nine percent of paraprofessionals reported that all or nearly all of their time tutoring or working with students was spent in a classroom with a teacher present.

Note: n = 727-731. The different response options for this survey question were not mutually exclusive.

Source: NLS-*NCLB*, Paraprofessional Survey

The majority of Title I instructional paraprofessionals also reported that they spent half or more of their time using prepared lessons or directions provided by the teacher (76 percent) or reviewing or reinforcing lessons the teachers already introduced (84 percent) while they were tutoring or working with students. Only 12 percent of paraprofessionals reported that they spent half or more of their time introducing new material while tutoring or working with students. These data suggest that most Title I instructional paraprofessionals were being appropriately supervised and only a small percent were not.

As noted, prior evaluations have indicated that paraprofessionals were often assigned instructional tasks for which their educational backgrounds did not qualify them (U.S. Department of Education, Planning and Evaluation Service, 2000). Paraprofessionals typically do not have the qualifications of teachers. While all paraprofessionals in the NLS-*NCLB* sample reported having a high school diploma or GED, only 19 percent of paraprofessionals reported that they held bachelor's degrees, and 7 percent reported having a teaching certificate.[79]

[79] These findings are consistent with a 1997–98 survey of Title I paraprofessionals conducted by Chambers et al. (2000), which found that 99 percent of paraprofessionals had a high school diploma or GED and 25 percent had a bachelor's degree.

**In 2006–07, paraprofessionals in schools with different demographic characteristics were about equally likely to report being qualified. However, the percentage of paraprofessionals who had at least two years of college or an associate degree or who passed an assessment differed in schools with different characteristics.**

In 2006–07, paraprofessionals in schools with different demographic characteristics were about equally likely to report being qualified under *NCLB* (see Appendix Exhibit B.49). However, differences existed among different types of schools in the percentage of paraprofessionals with at least two years of college or an associate degree. Medium-poverty schools, for example, had a lower percentage (52 percent) of paraprofessionals with at least two years of college or an associate degree compared with high-poverty schools (72 percent) or low-poverty schools (91 percent). Similarly, medium-minority schools had a lower percentage of paraprofessionals with at least two years of college or an associate degree than other schools (see Exhibit 60). Difference also existed between rural and urban schools (46 percent compared with 74 percent).

Differences between schools in the percentage of paraprofessionals who passed a paraprofessional test among those who were required to take a test, however, showed a different pattern. While paraprofessionals in low-poverty schools were more likely to have two years of college or an associate degree, they were less likely to have passed a test compared with paraprofessionals in medium-poverty schools (59 percent compared with 87 percent among those required to take a test). Likewise, paraprofessionals in high-minority schools were more likely to have two years of college or an associate degree, but were less likely to have passed a test than paraprofessionals in medium-poverty schools (74 percent compared with 89 percent among those required to take a test) (see Exhibit 60).

**Exhibit 60**
**Percentage of Paraprofessionals Who Had At Least Two Years of College or An Associate Degree or Who Passed a Paraprofessional Test, by School Characteristics, 2006–07**

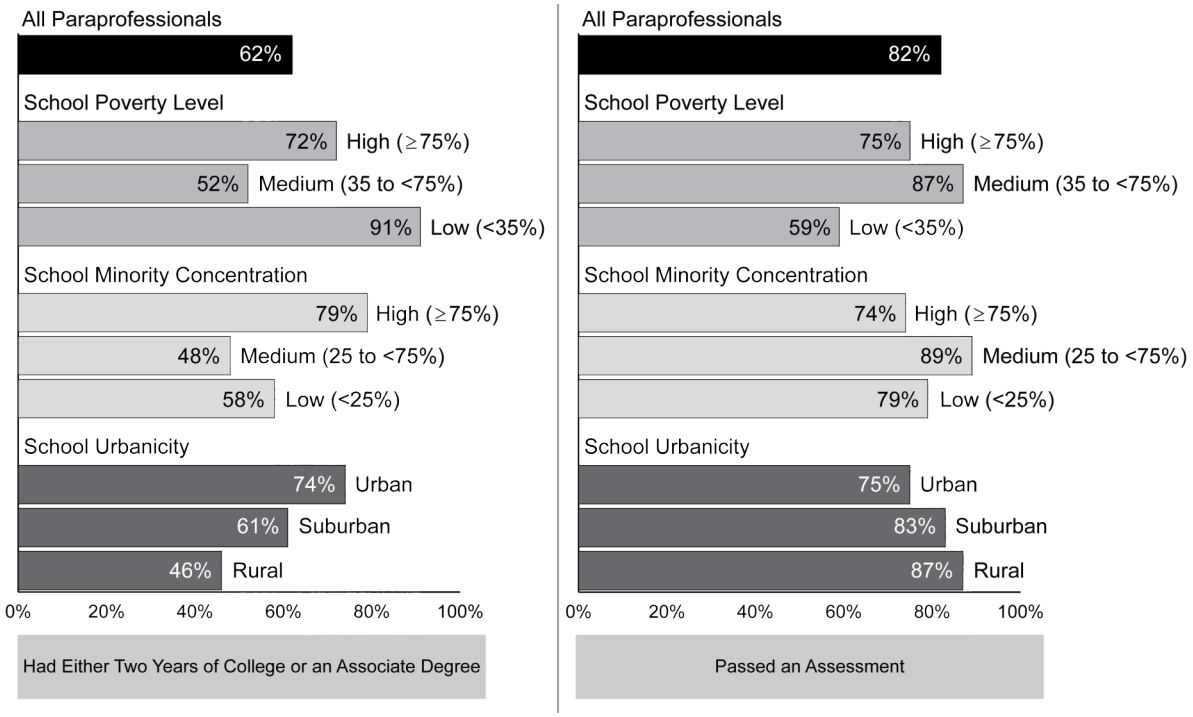


**Exhibit reads:** Sixty-two percent of paraprofessionals had either two years of college or an associate degree in 2006–07.

Note: n = 700 for percentage of paraprofessionals who have either two years of college of an associate degree; 410 for percentage of paraprofessionals who passed an assessment. Percentage of paraprofessionals who "passed an assessment" was computed based on paraprofessionals who were required to take such a test.

Source: NLS-*NCLB*, Paraprofessional Survey.

## SUPPORT FOR IMPROVING THE QUALIFICATIONS OF TITLE I PARAPROFESSIONALS

## State and district assistance in implementing *NCLB* provisions for qualified paraprofessionals

In 2006–07, 39 states and Puerto Rico reported that they provided assistance to support improved qualifications of Title I instructional paraprofessionals in their states. Eight states and the District of Columbia reported that they engaged in few or no activities designed to support the paraprofessional requirements of *NCLB*, instead delegating these tasks to the district level (three states did not respond to this question). Likewise, districts varied in their activities to support paraprofessionals in attaining and demonstrating qualified status.

### Most states provided some support to paraprofessionals, and the most common form of assistance was test-related.

As of 2006–07, paraprofessionals in almost all states could take an assessment—approved either by the state or the district—to demonstrate they were qualified under *NCLB*. To provide support for these paraprofessionals, states reported helping paraprofessionals take and pass tests by offering test preparation courses (11 states in 2004–05 and 19 states in 2006–07) or providing funding to pay fees for assessments (six states in 2004–05 and 10 states in 2006–07).[80]

Fourteen states worked with institutions of higher education to meet the needs of instructional paraprofessionals. In Vermont, for example, community colleges developed modules specifically for paraprofessionals; in Tennessee, the Board of Regents developed an online associate's degree program for paraprofessionals. Illinois provides funding for course work toward an associative arts in teaching degree, but only in shortage areas.

Some states with rural populations developed strategies for the most geographically isolated paraprofessionals: in Alaska, the state tries to engage and support local community members who could be paraprofessionals, first, encouraging them to pass the GED, then providing support for paraprofessional requirements. As one state official explained:

> In our small rural areas where teacher aides, paraprofessionals, have traditionally not had high school diplomas, they've helped them work through the GED because that's the very first requirement. And from there, we use the HELP assessment here, and we also use a paraprofessional skills checklist in order to get them qualified…. And there are a couple of other districts that have been offering [the paraprofessional assessment] to community members [and] will actually pay for them to take the test and help tutor them and that sort of thing so I think that some of the smaller districts are really getting out there and beating the bushes so that they don't come up short in future years.

Several states reported that districts became active and innovative in their support of Title I paraprofessionals, and in such cases, the state tried to act as a conduit. For example, in Oklahoma, many districts had found it effective to establish paraprofessional study groups, to provide peer support to paraprofessionals who needed to develop study skills and other college-related strategies. While the state education agency did not organize these, they would facilitate contacts among interested districts and districts that had positive experiences with such groups.

### About 30 percent of districts and schools reported needing technical assistance in implementing *NCLB*'s provisions regarding qualified paraprofessionals in 2005–06, and about half of districts and schools received such assistance regardless of need. Most of the districts (96 percent) and schools (95 percent) that received such assistance reported that it was "sufficient."

States also provided districts with technical assistance in implementing the provisions of *NCLB* regarding the qualifications of Title I paraprofessionals. While 29 percent of the districts

[80] Of these states, six engaged in both technical assistance activities: providing test preparation courses and paying assessment-related fees.

reported that they needed technical assistance in implementing *NCLB*'s provisions for qualified paraprofessionals in 2005–06, almost half of all districts (49 percent) reported that they received such assistance regardless of their need. Among those districts that did receive such assistance, the great majority (96 percent) found it sufficient to meet their needs (see Appendix Exhibit B.55).

At the school level, 30 percent of principals reported that their schools needed technical assistance related to *NCLB*'s paraprofessional provisions in 2005–06, which represented a 10 percent drop from 2003–04 (40 percent). About half of all schools (47 percent) actually received such assistance regardless of need (see Exhibit 61). High-poverty schools (48 percent) and high-minority schools (47 percent) were more likely to report needing technical assistance in implementing *NCLB*'s provisions regarding paraprofessionals than low-poverty schools (17 percent) and low-minority schools (22 percent) schools. These high-need schools were also more likely to receive the technical assistance than other schools (see Appendix Exhibit B.56). Among the schools that did receive the technical assistance, 95 percent reported that it was sufficient.

**Exhibit 61**
**Percentage of Schools Needing and Receiving Technical Assistance to Implement *NCLB* Provisions for Paraprofessionals, by School Characteristics, 2005–06**

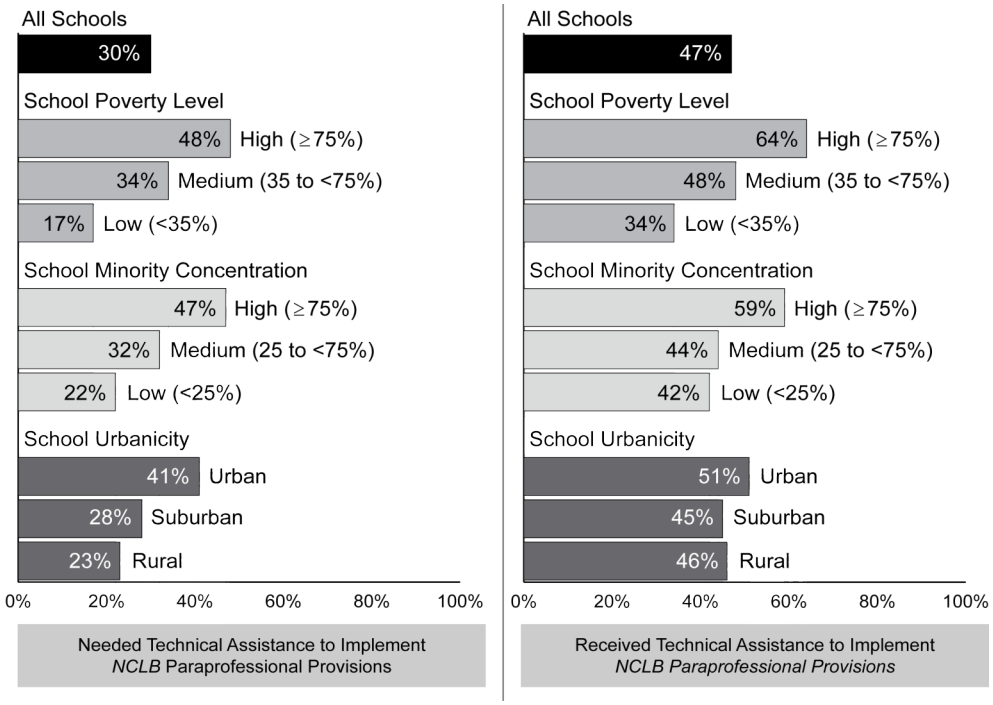


**Exhibit reads:** Thirty percent of schools reported that they needed technical assistance to implement *NCLB*'s provisions for paraprofessionals in 2005–06, and 47 percent of schools received it regardless of need.

Note: n = 582 to 1178.

Source: NLS-*NCLB*, Principal Survey.

## District and school actions toward paraprofessionals who were not qualified under *NCLB*

**Both the percentage of districts reporting monitoring the progress of paraprofessionals who were not qualified and the percentage of districts reporting providing supports to those paraprofessionals decreased between 2003–04 and 2005–06. The percentage of districts reporting staffing adjustment actions targeted at those paraprofessionals, however, increased over the two years.**

While over half (56 percent) of the districts reported monitoring the progress of individual paraprofessionals who were not qualified toward becoming qualified in 2003–04, only about one third (37 percent) of the districts reported doing so in 2005–06 (see Exhibit 62).[81] Not only did districts give less attention to paraprofessionals who were not qualified, the supports that they provided for these paraprofessionals also decreased. Mostly notably, the percentage of districts that reported providing paraprofessionals who were not qualified with incentives for improving their qualifications dropped from 32 percent in 2003–04 to 11 percent in 2005–06 (see Exhibit 62). The percentage of districts that reported creating a district-level liaison to work with paraprofessionals who were not qualified on their qualifications also decreased—from 36 percent to 22 percent—over the two years.[82]

Meanwhile, there was a notable increase in the percentage of districts reporting taking staffing adjustment actions toward paraprofessionals who were not qualified. While only 1 percent of districts reported that they transferred paraprofessionals who were not qualified to non–Title I schools in 2003–04, 7 percent of the districts reported taking such actions in 2005–06 (see Exhibit 62). Similarly, the percentage of districts that reported dismissal of paraprofessionals who were not qualified also jumped from 1 percent to 7 percent over the two years. There was little change, however, in the percentage of districts that reassigned paraprofessionals who were not qualified to noninstructional tasks (9 percent in 2003–04 and 10 percent in 2005–06).

[81] This change was marginally significant ($p < .10$).

[82] This change was marginally significant ($p < .10$).

**Exhibit 62**
**Percentage of Districts Taking Various Actions Toward Title I Paraprofessionals Who Were Not Qualified Under *NCLB*, 2003–04 and 2005–06**

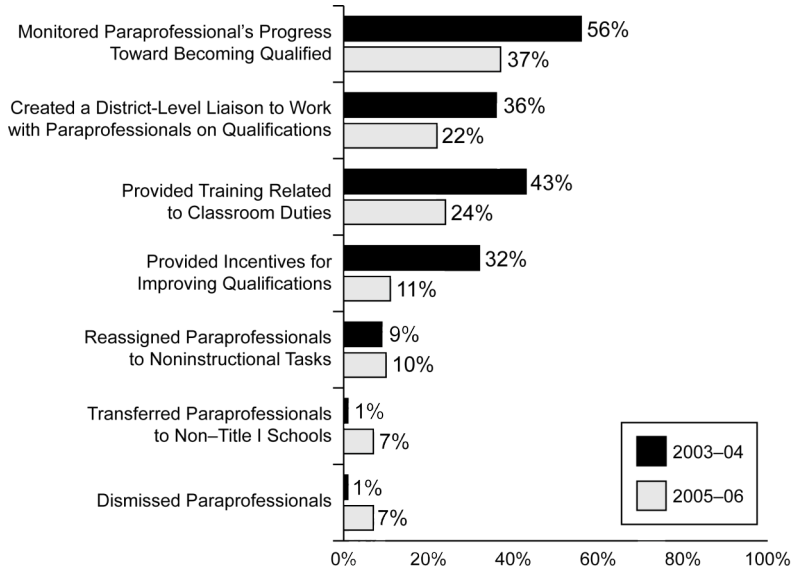


**Exhibit reads:** Thirty-seven percent of districts monitored the progress of individual paraprofessionals who were not qualified towards becoming qualified in 2005–06.

Note: n = 222 to 245. Results are based on districts with the relevant data from both years.

Source: NLS-*NCLB*, District Survey.

**The percentage of principals reporting that their schools or districts monitored or supported paraprofessionals who were not qualified decreased between 2003–04 and 2005–06. The percentage of principals reporting school or district staffing adjustment actions targeted at those paraprofessionals, however, increased over the two years.**

Consistent with districts' report, there was a decline in the percentage of principals who reported that their schools or districts monitored the progress of paraprofessionals who were not qualified from 2003–04 (68 percent) to 2005–06 (55 percent) (see Exhibit 63). A similar decline was observed in the percentage of principals who reported providing paraprofessionals who were not qualified with training related to classroom duties over the two years (from 66 percent to 54 percent).

Other types of school or district-provided supports for paraprofessionals who were not qualified, such as assigning a school-level liaison to work with these paraprofessionals on their qualifications and providing incentives for paraprofessionals to improve their qualifications, were relatively stable between 2003–04 and 2005–06 (see Exhibit 63). Similar levels of supports were reported for elementary paraprofessionals and secondary paraprofessionals who were not qualified in 2005–06 (see Appendix Exhibit B.59).

Relatively fewer principals reported that their schools or districts responded to the *NCLB* paraprofessional requirements through staffing adjustments—such as transferring

paraprofessionals who were not qualified to non–Title I schools, reassigning such paraprofessionals to noninstructional tasks, or dismissing them. However, similar to district officials' reports, principals' reports of using such staffing adjustments increased sharply between 2003–04 and 2005–06. The percentage of principals who reported that their schools or districts transferred Title I paraprofessionals who were not qualified to non–Title I schools, for instance, more than doubled between 2003–04 (6 percent) and 2005–06 (15 percent). Substantial increase was also evident in the percentage of principals reporting dismissal of paraprofessionals who were not qualified (from 5 percent to 12 percent) (see Exhibit 63).

**Exhibit 63**
**Percentage of Principals Reporting Various School or District Actions Regarding Title I Paraprofessionals Who Were Not Qualified Under *NCLB*, 2003–04 and 2005–06**

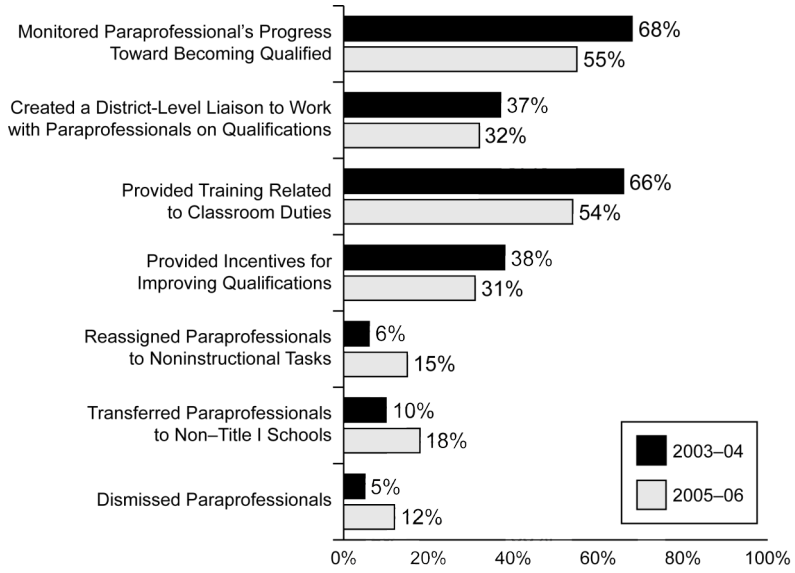


**Exhibit reads:** Fifty-five percent of principals reported that their school or district monitored the progress of individual paraprofessionals who were not qualified towards becoming qualified in 2005–06.

Note: n = 602–603.

Source: NLS-*NCLB*, Principal Survey.

## Training for paraprofessionals

**In 2005–06, most paraprofessionals received professional development and training opportunities. Paraprofessionals who were not qualified, however, were more likely to report that they were provided with such opportunities than paraprofessionals who were qualified (96 percent compared with 73 percent).**

Paraprofessionals received various types of training and support from schools and districts. Over two-thirds (71 percent) of paraprofessionals reported that they received professional development and training provided by their schools or districts, and a quarter reported that they received support for taking college courses in 2005–06. Fewer than 10 percent of

paraprofessionals reported receiving support in the form of release time for course work or studying for a high school diploma, GED or college courses (8 percent), money for college courses (5 percent), or money to cover work-related expenses (9 percent) (see Exhibit 64).

While paraprofessionals who were not qualified and those who were qualified under *NCLB* were about equally likely to report that their schools or districts had provided them with professional development and training in 2003–04 (83 percent and 79 percent respectively), paraprofessionals who were not qualified were more likely to report such support than those who were qualified in 2005–06 (96 percent compared with 73 percent) (see Exhibit 64). None of the paraprofessionals who were not qualified, however, reported having received money for college courses or money to cover work-related expenses in 2005–06, whereas a small percentage of qualified paraprofessionals (5 percent and 10 percent respectively) did receive such financial support from their schools or districts.

**Exhibit 64**
**Percentage of Paraprofessionals Receiving Various Types of Training and Support for Training, by Qualified Status, 2005–06**

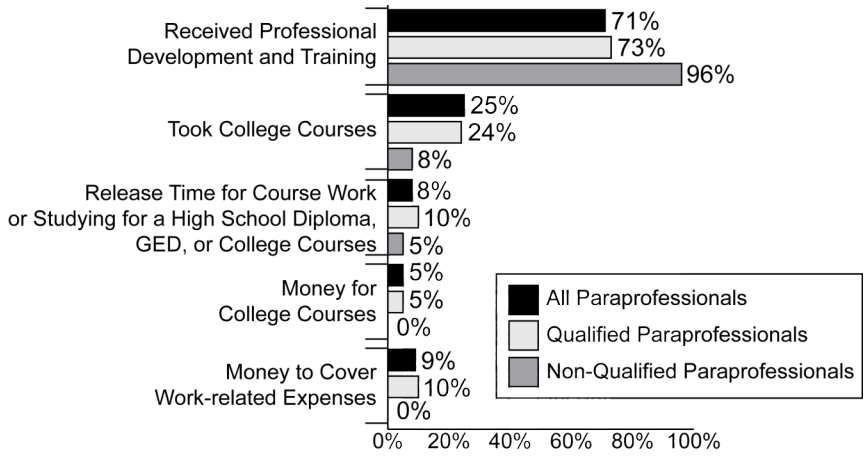


**Exhibit reads:** Seventy-one percent of paraprofessionals received professional development and training during the 2005–06 school year (including the summer of 2006).

Note: n = 734. Data for paraprofessionals who did not need to meet requirements, who did not know their status, and who did not provide a response are provided in Appendix Exhibit B.61.

Source: NLS-*NCLB*, Paraprofessional Survey.

### A significant source of professional development opportunities for paraprofessionals was informal, job-embedded professional development in 2005–06.

For paraprofessionals, the primary source of professional development opportunities was informal, job-embedded activities (see Chapter V for a discussion of different types of potential professional development activities). Based on their own report, over three-quarters (78 percent) of paraprofessionals met informally with a teacher to discuss classroom activities and instruction, and over two-thirds (69 percent) of paraprofessionals reported they were observed by a teacher while working with students at least once or twice a month in 2005–06 (see Exhibit 65). About half (49 percent) of the paraprofessionals reported that they received in-class coaching from a teacher at least once or twice a month.

**Exhibit 65**
**Percentage of Paraprofessionals Engaging in Specific Forms of School-based Professional Development At Least Once or Twice a Month, 2005–06**

| Forms of Professional Development | Percentage |
|---|---|
| Met informally with a teacher to discuss classroom activities and instruction | 78% |
| Observed by a teacher while working with students | 69% |
| Received in-class coaching from a teacher | 49% |
| Participated in formal professional development activities | 19% |
| Formally evaluated by a supervising teacher or the school principal | 14% |

**Exhibit reads:** Seventy-eight percent of paraprofessionals reported they met informally with a teacher to discuss classroom activities and instruction once or twice a month in 2005–06.

Note: N = 719 to 727

Source: NLS-*NCLB*, Paraprofessional Survey.

Compared with job-embedded forms of professional development, paraprofessionals' participation in more formal professional development activities was less common. In the 2005–06 school year, including the summer of 2006, districts supported an average of 4.4 days of professional development for paraprofessionals, and only 19 percent of paraprofessionals reported participation in formal professional development activities at least once or twice a month (see Exhibit 65). The training that paraprofessionals received in 2005–06 covered a variety of topics, with training in how to help teach reading being the most commonly reported (see Exhibit 66).

**Exhibit 66**
**Percentage of Paraprofessionals Receiving Training in Various Topics, 2006–07**

| Topic of Professional Development | Percentage |
|---|---|
| How to help teach reading | 51% |
| Classroom management | 44% |
| Use of educational technology | 43% |
| How to help teach students with disabilities | 36% |
| How to help teach mathematics | 34% |
| Other | 37% |
| Working with parents | 19% |
| How to help teach LEP students | 18% |

**Exhibit reads:** Fifty-one percent of paraprofessionals received training on how to help teach reading in 2005–06.

Note: n = 576 to 714.

Source: NLS-*NCLB*, Paraprofessional Survey.

## DISCUSSION

Since the enactment of *NCLB*, most states have defined the requirements for meeting the law's provisions regarding qualified paraprofessionals. As of 2006–07, more than two-thirds of states

had defined what constitutes "two years of study" at a higher education institution. Forty-five states and the District of Columbia had approved paraprofessional assessments, and 24 states and the District of Columbia left the choice of assessments to districts. Moreover, 15 states had developed alternative approaches to determining if paraprofessionals were qualified under *NCLB*.

The percentage of paraprofessionals who reported they were qualified under *NCLB* remained relatively stable between 2004–05 (63 percent) and 2006–07 (67 percent). The percentage of paraprofessionals who reported they were not qualified, however, dropped by 80 percent (from 5 percent to 1 percent) over the two years. As was the case in 2004–05, nearly a third (29 percent) of paraprofessionals reported that they did not know their qualification status under *NCLB* or did not provide a response to the relevant survey question in 2006–07. Many of these paraprofessionals, however, were likely to be qualified because 94 percent of all paraprofessionals reported holding a qualification that would satisfy *NCLB*'s requirements.

Paraprofessionals assumed a variety of responsibilities and spent most of their time working with students in groups or tutoring students one-on-one in 2006–07. The majority of paraprofessionals reported working closely with their supervising teacher on a daily or near daily basis; however, 19 percent of paraprofessionals reported that they spent at least half of their time working with students sometimes providing instruction without a teacher present.

Paraprofessionals received a variety of supports from states, districts, and schools. In 2006–07, most states provided assistance, particularly test-related assistance, to help paraprofessionals meet the law's requirements for qualified paraprofessionals. Districts and schools also took various actions to help paraprofessionals who were not qualified to improve their qualifications, and a higher percentage of paraprofessionals (96 percent) who were not qualified reported that they received professional development and training opportunities than paraprofessionals who were qualified (73 percent) in 2005–06.

However, there was a general decrease in the attention and supports that districts and schools provided to paraprofessionals who were not qualified between 2003–04 and 2005–06. Meanwhile, the percentage of districts and schools reporting staffing adjustments with regard to unqualified paraprofessionals increased substantially over the two years, although overall only a minority of districts and schools engaged in such actions. These findings, combined with the fact that the number of Title I paraprofessionals declined by 10 percent from 1997–98 to 2004–05, suggests that Title I districts and schools may have decreased their reliance on paraprofessionals in recent years.[83]

[83] The total number of Title I paraprofessionals declined from about 68,700 in 1997–98 to 62,000 in 2004–05, while the number of Title I teachers rose from 66,000 to 98,200 and the total number of Title I staff rose from 145,600 to 179,500 during the same period. The share of Title I–funded district and school staff who were paraprofessionals declined from 47 percent in 1997–98 to 32 percent in 2004–05, while teachers rose from 45 percent to 55 percent of Title I staff (Birman, LeFloch, Klekotka, Ludwig, Taylor, Walters, Wayne, and Yoon, 2007).

# VII. CONCLUSION

In recognition of the critical role that teachers play in student learning, *NCLB* is intended to ensure that all teachers of core academic subjects are highly qualified and all students have equal access to highly qualified teachers. Previous chapters of this report provide detailed descriptions of the implementation status of the *NCLB* teacher quality provisions as of 2006–07. This chapter summarizes findings related to the five evaluation questions guiding the NLS-*NCLB* study and highlights a number of issues that merit particular attention from policymakers.

## 1. How do states designate teachers as highly qualified? What is the capacity of states to collect and accurately report on teacher and paraprofessional qualifications?

By 2006–07, all states, the District of Columbia, and Puerto Rico had developed (and refined) policies for highly qualified teachers, including HOUSSE standards. As in 2004–05, however, substantial variations still existed in state requirements for teachers to demonstrate content knowledge. For example, states varied in terms of the number of course hours that were required for teachers to complete the equivalent of a major. States also exhibited substantial differences in the minimum passing scores on required tests of teachers' content knowledge.

In 2006–07, 39 states, the District of Columbia and Puerto Rico reported that their data systems had improved since *NCLB* had been enacted, and more states reported that they could track variables critical to measuring teacher qualifications than in 2004–05. Nevertheless, 47 states, the District of Columbia and Puerto Rico still reported challenges associated with collecting and maintaining data on teacher qualifications in 2006–07.

## 2. What percentage of teachers meet *NCLB* requirements to be highly qualified (as determined by their states)? How does this vary across states, districts, schools, and types of teachers?

Between 2004–05 and 2006–07, the number of states reporting that at least 90 percent of classes were taught by highly qualified teachers increased from 33 to 40. Among general education teachers, the percentage of teachers who reported being highly qualified increased from 74 to 84 percent, and that of teachers who reported being not highly qualified decreased from 4 to 2 percent. The percentage of special education teachers who reported being highly qualified also increased—from 52 to 72 percent. These teachers, however, were almost five times more likely to report being not highly qualified than were general education teachers in 2006–07 (10 percent compared with 2 percent).

Among both general and special education teachers, the percentage of teachers who did not know their qualified status under *NCLB* dropped substantially between 2004–05 and 2006–07 (from 23 to 14 percent and from 29 to 13 percent respectively) due at least partly to improved notification rates. Many of these teachers were likely to be highly qualified as their education credentials were similar to those of teachers who reported being highly qualified.

As was the case in 2004–05, the percentage of teachers who reported being not highly qualified in 2006–07 was higher in middle schools than in elementary schools and also higher in high-poverty, high-minority, and urban schools than in other schools. Unequal distribution of teacher quality is also potentially reflected by the fact that, even among highly qualified teachers,

those teaching in traditionally disadvantaged schools were more likely to be new to the profession and less likely to have a degree in their field of teaching as of 2006–07.

## 3. What are states, districts and schools doing to increase the number of highly qualified teachers?

In 2006–07, all 50 states, the District of Columbia, and Puerto Rico reported engaging in at least one activity to build their statewide supply of highly qualified teachers, compared with 42 states and the District of Columbia in 2003–04. The most commonly cited state recruitment strategies include alternate routes to certification, financial incentives, centralized job banks, and improved access to necessary teacher course work. States also strove to promote teacher retention, often by providing mentoring or induction programs, professional development opportunities, career advancement or recognition opportunities, and better working conditions. Finally, nearly all states reported providing technical assistance on strategies to promote teacher quality.

Most districts reported offering collegial learning opportunities (88 percent) and financial incentives (63 percent) to attract qualified teachers in 2006–07. Compared with 2004–05, a greater percentage of districts reported in 2006–07 using human resource data systems, targeting recruitment efforts to hard-to-staff subject areas, and streamlining hiring processes to recruit teachers. Districts were also more likely to report using sustained mentoring programs and instructional coaching to retain teachers.

About a third or fewer of districts reported in 2006–07 offering supports to teachers who were not highly qualified, such as increased amounts of professional development, sustained mentoring or induction programs, instructional coaches, and various incentives. However, the majority of schools reported doing so. Schools also reported, to a lesser extent, making staffing adjustments such as reducing teaching load, reassignments, transfers or dismissals, for teachers not highly qualified in 2006–07. Very few districts engaged in such actions.

## 4. To what extent are teachers participating in high-quality professional development (e.g., professional development that is sustained, intensive, and content-focused)?

In 2006–07, the majority of general education teachers reported participation in professional development in reading or mathematics in the previous year. Fewer than 30 percent of teachers, however, participated in more than 24 hours of professional development focused on instructional strategies for teaching reading or mathematics or on in-depth study of topics in reading or mathematics. Fewer than half of teachers participated in professional development that often involved active learning opportunities. Most teachers also reported that their professional development activities were often consistent with state or district standards and assessments and school improvement plans.

In 2005–06, most teachers participated in ongoing embedded professional development at least once or twice a month, and four out of five teachers participated in at least one formal professional development activity that lasted two days or longer. About half of teachers reported that they participated in professional development together with most or all of the other teachers in their department or grade, and over one-third of teachers reported collective participation with most or all of the other teachers in their school.

Compared with general education teachers, special education teachers were as likely to report that their professional development during 2005–06 was focused on instructional strategies for

teaching reading or mathematics. They also reported receiving the same amount of professional development (100 hours) as did general education teachers in 2005–06. They were less likely to report, however, participation in professional development that often involved active learning, required collective participation, or was coherent than were general education teachers.

### 5. What percentage of instructional paraprofessionals meet the *NCLB* qualification requirements? What are states, districts, and schools doing to help paraprofessionals meet these requirements?

According to state-reported data for 2004–05, 86 percent of Title I instructional paraprofessionals were qualified under *NCLB*. However, according to paraprofessionals' own reports, the percentage of paraprofessionals who were qualified was somewhat lower, but remained relatively stable, between 2004–05 (63 percent) and 2006–07 (67 percent). The percentage of those who reported being not qualified, however, dropped from 5 percent to only 1 percent. In both years, almost 30 percent of paraprofessionals reported that they did not know their qualification status under *NCLB* or did not respond to the survey question. Most of these paraprofessionals, however, were likely to be qualified based on their reported qualifications.

In 2006–07, 39 states and Puerto Rico reported providing assistance, particularly test-related assistance, to help paraprofessionals meet the law's requirements. The great majority (96 percent) of paraprofessionals who were not qualified reported in 2006–07 that they had received professional development during the previous school year (including the summer), compared with 73 percent for those who were qualified. Compared with 2004–05, however, districts and schools were less likely to report providing supports (e.g., providing incentives for improving qualifications and providing training related to classroom duties), and more likely to report making staffing adjustments (e.g., dismissing, transferring to a non–Title I school, or reassigning to noninstructional tasks) for paraprofessionals who were not qualified. These findings, combined with the decline in the number of Title I paraprofessionals in recent years, suggests that Title I districts and schools may have decreased their reliance on paraprofessionals.

## ISSUES FOR CONSIDERATION

The above findings suggest that, overall, the nation made progress toward the goals of having 100 percent of public school teachers be highly qualified and 100 percent of Title I paraprofessionals be qualified by 2005–06, as defined by *NCLB* and Department guidance, although neither goal was fully reached by its deadline. In moving toward these goals, states, districts, and schools took a variety of actions to recruit and retain highly qualified teachers and to improve teacher qualifications. They still faced considerable challenges, however, in ensuring that all teachers are highly qualified and all students have equal access to highly qualified teachers. In this section, we highlight a few issues that merit the attention of education policymakers as they continue to seek ways to improve teacher quality.

**Standards for determining teachers' highly qualified status continued to vary greatly across states.** States differed in their requirements for teachers to demonstrate subject-matter knowledge under highly qualified teacher policies. As in 2004–05, the passing scores on tests of new teachers' content knowledge varied widely across states in 2006–07. Substantial variations also persisted in states' definitions for "course work equivalent to a major" and in states' organization of their HOUSSE systems, particularly in the relative emphasis that HOUSSE placed on teaching experience versus more direct indicators of teacher content knowledge. While the current law affords states considerable flexibilities in implementing the teacher quality

provisions, the wide variations in state standards raise serious questions about whether all states set high enough standards for teacher quality and whether state standards for highly qualified teachers are all well grounded in what makes for high-quality teaching. The high proportions of highly qualified teachers across the states may mask considerable differences in the actual content knowledge of teachers. Indeed, as was found in both 2004–05 and 2006–07, even among highly qualified secondary teachers, only about half reported having a degree in their field of teaching.

**Unequal access to highly qualified teachers persisted.** Another concern behind the high level of overall compliance with the *NCLB* teacher quality provisions is the enduring inequity in the distribution of teacher qualifications. In both 2004–05 and 2006–07, students attending schools identified for improvement and schools with high concentrations of poor and minority students were more likely to be taught by teachers who were not highly qualified than students attending other schools. Even among teachers who were highly qualified, those who taught in traditionally disadvantaged schools were more likely to be new to the profession and less likely to have a degree in their field of teaching, compared with their peers in more affluent schools. Given the law's emphasis on closing student achievement gaps and the critical role that teachers play in student learning, it is essential that more policy efforts be devoted to redressing the pervasive inequities in teacher quality—"the most urgent problem facing American education" (Murnane and Steele, 2007, p. 36).

**Middle school teachers and special education teachers continued to face greater difficulties in attaining highly qualified status than other teachers.** As was found two years ago, middle school teachers and special education teachers were more likely than other types of teachers to report that they were not highly qualified in 2006–07. This finding is not surprising given that both middle school teachers and special education teachers faced unique challenges and often had to satisfy additional criteria in order to attain the highly qualified status. Clearly, more targeted support is needed to help these teachers meet the law's requirements.

**Notification of teachers about their qualification status under *NCLB* needs further improvement.** While notification rates improved significantly between 2004–05 and 2006–07, about 30 percent of teachers were still not notified of their highly qualified status in 2006–07. The lack of official notification is particularly problematic for teachers who were not highly qualified. Without being notified, these teachers might not be aware that they did not meet the law's requirements for being highly qualified and thus might not take prompt actions to address their deficiencies and become highly qualified.

**Districts continued to face considerable challenges in recruiting and retaining highly qualified teachers.** Although more states and districts reported using a variety of strategies to attract and retain highly qualified teachers in 2006–07 compared with 2004–05, the challenges that districts faced in staffing all classrooms with highly qualified teachers hardly subsided. We do not have data, however, on the breadth, depth, or quality of district actions to recruit and retain highly qualified teachers, and therefore cannot judge the effectiveness of these actions. Nevertheless, available data do suggest that these actions alone were not sufficient to address the shortage of highly qualified teachers where they were needed most.

**Participation in sustained content-focused professional development and professional development involving active learning continued to be limited to a small proportion of teachers**. As in 2003–04, the percentage of teachers who received more than 24 hours of professional development focused on instructional strategies or in-depth topics in reading or

mathematics remained rather low (less than 30 percent) in 2005–06. Moreover, less than half of teachers had professional development experiences that often involved active learning in 2005–06. These findings suggest that future professional development efforts should focus not just on the quantity of the professional development activities provided, but more importantly, on the quality of the professional development activities.

## FINAL NOTE

The longitudinal data collected in the NLS-*NCLB* and SSI-*NCLB* studies show that some progress has been made in the implementation of *NCLB's* teacher quality provisions at both the state and local levels. However, the goals set forth by the law, particularly the goal of equitable distribution of highly qualified teachers, remained unfulfilled as of 2006–07. Improvement is also clearly needed in a number of other areas, as highlighted above. Clear solutions to these challenging issues are often elusive, and long-term concerted efforts are required to overcome these challenges and to ensure that no child is left behind.

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# APPENDIX A
# DESCRIPTION OF NLS-*NCLB* AND SSI-*NCLB* METHODOLOGIES

The purpose of the NLS-*NCLB* and SSI-*NCLB* is to provide an integrated longitudinal evaluation of the implementation of *No Child Left Behind* by states, districts and schools, focusing primarily on *NCLB* provisions in the following four areas: accountability, teacher quality, parental choice and supplemental educational services, and targeting and resource allocation.

Data collection for NLS-*NCLB* and SSI-*NCLB* was coordinated to ensure coverage of the same set of questions, as well as questions pertinent to the state, district and school levels. Taken together, the linked datasets on state policies, district policies, school strategies, teacher qualifications, parental choice activities, provision of supplemental services, resource allocation, and student achievement that were developed provide a unique resource for understanding the implementation of the key provisions of *No Child Left Behind*, including in Title I and non–Title I schools. Two waves of data were collected; the first in the 2004–05 school year, and the second in the 2006–07 school year.

## Sample and Response Rates

The nationally representative sample selected for NLS-*NCLB* included 300 districts. The sampling frame included all districts with at least one public and regular school in the 2001 National Center for Education Statistics (NCES) Common Core of Data (CCD) school database. The sample was selected using a probability proportional to size (PPS) algorithm, in which the measure of size was district enrollment. Thirty-six very large districts were selected with certainty.[84] In order to ensure sufficient sample sizes of schools identified for improvement under Title I, the study over-sampled high-poverty districts, defined as those in the highest poverty quartile. District poverty quartiles were based on Census Bureau estimates of the number of school-age children and poor children living in each district (2002 Small-Area Income and Poverty Estimates). The poverty quartiles were created by ranking all districts by the percentage of poor school-age children and then dividing these districts into quartiles that each contains 25 percent of the school-age children. The same 300 districts were surveyed in 2004–05 and 2006–07.

The 2004–05 school sample included 1,502 schools randomly sampled from strata within sampled districts. Title I schools, high-poverty schools, and elementary schools with Comprehensive School Reform (CSR) programs were over-sampled. Title I status and the percentage of students eligible for free or reduced-price lunches in schools were taken from the Common Core of Data maintained by the National Center for Education Statistics. The eligibility threshold for the subsidized lunch program is lower than the official poverty definition. Elementary CSR schools were identified through the Southwest Educational Development Laboratory database on CSR schools. The sample of schools was designed so that on average two non-CSR schools, one CSR school, one middle school, and one high school were selected from each district. The same schools were surveyed in both waves. The number of schools

[84] Districts were drawn separately within eight region by poverty strata, using a systematic PPS algorithm, in which districts were ordered by enrollment within strata from largest to smallest and sampled based on cumulative enrollment, using a sampling interval determined to achieve the desired sample size within each stratum. Districts with enrollment larger than the sampling interval were sampled with certainty.

actually surveyed was 1,483 in 2004–05 (a few schools were out of scope or had closed) and 1,487 in 2006–07.

The teacher samples included approximately seven teachers per school (six classroom teachers and one special education teacher). School staff rosters were collected and divided into teacher strata by grade level taught; a stratum of Title I paraprofessionals was also created. After school rosters were stratified, independent random sampling was conducted within each stratum. At the elementary level, one teacher was selected per grade. At the secondary level, about three math teachers and three English teachers were selected per school. One Title I paraprofessional was selected from each Title I school. A different sample of teachers was drawn in 2004–05 and in 2006–07, with an effort not to select the same teachers in both waves. The resulting 2004–05 sample included a total of 8,791 classroom teachers (4,772 elementary teachers, 2,081 secondary English teachers and 1,938 secondary mathematics teachers), 1,408 special education teachers, and 950 paraprofessionals. The 2006–07 sample included a total of 8,919 classroom teachers (4,783 elementary teachers, 2,116 English teachers and 2,020 mathematics teachers), 1,416 special education teachers and 820 paraprofessionals. Both waves of the study employed a system of Permanent Random Numbers for purposes of selecting teachers within grade- and subject-specific teacher strata.[85] The method minimized the overlap between the sets of teachers selected in 2004–05 and 2006–07, thus controlling response burden and potential conditioning effects.

Of the initially selected 303 districts in the 2004–05 sample, including 300 original selection and three replacements, 300 agreed to participate. Thus, the project achieved a cooperation rate of 99 percent. Of the 300 Title I coordinators selected to receive a district official survey within the cooperating districts, 289 completed surveys, yielding a completion rate of 96 percent. In 2006–07, continued participation was agreed upon by all 300 districts, and two Title I coordinators did not return completed surveys in 2006–07 for a completion rate of 99 percent. The completion rate for principal surveys in sampled schools in 2004–05 was 89 percent, and 94 percent in 2006–07. Among teachers, completion rates were highest for elementary teachers at 86 percent and 87 percent in 2004–05 and 2006–07, respectively, while English and mathematics teachers responded at rates of 82 to 85 percent in both waves (see Exhibit A.1).

[85] Ohlsson, Esbjorn (1995). Coordination of Samples using Permanent Random Numbers. *Business Survey Methods*, B. Cox, D. Binder, B. Chinnappa, A. Christianson, M. Colledge, and P. Kott (eds). New York: John Wiley, 153–169.

**Exhibit A.1**
**Sample Sizes and Survey Completion Rates for National Longitudinal Study of *NCLB* Surveys, 2004–05 and 2006–07**

| | Sample Size | | Completed Surveys | | Survey Completion Rate | |
|---|---|---|---|---|---|---|
| | 2004–05 | 2006–07 | 2004–05 | 2006–07 | 2004–05 | 2006–07 |
| Districts | 300 | 300 | 289 | 298 | 96% | 99% |
| Schools | 1,483 | 1,487 | 1,315 | 1,342 | 89% | 94% |
| Elementary teachers | 4,772 | 4,783 | 4,089 | 4,162 | 86% | 87% |
| English teachers | 2,081 | 2,116 | 1,707 | 1,777 | 82% | 84% |
| Mathematics teachers | 1,938 | 2,020 | 1,598 | 1,706 | 82% | 85% |
| Special education teachers | 1,408 | 1,416 | 1,191 | 1,195 | 85% | 84% |
| Paraprofessionals | 950 | 820 | 828 | 746 | 87% | 91% |

Exhibit A.2 presents characteristics of the 2004–05 district and school samples compared with the universe of districts and schools in the nation based on CCD data. As intended, the sample contains higher proportions of high-poverty districts and schools compared with the universe.

**Exhibit A.2**
**Characteristics of National Longitudinal Study of *NCLB* District and School Sample Compared With the Universe of Districts and Schools, 2004–05**

| | Sample | | Universe | |
|---|---|---|---|---|
| | Number | Percentage | Number | Percentage |
| Districts, by poverty quartile (census poverty) | 300 | | 14,972 | |
| Highest poverty quartile | 163 | 54% | 3,743 | 25% |
| Second highest poverty quartile | 41 | 14% | 3,743 | 25% |
| Second lowest poverty quartile | 50 | 17% | 3,743 | 25% |
| Lowest poverty quartile | 46 | 15% | 3,743 | 25% |
| Schools, by poverty level | 1,502 | | 83,298 | |
| 75–100% eligible for free or reduced-price lunches | 596 | 40% | 11,282 | 13% |
| 50–74% eligible for free or reduced-price lunches | 363 | 24% | 15,461 | 19% |
| 35–49% eligible for free or reduced-price lunches | 106 | 7% | 12,844 | 15% |
| <35% eligible for free or reduced-price lunches | 291 | 19% | 33,884 | 41% |
| Missing | 146 | 10% | 9,827 | 12% |
| Schools, by Title I status | 1,502 | | 83,298 | |
| Title I | 1,163 | 77% | 46,048 | 55% |
| Non–Title I | 259 | 17% | 31,312 | 38% |
| Missing | 80 | 5% | 5,938 | 7% |
| Schools, by grade level | 1,502 | | 83,298 | |
| Elementary | 906 | 60% | 50,597 | 61% |
| Middle | 298 | 20% | 15,700 | 19% |
| High | 298 | 20% | 17,001 | 20% |

Source: 2001–02 Common Core of Data (CCD) and 2002 Census Bureau Small Area Income and Poverty Estimates (SAIPE).

In addition, a subsample of nine large, urban districts was selected for additional data collection focused on student-level demographic and achievement data, as well as a survey of parents. The

nine districts were selected based on availability of the necessary longitudinal individual student achievement data, as well as on sufficient numbers of students participating in the Title I school choice and supplemental services options to enable sampling of about 100 parents in each district who had children participating in the Title I school choice option and an additional 100 parents with children receiving Title I supplemental services. As a result, these districts were all large, urban districts and do not reflect the diversity of Title I districts. In 2004–05, only eight districts could provide the necessary information to sample parents (one of the original nine districts selected in R1 did not provide the data needed to select a parent sample). In 2006–07, separate sets of parents were sampled in these same eight districts.

A stratified simple random sample of about 400 parents was selected in each of the eight districts in 2004–05 and 2006–07. In each district, four strata were created for use in sampling parents. Three of the strata included parents of children in schools identified for improvement. Depending on what action was taken by the parents of these children who were all eligible to transfer or receive supplemental educational services, the parents fell into—Stratum 1: parents of children who transferred under *NCLB*; Stratum 2: parents of children who did not transfer but who received supplemental educational services; or, Stratum 3: parents of children who did not transfer or receive supplemental educational services. Stratum 4 included parents of children who were in schools not identified for improvement.

Sample sizes of 100 students were randomly selected with equal probabilities from each stratum within each district. Districts generally fell short of the 100 sample size within the transfers stratum, and thus the total sample size in some districts was under 400. One district did not distinguish transfers under *NCLB* from other transfers in their district and thus had a sample equally distributed within strata 1, 2, and 3. In 2004–05, a total of 3,094 parents were sampled and 1,866 completed surveys for a response rate of 61 percent, and in 2006–07, 3,051 parents were sampled and 1,876 completed surveys for a response rate of 63 percent.

**Exhibit A.3**
**Sample Sizes and Response Rates**
**for National Longitudinal Study of *NCLB* Parent Surveys**

| | Sample Size | | Completed Surveys | | Survey Completion Rate | |
|---|---|---|---|---|---|---|
| | 2004–05 | 2006–07 | 2004–05 | 2006–07 | 2004–05 | 2006–07 |
| Parents of children who transferred under *NCLB* | 602 | 538 | 403 | 312 | 67% | 67% |
| Parents of children in identified schools participating in supplemental educational services under *NCLB* | 839 | 833 | 493 | 512 | 59% | 62% |
| Parents of children in identified schools who did not transfer or participate in supplemental educational services under *NCLB* | 798 | 842 | 439 | 467 | 55% | 56% |
| Parents of children who were in schools not identified for improvement | 855 | 838 | 531 | 573 | 63% | 67% |
| All parents | 3,094 | 3,051 | 1,866 | 1,876 | 61% | 63% |

Supplemental educational service providers were also surveyed in these eight districts, as well as in an additional eight districts (16 districts total) where supplemental services were being offered in both 2004–05 and 2006–07. The additional eight districts were randomly selected in 2004–05 from high-poverty districts distributed across regions and across mid-sized cities and suburban and rural areas. Ten supplemental service providers were randomly chosen in each of the 16 districts, except in districts with fewer than ten providers, where all providers were surveyed. In districts where the district itself was providing supplemental services, the district was surveyed in addition to the ten other providers. In 2004–05, a total of 125 providers were surveyed and 103 surveys were completed for a response rate of 82 percent. In 2006–07, a total of 130 providers were surveyed (drawn separately from the 2004–05 sample) and 107 surveys were completed for a response rate of 82 percent.

In the first round of surveys in 2004–05, various documents, including district improvement plans, district report cards, parental choice notification letters, and school improvement plans, were collected from the 16 districts above, as well as from an additional nine districts that were also randomly selected from the study sample. All of these districts cooperated with the document collection activities.

Across all survey items, nonresponse was generally very low. That is, respondents tended to answer all questions in the surveys. Survey items with item nonresponse rates greater than 10 percent are generally not included in the report. When items with high nonresponse are reported, the nonresponse rate is reported and discussed in the text.

Item-level imputations for missing data were made only in one instance in 2004–05. Missing data were imputed for principal survey data on the total number of elementary classroom teachers and secondary classes, which were used as denominators for calculating the percentage of elementary teachers who were considered highly qualified under *NCLB* and the percentage of secondary classes that were taught by highly qualified teachers, respectively. Out of 930 elementary school principals, 18 did not answer the survey item asking about the total number of classroom teachers at their schools, and 36 out of 385 secondary school principals did not answer the survey item about the total number of class sections. Data for elementary classroom teachers were imputed by taking the student-to-teacher ratios for the principals who answered the item and then fitting a regression model onto this ratio using the total number of students enrolled and the school poverty level as the predictors. Using the regression coefficients, the predicted student-teacher ratio was computed for each of the 18 schools and then converted to the estimated number of classroom teachers in the school. Data on the total number of secondary class sections were imputed in a similar manner. There were two elementary school principals and five secondary school principals whose values could not be imputed due to missing values in the predictor variables.

The interview sample for the SSI-*NCLB* was straightforward, including all 50 states plus the District of Columbia and Puerto Rico. The response rate for all four types of interviews (accountability, teacher quality, supplemental educational services, and Title III) was 100 percent. However, responses for some specific variables were occasionally less than 100 percent, if respondents did not respond to the interview question, or if data were absent from state documentation.

## Data Collection

NLS-*NCLB* data used in this report were gathered using instruments that included mail surveys of district federal program coordinators, school principals, classroom teachers, Title I paraprofessionals, parents, and supplemental educational services providers. In some instances parents were surveyed by telephone. Survey administration for wave 1 began in October 2004 and was completed in March 2005, except for the parent and supplemental service provider surveys that began in early 2005 and extended into October 2005. Survey administration of the second wave began in October 2006 and was completed in April 2007, except for the parent and supplemental educational services providers that extended into May 2007. Topics covered in the survey questionnaires included accountability systems, AYP and school and district identification for improvement, technical assistance, improvement strategies, use of assessment results, Title I school choice and supplemental educational services, teacher quality, and professional development.

In addition, in 2004–05, NLS-*NCLB* gathered pertinent documents, including district and school improvement plans and school report cards, and parental notifications about choice options, teacher qualifications, and achievement test scores of children.

The SSI-*NCLB* relied on interviews with state education officials and extant data. Interviews were conducted between September 2004 and February 2005 with state officials who had primary responsibility for accountability, teacher quality, supplemental educational services, and Title III implementation. A second wave of interviews was conducted in the 2006–07 school year. The interview protocols addressed topics including assessments, AYP definitions, state support for schools identified for improvement, sanctions for schools in corrective action and restructuring, state data systems, state definitions of highly qualified teachers, professional development, technical assistance for teacher quality, monitoring supplemental educational service providers, and state approaches to the implementation of *NCLB* provisions related to English language proficiency. Each interview included a short section of survey questions to which state officials responded in writing (these were referred to as "Introductory Materials") and a document request, if necessary.

States are required to submit much documentation to the U.S. Department of Education, and the SSI-*NCLB* collected documents such as the Consolidated State Applications under *NCLB* (primarily the state accountability workbooks) as well as the annual Consolidated State Performance Reports (CSPRs). In addition, state education agency Web sites were an important source of data on topics including high objective uniform state standard of evaluation (HOUSSE) policies, assessment systems, and technical assistance.

National databases of the 2003–04, 2004–05 and 2005–06 AYP status of all schools and of schools identified for improvement in 2004–05, 2005–06 and in 2006–07 were created from data on state education agency Web sites and reported on the CSPRs. In some cases, state education officials provided the necessary data files, requested during the interview process. The resulting database contains 88,160, 89,828, and 90,309 schools (including both Title I and non–Title I schools) in 50 states and the District of Columbia, respectively. It does not include the approximately 3,000 schools for which states reported AYP as "not determined," and the approximately 3,500 schools that were not included in state-provided data files or Web sites.

## Sample Weights for NLS-*NCLB* Survey Data

Survey data were weighted to adjust for differences between the composition of the sample and the composition of the population of interest. These differences arose partly by design—for example, differential sampling rates for high- and low-poverty districts. However, differences between the composition of the sample and that of the population also arose because of differences in cooperation rates. Not every district, school, or teacher agreed to participate in the survey, and members of some groups cooperated at higher rates than members of other groups. Differences between the composition of the sample and that of the universe may also arise because of various forms of under-coverage. We created adjusted weights to compensate for nonresponse and to "post-stratify" the sampling weights so that the weighted stratum totals based on the sample matched the population.

Separate cross-sectional weights were created for 2004–05 and 2006–07. For each wave, two sets of weights were created for districts and schools: A-weights and B-weights. The A-weights were used to compute enrollment weighted estimates (i.e., the percentage of students enrolled in districts or schools that have specific features); and the B-weights were used to compute estimates of the percentage of districts or schools. B-weights were calculated for teachers.

In addition to the cross-sectional weights, longitudinal weights for districts and schools were calculated. Though all 300 wave 1 districts also cooperated in wave 2, there was differential nonresponse with respect to the number of Title I Coordinators who returned completed questionnaires. For 11 districts, the Title I Coordinator responded in wave 2 but not in wave 1, and in one district, the Title I Coordinator did not respond in either wave, leaving 288 longitudinal district weights.

There were 1,363 schools that continued from wave 1 to wave 2 without any major status changes and that had a principal or teacher respondent in both waves. School-level weights were used as base weights for calculating principal weights for respective respondents in these 1,363 longitudinal schools. There were 1,165 longitudinal schools that had survey responses from principals in both waves (not necessarily the same individuals). School-level base weights for 1,315 responding wave 1 principals, already adjusted for nonresponse and forced to sum to the wave 1 control total of 83,298 schools and principals, were used as input to calculate the 1,165 longitudinal principal weights. The calculation methods for the sets of wave 2 cross-sectional and all longitudinal weights for districts and schools are described below.

## District Weights—2004–05

1. Base weights were computed as the reciprocal of the inclusion probability, corresponding to the original sample of 300. The frame included all districts with at least one public and regular school in the 2001 NCES CCD school database, stratified by region (NE, MW, S, W) crossed with poverty status (high, low). The sample was selected using a PPS scheme, in which the measure of size was district enrollment. As described above, 36 very large districts were selected with certainty.
2. After substitution for three noncooperating districts, revised base weights corresponding to the expanded sample of 303 districts were computed.
3. Noncooperation-adjusted weights were computed. Because there were only three noncooperating districts, response rates approached 100 percent. The

noncooperation adjustment cells were defined by crossing district certainty status (certainty, noncertainty) by stratum. As all certainty districts cooperated, no noncooperation adjustment was made to them.

4. A second adjustment was made for nonresponse, accounting for 11 cooperating districts that did not complete and return the district questionnaire. As with the noncooperation adjustment in Step 3, response rates approached 100 percent. The nonresponse cells were defined by crossing district certainty status (certainty, noncertainty) by region (NE, MW, S, W) and poverty status (high, low). As all certainty districts responded, no nonresponse adjustment was made to them.
5. A Winsorization adjustment was applied to four district outlier weights.
6. The weights were raked to control totals for number of districts in the universe on three dimensions: district size (four categories), region by poverty strata (eight categories), and Metropolitan Status Code 2001 (three categories). With a tolerance level set at 0.001, convergence was satisfied after six iterations. It should be noted that raking (sample balancing) of district weights was applied only to the noncertainty districts. The certainty districts maintained their original weights of 1.0.
7. Three noncertainty districts had a raked weight under 1.00. The raked weight was reset to 1.00 for these three districts to produce the final raked B-weights for districts.
8. The final raked weights were then multiplied by district enrollment.
9. Finally, those weights were raked to enrollment totals on three dimensions: district size (four categories), region by poverty strata (eight categories), and Metropolitan Status Code 2001 (three categories). With a tolerance level set at 0.001, convergence was satisfied after eight iterations. These raked weights are the final raked district A-weights that represent the population of students. One may use these weights to estimate the number or proportion of students who are in districts with a certain attribute.

## District Weights—2006–07

1. All 300 wave 1 cooperating districts also cooperated in wave 2. Therefore, beginning with the noncooperation-adjusted weights discussed under district weights for 2004–05, a second adjustment was made, accounting for two cooperating districts whose Title I Coordinators did not complete and return their questionnaires (recall that there were 11 such districts in wave 1). As with the noncooperation adjustment, response rates approached 100 percent. The nonresponse cells were defined by crossing district certainty status (certainty, noncertainty) by region (NE, MW, S, W) and poverty status (high, low). As all certainty districts responded, no nonresponse adjustment was made to them.
2. A Winsorization adjustment was applied to three district outlier weights for the wave 2 cross-sectional weights.
3. Raking to district totals was based on three dimensions: district size (four categories), region by poverty strata (eight categories), and Metropolitan Status Code 2001 (three categories). With a tolerance level set at 0.0001, convergence was satisfied after eight iterations. Note that raking applied only to the noncertainty districts.

4. Five noncertainty wave 2 districts had a raked weight under 1.00. The raked weights were reset to 1.00 for these five districts to produce final district B-weights. These weights are to be used for the cross-sectional Title I Coordinator analyses.
5. The final district-level raked cross-sectional B-weights were then multiplied by district enrollment (obtained from the district-level 2001–02 CCD file).
6. Finally, those weights were raked to enrollment totals on three dimensions: district size (four categories), region by poverty strata (eight categories), and Metropolitan Status Code 2001 (three categories). With a tolerance level set at 0.0001, convergence was satisfied after 10 iterations (for each set). These raked weights are the final district level A-weights that represent the population of students. One may use these weights to estimate the number or proportion of students who are in districts with a certain attribute.

## Title I Coordinator Survey Longitudinal Weights—2006–07

1. Longitudinal district Title I coordinator survey weights for the *NCLB* Title I Coordinator Longitudinal Survey began with the noncooperation-adjusted district weights calculated for 2004–05.
2. One of the 2 districts whose Title I coordinator did not complete and return the questionnaire for wave 2 was also among the 11 nonresponding districts in wave 1. Thus, 12 of 300 districts did not respond in either wave 1 or wave 2, leaving 288 districts whose Title I coordinators responded in both waves. Similar to the noncooperation adjustment, response rates approached 100 percent. The nonresponse cells were defined by crossing district certainty status (certainty, noncertainty) by stratum. As all certainty districts responded, no nonresponse adjustment was made to them.
3. A Winsorization adjustment was applied to three district outlier weights for the longitudinal weights.
4. Raking to district totals was based on three dimensions: district size (four categories), region by poverty strata (eight categories), and Metropolitan Status Code 2001 (three categories). With a tolerance level set at 0.0001, convergence was satisfied after eight iterations. Note that raking applied only to the noncertainty districts.
5. Four noncertainty longitudinal districts had a raked weight under 1.00. The raked weights were reset to 1.00 for these four districts to produce the final district-level B-weights for longitudinal Title I coordinator analyses.
6. The final district-level raked longitudinal A-weights were then multiplied by the corresponding district enrollment (obtained from the district level 2001–02 CCD file).
7. Finally, those weights were raked to enrollment totals on three dimensions: district size (four categories), region by poverty strata (eight categories), and Metropolitan Status Code 2001 (three categories). With a tolerance level set at 0.0001, convergence was satisfied after 10 iterations. These raked weights are the final district-level A-weights that represent the population of students. One may use these weights to estimate the number or proportion of students who are in districts with a certain attribute.

## School Weights—2004–05

1. Principal (school-level) weights began with the 2004–05 noncooperation adjusted district weights.
2. The conditional school (principal) base weight was computed as the reciprocal of the school inclusion probability after allowing for replacement schools, mergers, splits, and any other status changes.
3. School base weights were computed by multiplying the district weights (Step 1) by the Step 2 school conditional weights.
4. A Winsorization adjustment was applied to four outliers.
5. Schools that were closed were given a weight of 0.
6. An adjustment was made to the weights for the remaining (open) schools, accounting for noncooperating schools.
7. Using the noncooperation-adjusted school weight from Step 6, a second nonresponse adjustment was made for responding principals, accounting for 168 missing principal questionnaires.
8. A Winsorization adjustment was made for seven extreme principal weights, resulting in preliminary principal B-weights.
9. These weights were raked to school (principal) totals on four dimensions: school size (four categories), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and school type (four categories). With a tolerance level set at 0.001, convergence was satisfied after seven iterations. The result is called the preliminary raked principal B-weight.
10. Two cases had weights Winsorized. The result is called the outlier adjusted raked principal B-weight.
11. Finally, 10 principals had a raked weight under 1.00. They were reset to 1.00, while the rest of the principal sample maintained its weights from Step 11. The result is the final raked principal B-weights.
12. These raked B-weights were multiplied by school enrollment (obtained from the school-level CCD file).
13. A Winsorization adjustment was made for seven extreme weights. The result is called the preliminary A-weights.
14. Finally, these weights were raked to school enrollment on four dimensions: school size (four categories), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and school type (four categories). With a tolerance level set at 0.001, convergence was satisfied after eight iterations. The resulting weights are the final raked principal A-weights that represent the population of students. One may use these weights to estimate the number or proportion of students who are in schools with a certain attribute.

## School Weights—2006–07

1. Principal (school level) cross-sectional weights for wave 2 began with the 2006–07 noncooperation-adjusted district weights.
2. A Winsorization adjustment was applied to four district outliers.
3. The conditional school (principal) base weight was computed as the reciprocal of the final 1,483 wave 1 school inclusion probabilities after allowing for wave 2 splits, merges, redistricting, and any other status changes which resulted in the 1,488 schools eligible to participate in wave 2. Only one of these 1,488 wave 2 schools failed to cooperate.
4. The school base weight was computed by multiplying the Step 2 district-level weights by the Step 3 school conditional weights.
5. Schools determined to be closed since wave 1 were given a weight of 0 if one or more successors had been identified; i.e., the probabilities of selection were updated for the successor schools. Schools determined to be OOS in wave 1 or since wave 1 were given missing weights.
6. An adjustment distributing the weights of the closed schools that did not have successors identified and of the weight of the one noncooperating school was made to the weights for the remaining (open) schools.
7. Using the adjusted school weight from Step 6, a second nonresponse adjustment was made, accounting for 95 missing wave 2 principal questionnaires from the 1,487 wave 2 schools that had agreed to cooperate (recall that there were 168 principals with missing questionnaires—1,315 principal respondents—in wave 1).
8. A Winsorization adjustment was made for four extreme principal weights resulting in preliminary principal B weights.
9. Step 8 weights were raked to school (principal) totals on four dimensions: school size (4 categories, imputed for non-longitudinal wave 2 schools using the previous record's school size value after sorting the dataset by imputed school level—elementary, middle, and high school—region and poverty level, district size, metropolitan status, district, low and high grade, and school SU_ID), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and school type (four categories based on imputed school level and CSR/Title I Status). With a tolerance level set at 0.001, convergence was satisfied after six iterations.
10. Four extreme principal weights were Winsorized.
11. Finally, 15 principals had a raked weight under 1.00. They were reset to 1.00, while the rest of the principal sample maintained its weights from step 10. The result is the final wave 2 principal B-weight. Note that the sum of the wave 1 and wave 2 B-weights differ little (83,298 in wave 1 vs. 83,301.38 in wave 2).
12. These principal B-weights were then multiplied by school enrollment (obtained from the school-level 2001–02 CCD file).
13. A Winsorization adjustment was made for one extreme weight.
14. Finally, these weights were raked to school enrollment on four dimensions: imputed school size (four categories), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and imputed school type (four categories as

described above). With a tolerance level set at 0.001, convergence was satisfied after seven iterations. The resulting weights are the final principal A-weights that represent the population of students. One may use these weights to estimate the number or proportion of students who are in schools with a certain attribute.

## Principal Survey Longitudinal Weights—2006–07

1. Longitudinal principal survey weights began with 1,315 final wave 1 weights already adjusted for nonresponse and forced to sum to the wave 1 control total of 83,298 schools and principals.
2. Using the nonresponse-adjusted principal weight from Step 1, a second nonresponse adjustment was made, accounting for 150 of the 1,315 wave 1 principals that were either missing a questionnaire from wave 2 or were not in one of the 1,363 longitudinal schools (of which 1,287 had principals who responded in either wave 1 or wave 2).
3. A Winsorization adjustment was made for four extreme principal weights.
4. Step 3 weights were raked to school (principal) totals on four dimensions: school size (four categories, imputed for non-longitudinal wave 2 schools using the previous record's school size value after sorting the dataset by imputed school level—elementary, middle, and high school—region and poverty level, district size, metropolitan status, district, low and high grade, and school SU_ID), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and school type (four categories based on imputed school level and CSR or Title I Status). With a tolerance level set at 0.001, convergence was satisfied after six iterations.
5. Four cases had weights Winsorized.
6. Finally, 15 principals had a raked weight under 1.00. They were reset to 1.00, while the rest of the principal sample maintained its weights from Step 5. The result is the final longitudinal principal B-weight. Note that both wave 1 and wave 2 B-weights summed to 83,298.
7. These principal B-weights were then multiplied by school enrollment (obtained from the school-level 2001–02 CCD file).
8. A Winsorization adjustment was made for one extreme weight.
9. Finally, these weights were raked to school enrollment on four dimensions: imputed school size (four categories), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and imputed school type (four categories as described above). With a tolerance level set at 0.001, convergence was satisfied after seven iterations. The resulting weights are the final A-weights that represent the population of students. One may use these weights to estimate the number or proportion of students who are in schools with a certain attribute.

## Teacher Weights—2004–05

1. Teacher weights began with the noncooperation-adjusted school weight from Step 6 of the 2004–05 principal (school) B-weights.
2. A Winsorization adjustment was applied to seven extreme school weights.

3. Those weights were then raked to school totals on four dimensions: school size (four categories), region by poverty strata (eight categories), Metropolitan Status Code 2001 (three categories), and school type (four categories). With a tolerance level set at 0.001, convergence was satisfied after six iterations.
4. Two cases had weights Winsorized.
5. Finally, 15 schools had a raked weight under 1.00. These weights were reset to 1.00, while the rest of the school sample maintained the weight from Step 4.
6. The conditional teacher base weight was computed as the reciprocal of the teacher probability of selection.
7. The teacher base weight was calculated by multiplying the Step 5 weight by the Step 6 conditional weight.
8. Teachers determined to be ineligible or out of scope (assuming no permanent replacement teacher was available) were given a weight of 0.
9. A nonresponse adjustment was made for teachers who refused to complete the questionnaire and a proportion of the teachers with unknown eligibility (This weight adjustment was implemented in two steps, first, adjusting for nonresolution of eligibility status and second, adjusting for nonresponse). Nonresponse adjustment cells were defined by crossing region by poverty stratum (eight categories) by teacher stratum (14 categories), with the collapsing of a few small cells (those with fewer than 30 cases). Collapsing of small cells involved 6th-grade classroom, 7th–8th grade mathematics, and 7th–8th grade English or Language Arts (ELA) cells.
10. The nonresponse adjusted weights were then outlier adjusted. Outliers were defined to be any weights that were at or above the 99.5 percentile within nonresponse adjustment cell. Fifty-one outliers were flagged and Winsorized.

## Teacher Weights—2006–07

1. Teacher weights began with the noncooperation-adjusted school weight from Step 6 of the 2006–07 principal (school) B-weights.
2. Using the noncooperation-adjusted school weight from Step 1, a second adjustment was made, accounting for five rostered wave 2 schools that had agreed to cooperate, but in the end did not complete and return any type of questionnaire for the principal or any teacher (or paraprofessional).
3. A Winsorization adjustment was applied to four extreme school weights.
4. Those weights were then raked to school totals on four dimensions: school size (four categories, imputed for non-longitudinal wave 2 schools using the previous record's school size value after sorting the dataset by imputed school level—elementary, middle, and high school—region and poverty level, district size, metropolitan status, district, low and high grade, and school SU_ID), region by poverty status (eight categories), Metropolitan Status Code 2001 (three categories), and school type (four categories based on imputed school level and CSR or Title I Status). With a tolerance level set at 0.001, convergence was satisfied after six iterations.
5. Four cases had weights Winsorized.

6. Finally, 15 schools had a raked weight under 1.00. These weights were reset to 1.00, while the rest of the school sample maintained the weight from Step 4. Note that the sums of the wave 1 and wave 2 B-weights differ very little (83,298 in wave 1 vs. 83,301.28 in wave 2).
7. The conditional teacher base weight was computed as the reciprocal of the teacher probability of selection.
8. The teacher base weight was calculated by multiplying the Step 5 weight by the Step 6 conditional weight.
9. Teachers determined to be ineligible or out of scope (assuming no permanent replacement teacher was available) were given a weight of 0.
10. A nonresponse adjustment was made for teachers who refused to complete the questionnaire and a proportion of the teachers with unknown eligibility (This weight adjustment was implemented in two steps, first, adjusting for nonresolution of eligibility status and second, adjusting for nonresponse). Nonresponse adjustment cells were defined by crossing region by poverty stratum (eight categories) by teacher stratum (14 categories), with the collapsing of a few small cells (those with fewer than 30 cases). Collapsing of small cells involved 6th-grade classroom, 7th–8th grade mathematics, and 7th–8th grade English or Language Arts (ELA) cells.
11. The nonresponse adjusted weights were then outlier-adjusted. Outliers were defined to be any weights that were at or above the 99.5 percentile within nonresponse adjustment cell. Fifty outliers were flagged and Winsorized.
12. Finally, the above weights are renormalized so that they add to the sum of the final wave 1 teacher weights within each teacher stratum.

## Standard Errors

Standard errors were adjusted for the complex sampling design using SAS statistical software, which uses the Taylor expansion method.

The standard errors provide an indicator of the reliability of each estimate. For example, if all possible samples of the same size were surveyed under identical conditions, an interval calculated by adding and subtracting 1.96 times the standard error from a particular estimate would include the population value in approximately 95 percent of the samples.

## Statistical Tests and Modeling

### National Longitudinal Study of *NCLB* Survey Data

All comparisons between groups as well as comparisons over time discussed in the text were tested for statistical significance, using a significance level of 0.05. The significance level or alpha reflects the probability that a difference between groups as large as the one observed could arise simply due to sampling variation, if there were no true difference between groups in the population.

The approach to significance testing differed for cross-sectional comparisons (e.g., comparisons among subgroups within either the 2004–05 or 2006–07 of the survey), and longitudinal comparisons (e.g., comparisons between results in 2004–05 and 2006–07). Cross-sectional

differences between subgroup means or ratios were tested by calculating a t-statistic based on the following formula:

$$t = \frac{\bar{x}_1 \,!\, \bar{x}_2}{\sqrt{SE_1^2 + SE_2^2}}$$

where $\bar{x}_1$ and $\bar{x}_2$ are the estimated means or ratios being compared and $SE_1$ and $SE_1$ are their corresponding standard errors. The t value was then compared with the critical value for an alpha level of 0.05, which was set conservatively at 2.0. Differences between proportions were tested using a design-adjusted chi-square statistic.

When more than two groups were compared (for example, high, medium, and low poverty districts), comparisons were conducted separately for each pair of groups (for example, high vs. medium poverty districts, medium vs. low poverty districts, and high vs. low poverty districts).

The cross-sectional comparisons described above were intended to examine descriptively the differences between subgroups defined by a certain characteristic (e.g., school identification status, poverty level, or urbanicity), without controlling for other characteristics in making the comparisons. Given that some of the school or district characteristics are likely to be correlated (e.g., high-poverty schools are also likely to be high-minority schools), one should not attribute the difference revealed from a cross-sectional comparison exclusively to the group characteristic that was the focus of the comparison, as such a difference might well reflect the effect of other related characteristics that were not taken into account in the analysis.

We used several approaches to test differences in responses between wave 1 and wave 2. For the district survey data, we restricted the sample to the 288 districts that responded in both waves. All differences discussed in the text based on district data are changes in percent for dichotomous outcomes, so we used a design-adjusted McNemar test for these analyses.[86] Note that we only tested district-level changes within the full longitudinal sample, but not within district subgroups. This is mainly because some districts changed their poverty or minority classifications between the two waves of data collection (e.g., a high-poverty district at wave 1 might be classified as a medium-poverty district at wave 2), which makes it difficult to measure and interpret changes within a particular poverty or minority subgroup.

For comparisons of outcomes in wave 1 and wave 2 relying on principal survey data, we used the full sample of respondents at each wave, and we conducted statistical tests assuming independence between waves, using either a design adjusted t-test or chi-square. These tests are likely to be slightly conservative, if responses across the two waves are positively correlated. We explored restricting the analyses to data from schools that provided responses in both waves and taking the dependence between waves into account, but the reduction in sample size resulted in standard errors that were approximately the same as those we obtained using the full sample.

For comparisons of teacher outcomes and paraprofessional outcomes in wave 1 and wave 2, we also used the full sample of respondents at both waves, and we conducted statistical tests assuming independence between waves, using either a design-adjusted t-test or chi-square. Like the tests for principles, these tests are likely to be slightly conservative, because they ignore the dependence resulting from the fact that teachers were sampled from the same schools at wave

[86] We implemented the McNemar test using SAS Proc SurveyFreq.

1 and wave 2. (As described above, the sampling design did not involve following teachers longitudinally; instead, schools were followed over time, and a separate random sample of teachers was drawn at each time point, minimizing the number of teachers sampled at time 1 drawn at time 2.)

### Multivariate Analysis

A multivariate logistic model was used to measure the net effect of different variables on an outcome, such as designation of a school as being in need of improvement, that is, the effect of a particular factor on that outcome, while controlling for the effects of other variables. Empirically, the outcome is summarized by a dichotomous dependent variable.

The logistic regression model is an appropriate choice for the functional form, because it restricts the value of the predicted probability to between 0 and 1. The model relates the occurrence of an event for the $i$ th case, $Y_i$, to a vector of characteristics for that case, $X_i$.

$$P_i = E(Y_i = 1 X_i) = 1/(1 + e^{(!_0 + \#!_j X_{ij})})$$

where

$P_i$ = probability of occurrence of an outcome for case $i$,

$X_{ij}$ = values of the explanatory variable $j$ for case $i$,

$!_j$ = estimated coefficients for the $X_j$, and

$\beta_0$ = estimated constant term.

## National AYP and Identification Databases

The Study of State Implementation of Accountability and Teacher Quality under *NCLB* National 2003–04 AYP and 2004–05 Identification for Improvement Database contains 88,160 schools (Title I and non–Title I) with valid improvement status and 87,892 schools with valid AYP status located in approximately 15,000 districts across 50 states and the District of Columbia. The most recent available Common Core of Data (2002–03) at the time of the analyses indicated that there were approximately 96,000 public schools in the 50 states and the District of Columbia. Unless noted otherwise, Puerto Rico is not included in the analyses conducted using this database. When merged with the SSI-*NCLB* National AYP and Identification Database, there were 2,529 of these 96,000 schools for which states reported AYP as "not determined," or "not relevant," or for which there were "no data." Another 5,500 of these 96,000 schools were not reported in state-provided AYP files because some states were not explicit about schools for which AYP was not determined. These 5,500 schools do not have uniform characteristics, but many are coded as "Other/Alternative" type schools or reported zero students enrolled. Similarly, approximately 4,000 schools were not reported in identification files, that is, none of these schools appeared on state identified for improvement lists provided as a part of their respective state's Consolidated State Performance Report. The database currently lacks approximately 352 Title I identified schools because six states' school identification data did not include separately identified non–Title I schools. However, this number of 352 schools located in searches of state documents and Web sites have been added to relevant national and state totals.

The Study of State Implementation of Accountability and Teacher Quality under *NCLB* National 2004–05 AYP and 2005–06 Identification for Improvement Database contains 89,828 schools (Title I and non–Title I) with valid improvement status and AYP status located in approximately 15,000 districts across 50 states and the District of Columbia. The Common Core of Data (2004–05) indicated that there were approximately 96,000 public schools in the 50 states and the District of Columbia. Unless noted otherwise, Puerto Rico is not included in the analyses conducted using this database. When merged with the SSI-*NCLB* National AYP and Identification Database, there were 3,035 of these 96,000 schools for which states reported AYP as "not determined," or "not relevant," or for which there were "no data." Another 3,000 of these 96,000 schools were not reported in state-provided AYP files because some states were not explicit about schools for which AYP was not determined or were not reported in identification files, that is, none of these schools appeared on state identified for improvement lists provided as a part of their respective state's Consolidated State Performance Report. These 3,000 schools do not have uniform characteristics, but many are coded as "Other/Alternative" type schools or reported 0 students enrolled.

# APPENDIX B
# SUPPLEMENTAL NLS-*NCLB* EXHIBITS AND STANDARD ERROR REPORTS

The following tables may include data from waves 1 or 2 of the NLS-*NCLB* surveys. Where data from both survey years (2004–05 and 2006–07) are reported, "W1" and "W2" are attached to exhibit numbers to distinguish the two waves of survey data.

**Exhibit B.1 (W1)**
**Percentage of Teachers Who Reported Being Highly Qualified or Not Highly Qualified or Who Did Not Know Their Highly Qualified Status Under *NCLB,* by Teacher Level and Type, 2004–05**

| | All General Education Teachers | Elementary General Education Teachers | Middle School General Education Teachers | High School General Education Teachers |
|---|---|---|---|---|
| n | 7,340 | 4,087 | 1,887 | 1,366 |
| Highly qualified | 73.7 (1.5) | 75.1 (1.8) | 74.2 (2.1) | 69.3 (2.6) |
| Not highly qualified | 3.6 (0.4) | 2.1 (0.3) | 8.9 (1.5) | 3.8 (0.9) |
| Don't know | 22.7 (1.5) | 22.9 (1.8) | 16.9 (1.7) | 26.8 (2.7) |

| | All Special Education Teachers | Elementary Special Education Teachers | Middle School Special Education Teachers | High School Special Education Teachers |
|---|---|---|---|---|
| n | 1,186 | 694 | 270 | 222 |
| Highly qualified | 52.0 (2.4) | 60.8 (3.6) | 53.2 (4.7) | 39.1 (4.9) |
| Not highly qualified | 14.6 (2.2) | 8.4 (2.3) | 20.3 (4.1) | 18.9 (4.8) |
| Don't know | 29.2 (2.3) | 27.3 (3.4) | 20.2 (3.2) | 38.8 (4.8) |
| Do not need to meet the requirements for being highly qualified | 4.1 (0.8) | 3.5 (0.9) | 6.4 (2.1) | 3.1 (1.3) |

Note: Column totals may not sum to 100 percent due to rounding.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.1 (W2)**
**Percentage of Teachers Who Reported Being Highly Qualified or Not Highly Qualified or Who Did Not Know Their Highly Qualified Status Under *NCLB,* by Teacher Level and Type, 2006–07**

| | All General Education Teachers | Elementary General Education Teachers | Middle School General Education Teachers | High School General Education Teachers |
|---|---|---|---|---|
| n | 7,482 | 4,121 | 1,916 | 1,445 |
| Highly qualified | 83.8 (1.1) | 84.9 (1.3) | 86.7 (1.8) | 77.9 (2.4) |
| Not highly qualified | 2.2 (0.3) | 1.5 (0.3) | 3.5 (0.6) | 3.1 (0.8) |
| Don't know | 14.1 (1.1) | 13.7 (1.3) | 9.8 (1.8) | 19.0 (2.5) |

| | All Special Education Teachers | Elementary Special Education Teachers | Middle School Special Education Teachers | High School Special Education Teachers |
|---|---|---|---|---|
| n | 1,137 | 678 | 235 | 224 |
| Highly qualified | 72.1 (2.4) | 82.8 (3.0) | 71.0 (4.4) | 56.5 (5.1) |
| Not highly qualified | 10.0 (2.1) | 5.9 (2.3) | 14.1 (3.2) | 13.2 (4.3) |
| Don't know | 12.8 (1.7) | 8.7 (1.7) | 10.4 (2.7) | 20.9 (4.4) |
| Do not need to meet the requirements for being highly qualified | 5.1 (1.4) | 2.6 (1.2) | 4.5 (1.7) | 9.5 (3.9) |

Note: Column totals may not sum to 100 percent due to rounding.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.2**
**Percentage of Teachers With Regular or Standard Certification, a Master's Degree, Fewer Than Three Years of Teaching Experience, and Participation in an Alternate Route Program, by Teacher's Highly Qualified Status and Type, 2006–07**

| | Regular or advanced certification | | Master's Degree | | Fewer than 3 years teaching experience | | Alternate Route Program | |
|---|---|---|---|---|---|---|---|---|
| | General Education Teachers | Special Education Teachers | General Education Teachers | Special Education Teachers | General Education Teachers | Special Education Teachers | General Education Teachers | Special Education Teachers |
| All teachers | 86.1 (1.1) | 87.4 (1.7) | 51.2 (1.9) | 57.1 (3.2) | 11.6 (0.8) | 13.0 (1.8) | 8.3 (0.8) | 13.7 (2.1) |
| **By Teacher's HQ status** | | | | | | | | |
| Highly qualified | 87.5 (1.1) | 92.1 (1.4) | 52.3 (2.0) | 58.0 (3.6) | 10.1 (0.7) | 11.1 (2.4) | 7.4 (0.7) | 10.4 (2.2) |
| Not highly qualified | 52.7 (6.5) | 81.1 (6.4) | 38.1 (6.0) | 66.5 (9.1) | 37.2 (5.6) | 10.9 (4.2) | 31.2 (4.9) | 20.7 (6.9) |
| Don't know | 82.8 (2.9) | 75.0 (6.1) | 46.8 (3.3) | 42.2 (6.7) | 16.2 (2.2) | 23.8 (5.9) | 10.5 (2.1) | 22.9 (6.8) |
| Not required | — | 66.0 (15.6) | — | 63.8 (13.4) | — | 20.1 (15.1) | — | 24.9 (13.1) |

Note: For general education teachers, Highly qualified n = 5,592 to 6,131; not highly qualified n = 207 to 265; don't know n = 875 to 996. For special education teachers, Highly qualified n =720 to 825; not highly qualified n = 84 to 95; don't know n = 132 to 155; and not required n = 34 to 43.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.3 (W1)**
**Percentage of General Education Teachers Who Reported Being Highly Qualified or Not Highly Qualified or Who Did Not Know Their Highly Qualified Status Under *NCLB*, by LEP Teaching Status, 2004–05**

| | Non-LEP General Education Teachers | LEP General Education Teachers |
|---|---|---|
| n | 5,939 | 1,295 |
| Highly qualified | 73.7 (1.6) | 73.6 (2.5) |
| Not highly qualified | 3.3 (0.4) | 5.6 (1.1) |
| Don't know | 23.0 (1.6) | 20.8 (2.6) |

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.3 (W2)**
**Percentage of General Education Teachers Who Reported Being Highly Qualified or Not Highly Qualified or Who Did Not Know Their Status Under *NCLB*, by LEP Teaching Status, 2006–07**

| | Non-LEP General Education Teachers | LEP General Education Teachers |
|---|---|---|
| n | 6,003 | 1,391 |
| Highly qualified | 83.6 (1.2) | 84.0 (2.6) |
| Not highly qualified | 2.1 (0.3) | 2.6 (0.6) |
| Don't know | 14.2 (1.2) | 13.4 (2.6) |

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.4**
**Percentage of Teachers Reporting Various Forms of LEP-related Preservice Training, by LEP Teaching Status, 2006–07**

| Variable and Category | Participation in professional development in instructional strategies for LEP students (at least 1 hour) | College courses in instructional strategies for LEP students (at least 1 course) | Certification | ESL major (at any degree level) |
|---|---|---|---|---|
| Non-LEP teachers | 34.5 (1.9) | 31.1 (1.6) | 6.2 (1.1) | 0.4 (.02) |
| LEP teachers | 70.1 (3.2) | 66.2 (2.5) | 37.9 (3.1) | 2.8 (0.7) |

Note: Except for certification, n for non-LEP teachers ranges from 5,075 to 5,904, while n for LEP teachers ranges from 1,208 to 1,386. For the certification variable, n's are 680 and 622 for non-LEP teachers and LEP teachers, respectively.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.5**
**Percentage of Teachers Reporting That They Were Not Notified of Their Highly Qualified Status Under *NCLB*, for Teachers Who Said They Did Not Know Their Highly Qualified Status, 2006–07**

| | All General Education Teachers | Elementary General Education Teachers | Middle School General Education Teachers | High School General Education Teachers | All Special Education Teachers | Elementary Special Education Teachers | Middle School Special Education Teachers | High School Special Education Teachers |
|---|---|---|---|---|---|---|---|---|
| n | 996 | 543 | 197 | 256 | 153 | 77 | 34 | 42 |
| Not notified | 92.5 (1.7) | 91.5 (2.3) | 89.8 (3.9) | 95.9 (1.6) | 81.8 (4.8) | 84.7 (6.0) | 91.0 (4.0) | 76.6 (8.2) |
| Notified | 7.5 (1.7) | 8.5 (2.3) | 10.2 (3.9) | 4.1 (1.6) | 18.2 (4.8) | 15.3 (6.0) | 9.0 (4.0) | 23.4 (8.2) |

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.6 (W1)
## Percentage of Secondary School General Education Teachers With a Degree in English or Mathematics, by Teacher's Highly Qualified Status and Grade Level and Subject Taught, 2004–05

| | All Secondary English Teachers | Middle School English Teachers | High School English Teachers | All Secondary Mathematics Teachers | Middle School Mathematics Teachers | High School Mathematics Teachers |
|---|---|---|---|---|---|---|
| n | 1,754 | 1,087 | 947 | 1,594 | 688 | 664 |
| All teachers | 52.1 (2.1) | 36.4 (2.5) | 65.9 (3.3) | 38.8 (2.3) | 21.2 (2) | 53.2 (3.4) |
| **By Teacher's HQ status** | | | | | | |
| Highly qualified | 54.2 (2.71) | 39.3 (2.71) | 68.1 (4.61) | 40.9 (2.71) | 21.2 (2.21) | 58.8 (3.81) |
| Not highly qualified | 25.1 (7.6) | 13.4 (5.1) | 47.3 (17.1) | 14.8 (4.7) | 14.5 (7) | 15.2 (7.4) |
| Don't know | 51.9 (4.5) | 34.9 (5.9) | 62.7 (5.8) | 40.7 (5.6) | 27 (5.9) | 47.1 (7.7) |

Note: A degree may include any of the following: bachelor's; master's; educational specialist or professional diploma; certificate of advanced graduate studies; or doctorate or professional degree.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.6 (W2)
## Percentage of Secondary School General Education Teachers With a Degree in English or Mathematics, by Teacher's Highly Qualified Status and Grade Level and Subject Taught, 2006–07

| | All Secondary English Teachers | Middle School English Teachers | High School English Teachers | All Secondary Mathematics Teachers | Middle School Mathematics Teachers | High School Mathematics Teachers |
|---|---|---|---|---|---|---|
| n | 1,792 | 1,087 | 705 | 1,707 | 978 | 729 |
| All teachers | 53.6 (2.2) | 32.7 (2.67) | 73.9 (2.8) | 43.9 (2.4) | 22.7 (2.2) | 61.6 (2.9) |
| **By Teacher's HQ status** | | | | | | |
| Highly qualified | 55 (2.3) | 34.5 (2.9) | 77 (2.6) | 45.6 (2.5) | 25.1 (2.4) | 65.4 (3.6) |
| Not highly qualified | 36.5 (8.6) | 19.6 (6.8) | 69.1 (13.9) | 28.1 (9.6) | 18.3 (8.5) | 35.7 (15.1) |
| Don't know | 47.8 (6.1) | 20.8 (6.4) | 60.9 (8) | 39.9 (5.7) | 6.3 (2.7) | 55.2 (5.9) |

Note: A degree may include any of the following: bachelor's; master's; educational specialist or professional diploma; certificate of advanced graduate studies; or doctorate or professional degree.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.7 (W1)
## Average Number of College Courses Completed by General Education Teachers in Reading and Mathematics, by Teacher's Highly Qualified Status and Grade Level Taught, 2004–05

| Average Number of College Courses Completed in: | Reading or English | | | Mathematics | | |
|---|---|---|---|---|---|---|
| **By:** | **Elementary Teachers** | **Middle School English Teachers** | **High School English Teachers** | **Elementary Teachers** | **Middle School Mathematics Teachers** | **High School Mathematics Teachers** |
| n | 3,860 | 1,053 | 679 | 3,838 | 928 | 647 |
| All teachers | 7.7 (0.2) | 10.9 (0.3) | 12.6 (0.3) | 4.7 (0.1) | 8.4 (0.3) | 12.5 (0.3) |
| **By Teacher's HQ status** | | | | | | |
| Highly qualified | 8.0 (0.2) | 11.5 (0.3) | 12.5 (0.4) | 4.9 (0.2) | 8.8 (0.3) | 13.1 (0.4) |
| Not highly qualified | 5.9 (0.6) | 7.4 (0.8) | 14.8 (0.4) | 4.2 (0.7) | 6.3 (0.8) | 6.8 (1.9) |
| Don't know | 6.8 (0.3) | 10.2 (0.7) | 12.5 (0.6) | 4.1 (0.3) | 8.5 (0.9) | 12.3 (0.4) |

Note: Respondents were asked to answer the number of courses completed in the following categories: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.7 (W2)
## Average Number of College Courses Completed by General Education Teachers in Reading and Mathematics, by Teacher's Highly Qualified Status and Grade Level Taught, 2006–07

| Average Number of College Courses Completed in: | Reading or English | | | Mathematics | | |
|---|---|---|---|---|---|---|
| **By:** | **Elementary Teachers** | **Middle School English Teachers** | **High School English Teachers** | **Elementary Teachers** | **Middle School Mathematics Teachers** | **High School Mathematics Teachers** |
| n | 3,516 | 988 | 616 | 3,517 | 924 | 689 |
| All teachers | 7.1 (0.2) | 10.5 (0.4) | 13.8 (0.3) | 4.3 (0.1) | 8.3 (0.3) | 13.0 (0.3) |
| **By Teacher's HQ status** | | | | | | |
| Highly qualified | 7.2 (0.2) | 10.8 (0.4) | 13.9 (0.3) | 4.4 (0.1) | 8.6 (0.3) | 13.2 (0.3) |
| Not highly qualified | 5.2 (0.6) | 9.3 (1.2) | 12.4 (0.8) | 2.7 (0.5) | 6.8 (0.8) | 10.0 (0.5) |
| Don't know | 6.5 (0.4) | 7.7 (1.2) | 13.4 (0.5) | 4.0 (0.3) | 6.7 (0.9) | 12.8 (0.7) |

Note: Respondents were asked to answer the number of courses completed. The numbers were then recoded into the following categories in order to ensure comparability with wave 1 results: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.8 (W1)
## Average Number of College Courses Completed by Special Education Teachers in Reading, Mathematics, and "Teaching Students With Disabilities," by Teacher's Highly Qualified Status, 2004–05

| Average Number of College Courses Completed in: | Reading | Mathematics | Teaching Students With Disabilities |
|---|---|---|---|
| All teachers | 5.8 (0.2) | 3.1 (0.2) | 9.5 (0.3) |
| **By Teacher's HQ status** | | | |
| Highly qualified | 6.4 (0.3) | 3.4 (0.2) | 9.8 (0.5) |
| Not highly qualified | 5.5 (0.7) | 2.7 (0.4) | 7.8 (1.0) |
| Don't know | 4.9 (0.4) | 2.9 (0.3) | 9.5 (0.6) |
| Not required | 5.6 (1.1) | 3.7 (1.1) | 10.1 (1.2) |

Note: Respondents were asked to answer the number of courses completed in the following categories: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category. Special education teachers n = 1,094 to 1,106.

Source: NLS-*NCLB*, Teacher Survey

## Exhibit B.8 (W2)
## Average Number of College Courses Completed by Special Education Teachers in Reading, Mathematics, and "Teaching Students With Disabilities," by Teacher's Highly Qualified Status, 2006–07

| Average Number of College Courses Completed in: | Reading | Mathematics | Teaching Students With Disabilities |
|---|---|---|---|
| n | 968 | 956 | 962 |
| All teachers | 6.7 (0.3) | 3.8 (0.2) | 7.2 (0.3) |
| **By Teacher's HQ status** | | | |
| Highly qualified | 7.4 (0.4) | 4.2 (0.2) | 7.6 (0.4) |
| Not highly qualified | 5.5 (1.4) | 3.3 (0.8) | 4.5 (1.9) |
| Don't know | 5.3 (0.7) | 3.1 (0.4) | 7.1 (1.2) |
| Not required | 4.8 (0.5) | 2.4 (0.4) | 6.0 (0.8) |

Note: Respondents were asked to answer the number of courses completed. And then the numbers were recoded into the following categories in order to ensure comparability with wave 1 results: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category.

Source: NLS-*NCLB*, Teacher Survey

**Exhibit B.9**
**Percentage of Teachers Reporting Various Reasons For Their Own Not Highly Qualified Status Under *NCLB*, by Teacher Type and Level, 2006–07**

| | Elementary Teachers | Secondary English Teachers | Secondary Mathematics Teachers | Special Education Teachers |
|---|---|---|---|---|
| n | 85 | 92 | 107 | 91 |
| No bachelor's degree | 2.3 (1.6) | 0.0 (0.0) | 0.4 (0.1) | 0.0 (0.0) |
| Lack full certification or licensure | 36.6 (7.7) | 27.5 (6.8) | 20.5 (8.0) | 21.8 (8.2) |
| Have not demonstrated subject knowledge and teaching skills in the basic elementary curriculum | 1.1 (0.8) | | | 3.7(1.5) |
| Have not demonstrated subject matter competency in English | | 18.4 (6.0) | | 32.8 (9.8) |
| Have not demonstrated subject matter competency in math | | | 32.4 (10.5) | 36.6 (11.4) |
| Have not demonstrated subject matter competency in another subject that they teach | | 42.3 (7.7) | 13.4 (4.4) | 31.6 (11.3) |
| Other reason | 55.6 (7.3) | 16.6 (5.1) | 15.9 (6.8) | 28.7 (11.2) |
| Don't know | 4.6 (1.7) | 3.0 (2.1) | 19.3 (10.4) | 5.4 (3.6) |

Notes: 1. Respondents were asked to check all that apply. Thus, the sum of the percentages in each column may not add up to 100 percent. 2. Shaded cells are not applicable. 3. Because these questions were asked only for teachers who were not highly qualified, the number of respondents included in each column is relatively small.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.10
## Percentage of Teachers Reporting Taking Actions or Making Plans in Response to Their Own Not Highly Qualified Status Under *NCLB*, by Teacher Level and Type, 2006–07

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | Special Education Teachers |
|---|---|---|---|---|---|
| n | 250 | 81 | 115 | 54 | 92 |
| Become certified or licensed in one or more of the core academic subjects they teach | 35.2 (5.5) | 29.4 (7.2) | 37.0 (8.2) | 41.6 (5.8) | 9.9 (3.0) |
| Earn a bachelor's degree | 0.9 (0.4) | 1.0 (0.7) | 1.7 (1.2) | 0.0 (0.0) | 0.0 (0.0) |
| Earn a master's or doctoral degree | 32.0 (5.5) | 48.2 (8.5) | 24.8 (6.2) | 16.2 (3.5) | 25.3 (7.1) |
| Demonstrate content expertise in a subject you teach by taking a state or other test | 24.1 (5.3) | 19.0 (6.6) | 33.3 (9.8) | 22.6 (3.1) | 30.6 (11.2) |
| Demonstrate content expertise in a subject you teach by completing additional course work equivalent to a college major | 13.7 (3.0) | 8.9 (3.9) | 18.2 (5.3) | 16.1 (3.9) | 15.8 (4.9) |
| Seek a change in teaching assignments (e.g., change subject or grades) | 6.9 (2.1) | 3.7 (2.4) | 7.7 (3.1) | 10.4 (4.5) | 17.9 (7.5) |
| Seek a change to another school (e.g., non–Title I school, private school) | 2.4 (1.3) | 0.0 (0.0) | 1.0 (0.6) | 7.2 (4.0) | 0.0 (0.0) |
| Leave the teaching profession (e.g., retire or change careers) | 6.7 (2.7) | 5.0 (3.2) | 9.6 (6.5) | 6.4 (4.3) | 7.5 (3.7) |
| Other | 18.0 (4.9) | 16.9 (4.9) | 12.3 (5.8) | 24.8 (10.1) | 34.3 (10.4) |
| None of the above—have not done and do not plan to do anything | 5.6 (1.9) | 4.4 (2.5) | 12.3 (5.5) | 1.1 (1.2) | 6.4 (5.4) |

Notes: 1. Because these questions were asked only for teachers who were not highly qualified, the number of respondents included in each column is relatively small. 2. Respondents were asked to check all that apply. Thus, the sum of the percentages in each column may not add up to 100 percent.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.11
## Percentage of Teachers Who Were Considered Highly Qualified, Not Highly Qualified, or Who Did Not Know Their Status Under *NCLB*, by School Characteristics, 2006–07

| | General Education Teachers | | | Special Education Teachers | | | |
|---|---|---|---|---|---|---|---|
| | Highly Qualified | Not Highly Qualified | Don't Know | Highly Qualified | Not Highly Qualified | Don't Know | Do Not Need to Meet Requirements |
| All teachers | 83.8 (1.1) | 2.2 (0.3) | 14.1 (1.1) | 72.1 (2.4) | 10.0 (2.1) | 12.8 (1.7) | 5.1 (1.4) |
| **By school identification status in 2006–07** | | | | | | | |
| Identified | 82.5 (2.0) | 5.2 (0.8) | 12.3 (1.6) | 68.1 (4.8) | 11.1 (2.6) | 15.8 (3.5) | 5.0 (3.0) |
| Not identified | 84.0 (1.3) | 1.6 (0.2) | 14.4 (1.3) | 72.9 (2.7) | 9.8 (2.3) | 12.2 (1.9) | 5.2 (1.5) |
| **By school poverty** | | | | | | | |
| High-poverty | 82.3 (1.3) | 4.9 (0.7) | 12.8 (1.0) | 74.9 (3.3) | 11.0 (2.4) | 12.3 (2.5) | 1.8 (0.8) |
| Medium-poverty | 82.5 (1.8) | 1.7 (0.3) | 15.8 (1.8) | 76.2 (4.1) | 11.4 (3.7) | 8.0 (1.9) | 4.4 (1.5) |
| Low-poverty | 85.9 (1.8) | 1.2 (0.4) | 12.9 (1.8) | 66.2 (4.5) | 8.0 (2.5) | 18.3 (3.4) | 7.4 (3.2) |
| **By school minority concentration** | | | | | | | |
| High-minority | 82.3 (2.0) | 3.7 (0.6) | 14.0 (1.7) | 73.0 (4.2) | 9.0 (1.7) | 13.1 (3.3) | 4.8 (2.3) |
| Medium-minority | 84.7 (1.7) | 2.0 (0.4) | 13.3 (1.7) | 71.6 (4.5) | 13.6 (4.1) | 9.1 (2.2) | 5.7 (2.9) |
| Low-minority | 83.9 (1.9) | 1.2 (0.3) | 14.8 (1.9) | 73.0 (3.6) | 7.2 (3.0) | 15.4 (3.2) | 4.3 (1.5) |
| **By school urbanicity** | | | | | | | |
| Urban | 82.1 (2.0) | 3.0 (0.5) | 15.0 (1.8) | 69.7 (4.2) | 8.2 (2.2) | 15.9 (2.8) | 6.1 (3.2) |
| Suburban | 85.4 (1.5) | 1.7 (0.3) | 12.9 (1.5) | 71.3 (3.5) | 13.2 (3.6) | 11.0 (2.3) | 4.5 (1.8) |
| Rural | 81.2 (2.9) | 2.4 (0.6) | 16.4 (3.0) | 77.6 (4.9) | 3.9 (1.5) | 13.2 (4.4) | 5.3 (2.3) |

Note: General education teachers n = 7,482; special education teachers n = 1,137.

Source: NLS-*NCLB*, Teacher Survey and SSI-*NCLB* IFI-AYP database.

**Exhibit B.12**
**Percentage of General Education Teachers Reporting that They Were Considered Highly Qualified, Not Highly Qualified, or Who Did Not Know Their Status Under *NCLB*, by School Improvement Status, 2006–07**

| | Highly Qualified | Not Highly Qualified | Don't Know |
|---|---|---|---|
| **All General Education Teachers** | | | |
| School not identified for improvement | 84.0 (1.3) | 1.6 (0.2) | 14.4 (1.3) |
| School identified for improvement (Year 1 or Year 2) | 79.4 (2.9) | 5.7 (1.2) | 14.9 (2.9) |
| School identified for corrective action | 86.7 (3.1) | 3.3 (1.8) | 10.0 (2.4) |
| School identified for restructuring | 84.1 (2.7) | 6.2 (1.9) | 9.7 (1.4) |
| **Elementary teachers** | | | |
| School not identified for improvement | 85.0 (1.5) | 1.0 (0.2) | 14.0 (1.5) |
| School identified for improvement (Year 1 or Year 2) | 82.2 (3.6) | 5.4 (1.7) | 12.4 (3.4) |
| School identified for corrective action | 86.4 (3.8) | 0.3 (0.3) | 13.3 (3.8) |
| School identified for restructuring | 86.1 (3.6) | 5.6 (3.6) | 8.3 (2.0) |
| **Middle school teachers** | | | |
| School not identified for improvement | 87.5 (2.1) | 2.4 (0.6) | 10.1 (2.2) |
| School identified for improvement (Year 1 or Year 2) | 79.3 (4.0) | 10.3 (2.8) | 10.4 (3.0) |
| School identified for corrective action | 91.7 (2.8) | 5.0 (2.6) | 3.3 (1.3) |
| School identified for restructuring | 81.3 (4.4) | 8.3 (2.6) | 10.4 (2.9) |
| **High school teachers** | | | |
| School not identified for improvement | 77.8 (2.9) | 2.7 (0.8) | 19.5 (2.9) |
| School identified for improvement (Year 1 or Year 2) | 71.7 (5.5) | 4.0 (1.6) | 24.3 (5.7) |
| School identified for corrective action | 83.2 (8.3) | 7.2 (5.9) | 9.6 (3.6) |
| School identified for restructuring | 85.1 (5.4) | 3.7 (2.1) | 11.2 (4.2) |

Note: General education teachers n = 7,456; elementary teachers n = 4,111; middle school teachers n = 1,905; high school teachers n = 1,440.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.13**
**Percentage of Highly Qualified General Education Teachers With Fewer Than Three Years of Teaching Experience and Participation in Alternate Route Programs, by School Characteristics, 2006–07**

| | Fewer Than 3 Years Teaching Experience | Alternate Route Program Participation |
|---|---|---|
| All highly qualified general education teachers | 10.1 (0.7) | 7.4 (0.7) |
| **By school identification status in 2006–07** | | |
| Identified | 13.9 (1.7) | 11.7 (1.6) |
| Not identified | 9.4 (0.8) | 6.6 (0.8) |
| **By school poverty** | | |
| High-poverty | 14.4 (1.3) | 14.8 (1.9) |
| Medium-poverty | 9.7 (1.1) | 7.1 (1.1) |
| Low-poverty | 8.3 (1.1) | 3.9 (0.8) |
| **By school minority concentration** | | |
| High-minority | 14.6 (1.3) | 15.6 (2.2) |
| Medium-minority | 10.4 (1.4) | 6.5 (1.3) |
| Low-minority | 6.9 (1.0) | 3.3 (0.6) |
| **By school urbanicity** | | |
| Urban | 12.2 (1.3) | 11.8 (1.4) |
| Suburban | 10.3 (1.0) | 5.9 (1.1) |
| Rural | 6.6 (1.3) | 5.5 (1.1) |

Note: n = 6,052 to 6,154.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.14
## Percentage of Highly Qualified Secondary English and Mathematics Teachers With a Degree in the Field in Which They Teach, by School Characteristics, 2006–07

| | All Highly Qualified Secondary Teachers (n = 2,635 to 2,686) | Highly Qualified Secondary English Teachers (n = 1,424 to 1,448) | Highly Qualified Secondary Mathematics Teachers (n = 1,334 to 1,361) |
|---|---|---|---|
| Overall | 52.9 (1.9) | 55.0 (2.3) | 45.6 (2.5) |
| **By school identification status in 2006–07** | | | |
| Identified | 52.1 (3.8) | 54.3 (4.1) | 45.2 (4.9) |
| Not identified | 53.1 (2.2) | 55.2 (2.7) | 45.7 (2.9) |
| **By school poverty** | | | |
| High-poverty | 40.4 (2.9) | 43.3 (3.9) | 32.2 (4.0) |
| Medium-poverty | 48.4 (2.9) | 47.9 (3.3) | 43.9 (4.0) |
| Low-poverty | 59.3 (2.9) | 63.3 (3.5) | 50.3 (3.8) |
| **By school minority concentration** | | | |
| High-minority | 52.0 (4.2) | 54.9 (5.9) | 45.0 (4.6) |
| Medium-minority | 54.2 (3.6) | 56.0 (4.0) | 47.9 (4.6) |
| Low-minority | 52.5 (2.7) | 54.3 (3.7) | 44.3 (3.7) |
| **By school urbanicity** | | | |
| Urban | 55.1 (3.7) | 58.8 (4.8) | 44.4 (4.3) |
| Suburban | 52.0 (2.5) | 54.0 (2.7) | 47.0 (3.5) |
| Rural | 52.5 (5.0) | 52.2 (7.1) | 42.3 (6.2) |

Note: A degree may include any of the following: bachelor's; master's; educational specialist or professional diploma; certificate of advanced graduate studies; or doctorate or professional degree.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.15
## Average Number of College Courses Completed by Highly Qualified General Education Teachers in Reading and Mathematics, by Teacher's Grade Level and School Characteristics, 2006–07

| Average Number of College Courses Completed in: | Reading or English | | | Mathematics | | |
|---|---|---|---|---|---|---|
| **By:** | **Elementary Teachers** | **Middle School English Teachers** | **High School English Teachers** | **Elementary Teachers** | **Middle School Mathematics Teachers** | **High School Mathematics Teachers** |
| n | 2,960 | 802 | 473 | 2,965 | 737 | 539 |
| All teachers | 7.2 (0.2) | 10.8 (0.4) | 13.9 (0.3) | 4.4 (0.1) | 8.6 (0.3) | 13.2 (0.3) |
| **By school poverty** | | | | | | |
| High-poverty | 6.3 (0.2) | 9.3 (0.5) | 13.2 (0.6) | 4.0 (0.1) | 8.4 (0.5) | 12.2 (0.7) |
| Medium-poverty | 7.3 (0.3) | 10.8 (0.5) | 13.7 (0.5) | 4.4 (0.2) | 8.2 (0.5) | 13.6 (0.4) |
| Low-poverty | 7.9 (0.3) | 11.5 (0.5) | 14.1 (0.5) | 4.6 (0.2) | 9.2 (0.5) | 13.1 (0.4) |
| **By school minority concentration** | | | | | | |
| High-minority | 6.3 (0.2) | 10.0 (0.6) | 12.8 (0.8) | 3.9 (0.1) | 8.0 (0.7) | 12.5 (0.6) |
| Medium-minority | 7.1 (0.4) | 11.0 (0.6) | 13.9 (0.6) | 4.8 (0.3) | 8.5 (0.6) | 13.7 (0.5) |
| Low-minority | 7.9 (0.3) | 11.0 (0.4) | 14.4 (0.4) | 4.3 (0.2) | 9.0 (0.5) | 13.1 (0.4) |
| **By school urbanicity** | | | | | | |
| Urban | 6.9 (0.2) | 10.4 (0.6) | 14.0 (0.5) | 4.2 (0.1) | 8.2 (0.6) | 12.4 (0.6) |
| Suburban | 7.5 (0.3) | 11.2 (0.4) | 13.7 (0.5) | 4.4 (0.2) | 9.0 (0.4) | 13.5 (0.4) |
| Rural | 7.0 (0.4) | 10.3 (0.6) | 14.1 (0.6) | 4.5 (0.3) | 7.8 (0.6) | 13.4 (0.6) |

Note: Respondents were asked to answer the number of courses completed. And then the numbers were recoded into the following categories in order to ensure comparability with wave 1 results: "None," "1 course," "2 courses," "3 courses," "4–6 courses," "7–11 courses," and "12 or more courses." In order to take averages, we assigned 5 courses to the "4–6 courses" category, 9 courses to the "7–11 courses" category, and 16 courses to the "12 or more courses" category.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.16 (W1)**
**Percentage of Teachers Who Were Aware of Their State's Requirements for Them to Be Considered a Highly Qualified Teacher Under *NCLB*, by Teacher Type and Level, 2004–05**

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | All Special Education Teachers |
|---|---|---|---|---|---|
| Yes, I am aware | 83.0 (1.3) | 84.6 (1.5) | 85.9 (1.5) | 76.1 (2.6) | 82.8 (2.3) |
| No, I am not aware | 17.0 (1.3) | 15.4 (1.5) | 14.1 (1.5) | 23.9 (2.6) | 17.2 (2.3) |

Note: General education teachers n = 7,340; elementary teachers n = 4,087; middle school teachers n = 1,887; high school teachers n = 1,366; special education teachers n = 1,186.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.16 (W2)**
**Percentage of Teachers Who Were Aware of Their State's Requirements for Them to Be Considered a Highly Qualified Teacher Under *NCLB*, by Teacher Type and Level, 2006–07**

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | All Special Education Teachers |
|---|---|---|---|---|---|
| Yes, I am aware | 91.3 (0.8) | 93.6 (0.8) | 91.7 (1.5) | 84.2 (2.1) | 97.6 (0.7) |
| No, I am not aware | 8.7 (0.8) | 6.4 (0.8) | 8.3 (1.5) | 15.8 (2.1) | 2.4 (0.7) |

Notes: 1. In 2006–07, special education teachers were asked about their awareness of their state's requirements for highly qualified teachers under *NCLB* and *IDEA*. In 2004–05, they were asked about their awareness of the *NCLB* requirements only. 2. General education teachers n = 7,538; elementary teachers n = 4,139; middle school teachers n = 1,943; high school teachers n = 1,456; special education teachers n = 1,138.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.17**
**Percentage of Teachers Who Reported Sources Through Which They Learned About Requirements to Be Considered a Highly Qualified Teacher Under *NCLB*, by Teacher Type and Level, 2006–07**

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | All Special Education Teachers |
|---|---|---|---|---|---|
| From principal or administrator | 75.2 (1.4) | 78.9 (1.6) | 70.1 (2.4) | 67.9 (2.6) | 70.4 (3.3) |
| From another teacher | 20.8 (0.9) | 20.3 (1.1) | 23.0 (2.1) | 20.3 (1.9) | 21.1 (2.3) |
| From a professional development session | 37.0 (1.3) | 35.9 (1.5) | 33.9 (2.3) | 43.4 (2.6) | 47.1 (3.4) |
| From a college or university | 22.1 (1.0) | 22.2 (1.6) | 22.5 (1.9) | 21.5 (2.1) | 32.5 (2.5) |
| From media (television, Web site, newspaper, etc.) | 23.2 (1.0) | 23.4 (1.4) | 17.8 (1.9) | 27.5 (2.3) | 18.4 (2.2) |
| From another source | 15.3 (0.9) | 13.7 (1.0) | 18.8 (2.0) | 17.2 (2.3) | 17.2 (2.4) |

Notes: 1. Teachers could select more than one response, so percentages do not sum to 100. 2. General education teachers n = 6,888; elementary teachers n = 3,851; middle school teachers n = 1,787; high school teachers
n = 1,250; special education teachers n = 1,077.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.18 (W1)**
**Percentage of Teachers Who Were Notified of Their Own Highly Qualified Status Under *NCLB* Provisions, 2004–05, by Teacher Type and Level**

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | Special Education Teachers |
|---|---|---|---|---|---|
| Yes, I have been notified | 51.8 (2) | 54.5 (2.3) | 53.1 (2.6) | 43.0 (3.4) | 43.0 (2.9) |
| No, I have not been notified | 48.2 (2) | 45.5 (2.3) | 46.9 (2.6) | 57.0 (3.4) | 57.0 (2.9) |

Note: General education teachers n = 6,195; special education teachers n = 998.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.18 (W2)**
**Percentage of Teachers Who Were Notified of Their Own Highly Qualified Status Under *NCLB*, by Teacher Type and Level, 2006–07**

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | Special Education Teachers |
|---|---|---|---|---|---|
| Yes, I have been notified | 68.5 (1.5) | 70.5 (1.6) | 71.9 (2.6) | 59.6 (3.3) | 71.9 (2.6) |
| No, I have not been notified | 31.5 (1.5) | 29.5 (1.6) | 28.1 (2.6) | 40.4 (3.3) | 28.1 (2.6) |

Notes: 1. In wave 2, special education teachers were asked about the notification of their HQ status under *NCLB* and *IDEA*, separately. 2. General education teachers n = 7,444; elementary teachers n = 4,097; middle school teachers n = 1,923; high school teachers n = 1,424; special education teachers n = 1,118.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.19 (W1)**
**Percentage of Schools That Notified Parents of Their Child's Teacher's Highly Qualified Status, by School Poverty, 2004–05**

| | Percent (s.e.) |
|---|---|
| All schools | 52.1 (4.7) |
| **School Poverty** | |
| High-poverty | 76.0 (6.2) |
| Medium-poverty | 46.2 (8.2) |
| Low-poverty | 31.0 (8.2) |

Notes: 1. The percents shown in the exhibit are based on schools that have at least one teacher who is not highly qualified. 2. n = 333.

Source: NLS-*NCLB*, Principal Surveys.

**Exhibit B.19 (W2)**
**Percentage of Schools That Notified Parents of Their Child's Teacher's Highly Qualified Status, by School Poverty, 2006–07**

| | Percent (s.e.) |
|---|---|
| All schools | 71.1 (8.2) |
| **School Poverty** | |
| High-poverty | 93.2 (2.2) |
| Medium-poverty | 75.0 (7.4) |
| Low-poverty | 32.9 (15.8) |

Notes: 1. The percents shown in the exhibit are based on schools that have at least one teacher who is not highly qualified. 2. n = 336.

Source: NLS-*NCLB*, Principal Survey.

**Exhibit B.20 (W1)**
**Percentage of Districts That Notified Parents of Their Child's Teacher's Highly Qualified Status, by District Poverty, 2004–05**

| | Percent (s.e.) |
|---|---|
| All districts | 67.8 (8.2) |
| **District Poverty** | |
| High-poverty | 71.0 (13.2) |
| Medium-poverty | 46.7 (14.4) |
| Low-poverty | 63.0 (13.0) |

Notes: 1. The percents shown in the exhibit are based on districts that have at least one teacher who is not highly qualified. 2. n = 147.

Source: NLS-*NCLB*, District Survey.

**Exhibit B.20 (W2)**
**Percentage of Districts That Notified Parents of Their Child's Teacher's Highly Qualified Status, by District Poverty, 2006–07**

| | Percent (s.e.) |
|---|---|
| All districts | 67.1 (7.6) |
| **District Poverty** | |
| High-poverty | 75.1 (11.1) |
| Medium-poverty | 77.0 (11.4) |
| Low-poverty | 46.1 (15.4) |

Notes: 1. The percents shown in the exhibit are based on districts that have at least one teacher who is not highly qualified. 2. n = 160.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.21 (W1)
## Percentage of Districts Reporting Subject Area and Workforce Challenges in Improving Teacher Qualifications, by District Characteristics, 2004–05

| | Subject Area Challenges | | | | | Workforce Challenges | | |
|---|---|---|---|---|---|---|---|---|
| | Science | Math | Special education | ESL | Reading | Competition with other districts | Inadequate teacher salaries | Large number of retiring teachers |
| All districts | 63.9 (5.9) | 58.4 (6.4) | 55.9 (6.7) | 35.9 (5.8) | 27.6 (6.8) | 38.1 (6.5) | 54.7 (6.5) | 27.4 (6.7) |
| **By district poverty level** | | | | | | | | |
| High-poverty | 61.0 (11.9) | 75.7 (10.3) | 44.7 (11.5) | 60.2 (11.0) | 35.8 (10.6) | 64.9 (10.7) | 69.0 (10.2) | 37.6 (10.6) |
| Medium-poverty | 60.6 (10.4) | 59.1 (10.5) | 51.5 (11.2) | 55.8 (11.4) | 15.9 (7.0) | 41.0 (11.3) | 50.5 (10.9) | 23.8 (11.8) |
| Low-poverty | 69.6 (7.8) | 55.5 (10.0) | 64.3 (9.2) | 16.6 (4.9) | 34.8 (11.6) | 30.1 (9.3) | 55.9 (9.9) | 28.2 (10.4) |
| **By district minority concentration** | | | | | | | | |
| High-minority | 93.4 (4.5) | 92.2 (5.1) | 45.0 (22.9) | 39.1 (20.6) | 39.0 (20.6) | 92.0 (5.1) | 74.9 (14.9) | 87.2 (7.4) |
| Medium-minority | 58.7 (9.2) | 60.8 (9.4) | 59.8 (9.3) | 67.7 (8.3) | 24.8 (8.3) | 43.2 (9.2) | 38.1 (8.9) | 16.0 (4.6) |
| Low-minority | 61.5 (8.2) | 51.8 (9.0) | 56.0 (8.8) | 21.5 (6.3) | 27.0 (10.0) | 27.2 (7.9) | 58.6 (8.3) | 22.7 (8.5) |
| **By district urbanicity** | | | | | | | | |
| Urban | 68.9 (11.1) | 82.2 (7.3) | 57.3 (15.5) | 79.5 (7.8) | 17.1 (6.7) | 75.3 (9.0) | 48.8 (14.7) | 15.6 (5.9) |
| Suburban | 58.6 (8.3) | 49.4 (8.8) | 49.0 (8.9) | 39.4 (8.3) | 15.1 (5.6) | 38.6 (8.9) | 51.1 (8.7) | 21.9 (8.9) |
| Rural | 68.8 (9.1) | 63.4 (10.3) | 63.2 (10.2) | 22.9 (7.3) | 43.5 (12.1) | 30.0 (10.3) | 59.9 (10.6) | 35.8 (11.5) |
| **By district size** | | | | | | | | |
| Large | 62.2 (8.7) | 71.7 (7.8) | 86.5 (7.3) | 70.1 (7.8) | 26.0 (6.4) | 53.2 (8.1) | 39.1 (8.3) | 32.9 (7.3) |
| Medium | 55.1 (8.3) | 55.8 (8.4) | 71.2 (6.6) | 65.9 (6.8) | 23.7 (6.5) | 52.5 (8.2) | 39.4 (7.9) | 25.2 (6.2) |
| Small | 66.6 (7.6) | 58.0 (8.4) | 49.0 (8.9) | 24.4 (6.7) | 28.8 (9.1) | 32.8 (8.6) | 60.4 (8.0) | 27.6 (8.9) |

Note: n = 274 to 278.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.21 (W2)
## Percentage of Districts Reporting Subject Area and Workforce Challenges in Improving Teacher Qualifications, by District Characteristics, 2005–06

| | Subject Area Challenges | | | | | Workforce Challenges | | |
|---|---|---|---|---|---|---|---|---|
| | Science | Math | Special education | ESL | Reading | Competition with other districts | Inadequate teacher salaries | Large number of retiring teachers |
| All districts | 53.0 (6.5) | 44.3 (6.4) | 54.8 (6.8) | 34.8 (6.0) | 13.6 (4.3) | 44.8 (6.7) | 44.7 (6.8) | 33.5 (6.8) |
| **By district poverty level** | | | | | | | | |
| High-poverty | 51.9 (12.4) | 51.8 (12.4) | 60.5 (13.0) | 38.1 (10.9) | 34.4 (10.6) | 58.9 (11.6) | 52.1 (12.0) | 36.3 (10.6) |
| Medium-poverty | 62.1 (9.9) | 64.2 (9.9) | 45.7 (10.6) | 51.8 (11.2) | 8.2 (3.7) | 50.1 (11.1) | 43.3 (10.5) | 45.0 (11.0) |
| Low-poverty | 44.9 (10.4) | 29.7 (9.2) | 58.0 (10.1) | 23.4 (9.5) | 12.4 (7.7) | 38.8 (11.0) | 45.4 (10.8) | 26.0 (10.4) |
| **By district minority concentration** | | | | | | | | |
| High-minority | 94.7 (3.8) | 93.4 (4.4) | 49.2 (24.7) | 36.9 (19.6) | 38.1 (20.2) | 44.1 (22.5) | 28.5 (15.6) | 86.3 (7.9) |
| Medium-minority | 57.8 (9.3) | 47.6 (9.0) | 68.7 (9.5) | 48.1 (9.0) | 13.9 (5.0) | 45.3 (9.2) | 51.0 (9.1) | 27.0 (7.8) |
| Low-minority | 44.3 (8.9) | 34.9 (8.2) | 49.7 (9.1) | 28.7 (8.5) | 9.5 (6.1) | 44.7 (9.2) | 44.6 (9.3) | 27.8 (9.0) |
| **By district urbanicity** | | | | | | | | |
| Urban | 54.2 (14.9) | 62.3 (15.8) | 72.7 (16.9) | 50.1 (14.4) | 16.0 (6.0) | 57.1 (13.3) | 63.0 (11.7) | 26.0 (11.5) |
| Suburban | 61.6 (8.3) | 55.5 (8.5) | 53.8 (9.2) | 36.2 (7.8) | 10.1 (3.7) | 36.6 (8.1) | 31.9 (7.8) | 30.2 (9.3) |
| Rural | 43.4 (11.5) | 28.4 (9.7) | 52.3 (11.4) | 30.1 (11.1) | 17.0 (8.8) | 51.3 (11.5) | 55.2 (11.1) | 38.7 (11.6) |
| **By district size** | | | | | | | | |
| Large | 79.0 (6.5) | 74.4 (7.2) | 95.0 (1.7) | 70.8 (7.3) | 19.5 (4.6) | 45.9 (7.6) | 51.4 (8.8) | 37.1 (7.4) |
| Medium | 60.5 (7.2) | 64.9 (6.9) | 72.3 (6.5) | 58.2 (7.4) | 20.9 (6.1) | 50.3 (7.6) | 48.1 (7.8) | 36.2 (8.1) |
| Small | 48.7 (8.8) | 35.9 (8.5) | 46.4 (8.9) | 25.0 (7.7) | 11.0 (5.6) | 43.1 (8.8) | 43.2 (9.0) | 32.5 (9.0) |

Note: N = 274 to 278.

Source: NLS-*NCLB*, District Survey.

**Exhibit B.22 (W1)**
**Percentage of Districts Providing Alternative Routes To Certification, Financial Incentives, Streamlined Hiring Processes, Higher Education Partnerships, or Targeted Efforts to Recruit Highly Qualified Teachers, by District Characteristics, 2004–05**

| | Partnerships With Higher Education | Streamlined Hiring Processes | Financial Incentives (e.g., increased salaries, signing bonuses) | Alternate Routes To Certification | Targeted Efforts to Attract Teachers in Hard-to-Staff Subjects | Clearinghouse or HR Data System to Track Positions |
|---|---|---|---|---|---|---|
| All districts | 40.6 (5.9) | 34.4 (5.8) | 19.8 (6.0) | 19.6 (3.9) | 35.4 (6.2) | 21.0 (3.8) |
| **By district poverty level** | | | | | | |
| High-poverty | 68.3 (12.9) | 37.1 (10.2) | 22.5 (7.9) | 39.9 (10.8) | 46.5 (11.6) | 27.1 (9.1) |
| Medium-poverty | 47.5 (10.8) | 38.3 (9.7) | 25.3 (11.9) | 30.9 (9.1) | 43.6 (11.1) | 25.8 (7.6) |
| Low-poverty | 30.1 (7.9) | 32.2 (9.1) | 16.1 (8.3) | 7.2 (2.6) | 28.2 (8.5) | 16.8 (4.9) |
| **By district minority concentration** | | | | | | |
| High-minority | 37.3 (19.2) | 22.5 (12.1) | 70.2 (17.5) | 30.0 (16.4) | 80.6 (12.9) | 18.6 (10.2) |
| Medium-minority | 62.7 (9.7) | 47.6 (9.0) | 21.8 (7.2) | 32.3 (8.1) | 44.2 (9.1) | 43.3 (8.8) |
| Low-minority | 31.7 (7.2) | 30.8 (7.7) | 11.6 (6.6) | 12.6 (4.5) | 24.6 (7.2) | 12.1 (3.7) |
| **By district urbanicity** | | | | | | |
| Urban | 60.4 (15.6) | 53.5 (14.9) | 14.9 (5.5) | 31.9 (11.6) | 62.1 (16.0) | 62.7 (15.3) |
| Suburban | 39.7 (7.8) | 29.3 (6.7) | 21.9 (9.3) | 14.8 (4.9) | 39.9 (8.7) | 21.6 (5.2) |
| Rural | 37.5 (10.0) | 36.3 (10.7) | 18.5 (9.2) | 22.6 (7.1) | 24.6 (9.5) | 11.9 (5.3) |
| **By district size** | | | | | | |
| Large | 83.1 (6.7) | 71.2 (7.8) | 25.2 (6.8) | 46.2 (8.5) | 77.8 (6.9) | 79.4 (6.4) |
| Medium | 72.4 (6.5) | 62.3 (7.2) | 22.0 (7.9) | 34.6 (8.1) | 53.0 (8.2) | 52.4 (8.0) |
| Small | 27.9 (6.6) | 23.5 (7.0) | 18.8 (7.9) | 13.1 (4.3) | 27.3 (8.1) | 7.3 (3.1) |

Note: n = 275 to 281.

Source: NLS-*NCLB*, District Survey.

**Exhibit B.22 (W2)**
**Percentage of Districts Providing Alternative Routes To Certification, Financial Incentives, Streamlined Hiring Processes, Higher Education Partnerships, or Targeted Efforts to Recruit Highly Qualified Teachers, by District Characteristics, 2006–07**

| | Partnerships With Higher Education | Streamlined Hiring Processes | Financial Incentives (e.g., increased salaries, signing bonuses) | Alternate Routes To Certification | Targeted Efforts to Attract Teachers in Hard-to-Staff Subjects | Clearinghouse or HR Data System to Track Positions |
|---|---|---|---|---|---|---|
| All districts | 48.2 (6.6) | 50.7 (6.4) | 20.8 (5.5) | 25.3 (5.3) | 47.6 (6.6) | 41.3 (6.3) |
| **By district poverty level** | | | | | | |
| High-poverty | 56.5 (12.3) | 34.9 (9.4) | 18.9 (7.0) | 26.0 (8.3) | 43.6 (11.1) | 54.0 (11.6) |
| Medium-poverty | 49.5 (11.0) | 64.5 (9.9) | 15.3 (5.9) | 33.5 (9.1) | 49.8 (10.6) | 45.9 (10.5) |
| Low-poverty | 43.1 (9.8) | 43.8 (9.7) | 25.8 (9.6) | 20.4 (8.5) | 48.9 (10.3) | 32.2 (9.6) |
| **By district minority concentration** | | | | | | |
| High-minority | 35.8 (18.6) | 76.1 (15.1) | 22.9 (13.6) | 27.1 (15.1) | 86.4 (11.2) | 78.6 (12.2) |
| Medium-minority | 67.1 (9.2) | 51.8 (9.3) | 17.0 (5.7) | 32.5 (8.0) | 47.8 (9.2) | 55.5 (9.1) |
| Low-minority | 42.1 (8.5) | 46.4 (8.3) | 21.9 (7.9) | 22.1 (7.3) | 41.3 (8.8) | 29.5 (8.0) |
| **By district urbanicity** | | | | | | |
| Urban | 74.2 (16.9) | 44.1 (13.5) | 24.2 (10.2) | 27.7 (11.4) | 65.2 (16.3) | 49.1 (14.2) |
| Suburban | 49.0 (8.7) | 62.0 (8.0) | 9.8 (3.3) | 22.7 (6.5) | 42.0 (8.7) | 41.3 (8.5) |
| Rural | 41.8 (11.2) | 39.4 (10.8) | 32.5 (11.2) | 27.9 (9.9) | 50.3 (11.8) | 39.6 (11.3) |
| **By district size** | | | | | | |
| Large | 94.2 (2.4) | 80.3 (5.2) | 40.7 (8.0) | 53.3 (9.1) | 87.8 (4.5) | 82.7 (4.5) |
| Medium | 73.3 (6.0) | 63.7 (7.7) | 19.5 (6.5) | 38.7 (8.0) | 63.7 (7.0) | 55.4 (7.5) |
| Small | 37.2 (8.1) | 44.6 (8.5) | 19.6 (7.2) | 19.2 (6.6) | 40.1 (8.9) | 33.8 (8.5) |

Note: n = 275 to 281.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.23
## Percentage of Districts Taking Various Actions to Increase the Proportion of Highly Qualified Teachers in the District's Highest-Poverty or Highest-Minority Schools, by District Characteristics, 2005–07

| Characteristics | Assessed Whether Not HQ Teachers More Likely to Teach in High-Poverty or High-Minority Schools | Within Schools, Assessed Whether Not HQ Teachers More Likely to Teach Low-Income Students | Focused Recruitment and Retention Efforts on Highest-Poverty/ Minority Schools | Targeted PD Resources on Highest-Poverty/ Minority Schools | Targeted Efforts to Increase the Proportion of HQ Teachers in the District's Lowest-Performing Schools | Increased the Proportion of HQ Teachers Regardless of School or Student Characteristics | Reassigned HQ Teachers to the Highest-Poverty/ Minority Schools |
|---|---|---|---|---|---|---|---|
| All districts | 7.7 (1.9) | 9.5 (2.3) | 7.4 (1.8) | 12.7 (2.4) | 13.4 (2.6) | 39.0 (6.0) | 4.3 (1.3) |
| **By district poverty level** | | | | | | | |
| High-poverty | 22.9 (8.3) | 27.8 (9.0) | 18.9 (7.0) | 30.2 (8.8) | 30.4 (8.8) | 59.6 (12.3) | 9.3 (3.9) |
| Medium-poverty | 5.2 (1.8) | 7.8 (3.8) | 5.8 (2.5) | 8.8 (2.9) | 12.3 (4.5) | 44.1 (10.7) | 2.7 (1.3) |
| Low-poverty | 5.3 (2.4) | 5.5 (2.4) | 4.9 (2.4) | 10.4 (3.3) | 8.9 (3.1) | 29.5 (9.4) | 4.0 (2.3) |
| **By district minority concentration** | | | | | | | |
| High-minority | 23.9 (13.7) | 25.6 (14.4) | 23.7 (13.6) | 29.8 (16.1) | 33.0 (17.4) | 46.2 (23.3) | 12.8 (7.7) |
| Medium-minority | 13.5 (4.6) | 19.5 (6.4) | 13.3 (4.6) | 21.9 (5.6) | 24.4 (6.6) | 48.4 (9.3) | 7.9 (3.7) |
| Low-minority | 2.0 (0.8) | 2.0 (0.9) | 1.4 (0.6) | 4.7 (1.5) | 4.1 (1.4) | 33.1 (8.4) | 0.9 (0.5) |
| **By district urbanicity** | | | | | | | |
| Urban | 21.9 (9.9) | 19.7 (9.8) | 28.7 (11.6) | 37.2 (12.7) | 36.6 (12.4) | 70.2 (17.1) | 12.7 (8.9) |
| Suburban | 6.0 (2.1) | 8.8 (3.4) | 3.5 (1.3) | 11.3 (3.1) | 13.3 (4.0) | 37.9 (8.3) | 2.9 (1.2) |
| Rural | 6.5 (2.7) | 8.0 (3.0) | 7.0 (2.9) | 8.8 (3.1) | 8.5 (3.1) | 33.3 (10.1) | 4.0 (1.7) |
| **By district size** | | | | | | | |
| Large | 31.5 (6.9) | 24.3 (5.9) | 29.6 (7.7) | 56.1 (9.2) | 59.3 (9.2) | 88.6 (5.5) | 13.8 (6.4) |
| Medium | 14.8 (5.2) | 22.9 (7.0) | 12.8 (5.0) | 25.3 (5.9) | 27.7 (7.2) | 62.1 (8.6) | 10.3 (4.3) |
| Small | 3.4 (1.6) | 4.0 (1.7) | 3.6 (1.6) | 4.3 (1.8) | 4.3 (1.8) | 27.0 (7.7) | 1.4 (0.8) |

Note: n = 258 to 268.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.24 (W1)
## Percentage of Districts Reporting Using Various Incentives to Retain Highly Qualified Teachers, by District Characteristics, 2004–05

| Characteristics | Collegial Learning Activities (e.g., common planning time) | Sustained Mentoring or Induction Programs | Financial Incentives (e.g., merit pay, stipends for course work) | Special Career Enhancement Opportunities (e.g., career ladders) | Instructional Coaching or Master Teacher Program |
|---|---|---|---|---|---|
| All districts | 84.0 (5.8) | 70.5 (7.0) | 58.5 (6.5) | 50.6 (6.6) | 51.3 (6.8) |
| **By district poverty level** | | | | | |
| High-poverty | 95.8 (3.1) | 86.3 (8.4) | 53.0 (11.8) | 47.7 (11.6) | 73.7 (11.0) |
| Medium-poverty | 87.8 (7.0) | 76.5 (9.7) | 49.8 (11.1) | 65.8 (9.6) | 67.7 (10.2) |
| Low-poverty | 77.4 (10.0) | 60.7 (11.2) | 68.3 (8.8) | 42.7 (10.1) | 31.7 (7.7) |
| **By district minority concentration** | | | | | |
| High-minority | 98.5 (1.7) | 96.1 (3.5) | 41.3 (21.4) | 88.3 (7.0) | 91.8 (5.6) |
| Medium-minority | 88.9 (7.7) | 89.5 (7.7) | 54.0 (9.6) | 44.1 (9.2) | 83.3 (8.6) |
| Low-minority | 79.7 (8.2) | 58.6 (9.3) | 63.0 (8.0) | 47.2 (8.8) | 31.6 (6.9) |
| **By district urbanicity** | | | | | |
| Urban | 98.0 (1.8) | 99.6 (0.2) | 48.1 (14.1) | 39.9 (13.1) | 90.4 (5.4) |
| Suburban | 87.3 (5.6) | 79.5 (7.6) | 52.2 (8.9) | 57.0 (8.4) | 68.0 (8.4) |
| Rural | 77.4 (11.3) | 54.4 (11.9) | 67.6 (9.9) | 45.5 (11.5) | 24.1 (7.1) |
| **By district size** | | | | | |
| Large | 97.9 (1.2) | 98.5 (1.0) | 72.4 (8.0) | 52.3 (8.8) | 85.3 (6.4) |
| Medium | 99.2 (1.2) | 95.6 (2.1) | 72.3 (6.6) | 66.4 (6.7) | 81.0 (5.8) |
| Small | 78.6 (7.7) | 61.2 (8.9) | 53.4 (8.6) | 46.0 (8.8) | 40.6 (8.3) |

Note: n = 273 to 282.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.24 (W2)
## Percentage of Districts Reporting Using Various Incentives to Retain Highly Qualified Teachers, by District Characteristics, 2006–07

| Characteristics | Collegial Learning Activities (e.g., common planning time) | Sustained Mentoring or Induction Programs | Financial Incentives (e.g., merit pay, stipends for course work) | Special Career Enhancement Opportunities (e.g., career ladders) | Instructional Coaching or Master Teacher Program |
|---|---|---|---|---|---|
| All districts | 87.5 (5.0) | 79.0 (7.0) | 63.2 (6.5) | 39.3 (6.4) | 63.7 (6.8) |
| **By district poverty level** | | | | | |
| High-poverty | 99.3 (0.5) | 99.4 (0.5) | 64.3 (11.1) | 48.1 (11.6) | 79.4 (9.4) |
| Medium-poverty | 89.8 (6.5) | 81.9 (8.9) | 61.7 (10.6) | 45.7 (11.2) | 67.5 (10.0) |
| Low-poverty | 82.1 (8.8) | 70.6 (11.7) | 62.6 (9.9) | 29.9 (9.0) | 55.3 (10.7) |
| **By district minority concentration** | | | | | |
| High-minority | 99.9 (0.0) | 99.9 (0.1) | 92.1 (4.8) | 89.1 (6.4) | 96.7 (2.5) |
| Medium-minority | 89.5 (7.7) | 86.3 (7.9) | 60.9 (9.5) | 41.0 (9.0) | 81.5 (8.1) |
| Low-minority | 84.7 (7.1) | 72.8 (9.8) | 59.7 (8.8) | 30.6 (7.8) | 51.0 (9.0) |
| **By district urbanicity** | | | | | |
| Urban | 98.2 (1.0) | 99.0 (0.8) | 83.2 (7.7) | 39.6 (12.6) | 90.1 (5.0) |
| Suburban | 92.4 (4.7) | 83.8 (7.1) | 70.2 (7.8) | 50.9 (8.6) | 69.5 (7.9) |
| Rural | 79.9 (10.0) | 69.6 (13.1) | 51.5 (11.4) | 26.0 (9.4) | 51.4 (12.0) |
| **By district size** | | | | | |
| Large | 97.5 (1.3) | 98.8 (0.9) | 74.5 (7.3) | 52.5 (9.0) | 87.0 (6.4) |
| Medium | 96.1 (2.8) | 96.1 (3.3) | 74.2 (8.1) | 45.1 (8.1) | 84.7 (3.9) |
| Small | 84.3 (6.7) | 72.7 (9.0) | 59.2 (8.5) | 36.6 (8.5) | 56.2 (8.8) |

Note: n = 273 to 282.

Source: NLS-*NCLB*, District Survey.

**Exhibit B.25**
**Percentage of Districts Needing, Receiving, and Receiving Sufficient Technical Assistance (TA) to Develop Strategies to Recruit and Retain More Highly Qualified Teachers, by District Characteristics, 2005–07**

| Characteristics | Needed TA to Develop Strategies to Recruit and Retain More Highly Qualified Teachers | Received TA to Develop Strategies to Recruit and Retain More Highly Qualified Teachers | Received Sufficient TA to Develop Strategies to Recruit and Retain More Highly Qualified Teachers |
|---|---|---|---|
| All districts | 16.2 (3.3) | 28.3 (7.3) | 81.9 (10.3) |
| **By district poverty level** | | | |
| High-poverty | 39.7 (11.1) | 45.4 (13.6) | 93.2 (4.2) |
| Medium-poverty | 17.5 (6.1) | 39.0 (13.7) | 72.7 (19.0) |
| Low-poverty | 9.4 (3.9) | 18.5 (11.4) | 84.3 (15.5) |
| **By district minority concentration** | | | |
| High-minority | 24.8 (13.7) | 25.7 (15.4) | 87.1 (8.3) |
| Medium-minority | 38.5 (8.6) | 44.7 (11.0) | 67.4 (16.8) |
| Low-minority | 5.7 (2.7) | 20.2 (10.7) | 98.2 (1.8) |
| **By district urbanicity** | | | |
| Urban | 48.5 (14.5) | 40.3 (15.2) | 60.5 (19.8) |
| Suburban | 12.1 (4.0) | 19.4 (6.3) | 96.9 (2.1) |
| Rural | 14.1 (5.2) | 34.0 (13.9) | 80.5 (16.6) |
| **By district size** | | | |
| Large | 43.4 (8.7) | 57.3 (9.9) | 85.8 (5.6) |
| Medium | 41.1 (7.9) | 41.3 (10.2) | 59.5 (19.2) |
| Small | 7.9 (3.0) | 20.2 (9.4) | 98.2 (2.0) |

Note: n = 88 to 266.

Source: NLS-*NCLB,* District Survey.

**Exhibit B.26**
**Percentage of Schools Needing, Receiving, and Receiving Sufficient Technical Assistance for Recruitment and Retention of Highly Qualified Teachers, by School Characteristics, 2005–07**

| Characteristics | Needed TA to Develop Strategies to Recruit and Retain More Highly Qualified Teachers | Received TA to Develop Strategies to Recruit and Retain More Highly Qualified Teachers | Received Sufficient TA to Develop Strategies to Recruit and Retain More Highly Qualified Teachers |
|---|---|---|---|
| All schools | 33.4 (2.6) | 48.2 (2.8) | 87.9 (1.9) |
| **By school improvement status in 2004–05** | | | |
| Identified | 54.7 (5.4) | 63.4 (5) | 82 (4.2) |
| Not Identified | 30.3 (3) | 45.2 (3.1) | 89.7 (2.2) |
| **By school poverty level** | | | |
| High-poverty | 57 (3.7) | 63.3 (4.1) | 82.8 (2.9) |
| Medium-poverty | 35.3 (5) | 45.5 (5.1) | 92.2 (2.6) |
| Low-poverty | 19.8 (3) | 41.5 (4.7) | 87.7 (5) |
| **By school minority concentration** | | | |
| High-minority | 58.3 (3) | 59.2 (4) | 82 (3) |
| Medium-minority | 31.7 (3.9) | 50.2 (5.2) | 93.4 (2.6) |
| Low-minority | 24 (4.8) | 40.3 (5.3) | 87.9 (4.2) |
| **By school level** | | | |
| Elementary school | 29.9 (3.3) | 46.9 (3.9) | 93 (1.9) |
| Middle school | 38.5 (4.9) | 46.7 (5.8) | 83.9 (4.2) |
| High school | 39.3 (5.4) | 54.0 (7.1) | 77.7 (6.6) |

Note: n = 504 to 1184.

Source: NLS-*NCLB*, Principal Survey.

## Exhibit B.27
## Percentage of Districts Providing Various Types of Support for Teachers Who Were Not Highly Qualified, by District Characteristics, 2005–07

| Characteristics | District Required Newly Hired, Not Highly Qualified Teachers to Participate in Mentoring Programs | District Provided Incentives for Teachers to Increase Their Qualifications | District Assigned Not Highly Qualified Teachers an Instructional Coach or Mentor | District Provided Increased Amounts of Professional Development to Not Highly Qualified Teachers | District Transferred Not Highly Qualified Teachers to Other Schools Upon Review of Qualifications | District Dismissed Teachers Based on Review of Qualifications |
|---|---|---|---|---|---|---|
| All districts | 22.8 (4.1) | 14.7 (3.2) | 18.2 (3.6) | 34.2 (5.8) | 3.8 (1.4) | 6.6 (2.1) |
| **By district poverty level** | | | | | | |
| High-poverty | 46.6 (11.2) | 26.0 (9.3) | 42.5 (11.4) | 45.9 (11.3) | 10.3 (5.2) | 20.4 (8.7) |
| Medium-poverty | 27.9 (8.2) | 19.1 (6.9) | 22.1 (7.7) | 43.6 (10.6) | 5.6 (3.4) | 3.9 (1.4) |
| Low-poverty | 13.3 (4.3) | 9.0 (3.2) | 9.8 (3.1) | 25.7 (8.3) | 1.0 (0.8) | 4.8 (3.1) |
| **By district minority concentration** | | | | | | |
| High-minority | 31.8 (17.8) | 18.0 (10.7) | 30.9 (17.4) | 33.9 (18.7) | 1.5 (1.0) | 19.9 (13.5) |
| Medium- minority | 47.1 (9.1) | 30.3 (7.6) | 28.5 (7.2) | 55.2 (9.5) | 12.4 (5.1) | 7.8 (3.1) |
| Low-minority | 11.0 (3.6) | 7.6 (3.4) | 11.9 (4.3) | 25.3 (7.5) | 0.6 (0.4) | 4.0 (2.4) |
| **By district urbanicity** | | | | | | |
| Urban | 39.2 (12.9) | 24.3 (10.3) | 35.4 (12.2) | 47.5 (14.7) | 6.4 (3.2) | 7.2 (3.0) |
| Suburban | 22.1 (5.5) | 17.5 (5.3) | 18.8 (5.4) | 37.4 (8.0) | 2.6 (2.2) | 9.2 (3.9) |
| Rural | 20.1 (6.6) | 9.5 (3.7) | 14.1 (5.1) | 28.0 (9.5) | 4.7 (2.2) | 3.6 (1.9) |
| **By district size** | | | | | | |
| Large | 74.0 (5.9) | 53.1 (9.0) | 64.2 (7.1) | 71.1 (7.0) | 12.1 (6.8) | 16.7 (4.9) |
| Medium | 44.1 (8.1) | 24.2 (5.9) | 29.9 (6.2) | 46.0 (8.0) | 11.0 (5.4) | 6.1 (2.1) |
| Small | 12.7 (4.1) | 9.0 (3.7) | 11.1 (4.2) | 28.0 (7.3) | 1.3 (0.9) | 5.9 (2.7) |

Note: n = 261 to 274.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.28 (W1)
## Percentage of Schools Taking Actions for Teachers Who Were Not Highly Qualified, by School Characteristics, 2003–05

| | Provided Teachers Increased Amounts of Sustained, Intensive and Content-Focused Professional Development | Provided Incentives for Teachers to Increase Their Qualifications | Assigned Teachers an Instructional Coach or Master Teacher | Reduced Teachers' Teaching Loads or Class Size | Reassigned Teachers to Subjects Based on Review of Qualifications | Arranged for District to Transfer or Dismiss Teachers Based on Review of Qualifications |
|---|---|---|---|---|---|---|
| All schools | 68.7 (4.9) | 47.1 (4.9) | 65.9 (5.2) | 20.8 (3.7) | 40.2 (5) | 12.3 (2.6) |
| **By school improvement status in 2004–05** | | | | | | |
| Identified | 87.2 (3.6) | 33.5 (7.3) | 77.8 (6.6) | 32.7 (7.5) | 40.3 (8.1) | 11.5 (3.0) |
| Not identified | 60.3 (6.2) | 51.5 (6.0) | 62.6 (6.6) | 16.4 (3.7) | 41.0 (6.1) | 12.8 (3.3) |
| **By school poverty level** | | | | | | |
| High-poverty | 87.5 (4.2) | 51.8 (6.8) | 77.3 (6.4) | 30.4 (6) | 44.5 (7) | 16.5 (4) |
| Medium-poverty | 76.4 (6.4) | 51.0 (8.7) | 60.4 (8.9) | 21.0 (6.1) | 36.1 (7.7) | 13.3 (5) |
| Low-poverty | 38.1 (10) | 37.5 (9.6) | 59.2 (10.6) | 9.6 (5.7) | 39.7 (10.7) | 6.0 (3.8) |
| **By school minority concentration** | | | | | | |
| High-minority | 91.1 (2.1) | 46.5 (6) | 82.4 (5.3) | 33.6 (5.9) | 43.9 (6.6) | 20.6 (4.4) |
| Medium-minority | 57.4 (10.0) | 51.3 (6.9) | 68.5 (9.5) | 19.3 (7.0) | 38.1 (9.8) | 12.6 (5.0) |
| Low-minority | 55.7 (9.7) | 42.9 (11.5) | 45.6 (9.5) | 7.8 (4.6) | 37.6 (9.4) | 3.4 (2.5) |
| **By school level** | | | | | | |
| Elementary school | 77.6 (5.7) | 44.6 (6.2) | 70.3 (6.6) | 24.8 (5.5) | 28.9 (6.4) | 10.3 (2.6) |
| Middle school | 65.6 (7.5) | 36.0 (7.7) | 62.2 (7.3) | 23.2 (7.2) | 39 (7.7) | 18.2 (6.4) |
| High school | 59.3 (10.8) | 60.4 (10.1) | 63.1 (11.5) | 13.4 (6) | 56.5 (10.8) | 9.6 (4.5) |

Notes: 1. The percents shown in the exhibit are based on schools that have at least one teacher who is not highly qualified. 2. n = 328 to 334.

Source: NLS-*NCLB*, Principal Survey.

## Exhibit B.28 (W2)
## Percentage of Schools Taking Actions for Teachers Who Were Not Highly Qualified, by School Characteristics, 2005–07

| | Provided Teachers Increased Amounts of Sustained, Intensive and Content-Focused Professional Development | Provided Incentives for Teachers to Increase Their Qualifications | Assigned Teachers an Instructional Coach or Master Teacher | Reduced Teachers' Teaching Loads or Class Size | Reassigned Teachers to Subjects Based on Review of Qualifications | Arranged for District to Transfer or Dismiss Teachers Based on Review of Qualifications |
|---|---|---|---|---|---|---|
| All schools | 86.9 (3.3) | 62.6 (5.9) | 72.4 (7.9) | 19.4 (3.6) | 49.9 (6.5) | 21.2 (3.9) |
| **By school improvement status in 2004–05** | | | | | | |
| Identified | 90.3 (2.8) | 61.4 (6.8) | 82.8 (4.2) | 35.4 (7.3) | 54.4 (7.3) | 38.6 (8.1) |
| Not identified | 86.4 (4.2) | 65.4 (6.9) | 69.3 (10.2) | 15.1 (3.9) | 47 (8.2) | 15.3 (3.8) |
| **By school poverty level** | | | | | | |
| High-poverty | 92.6 (2.2) | 64.8 (5.1) | 87.8 (2.6) | 32.9 (5.9) | 47.5 (5.8) | 35 (6.3) |
| Medium-poverty | 79.8 (5.5) | 44 (8.5) | 76 (7.8) | 13.7 (4.7) | 46.5 (7.7) | 18.1 (5.2) |
| Low-poverty | 91.3 (6.6) | 92.4 (4.6) | 43.5 (19.7) | 9.1 (5.4) | 58.9 (18.5) | 5.9 (3.2) |
| **By school minority concentration** | | | | | | |
| High-minority | 93.7 (1.7) | 59.7 (6.9) | 90.3 (2.3) | 29.8 (5.7) | 46.4 (6.5) | 31.8 (6.1) |
| Medium-minority | 85 (5.3) | 59.6 (9.3) | 78.4 (6.3) | 15.3 (5.8) | 48.5 (8.9) | 19 (6.1) |
| Low-minority | 80.8 (10.1) | 69.9 (14.9) | 40.3 (16.5) | 10.3 (5.2) | 58.2 (16.7) | 9.4 (5) |
| **By school level** | | | | | | |
| Elementary school | 89.9 (3.7) | 68.5 (7.6) | 69.8 (9.8) | 21 (4.6) | 45 (9.8) | 22 (4.8) |
| Middle school | 90.7 (3.6) | 44.1 (10.7) | 85.7 (7.4) | 12.6 (5) | 58 (9.8) | 15.2 (5.4) |
| High school | 78 (7.9) | 66.5 (9.3) | 65.7 (12) | 22.4 (6.4) | 53.5 (10.5) | 25.2 (6.3) |

Notes: 1. The percents shown in the exhibit are based on schools that have at least one teacher who is not highly qualified. 2. n = 334 to 338.

Source: NLS-*NCLB*, Principal Survey.

## Exhibit B.29 (W1)
## Percentage of Districts that Placed a Major Emphasis on Various Professional Development Topics, by District Characteristics, 2003–04

| | District Placed Major Emphasis on Professional Development in… | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Special Populations | | Assessments and Standards | | | Other Topics | |
| | Reading | Mathematics | Other Subjects | Instructional Strategies for IEP Students | Instructional Strategies for LEP Students | Alignment of Curriculum with State Standards | Analyzing Student Achievement Data | Preparing Students to Take Annual Assessments | Classroom Management | Use of Technology |
| n | 275 | 276 | 273 | 272 | 274 | 276 | 277 | 274 | 275 | 276 |
| All districts | 57.5 (7.0) | 54.9 (6.5) | 17.7 (5.5) | 22.5 (4.6) | 6.9 (1.8) | 63.0 (6.6) | 43.1 (6.2) | 35.6 (5.6) | 12.2 (3.2) | 22.5 (4.4) |
| **By district poverty level** | | | | | | | | | | |
| High-poverty | 59.0 (12.3) | 72.8 (9.1) | 16.4 (8.5) | 45.4 (11.5) | 19.2 (8.2) | 77.9 (8.3) | 49.6 (11.6) | 64.0 (10.2) | 18.0 (6.8) | 32.1 (10.6) |
| Medium-poverty | 62.9 (11.7) | 54.5 (10.5) | 22.6 (11.7) | 19.5 (7.6) | 9.7 (3.8) | 48.5 (10.8) | 51.3 (11.0) | 48.8 (11.0) | 13.2 (5.5) | 18.7 (6.4) |
| Low-poverty | 51.9 (10.3) | 48.5 (10.1) | 15.2 (6.5) | 18.9 (6.4) | 2.0 (0.8) | 67.4 (9.6) | 33.5 (8.5) | 19.7 (5.9) | 10.3 (4.6) | 23.3 (7.1) |
| **By district minority concentration** | | | | | | | | | | |
| High-minority | 46.2 (23.4) | 93.7 (3.9) | 57.4 (21.9) | 19.5 (11.7) | 20.4 (13.3) | 45.6 (23.2) | 45.2 (23.1) | 37.8 (20.1) | 16.1 (10.3) | 20.0 (13.3) |
| Medium-minority | 66.1 (9.3) | 68.2 (7.1) | 9.6 (3.4) | 17.2 (5.7) | 16.2 (4.9) | 66.6 (9.0) | 55.9 (9.1) | 50.7 (9.3) | 5.3 (2.1) | 20.0 (5.7) |
| Low-minority | 55.6 (9.2) | 43.0 (8.8) | 14.8 (5.6) | 25.1 (6.6) | 0.7 (0.4) | 64.2 (8.5) | 37.2 (7.8) | 28.9 (6.7) | 14.5 (4.7) | 23.9 (6.3) |
| **By district urbanicity** | | | | | | | | | | |
| Urban | 68.3 (16.4) | 71.5 (9.9) | 5.6 (2.3) | 9.3 (4.0) | 16.1 (7.6) | 82.5 (6.3) | 42.7 (13.0) | 69.2 (10.5) | 4.0 (1.7) | 19.0 (8.2) |
| Suburban | 74.0 (9.1) | 56.5 (8.2) | 22.2 (8.9) | 29.6 (7.3) | 10.0 (3.4) | 63.7 (9.1) | 54.4 (8.7) | 41.4 (7.9) | 19.5 (5.7) | 34.0 (7.5) |
| Rural | 36.6 (9.8) | 49.6 (11.4) | 14.8 (7.2) | 17.0 (6.0) | 1.5 (0.8) | 58.2 (11.1) | 30.0 (9.0) | 22.8 (7.2) | 5.3 (2.3) | 9.9 (3.9) |
| **By district size** | | | | | | | | | | |
| Large | 75.0 (9.8) | 51.2 (9.0) | 12.0 (4.0) | 25.2 (6.4) | 33.7 (8.9) | 56.1 (9.1) | 75.5 (6.3) | 50.5 (8.4) | 14.0 (4.7) | 44.4 (9.0) |
| Medium | 86.5 (5.1) | 56.3 (7.7) | 10.1 (3.0) | 19.8 (4.4) | 17.1 (5.3) | 66.0 (8.5) | 53.3 (8.1) | 44.6 (8.4) | 6.3 (2.1) | 19.9 (4.6) |
| Small | 48.0 (8.6) | 54.8 (8.5) | 20.2 (7.3) | 23.0 (6.1) | 1.8 (1.5) | 62.7 (8.7) | 37.5 (7.7) | 32.0 (6.8) | 13.6 (4.3) | 21.3 (5.7) |

Notes: 1. The results presented in this exhibit refer to the 2003–04 school year, including the summer of 2004. 2. n's provided in top row are for all districts.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.29 (W2)
## Percentage of Districts that Placed a Major Emphasis on Various Professional Development Topics, by District Characteristics, 2005–06

| | District Placed Major Emphasis on Professional Development in… | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Special Populations | | Assessments and Standards | | | Other Topics | |
| | Reading | Mathematics | Other Subjects | Instructional Strategies for IEP Students | Instructional Strategies for LEP Students | Alignment of Curriculum with State Standards | Analyzing Student Achievement Data | Preparing Students to Take Annual Assessments | Classroom Management | Use of Technology |
| n | 275 | 276 | 273 | 272 | 274 | 276 | 277 | 274 | 275 | 276 |
| All districts | 51.8 (6.6) | 45.6 (6.4) | 10.4 (4.7) | 17.0 (3.7) | 7.3 (1.8) | 53.3 (6.5) | 51.4 (6.5) | 24.4 (4.7) | 6.6 (2.4) | 18.9 (4.8) |
| **By district poverty level** | | | | | | | | | | |
| High-poverty | 49.3 (11.8) | 58.7 (12.1) | 11.5 (5.2) | 40.9 (11.0) | 14.7 (7.5) | 76.6 (8.5) | 66.0 (12.1) | 59.4 (11.9) | 14.2 (6.3) | 21.9 (7.6) |
| Medium-poverty | 70.8 (8.9) | 64.8 (9.4) | 16.1 (12.0) | 17.2 (6.2) | 9.6 (3.3) | 54.1 (10.6) | 73.7 (7.9) | 26.7 (8.5) | 12.0 (6.2) | 13.1 (5.1) |
| Low-poverty | 41.5 (9.4) | 30.5 (8.7) | 6.5 (2.9) | 10.8 (5.0) | 4.1 (1.9) | 48.2 (10.3) | 33.9 (8.6) | 13.9 (6.1) | 1.0 (0.5) | 22.8 (8.6) |
| **By district minority concentration** | | | | | | | | | | |
| High-minority | 95.7 (3.4) | 94.7 (3.3) | 64.2 (19.1) | 22.3 (13.2) | 22.4 (13.9) | 93.9 (4.4) | 94.3 (3.6) | 42.2 (21.9) | 20.4 (12.3) | 21.7 (12.9) |
| Medium-minority | 52.3 (9.2) | 60.1 (9.3) | 7.0 (2.4) | 21.0 (6.0) | 14.0 (4.5) | 55.1 (9.3) | 61.0 (9.0) | 29.4 (8.0) | 3.2 (1.2) | 18.9 (5.9) |
| Low-minority | 44.7 (8.6) | 31.6 (8.0) | 3.3 (1.9) | 14.4 (4.9) | 2.1 (0.9) | 46.0 (9.0) | 40.5 (8.3) | 19.5 (6.1) | 5.8 (3.4) | 18.4 (6.9) |
| **By district urbanicity** | | | | | | | | | | |
| Urban | 60.6 (15.8) | 59.0 (15.4) | 9.7 (4.2) | 32.1 (13.3) | 27.0 (10.5) | 78.3 (8.0) | 46.8 (13.9) | 22.2 (9.3) | 5.1 (2.2) | 19.7 (11.6) |
| Suburban | 70.0 (6.9) | 58.7 (7.7) | 16.5 (8.8) | 14.8 (5.2) | 7.7 (2.8) | 47.8 (8.5) | 66.1 (7.3) | 24.3 (6.1) | 8.4 (4.4) | 20.2 (6.0) |
| Rural | 29.3 (8.9) | 27.8 (9.2) | 3.8 (2.4) | 16.3 (5.5) | 2.9 (1.4) | 54.4 (11.3) | 35.3 (9.8) | 24.9 (8.3) | 4.8 (2.2) | 17.2 (8.7) |
| **By district size** | | | | | | | | | | |
| Large | 67.5 (10.0) | 54.4 (9.0) | 19.5 (5.4) | 20.3 (5.2) | 32.1 (8.8) | 59.7 (8.5) | 64.7 (8.3) | 29.7 (6.8) | 12.2 (4.1) | 26.0 (6.8) |
| Medium | 71.3 (8.5) | 57.5 (8.2) | 7.6 (3.0) | 29.2 (7.2) | 16.9 (5.0) | 64.1 (7.6) | 69.3 (6.6) | 31.8 (8.2) | 11.7 (4.5) | 29.8 (7.3) |
| Small | 45.1 (8.5) | 41.6 (8.4) | 10.4 (6.3) | 13.3 (4.4) | 2.6 (1.6) | 49.8 (8.7) | 45.3 (8.4) | 22.0 (5.9) | 4.8 (3.0) | 15.4 (6.1) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all districts.

Source: NLS-*NCLB*, District Survey.

**Exhibit B.30**
**Percentage of Districts That Placed a Major Emphasis on Professional Development in Instructional Strategies for Students With LEP, 2005–06**

| District | Percentage | SE |
|---|---|---|
| Districts with substantial number of LEP students* (n = 107) | 32.0 | 8.8 |
| Others (n = 173) | 3.0 | 1.1 |

Notes: *If percentage of LEP students is 7 percent or higher. SE = Standard error.

Source: NLS-*NCLB*, District Survey.

## Exhibit B.31
## Average Number of Hours Teachers Reported Participating in Professional Development on the Following Topics, 2005–06

| Topic | All General Education Teachers | Elementary Teachers | Secondary English Teachers | Secondary Mathematics Teachers |
|---|---|---|---|---|
| **Academic Subjects** | | | | |
| Instructional strategies for teaching reading | 17.1 (0.6) | 19.6 (0.9) | 19.9 (1.0) | 4.9 (0.5) |
| In-depth study of topics in reading | 10.5 (0.4) | 11.7 (0.5) | 13.8 (1.0) | 2.1 (0.4) |
| Instructional strategies for teaching mathematics | 9.5 (0.4) | 10.1 (0.5) | 1.6 (0.3) | 17.3 (1.1) |
| In-depth study of topics in mathematics | 5.7 (0.3) | 5.9 (0.4) | 1.0 (0.2) | 11.1 (1.0) |
| Other subjects | 4.9 (0.3) | 5.9 (0.4) | 4.0 (0.8) | 2.5 (0.3) |
| **Special Populations** | | | | |
| Instructional strategies for students with individualized education programs (IEPs) | 3.4 (0.1) | 3.4 (0.2) | 3.6 (0.3) | 3.4 (0.3) |
| Instructional strategies for limited English proficient (LEP) students | 3.8 (0.3) | 3.8 (0.4) | 4.2 (0.6) | 3.1 (0.4) |
| **Assessments** | | | | |
| Analyzing and interpreting student achievement data | 7.7 (0.3) | 8.0 (0.4) | 7.5 (0.5) | 7.3 (0.4) |
| Preparing students to take the annual state assessment | 8.3 (0.4) | 8.2 (0.6) | 8.3 (0.6) | 8.9 (0.7) |
| Use of appropriate assessment accommodations | 4.4 (0.2) | 4.5 (0.4) | 4.1 (0.3) | 4.5 (0.4) |
| **Other Topics** | | | | |
| Use of technology | 6.6 (0.3) | 6.5 (0.4) | 6.6 (0.5) | 7.4 (0.6) |
| Classroom and behavior management | 5.0 (0.3) | 5.3 (0.5) | 4.3 (0.3) | 4.8 (0.4) |

Notes: 1. Mean hours of professional development were calculated by recoding the original response categories (0, 1–5, 6–12, 13–24, 25–40, 41–80, more than 80 hours) to their midpoints (0, 3, 9, 18.5, 32.5, 60.5, 90 hours). Teachers' reports include the full range of potential professional development activities (e.g., workshops, institutes, courses, internships, and informal job-embedded learning experiences such as planning lessons and exchanging feedback on instruction with coaches and other teachers). 2. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 3. n = 7,249 to 7,391 general education teachers; 3,980 to 4,059 elementary teachers; 1,701 to 1,849 secondary English teachers; 1,691 to 1,707 secondary mathematics teachers.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.32**
**Comparison of Teachers of LEP Students With Other Teachers on LEP-related Professional Development, 2005–06**

| Variable and Category | Teachers of LEP Classes (n = 1,367) | Other Teachers (n = 5,904) |
|---|---|---|
| Average number of hours of professional development on instructional strategies for LEP students | 10.7 (1.2) | 2.7 (0.2) |
| Percentage of teachers participating in at least 1 hour of professional development on instructional strategies for LEP students | 70.1 (3.2) | 34.5 (1.9) |
| Percentage of teachers participating in more than 24 hours of professional development on instructional strategies for LEP students | 11.6 (1.9) | 2.5 (0.4) |

Note: The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.33 (W1)
## Percentage of Teachers Participating in Professional Development Focused on Instructional Strategies for Reading and Mathematics, 2003–04

| | Professional Development in Teaching Reading | | Professional Development in Teaching Mathematics | |
|---|---|---|---|---|
| | Elementary Teachers (n = 4,007) | Secondary English Teachers (n = 1,740) | Elementary Teachers (n = 3,994) | Secondary Mathematics Teachers (n = 1,580) |
| More than 24 hours | 19.6 (1.3) | 21.9 (1.8) | 9.1 (0.9) | 16.1 (1.6) |
| 6 to 24 hours | 38.9 (1.3) | 35.5 (1.8) | 25.6 (1.2) | 30.4 (2.1) |
| 1 to 5 hours | 31.2 (1.9) | 30.3 (2.0) | 36.7 (1.6) | 30.9 (2.5) |
| None | 10.4 (1.3) | 12.2 (1.3) | 28.6 (1.9) | 22.6 (2.1) |

Notes: 1. The results presented in this exhibit refer to the 2003–04 school year, including the summer of 2004. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.33 (W2)
## Percentage of Teachers Participating in Professional Development Focused on Instructional Strategies for Reading and Mathematics, 2005–06

| | Professional Development in Teaching Reading | | Professional Development in Teaching Mathematics | |
|---|---|---|---|---|
| | Elementary Teachers (n = 4,047) | Secondary English Teachers (n = 1,790) | Elementary Teachers (n = 4,043) | Secondary Mathematics Teachers (n = 1,699) |
| More than 24 hours | 26.3 (1.6) | 25.7 (2.0) | 11.4 (1.3) | 21.6 (1.7) |
| 13 to 24 hours | 18.8 (1.2) | 16.9 (1.9) | 12.9 (1.2) | 14.1 (1.5) |
| 6 to 12 hours | 22.5 (1.1) | 22.9 (2.0) | 20.1 (1.2) | 22.5 (1.6) |
| 1 to 5 hours | 23.9 (1.2) | 25.6 (2.2) | 34.7 (1.9) | 28.7 (2.3) |
| None | 8.4 (0.9) | 9.0 (1.3) | 20.9 (1.6) | 13.1 (1.6) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.34 (W1)
## Percentage of Teachers Participating in Professional Development Focused on In-Depth Study of Topics in Reading and Mathematics, 2003–04

| | In-Depth Study of Reading Topics | | In-Depth Study of Mathematics Topics | |
|---|---|---|---|---|
| | Elementary Teachers (n = 3,982) | Secondary English Teachers (n = 1,719) | Elementary Teachers (n = 3,950) | Secondary Mathematics Teachers (n = 1,565) |
| More than 24 hours | 12.8 (1.0) | 15.9 (1.8) | 6.2 (0.8) | 10.4 (1.2) |
| 6 to 24 hours | 28.0 (1.3) | 23.6 (1.6) | 13.6 (1.1) | 15.4 (1.7) |
| 1 to 5 hours | 32.4 (1.2) | 30.4 (2.0) | 29.1 (1.3) | 25.5 (1.8) |
| None | 26.8 (1.3) | 30.1 (2.2) | 51.0 (1.7) | 48.7 (2.4) |

Notes: 1. The results presented in this exhibit refer to the 2003–04 school year, including the summer of 2004. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.34 (W2)
## Percentage of Teachers Participating in Professional Development Focused on In-Depth Study of Topics in Reading and Mathematics, 2005–06

| | In-Depth Study of Reading Topics | | In-Depth Study of Mathematics Topics | |
|---|---|---|---|---|
| | Elementary Teachers (n = 4,007) | Secondary English Teachers (n = 1,776) | Elementary Teachers (n = 3,980) | Secondary Mathematics Teachers (n = 1,694) |
| More than 24 hours | 14.4 (1.1) | 16.2 (1.7) | 6.0 (0.9) | 14.9 (1.7) |
| 13 to 24 hours | 11.2 (0.9) | 12.4 (1.5) | 6.4 (0.8) | 5.5 (0.9) |
| 6 to 12 hours | 18.3 (0.9) | 16.5 (1.8) | 13.0 (1.1) | 13.8 (1.6) |
| 1 to 5 hours | 28.0 (1.3) | 28.3 (1.7) | 27.8 (1.3) | 27.8 (2.2) |
| None | 28.0 (1.6) | 26.6 (2.4) | 46.7 (1.7) | 38.0 (2.6) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.35
## Percentage of Teachers Receiving More Than 24 Hours of Professional Development in Instructional Strategies for Teaching Reading and Mathematics, by Teacher, School, and District Characteristics, 2005–06

| | Reading | | | Mathematics | | |
|---|---|---|---|---|---|---|
| | Elementary Teachers | Middle School English Teachers | High School English Teachers | Elementary Teachers | Middle School Mathematics Teachers | High School Mathematics Teachers |
| n | 4,047 | 1,077 | 713 | 4,043 | 978 | 721 |
| All general education teachers | 26.3 (1.6) | 25.5 (2.6) | 25.9 (2.8) | 11.4 (1.3) | 24.1 (2.3) | 19.4 (2.7) |
| **By teaching experience** | | | | | | |
| Fewer than 3 years | 32.6 (4.7) | 29.4 (7.9) | 39.6 (10.3) | 16.2 (3.5) | 43.4 (6.6) | 25.6 (6.7) |
| 3 years or more | 25.6 (1.6) | 25.0 (2.8) | 24.4 (3.0) | 10.8 (1.4) | 20.4 (2.6) | 18.4 (2.8) |
| **By school improvement status in 2005–06** | | | | | | |
| Identified | 39.8 (2.8) | 27.2 (4.1) | 28.0 (5.4) | 18.4 (2.7) | 31.1 (5.0) | 25.3 (7.3) |
| Not identified | 24.4 (1.7) | 25.5 (3.0) | 25.5 (3.2) | 10.6 (1.4) | 22.7 (2.7) | 18.2 (2.9) |
| **By school poverty level** | | | | | | |
| High-poverty | 32.4 (2.3) | 29.0 (4.7) | 31.6 (5.8) | 16.4 (1.9) | 33.3 (4.3) | 24.8 (5.2) |
| Medium-poverty | 25.8 (2.7) | 22.5 (3.6) | 30.1 (5.5) | 11.0 (2.5) | 22.4 (3.6) | 19.5 (3.9) |
| Low-poverty | 22.3 (2.6) | 27.1 (4.5) | 22.7 (3.5) | 8.0 (1.5) | 21.8 (4.0) | 18.4 (4.3) |
| **By school minority concentration** | | | | | | |
| High-minority | 30.3 (1.8) | 26.8 (5.2) | 32.5 (5.4) | 16.2 (2.0) | 35.3 (3.2) | 23.5 (4.7) |
| Medium-minority | 27.8 (2.9) | 25.5 (4.1) | 29.2 (5.7) | 10.6 (1.9) | 19.3 (3.8) | 21.0 (5.4) |
| Low-minority | 22.8 (2.7) | 24.1 (4.1) | 18.0 (3.4) | 9.1 (2.3) | 21.3 (3.9) | 15.1 (3.0) |
| **By school urbanicity** | | | | | | |
| Urban | 32.0 (2.7) | 31.6 (3.8) | 31.3 (4.1) | 13.1 (2.1) | 29.4 (5.1) | 22.2 (5.2) |
| Suburban | 25.2 (2.2) | 26.4 (3.7) | 25.8 (4.4) | 10.3 (2.0) | 23.8 (3.1) | 18.2 (3.8) |
| Rural | 22.0 (3.3) | 14.8 (3.9) | 13.5 (3.7) | 11.9 (2.3) | 17.3 (4.4) | 17.6 (4.3) |
| **By district size** | | | | | | |
| Large | 27.7 (2.2) | 25.3 (3.9) | 26.1 (3.9) | 12.8 (2.3) | 24.6 (3.0) | 20.6 (3.4) |
| Medium | 29.0 (2.9) | 28.1 (4.0) | 28.7 (4.7) | 10.4 (1.6) | 27.3 (4.3) | 19.8 (5.8) |
| Small | 18.1 (2.5) | 21.1 (5.6) | 18.2 (4.7) | 9.6 (2.0) | 16.0 (5.1) | 13.1 (3.5) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.36
## Percentage of Teachers Receiving More Than 24 Hours of Professional Development on In-Depth Study of Topics in Reading and Mathematics, by Teacher, School, and District Characteristics, 2005–06

| | Reading | | | Mathematics | | |
|---|---|---|---|---|---|---|
| | Elementary Teachers | Middle School English Teachers | High School English Teachers | Elementary Teachers | Middle School Mathematics Teachers | High School Mathematics Teachers |
| n | 4,007 | 1,072 | 704 | 3,980 | 973 | 721 |
| All general education teachers | 14.4 (1.1) | 15.2 (2.1) | 17.1 (2.4) | 6.0 (0.9) | 15.6 (2.2) | 14.3 (2.5) |
| **By teaching experience** | | | | | | |
| Fewer than 3 years | 21.8 (3.9) | 19.1 (6.2) | 19.2 (7.3) | 8.6 (2.0) | 24.0 (7.2) | 14.0 (7.2) |
| 3 years or more | 13.5 (1.1) | 14.7 (2.2) | 16.8 (2.4) | 5.7 (1.0) | 13.9 (2.6) | 14.3 (2.9) |
| **By school improvement status in 2005–06** | | | | | | |
| Identified | 24.4 (2.5) | 17.5 (4.1) | 17.1 (4.1) | 8.9 (1.6) | 22.3 (3.2) | 15.8 (4.3) |
| Not Identified | 12.9 (1.1) | 14.9 (2.5) | 17.1 (2.8) | 5.7 (1.0) | 14.3 (2.7) | 13.9 (3.0) |
| **By school poverty level** | | | | | | |
| High-poverty | 20.2 (1.8) | 19.2 (3.3) | 25.2 (5.1) | 9.6 (1.4) | 18.7 (3.0) | 23.1 (5.5) |
| Medium-poverty | 13.2 (1.6) | 11.5 (3.3) | 18.7 (4.2) | 5.7 (1.8) | 12.9 (3.0) | 18.2 (4.4) |
| Low-poverty | 11.6 (2.0) | 17.9 (3.5) | 15.0 (3.3) | 3.6 (0.8) | 17.7 (4.5) | 10.1 (2.8) |
| **By school minority concentration** | | | | | | |
| High-minority | 19.3 (1.5) | 19.4 (3.5) | 22.1 (5.4) | 10.2 (1.4) | 15.4 (3.3) | 21.0 (4.8) |
| Medium-minority | 14.0 (2.0) | 12.3 (4.4) | 10.5 (2.7) | 4.2 (1.0) | 13.9 (4.7) | 13.3 (3.6) |
| Low-minority | 11.8 (1.7) | 15.6 (3.1) | 21.4 (4.2) | 4.9 (1.7) | 17.0 (3.6) | 11.4 (3.5) |
| **By school urbanicity** | | | | | | |
| Urban | 18.1 (1.4) | 14.2 (3.1) | 16.9 (3.7) | 6.6 (1.1) | 23.2 (6.2) | 16.9 (5.1) |
| Suburban | 15.6 (1.6) | 18.9 (3.2) | 17.3 (3.6) | 6.1 (1.5) | 15.0 (2.6) | 12.7 (3.2) |
| Rural | 6.8 (1.6) | 5.4 (2.5) | 16.5 (6.1) | 5.0 (1.5) | 6.9 (2.3) | 15.0 (4.0) |
| **By district size** | | | | | | |
| Large | 16.6 (1.7) | 15.3 (2.9) | 15.5 (3.0) | 7.7 (1.7) | 14.2 (2.1) | 17.2 (3.8) |
| Medium | 14.6 (1.8) | 14.3 (3.9) | 16.7 (4.9) | 3.9 (0.7) | 20.3 (5.2) | 7.3 (2.6) |
| Small | 8.9 (1.8) | 16.6 (4.7) | 24.5 (6.6) | 5.7 (1.6) | 9.6 (3.5) | 18.4 (5.1) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.37
## Percentage of Teachers Who Reported Changing Their Teaching as a Result of Participation in Professional Development on Reading and Mathematics, by Teacher, School, and District Characteristics, 2005–06

| | Reading | | Mathematics | |
|---|---|---|---|---|
| | Elementary Teachers | Secondary English Teachers | Elementary Teachers | Secondary Mathematics Teachers |
| n | 3758 | 1644 | 3169 | 1530 |
| All general education teachers | 77.9 (1.3) | 74.2 (2.3) | 61.8 (1.9) | 71.6 (2.1) |
| **By teaching experience** | | | | |
| Fewer than 3 years | 84.4 (3.4) | 89.4 (2.9) | 65.0 (5.3) | 85.1 (4.5) |
| 3 years or more | 77.1 (1.4) | 72.6 (2.5) | 61.2 (2.0) | 69.4 (2.1) |
| **By school improvement status in 2005–06** | | | | |
| Identified | 76.3 (1.9) | 79.1 (3.3) | 70.5 (3.0) | 76.9 (2.5) |
| Not identified | 77.5 (1.5) | 73.2 (2.6) | 59.6 (2.2) | 70.3 (2.5) |
| **By school poverty level** | | | | |
| High-poverty | 78.5 (1.5) | 76.5 (3.4) | 67.3 (2.3) | 73.0 (2.8) |
| Medium-poverty | 78.9 (2.3) | 77.8 (3.6) | 65.1 (3.8) | 76.1 (3.4) |
| Low-poverty | 76.1 (2.4) | 70.7 (3.2) | 53.0 (3.3) | 67.2 (3.3) |
| **By school minority concentration** | | | | |
| High-minority | 77.9 (1.7) | 75.4 (3.9) | 66.0 (2.3) | 76.4 (4.2) |
| Medium-minority | 77.1 (2.1) | 74.7 (4.3) | 68.4 (3.2) | 73.3 (3.5) |
| Low-minority | 78.4 (2.4) | 73.2 (3.6) | 53.1 (4.1) | 67.4 (3.2) |
| **By school urbanicity** | | | | |
| Urban | 78.5 (2.2) | 74.6 (4.3) | 64.5 (3.2) | 68.4 (3.0) |
| Suburban | 77.9 (1.9) | 76.7 (2.5) | 59.5 (2.9) | 74.6 (3.1) |
| Rural | 76.9 (3.0) | 64.7 (7.7) | 64.3 (4.8) | 65.4 (5.3) |
| **By district size** | | | | |
| Large | 76.4 (1.6) | 73.6 (3.2) | 64.8 (2.5) | 71.0 (3.0) |
| Medium | 80.9 (2.5) | 74.1 (3.5) | 60.3 (4.2) | 74.1 (3.3) |
| Small | 76.1 (3.3) | 76.5 (6.4) | 55.7 (3.9) | 68.3 (5.3) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.38
## Percentage of Teachers Whose Professional Development Experiences Often Involved Active Learning, by Teacher, School, and District Characteristics, 2005–06

| | Teachers whose professional development experiences often involved… | | | | | |
|---|---|---|---|---|---|---|
| | Participants reviewing student work or scoring assessments | Participants developing and practicing using student materials | Participants practicing what they had learned and receiving feedback | Participants leading group discussions | Participants conducting a demonstration of a lesson, unit, or skill | Any of the previous five features |
| n | 7,361 | 7,349 | 7,355 | 7,351 | 7,341 | 7,383 |
| All general education teachers | 20.6 (1.1) | 20.0 (1.0) | 19.7 (1.0) | 18.1 (0.9) | 13.8 (0.8) | 44.5 (1.3) |
| All special education teachers | 12.9 (1.7) | 13.7 (1.8) | 22.1 (2.4) | 17.3 (2.2) | 14.2 (2.1) | 39.3 (2.9) |
| **By grade level (Among all general education teachers hereafter)** | | | | | | |
| Elementary teachers | 23.0 (1.6) | 22.0 (1.4) | 21.3 (1.2) | 18.6 (1.3) | 13.8 (1.2) | 47.0 (1.7) |
| Middle school teachers | 18.0 (1.5) | 19.5 (2.2) | 19.7 (1.8) | 18.9 (1.7) | 13.2 (1.2) | 44.7 (2.2) |
| High School teachers | 15.7 (1.6) | 14.4 (2.0) | 15.0 (1.6) | 15.8 (1.8) | 14.5 (2.1) | 36.8 (2.6) |
| **By teaching experience** | | | | | | |
| Fewer than 3 years | 19.3 (3.2) | 18.3 (3.0) | 23.6 (2.3) | 19.5 (2.8) | 19.7 (3.1) | 50.3 (3.6) |
| 3 years or more | 20.7 (1.3) | 20.2 (1.0) | 19.2 (1.0) | 17.9 (1.0) | 13.1 (0.8) | 43.8 (1.4) |
| **By school improvement status in 2005–06** | | | | | | |
| Identified | 22.8 (2.4) | 24.4 (2.7) | 23.6 (2.5) | 22.2 (1.5) | 17.4 (2.8) | 47.6 (2.7) |
| Not identified | 19.4 (1.2) | 19.0 (1.1) | 18.7 (1.0) | 17.2 (1.0) | 13.1 (0.9) | 43.4 (1.5) |
| **By school poverty level** | | | | | | |
| High-poverty | 24.7 (1.7) | 24.9 (1.9) | 26.3 (1.7) | 22.5 (1.4) | 20.0 (2.0) | 51.9 (1.8) |
| Medium-poverty | 19.0 (2.0) | 18.4 (1.4) | 19.0 (1.4) | 16.8 (1.5) | 13.0 (1.3) | 42.7 (2.3) |
| Low-poverty | 20.1 (1.9) | 19.1 (1.8) | 16.8 (1.6) | 17.2 (1.7) | 11.3 (1.5) | 42.4 (2.3) |
| **By school minority concentration** | | | | | | |
| High-minority | 25.6 (1.7) | 24.1 (1.9) | 25.2 (1.4) | 21.0 (1.4) | 21.2 (1.7) | 50.9 (1.6) |
| Medium-minority | 20.6 (2.1) | 22.0 (1.8) | 19.0 (1.9) | 18.7 (1.6) | 12.5 (1.2) | 45.0 (2.3) |
| Low-minority | 17.6 (2.0) | 15.9 (1.6) | 16.9 (1.4) | 15.8 (1.6) | 10.5 (1.2) | 40.3 (2.3) |
| **By school urbanicity** | | | | | | |
| Urban | 22.6 (1.6) | 21.2 (1.4) | 20.2 (1.6) | 19.8 (1.3) | 15.5 (1.0) | 46.7 (1.7) |
| Suburban | 19.5 (1.6) | 20.0 (1.4) | 19.6 (1.4) | 17.8 (1.4) | 14.1 (1.3) | 44.4 (1.8) |
| Rural | 21.0 (3.2) | 18.1 (2.7) | 19.3 (2.3) | 16.4 (2.4) | 10.4 (1.6) | 41.4 (3.8) |
| **By district size** | | | | | | |
| Large | 22.7 (1.6) | 22.7 (1.5) | 22.5 (1.3) | 21.6 (1.4) | 16.9 (1.3) | 48.1 (1.7) |
| Medium | 21.0 (2.1) | 19.3 (1.5) | 18.2 (1.8) | 16.8 (1.5) | 12.0 (1.2) | 44.9 (2.3) |
| Small | 13.9 (2.2) | 13.5 (2.2) | 14.9 (1.8) | 10.7 (1.6) | 8.7 (1.5) | 33.4 (2.8) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.39
## Percentage of Teachers Whose Professional Development Experiences Were Often Coherent, by Teacher, School, and District Characteristics, 2005–06

| | Teachers whose professional development experiences were often… | | | | |
|---|---|---|---|---|---|
| | Designed to support state or district standards and/or assessments | Designed as part of a school improvement plan to meet state, district, or school goals | Consistent with own goals for professional development | Based explicitly on what teacher had learned in earlier professional development experiences | Any of the previous four features |
| n | 7,351 | 7,352 | 7,374 | 7,332 | 7,392 |
| All general education teachers | 66.8 (1.2) | 60.5 (1.4) | 38.2 (1.3) | 16.8 (0.9) | 78.9 (1.0) |
| Special education teachers | 55.4 (2.5) | 47.8 (2.9) | 34.9 (2.8) | 13.1 (1.8) | 71.7 (2.2) |
| **By grade level (Among all general education teachers hereafter)** | | | | | |
| Elementary teachers | 70.4 (1.5) | 65.0 (1.6) | 40.4 (1.8) | 17.5 (1.1) | 81.5 (1.3) |
| Middle school teachers | 66.3 (2.3) | 56.4 (2.5) | 40.2 (2.0) | 16.9 (1.8) | 78.5 (1.9) |
| High school teachers | 56.4 (2.3) | 50.3 (2.7) | 29.9 (2.1) | 14.4 (1.4) | 71.4 (2.1) |
| **By teaching experience** | | | | | |
| Fewer than 3 years | 63.0 (3.5) | 51.2 (4.0) | 42.1 (3.7) | 14.1 (2.3) | 74.6 (3.2) |
| 3 years or more | 67.3 (1.2) | 61.6 (1.4) | 37.8 (1.4) | 17.1 (0.9) | 79.5 (1.0) |
| **By school improvement status in 2005–06** | | | | | |
| Identified | 71.6 (2.2) | 65.6 (2.1) | 39.8 (2.5) | 17.2 (1.4) | 81.1 (2.0) |
| Not identified | 65.5 (1.3) | 59.4 (1.6) | 37.7 (1.5) | 16.6 (1.0) | 78.2 (1.1) |
| **By school poverty level** | | | | | |
| High-poverty | 70.4 (1.7) | 62.2 (1.8) | 38.9 (1.9) | 19.0 (1.4) | 79.1 (1.5) |
| Medium-poverty | 69.4 (2.0) | 64.9 (2.3) | 39.7 (2.1) | 18.3 (1.4) | 80.6 (1.7) |
| Low-poverty | 62.1 (1.8) | 54.8 (2.1) | 36.3 (2.0) | 13.9 (1.5) | 77.0 (1.6) |
| **By school minority concentration** | | | | | |
| High-minority | 69.2 (2.0) | 60.6 (1.7) | 34.4 (2.4) | 18.9 (1.3) | 79.1 (1.4) |
| Medium-minority | 69.2 (2.1) | 65.1 (2.7) | 41.1 (2.1) | 16.2 (1.6) | 80.9 (1.9) |
| Low-minority | 63.3 (2.0) | 56.4 (2.1) | 38.3 (2.1) | 15.6 (1.4) | 77.2 (1.7) |
| **By school urbanicity** | | | | | |
| Urban | 68.9 (2.0) | 62.2 (2.3) | 39.7 (2.2) | 20.6 (1.6) | 78.8 (1.6) |
| Suburban | 65.6 (1.7) | 59.0 (1.9) | 38.2 (2.0) | 16.3 (1.2) | 79.2 (1.3) |
| Rural | 67.3 (3.4) | 62.4 (3.8) | 36.2 (2.6) | 12.5 (1.8) | 78.1 (3.0) |
| **By district size** | | | | | |
| Large | 68.6 (1.5) | 63.5 (2.0) | 38.0 (1.9) | 19.3 (1.3) | 81.2 (1.1) |
| Medium | 67.0 (2.5) | 60.0 (2.4) | 40.2 (2.4) | 15.0 (1.3) | 78.0 (1.8) |
| Small | 61.3 (2.9) | 52.9 (3.3) | 35.1 (2.7) | 13.2 (2.0) | 74.1 (2.8) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.40**
**Percentage of Teachers Who Reported Never, Rarely, Sometimes, or Often Participating in Professional Development Experiences That Were Coherent, 2005–06**

| | Never | Rarely | Sometimes | Often |
|---|---|---|---|---|
| Designed to support state or district standards and/or assessments | 2.3 (0.3) | 3.8 (0.4) | 27.1 (1.0) | 66.8 (1.2) |
| Designed as part of a school improvement plan to meet state, district, or school goals | 3.9 (0.5) | 4.6 (0.4) | 31.0 (1.1) | 60.5 (1.4) |
| Consistent with own goals for professional development | 3.4 (0.5) | 9.7 (0.7) | 48.7 (1.1) | 38.2 (1.3) |
| Based explicitly on what teacher had learned in earlier professional development experiences | 5.0 (0.5) | 19.6 (0.9) | 58.6 (1.0) | 16.8 (0.9) |

Notes: 1. The percents shown in this exhibit are for all general education teachers and refer to the 2005–06 school year, including the summer of 2006. 2.. n = 7,332 to 7,374.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.41
## Average Number of Professional Development Hours Reported by Teachers, by Teacher, School, and District Characteristics, 2005–06

| | All General Education Teachers | Elementary Teachers | Middle School Teachers | High School Teachers | Special Education Teachers |
|---|---|---|---|---|---|
| n | 6,785 | 3,692 | 1,755 | 1,338 | 964 |
| All teachers | 99.6 (2.6) | 97.0 (2.9) | 105.7 (6.3) | 102.0 (6.3) | 100.4 (7.3) |
| **By teaching experience** | | | | | |
| Fewer than 3 years | 117.1 (9.3) | 113.4 (12.2) | 120.1 (20.0) | 124.7 (27.1) | 137.4 (20.4) |
| 3 years or more | 97.6 (2.7) | 95.3 (3.1) | 103.9 (6.6) | 99.2 (6.3) | 95.0 (7.9) |
| **By school improvement status in 2005–06** | | | | | |
| Identified | 111.4 (7.7) | 116.5 (11.9) | 106.1 (13.4) | 105.7 (9.6) | 100.9 (13.1) |
| Not identified | 98.3 (2.8) | 94.9 (3.1) | 106.9 (7.2) | 101.5 (7.5) | 101.2 (8.8) |
| **By school poverty level** | | | | | |
| High-poverty | 106.5 (5.9) | 107.9 (7.3) | 110.7 (8.4) | 84.8 (8.3) | 94.8 (11.9) |
| Medium-poverty | 91.4 (3.5) | 90.0 (4.2) | 92.1 (9.0) | 95.3 (9.2) | 104.1 (13.7) |
| Low-poverty | 105.2 (4.3) | 98.2 (5.2) | 119.9 (9.9) | 109.0 (9.7) | 99.0 (9.7) |
| **By school minority concentration** | | | | | |
| High-minority | 96.4 (4.4) | 94.4 (4.5) | 102.6 (9.6) | 97.6 (9.2) | 86.2 (8.9) |
| Medium-minority | 105.4 (5.0) | 103.8 (5.9) | 105.4 (11.7) | 108.7 (12.7) | 101.7 (15.8) |
| Low-minority | 96.9 (3.8) | 93.8 (4.0) | 107.8 (10.2) | 96.8 (8.6) | 104.6 (9.7) |
| **By school urbanicity** | | | | | |
| Urban | 107.9 (4.0) | 103.1 (4.9) | 125.1 (12.9) | 108.3 (11.0) | 86.9 (8.7) |
| Suburban | 101.9 (3.8) | 99.4 (4.3) | 104.9 (8.6) | 106.1 (9.7) | 109.1 (12.2) |
| Rural | 81.0 (3.9) | 83.5 (4.8) | 80.9 (11.4) | 69.7 (8.4) | 96.8 (12.4) |
| **By district size** | | | | | |
| Large | 100.3 (3.6) | 99.0 (3.7) | 104.1 (9.3) | 100.9 (9.2) | 91.7 (6.7) |
| Medium | 104.2 (4.5) | 98.3 (5.5) | 113.8 (10.1) | 113.2 (11.1) | 115.3 (18.7) |
| Small | 89.5 (5.6) | 90.2 (6.5) | 93.9 (14.6) | 81.2 (9.2) | 99.6 (14.9) |

Notes: 1. Professional development in this study is defined broadly as all activities, both formal and informal, that are intended to help teachers develop and improve their content knowledge and classroom instruction. 2. The percents shown in this exhibit are for all general education teachers and refer to the 2005–06 school year, including the summer of 2006. 3. n = 6,785.

Sources: NLS-*NCLB*, Teacher Survey.

**Exhibit B.42**
**Percentage of Teachers Who Participated in At Least One Formal Professional Development Activity Lasting Two Days or Longer, by Teacher, School, and District Characteristics, 2005–06**

| | All General Education Teachers | Special Education Teachers |
|---|---|---|
| n | 7,474 | 1,138 |
| All teachers | 81.9 (0.9) | 82.3 (2.2) |
| **By teaching experience** | | |
| Fewer than 3 years | 82.5 (2.8) | 93.3 (2.5) |
| 3 years or more | 81.9 (0.9) | 80.6 (2.5) |
| **By school improvement status in 2005–06** | | |
| Identified | 87.7 (1.5) | 87.5 (2.9) |
| Not identified | 80.8 (1.0) | 80.9 (2.5) |
| **By school poverty level** | | |
| High-poverty | 87.4 (1.3) | 86.2 (2.2) |
| Medium-poverty | 84.3 (1.1) | 83.2 (3.4) |
| Low-poverty | 76.5 (1.8) | 79.4 (3.9) |
| **By school minority concentration** | | |
| High-minority | 86.4 (1.2) | 86.9 (2.7) |
| Medium-minority | 83.4 (1.5) | 84.5 (3.2) |
| Low-minority | 77.9 (1.6) | 77.7 (4.0) |
| **By school urbanicity** | | |
| Urban | 85.4 (1.3) | 78.8 (3.4) |
| Suburban | 80.8 (1.2) | 85.4 (3.0) |
| Rural | 80.3 (2.1) | 79.2 (5.8) |
| **By district size** | | |
| Large | 82.4 (1.3) | 84.8 (3.0) |
| Medium | 83.6 (1.3) | 81.9 (3.6) |
| Small | 77.6 (2.3) | 76.0 (5.9) |

Notes: 1. Formal professional development activities include conferences, institutes, workshop series, courses, and internships. 2. The percents shown in this exhibit are for all general education teachers and refer to the 2005–06 school year, including the summer of 2006.

Source: NLS-*NCLB*, Teacher Survey.

**Exhibit B.43**
**Percentage of Teachers Participating in Various Embedded Forms of Professional Development At Least Once or Twice a Month, 2005–06**

| | General education teachers who participated at least once or twice a month | Special education teachers who participated at least once or twice a month |
|---|---|---|
| Consulted with other teachers about individual students | 90.8 (0.7) | 93.9 (1.3) |
| Exchanged feedback with other teachers based on student work | 83.6 (0.9) | 87.3 (1.6) |
| Planned lessons or courses with other teachers | 74.5 (1.2) | 62.7 (2.8) |
| Exchanged feedback with other teachers based on classroom observations | 47.9 (1.4) | 60.1 (2.8) |
| Participated in a learning community (e.g., teacher collaborative, network or study group) | 47.3 (1.8) | 40.2 (2.9) |
| Acted as a formal or informal coach or mentor to other teachers or staff | 42.2 (1.2) | 41.9 (2.8) |
| Received formal or informal coaching or mentoring from other teachers or staff | 37.2 (1.1) | 38.4 (2.9) |
| Participated in a district or school committee focused on curriculum, instruction, or student assessment | 32.2 (1.3) | 30.3 (2.7) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n = 7,384 to 7,448 for general education teachers, n = 1,116 to 1,132 for special education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.44
## Percentage of Teachers Participating in Various Sustained Forms of Professional Development At Least Once or Twice a Month, by Teacher, School, and District Characteristics, 2005–06

| | Teachers who at least once or twice a month… | | | | |
|---|---|---|---|---|---|
| | **Consulted with other teachers about individual students** | **Planned lessons or courses with other teachers** | **Exchanged feedback with other teachers based on classroom observations** | **Acted as a formal or informal coach or mentor to other teachers or staff** | **Received formal or informal coaching or mentoring from other teachers or staff** |
| n | 7,441 | 7,414 | 7,448 | 7,409 | 7,416 |
| All general education teachers | 90.8 (0.7) | 74.5 (1.2) | 47.9 (1.4) | 42.2 (1.2) | 37.2 (1.1) |
| **By grade level (Among all general education teachers)** | | | | | |
| Elementary teachers | 92.1 (0.9) | 79.8 (1.4) | 49.7 (1.7) | 40.2 (1.5) | 38.5 (1.4) |
| Middle school teachers | 92.0 (1.0) | 69.4 (2.2) | 49.9 (2.4) | 45.2 (2.3) | 38.9 (2.1) |
| High school teachers | 85.5 (1.7) | 63.1 (2.8) | 40.8 (2.9) | 45.4 (2.6) | 31.9 (2.3) |
| **By teaching experience** | | | | | |
| Fewer than 3 years | 82.9 (2.6) | 73.2 (3.1) | 68.6 (3.1) | 15.2 (2.4) | 74.2 (2.7) |
| 3 years or more | 91.8 (0.6) | 74.6 (1.3) | 45.2 (1.4) | 45.6 (1.3) | 32.4 (1.1) |
| **By school improvement status in 2005–06** | | | | | |
| Identified | 87.2 (1.4) | 73.7 (2.1) | 54.1 (2.6) | 38.0 (1.6) | 45.5 (2.7) |
| Not identified | 91.4 (0.8) | 74.4 (1.4) | 46.9 (1.6) | 42.8 (1.4) | 35.6 (1.3) |
| **By school poverty level** | | | | | |
| High-poverty | 90.0 (1.0) | 78.6 (1.4) | 59.1 (1.7) | 39.8 (1.4) | 47.8 (1.8) |
| Medium-poverty | 90.8 (1.2) | 74.4 (2.0) | 48.9 (2.2) | 40.5 (2.3) | 38.4 (1.9) |
| Low-poverty | 91.2 (1.2) | 72.4 (2.3) | 40.7 (2.1) | 45.3 (1.7) | 30.3 (1.8) |
| **By school minority concentration** | | | | | |
| High-minority | 88.1 (1.4) | 78.3 (1.4) | 58.0 (1.9) | 41.8 (2.0) | 45.1 (1.5) |
| Medium-minority | 89.6 (1.4) | 76.1 (1.8) | 48.6 (2.8) | 43.8 (2.3) | 37.4 (2.3) |
| Low-minority | 93.3 (1.0) | 70.8 (2.4) | 40.9 (1.7) | 41.0 (2.0) | 31.9 (1.8) |
| **By school urbanicity** | | | | | |
| Urban | 89.3 (1.4) | 77.3 (1.6) | 49.1 (2.2) | 41.0 (1.4) | 42.3 (1.9) |
| Suburban | 91.8 (0.9) | 78.5 (1.4) | 48.6 (2.2) | 45.4 (1.8) | 36.0 (1.7) |
| Rural | 89.8 (1.6) | 58.5 (3.5) | 44.0 (2.7) | 34.1 (2.1) | 33.3 (2.5) |
| **By district size** | | | | | |
| Large | 89.6 (1.1) | 78.7 (1.4) | 50.3 (2.4) | 42.4 (1.7) | 38.6 (1.6) |
| Medium | 92.3 (0.9) | 75.5 (1.9) | 47.3 (2.1) | 44.4 (1.8) | 38.3 (2.0) |
| Small | 91.2 (1.6) | 61.0 (3.7) | 42.6 (2.7) | 37.1 (2.8) | 31.4 (2.7) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.45
## Percentage of Teachers Whose Professional Development Often Involved Collective Participation, by Teacher, School, and District Characteristics, 2005–06

| | Teachers whose professional development often involved… | |
|---|---|---|
| | Participating in professional development activities together with most or all of the teachers in my department or grade level | Participating in professional development activities together with most or all of the teachers in my school |
| n | 7,386 | 7,391 |
| All general education teachers | 51.8 (1.3) | 38.3 (1.3) |
| Special education teachers | 36.2 (2.8) | 38.2 (3.0) |
| **By grade level (Among all general education teachers hereafter)** | | |
| Elementary teachers | 55.9 (1.6) | 42.3 (1.7) |
| Middle school teachers | 49.9 (2.2) | 36.5 (2.3) |
| High school teachers | 41.3 (2.1) | 27.7 (2.3) |
| **By teaching experience** | | |
| Fewer than 3 years | 42.6 (3.0) | 29.8 (3.1) |
| 3 years or more | 53.0 (1.3) | 39.3 (1.3) |
| **By school improvement status in 2005–06** | | |
| Identified | 48.8 (2.7) | 38.4 (2.2) |
| Not identified | 52.0 (1.5) | 37.9 (1.5) |
| **By school poverty level** | | |
| High-poverty | 53.1 (1.6) | 43.3 (1.8) |
| Medium-poverty | 54.2 (2.0) | 37.6 (2.1) |
| Low-poverty | 48.5 (2.3) | 36.3 (2.1) |
| **By school minority concentration** | | |
| High-minority | 53.8 (1.6) | 39.2 (2.2) |
| Medium-minority | 53.6 (2.1) | 40.9 (2.5) |
| Low-minority | 49.4 (2.2) | 35.6 (2.1) |
| **By school urbanicity** | | |
| Urban | 54.2 (2.3) | 42.3 (2.2) |
| Suburban | 52.2 (1.7) | 37.9 (1.8) |
| Rural | 47.4 (3.5) | 33.5 (3.0) |
| **By district size** | | |
| Large | 54.7 (1.6) | 41.1 (1.4) |
| Medium | 50.6 (2.5) | 36.7 (2.9) |
| Small | 46.3 (2.8) | 33.5 (2.8) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.46
## Percentage of Teachers Receiving Various Types of Support, by Teacher, School, and District Characteristics, 2005–06

| | Release time for course preparation for classes taught | Release time to work with other teachers | Program of sustained mentoring or induction for new teachers | Salary increase or bonus for reaching goals | Funding for higher education courses |
|---|---|---|---|---|---|
| n | 7,351 | 7,363 | 7,335 | 7,339 | 7,336 |
| All general education teachers | 75.3 (1.2) | 69.2 (1.5) | 24.3 (1.1) | 19.9 (1.1) | 12.7 (1.0) |
| All special education teachers | 75.4 (2.2) | 59.5 (2.9) | 32.4 (3.2) | 23.2 (2.5) | 15.3 (2.2) |
| **By grade level (Among all general education teachers hereafter)** | | | | | |
| Elementary teachers | 74.4 (1.7) | 72.9 (1.9) | 22.9 (1.4) | 21.6 (1.5) | 11.5 (1.2) |
| Middle school teachers | 78.0 (2.0) | 75.1 (2.0) | 26.9 (2.6) | 15.3 (1.5) | 13.8 (1.6) |
| High school teachers | 75.5 (1.9) | 52.9 (3.4) | 26.1 (2.0) | 18.8 (2.4) | 15.4 (1.8) |
| **By teaching experience** | | | | | |
| Fewer than 3 years | 69.6 (3.5) | 63.5 (3.5) | 61.3 (4.2) | 15.9 (2.9) | 15.7 (2.5) |
| 3 years or more | 76.0 (1.3) | 69.9 (1.5) | 19.7 (1.1) | 20.4 (1.2) | 12.4 (1.0) |
| **By school improvement status in 2005–06** | | | | | |
| Identified | 71.6 (2.4) | 67.9 (3.1) | 28.4 (2.0) | 21.8 (1.8) | 16.3 (2.1) |
| Not identified | 75.8 (1.5) | 69.0 (1.7) | 23.8 (1.2) | 19.6 (1.4) | 12.0 (1.0) |
| **By school poverty level** | | | | | |
| High-poverty | 74.8 (1.8) | 73.7 (2.1) | 27.9 (1.5) | 22.1 (1.6) | 12.5 (1.6) |
| Medium-poverty | 76.8 (1.9) | 70.9 (2.3) | 24.1 (2.1) | 17.9 (1.8) | 12.1 (1.4) |
| Low-poverty | 73.7 (2.0) | 64.8 (2.8) | 22.4 (1.5) | 20.9 (2.1) | 13.5 (1.7) |
| **By school minority concentration** | | | | | |
| High-minority | 75.1 (1.7) | 73.6 (2.2) | 28.0 (1.4) | 21.8 (1.3) | 13.4 (1.7) |
| Medium-minority | 75.5 (2.6) | 68.6 (2.9) | 26.6 (2.1) | 17.8 (2.1) | 13.1 (1.9) |
| Low-minority | 75.3 (1.9) | 67.1 (2.2) | 19.9 (1.7) | 19.9 (1.9) | 12.2 (1.4) |
| **By school urbanicity** | | | | | |
| Urban | 76.4 (2.0) | 70.8 (2.7) | 25.5 (1.6) | 22.3 (1.6) | 12.5 (1.8) |
| Suburban | 74.8 (1.6) | 69.7 (2.0) | 24.3 (1.6) | 18.3 (1.5) | 12.9 (1.5) |
| Rural | 75.0 (3.7) | 65.1 (3.6) | 22.4 (2.7) | 21.1 (3.1) | 12.6 (2.3) |
| **By district size** | | | | | |
| Large | 76.9 (1.5) | 71.8 (2.2) | 25.6 (1.6) | 21.4 (1.8) | 12.1 (1.4) |
| Medium | 73.8 (2.4) | 68.5 (2.5) | 23.7 (1.9) | 20.5 (1.6) | 12.0 (1.9) |
| Small | 73.7 (3.4) | 63.3 (3.2) | 21.8 (2.4) | 14.6 (2.3) | 15.7 (2.5) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006. 2. n's provided in top row are for all general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.47
## Comparison of the Professional Development Experiences of Special Education and General Education Teachers, 2005–06

| | Special Education Teachers | General Education Teachers |
|---|---|---|
| Average number of professional development hours | 100.4 (7.3) | 99.6 (2.6) |
| **Percentage of teachers participating in at least one hour of professional development on:** | | |
| Instructional strategies for students with individualized education programs (IEPs) | 89.4 (1.6) | 56.3 (1.4) |
| Use of appropriate assessment accommodations | 75.9 (2.6) | 66.1 (1.3) |
| Instructional strategies for teaching reading | 87.1 (1.7) | 83.3 (0.9) |
| Instructional strategies for teaching mathematics | 63.9 (2.6) | 66.0 (1.2) |
| **Percentage of teachers participating in more than 24 hours of professional development on:** | | |
| Instructional strategies for students with individualized education programs (IEPs) | 16.6 (1.8) | 1.7 (0.3) |
| Use of appropriate assessment accommodations | 5.1 (1.2) | 2.5 (0.4) |
| Instructional strategies for teaching reading | 17.3 (1.8) | 22.4 (1.2) |
| Instructional strategies for teaching mathematics | 9.1 (1.4) | 11.0 (0.8) |
| **Percentage of teachers whose professional development often involved active learning through:** | | |
| Participants reviewing student work or scoring assessments | 12.9 (1.7) | 20.6 (1.1) |
| Participants developing and practicing using student materials | 13.7 (1.8) | 20.0 (1.0) |
| **Percentage of teachers whose professional development was often coherent in that it was:** | | |
| Designed to support state or district standards and/or assessments | 55.4 (2.5) | 66.8 (1.2) |
| Designed as part of a school improvement plan to meet state, district, or school goals | 47.8 (2.9) | 60.5 (1.4) |
| **Percentage of teachers who participated in at least one professional development activity lasting two days or longer** | 82.3 (2.2) | 81.9 (0.9) |
| **Percentage of teachers who often participated in professional development together with:** | | |
| Most or all of the teachers in their department or grade level | 36.2 (2.8) | 51.8 (1.3) |
| Most or all of the teachers in their school | 38.2 (3.0) | 38.3 (1.3) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006.
2. n = 964 to 1,138 for special education teachers; n = 6,785 to 7,474 for general education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.48
## Percentage of Special Education Teachers Receiving More Than 24 Hours of Professional Development in Instructional Strategies for Teaching Reading and Mathematics, by Teacher, School, and District Characteristics, 2005–06

| | Reading | | | Mathematics | | |
|---|---|---|---|---|---|---|
| | Elementary Special Education Teachers | Middle School Special Education Teachers | High School Special Education Teachers | Elementary Special Education Teachers | Middle School Special Education Teachers | High School Special Education Teachers |
| n | 657 | 227 | 225 | 658 | 230 | 220 |
| All special education teachers | 18.4 (2.3) | 16.5 (3.3) | 16.2 (4.1) | 8.8 (2.1) | 12.7 (3.0) | 6.7 (2.1) |
| **By teaching experience** | | | | | | |
| Fewer than 3 years | 24.0 (8.8) | 7.9 (6.2) | 16.9 (7.8) | 26.1 (12.0) | 12.6 (7.9) | 6.6 (3.9) |
| 3 years or more | 17.2 (2.2) | 17.6 (3.6) | 16.1 (4.4) | 6.3 (1.3) | 12.7 (3.3) | 6.8 (2.3) |
| **By school improvement status in 2005–06** | | | | | | |
| Identified | 36.6 (7.5) | 29.0 (5.8) | 16.2 (5.0) | 15.2 (6.2) | 10.2 (4.6) | 12.6 (6.1) |
| Not Identified | 15.9 (2.3) | 13.0 (3.5) | 16.3 (5.0) | 7.6 (2.2) | 13.6 (3.8) | 5.2 (2.1) |
| **By school poverty level** | | | | | | |
| High-poverty | 26.5 (4.4) | 28.0 (6.8) | 16.8 (4.5) | 13.3 (3.8) | 19.0 (6.4) | 3.0 (1.7) |
| Medium-poverty | 18.0 (3.9) | 14.7 (4.6) | 11.5 (3.7) | 9.3 (4.2) | 7.5 (3.1) | 10.6 (4.2) |
| Low-poverty | 11.9 (3.2) | 13.5 (5.7) | 20.3 (7.1) | 3.9 (1.9) | 15.7 (6.0) | 3.9 (2.0) |
| **By school minority concentration** | | | | | | |
| High-minority | 25.1 (3.5) | 22.6 (5.6) | 23.3 (10.1) | 12.2 (3.2) | 12.8 (4.4) | 11.7 (5.7) |
| Medium-minority | 13.3 (3.1) | 11.9 (4.9) | 6.8 (3.7) | 3.8 (1.4) | 6.5 (3.2) | 8.9 (4.4) |
| Low-minority | 18.1 (4.0) | 17.9 (6.2) | 20.3 (6.7) | 10.0 (4.4) | 19.3 (6.6) | 2.1 (1.3) |
| **By school urbanicity** | | | | | | |
| Urban | 23.8 (3.9) | 16.1 (4.2) | 10.8 (2.9) | 11.7 (3.3) | 7.7 (3.3) | 11.7 (4.6) |
| Suburban | 17.9 (3.2) | 17.9 (4.9) | 22.4 (7.3) | 8.8 (3.6) | 14.8 (4.5) | 5.8 (3.0) |
| Rural | 12.0 (5.0) | 12.6 (7.3) | 5.6 (3.6) | 5.1 (2.3) | 13.3 (7.7) | 1.1 (0.9) |
| **By district size** | | | | | | |
| Large | 17.4 (3.0) | 18.6 (4.9) | 12.7 (5.3) | 11.8 (3.7) | 10.4 (3.8) | 8.1 (2.9) |
| Medium | 19.6 (4.2) | 17.0 (5.7) | 21.5 (8.9) | 5.6 (2.1) | 13.7 (5.7) | 7.8 (4.9) |
| Small | 18.8 (6.5) | 11.5 (6.8) | 18.0 (7.4) | 6.2 (3.2) | 16.5 (7.9) | 0.7 (0.7) |

Notes: 1. The results presented in this exhibit refer to the 2005–06 school year, including the summer of 2006.
2. n's provided in top row are for all special education teachers.

Source: NLS-*NCLB*, Teacher Survey.

## Exhibit B.49 (W1)
## Title I Instructional Paraprofessionals' Qualified Status, As Reported by Paraprofessionals, by School Characteristics, 2004–05

| Characteristics | Qualified | Not Qualified | Do Not Need to Meet This Requirement | Don't Know | Missing |
|---|---|---|---|---|---|
| All paraprofessionals | 63.2 (3.8) | 5.5 (1.1) | 3.7 (1.4) | 6.8 (1.8) | 20.9 (3.4) |
| **By school grade level** | | | | | |
| Elementary | 60.9 (4.4) | 6.0 (1.4) | 4.0 (1.7) | 7.4 (2.2) | 21.7 (3.9) |
| Secondary | 74.5 (5.4) | 3.7 (1.2) | 2.5 (1.1) | 4.6 (2.4) | 14.7 (4.5) |
| **By school poverty level** | | | | | |
| High-poverty | 64.2 (6.0) | 7.8 (2.0) | 0.4 (0.1) | 10.1 (4.7) | 17.5 (4.8) |
| Medium-poverty | 65.1 (5.3) | 5.6 (2.0) | 5.4 (2.5) | 7.0 (2.0) | 16.8 (4.4) |
| Low-poverty | 48.9 (10.5) | 2.0 (1.6) | 6.5 (4.9) | 2.4 (1.9) | 40.2 (11.1) |
| **By school minority concentration** | | | | | |
| High-minority | 52.2 (5.4) | 9.6 (2.0) | 0.9 (0.3) | 10.7 (4.3) | 26.5 (5.2) |
| Medium-minority | 68.0 (6.4) | 5.5 (2.2) | 3.5 (2.5) | 3.7 (1.6) | 19.3 (6.3) |
| Low-minority | 63.8 (6.4) | 0.7 (0.7) | 8.6 (4.0) | 7.4 (3.1) | 19.6 (5.2) |
| **By school urbanicity** | | | | | |
| Urban | 56.4 (5.8) | 5.7 (1.2) | 4.6 (3.0) | 11.3 (4.5) | 22.0 (5.0) |
| Suburban | 63.1 (6.0) | 6.4 (2.2) | 2.4 (1.2) | 6.5 (2.0) | 21.6 (5.9) |
| Rural | 73.8 (7.0) | 3.0 (1.6) | 5.3 (3.9) | 0.4 (0.4) | 17.5 (5.5) |

Note: n =728 to 781.

Source: NLS-*NCLB*, Paraprofessional Survey.

## Exhibit B.49 (W2)
## Title I Instructional Paraprofessionals' Qualified Status, As Reported by Paraprofessionals, by School Poverty Level, 2006–07

| Characteristics | Qualified | Not Qualified | Do Not Need to Meet This Requirement | Don't Know | Missing |
|---|---|---|---|---|---|
| All paraprofessionals | 66.7 (4.8) | 0.8 (0.5) | 3.4 (1.3) | 2.3 (0.8) | 26.7 (4.9) |
| **By school grade level** | | | | | |
| Elementary | 70.0 (4.6) | 1.0 (0.6) | 3.7 (1.6) | 1.7 (0.7) | 23.6 (4.6) |
| Secondary | 55.5 (8.8) | 0.2 (0.2) | 2.6 (1.1) | 4.9 (2.8) | 36.9 (9.4) |
| **By school poverty level** | | | | | |
| High-poverty | 71.6 (5.4) | 1.8 (1.1) | 0.9 (0.4) | 1.9 (0.7) | 23.9 (5.5) |
| Medium-poverty | 63.6 (7.8) | 0.2 (0.2) | 5.0 (2.4) | 1.0 (0.6)b | 30.1 (8.0) |
| Low-poverty | 59.2 (17.7) | 0.0 (0.0) | 6.4 (4.5) | 14.6 (9.9) | 19.8 (11.9) |
| **By school minority concentration** | | | | | |
| High-minority | 65.8 (5.5) | 1.9 (1.1) | 2.1 (0.9) | 2.1 (0.7) | 28.1 (5.6) |
| Medium-minority | 69.0 (10.7) | 0.2 (0.1) | 2.4 (1.7) | 1.1 (0.8) | 27.3 (11.0) |
| Low-minority | 63.7 (8.7) | 0.0 (0.0) | 7.6 (4.9) | 4.8 (3.2) | 23.9 (7.6) |
| **By school urbanicity** | | | | | |
| Urban | 67.8 (6.3) | 0.3 (0.2) | 2.5 (1.5) | 1.7 (0.7) | 27.7 (6.5) |
| Suburban | 76.6 (5.2) | 1.1 (0.8) | 2.7 (1.4) | 3.6 (1.9) | 16.0 (4.7) |
| Rural | 50.5 (12.2) | 1.3 (1.3) | 5.9 (4.3) | 1.5 (1.1) | 40.8 (13.1) |

Note: n =733 to 743.

Source: NLS-*NCLB*, Paraprofessional Survey.

## Exhibit B.50
## Percentage of Title I Instructional Paraprofessionals With Various Qualifications, by School Characteristics, 2006–07

| Characteristics | Percentage Who Have Either Two Years of College or an Associate Degree | Percentage Who Passed an Assessment |
|---|---|---|
| All paraprofessionals | 62.4 (4.3) | 81.5 (3.3) |
| **By school poverty level** | | |
| High-poverty | 71.7 (4.4) | 74.9 (4.5) |
| Medium-poverty | 51.9 (6.5) | 86.8 (4.7) |
| Low-poverty | 90.7 (8.0) | 59.1 (19.0) |
| **By school minority concentration** | | |
| High-minority | 78.8 (3.6) | 74.0 (5.6) |
| Medium-minority | 47.5 (6.4) | 88.5 (3.9) |
| Low-minority | 58.1 (12.2) | 79.1 (7.4) |
| **By school urbanicity** | | |
| Urban | 74.4 (4.3) | 74.9 (6.1) |
| Suburban | 61.4 (8.5) | 82.5 (5.4) |
| Rural | 45.9 (7.7) | 86.6 (5.1) |

Note: n = 700 for percentage of paraprofessionals who have either two years of college of an associate degree; 410 for percentage of paraprofessionals who passed an assessment. Percentage of paraprofessionals who "passed an assessment" was computed based on paraprofessionals who were required to take such a test.

Source: NLS-*NCLB*, Paraprofessional Survey.

## Exhibit B.51
## Percentage of Title I Instructional Paraprofessionals by School Levels, 2006–07

| School Level | Percentage of Title I Instructional Paraprofessionals |
|---|---|
| Elementary school | 79.0 (2.7) |
| Middle school | 13.8 (2.5) |
| High school | 6.5 (1.5) |
| Other | 0.7 (0.4) |

Note. n = 739.

Source: NLS-*NCLB*, Paraprofessional Survey and Common Core of Data.

## Exhibit B.52
## Percentage of Title I Instructional Paraprofessionals' Time on Selected Responsibilities, 2006–07

| Responsibilities | Percentage of Paraprofessionals | Average Percentage of Paraprofessionals' Time |
|---|---|---|
| Working with students in groups | 86.5 (2.7) | 34.9 (2.0) |
| Tutoring students one-on-one | 73.7 (3.5) | 20.6 (1.6) |
| Preparing teaching materials or correcting student work | 70.8 (4.8) | 14.3 (1.4) |
| Testing students | 38.3 (4.2) | 5.8 (0.8) |
| Working with students in a computer lab | 31.4 (3.5) | 7.2 (1.4) |
| Communicating or meeting with parents | 24.0 (3.4) | 3.9 (1.4) |
| Working in a library or media center | 16.9 (3.2) | 4.3 (1.9) |
| Translating for LEP students | 12.3 (2.4) | 1.9 (0.7) |
| Other | 59.7 (4.2) | 7.3 (0.9) |

Notes: 1. Because the categories were not mutually exclusive, the sum of column percentages may not add up to 100 percent 2. n = 721 to 743.

Source: NLS-*NCLB*, Paraprofessional Survey.

## Exhibit B.53
## Percentage of Title I Instructional Paraprofessionals Reporting on Time Spent Working With Supervising Teacher, 2005–06

| | Never | Once or a few times a year | Once or twice a month | Once or twice a week | Daily or almost daily |
|---|---|---|---|---|---|
| Observed by a teacher while working with students | 12.6 (2.1) | 18.8 (4.1) | 7.0 (1.7) | 9.1 (2.1) | 52.4 (4.7) |
| Received in-class coaching from a teacher | 30.1 (5.0) | 21.4 (3.6) | 11.7 (2.4) | 16.6 (2.6) | 20.3 (3.0) |
| Met informally with a teacher to discuss classroom activities and instruction | 14.2 (2.7) | 7.9 (1.4) | 16.9 (3.5) | 24.0 (3.7) | 36.9 (3.2) |
| Formally evaluated by a supervising teacher or the school principal | 24.3 (3.3) | 62.1 (3.8) | 3.2 (0.8) | 4.0 (1.9) | 6.4 (1.6) |

Note: n = 719 to 726.

Source: NLS-*NCLB*, Paraprofessional Survey.

**Exhibit B.54**
**Percentage of Title I Instructional Paraprofessionals Reporting on Time Spent Tutoring or Working With Students, 2006–07**

| Time Spent | None | Some | About half | Most | All or nearly all |
|---|---|---|---|---|---|
| Reviewing or reinforcing lessons that a teacher already introduced | 3.8 (1.5) | 11.8 (2.1) | 10.4 (1.8) | 35.4 (4.0) | 38.6 (4.1) |
| Introducing new material that a teacher has not yet covered | 51.0 (3.8) | 37.1 (3.8) | 2.6 (0.8) | 5.2 (2.1) | 4.0 (2.5) |
| While a teacher provided them with prepared lessons or directions in advance | 10.4 (3.3) | 13.8 (2.2) | 7.2 (2.4) | 23.1 (2.9) | 45.5 (3.6) |
| While a teacher monitored the progress of the students | 1.5 (0.4) | 6.2 (2.4) | 3.5 (1.2) | 24.1 (3.9) | 64.7 (3.9) |
| While a teacher looked in on their work with students | 9.1 (2.8) | 21.2 (3.9) | 12.7 (3.7) | 27.0 (3.4) | 30.1 (3.2) |
| While a teacher was nearby | 1.8 (0.5) | 12.5 (3.6) | 1.8 (0.5) | 26.8 (4.1) | 57.1 (3.8) |
| With a teacher present | 4.3 (1) | 10.8 (3.1) | 4.2 (1.7) | 22.2 (3.4) | 58.5 (3.5) |

Note: n = 727 to 732.

Source: NLS-*NCLB*, Paraprofessional Survey.

**Exhibit B.55**
**Percentage of Districts Needing, Receiving, and Receiving Sufficient Technical Assistance (TA) to Implement *NCLB* Provisions for Paraprofessionals, by District Characteristics, 2005–06**

| Characteristics | Needed TA to Implement *NCLB* Paraprofessional Provisions | Received TA to Implement *NCLB* Paraprofessional Provisions | Received Sufficient TA to Implement *NCLB* Paraprofessional Provisions |
|---|---|---|---|
| All districts | 28.8 (6.7) | 49.0 (8.7) | 96.1 (2.9) |
| **By district poverty level** | | | |
| High-poverty | 39.6 (10.8) | 53.9 (13.4) | 94.6 (4.0) |
| Medium-poverty | 16.1 (5.6) | 37.7 (12.8) | 99.8 (0.1) |
| Low-poverty | 35.2 (11.1) | 57.2 (12.3) | 95.0 (4.7) |
| **By district minority concentration** | | | |
| High-minority | 28.7 (16.1) | 32.4 (19.2) | 92.1 (6.7) |
| Medium-minority | 29.1 (7.6) | 36.3 (9.7) | 86.3 (11.6) |
| Low-minority | 28.7 (10.0) | 58.9 (10.9) | 99.5 (0.5) |
| **By district urbanicity** | | | |
| Urban | 52.7 (13.6) | 46.9 (15.2) | 64.6 (19.0) |
| Suburban | 12.6 (4.1) | 28.5 (8.9) | 98.7 (1.2) |
| Rural | 41.8 (12.4) | 69.5 (11.2) | 100 (0.0) |
| **By district size** | | | |
| Large | 27.2 (6.6) | 50.5 (10.4) | 89.7 (5.6) |
| Medium | 33.7 (7.8) | 37.0 (8.9) | 85.5 (12.9) |
| Small | 27.7 (8.9) | 52.9 (11.9) | 99.2 (0.8) |

Note: n = 94 to 275.

Source: NLS-*NCLB,* District Survey.

**Exhibit B.56**
**Percentage of Schools Needing, Receiving, and Receiving Sufficient Technical Assistance (TA) to Implement *NCLB* Provisions for Paraprofessionals, by School Characteristics, 2005–06**

| Characteristics | Needed TA to Implement *NCLB* Paraprofessional Provisions | Received TA to Implement *NCLB* Paraprofessional Provisions | Received Sufficient TA to Implement *NCLB* Paraprofessional Provisions |
|---|---|---|---|
| All schools | 29.9 (2.3) | 46.7 (3) | 94.6 (1.4) |
| **By school poverty level** | | | |
| High-poverty | 47.9 (3.6) | 63.6 (4.3) | 96.1 (1.1) |
| Medium-poverty | 33.6 (4.1) | 48.3 (5.5) | 95.7 (2.1) |
| Low-poverty | 17.4 (2.9) | 33.5 (4.9) | 90.4 (4.5) |
| **By school minority concentration** | | | |
| High-minority | 46.5 (4.2) | 59.0 (4.4) | 93.4 (1.9) |
| Medium-minority | 31.5 (3.5) | 43.7 (3.8) | 98.9 (0.7) |
| Low-minority | 22.0 (3.9) | 42.1 (6.1) | 92.0 (3.4) |
| **By school urbanicity** | | | |
| Urban | 40.7 (3.9) | 51.3 (4.3) | 93.3 (2.1) |
| Suburban | 28.1 (3.5) | 44.7 (4.0) | 95.9 (2.2) |
| Rural | 22.8 (4.7) | 45.8 (8.0) | 94.0 (3.0) |

Note: n = 582 to 1,178.

Source: NLS-*NCLB,* Principal Survey.

## Exhibit B.57 (W1)
## Percentage of Districts Providing Various Support to Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by District Characteristics, 2003–04

| | Monitored individual paraprofessional's progress toward becoming qualified | Created a district level liaison to work with paraprofessionals on qualifications | Provided training related to classroom duties | Provided incentives for paraprofessionals to increase qualifications |
|---|---|---|---|---|
| n | 245 | 235 | 238 | 239 |
| All districts | 55.7 (6.8) | 35.6 (6.9) | 43.4 (7.2) | 31.7 (7.2) |
| **By district poverty level** | | | | |
| High-poverty | 50.2 (11.8) | 37.2 (11.0) | 40.1 (11.1) | 21.8 (7.3) |
| Medium-poverty | 71.4 (9.3) | 47.3 (12.2) | 54.0 (11.8) | 43.1 (12.9) |
| Low-poverty | 40.9 (10.7) | 26.8 (10.0) | 31.0 (10.3) | 26.6 (10.0) |
| **By district minority concentration** | | | | |
| High-minority | 81.1 (11.9) | 73.2 (15.4) | 80.5 (12.2) | 61.7 (21.0) |
| Medium-minority | 68.5 (9.8) | 41.5 (9.6) | 52.4 (10.3) | 20.6 (5.9) |
| Low-minority | 44.0 (9.4) | 24.6 (8.4) | 30.6 (9.1) | 30.3 (9.0) |
| **By district urbanicity** | | | | |
| Urban | 65.0 (14.4) | 54.7 (13.7) | 49.1 (13.6) | 29.6 (10.3) |
| Suburban | 66.2 (8.0) | 40.1 (10.2) | 54.4 (9.6) | 35.1 (10.8) |
| Rural | 39.2 (12.0) | 24.5 (11.1) | 26.5 (11.5) | 27.7 (11.2) |
| **By district size** | | | | |
| Large | 78.9 (5.3) | 72.0 (6.0) | 77.0 (5.6) | 59.0 (8.1) |
| Medium | 54.1 (9.1) | 39.4 (8.8) | 38.4 (7.7) | 20.2 (5.2) |
| Small | 54.0 (9.3) | 31.1 (9.7) | 41.9 (10.0) | 32.9 (9.9) |

Source: NLS-*NCLB*, District Survey.

## Exhibit B.57 (W2)
## Percentage of Districts Providing Various Support to Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by District Characteristics, 2005–06

| | Monitored individual paraprofessional's progress toward becoming qualified | Created a district level liaison to work with paraprofessionals on qualifications | Provided training related to classroom duties | Provided incentives for paraprofessionals to increase qualifications |
|---|---|---|---|---|
| n | 245 | 235 | 238 | 239 |
| All districts | 36.9 (6.5) | 22.4 (5.4) | 24.4 (5.4) | 10.8 (2.3) |
| **By district poverty level** | | | | |
| High-poverty | 51.6 (11.8) | 29.6 (10.3) | 25.5 (7.7) | 19.9 (7.3) |
| Medium-poverty | 38.3 (10.6) | 21.5 (6.8) | 19.2 (6.3) | 12.5 (4.2) |
| Low-poverty | 33.1 (11.0) | 22.4 (10.0) | 29.2 (9.7) | 7.0 (3.0) |
| **By district minority concentration** | | | | |
| High-minority | 31.8 (17.8) | 26.3 (15.9) | 19.7 (10.9) | 15.2 (8.9) |
| Medium-minority | 50.6 (10.5) | 29.5 (7.8) | 35.8 (8.4) | 25.7 (7.1) |
| Low-minority | 31.6 (9.1) | 18.2 (7.8) | 20.5 (7.6) | 2.9 (1.2) |
| **By district urbanicity** | | | | |
| Urban | 64.8 (14.6) | 37.3 (12.2) | 59.4 (13.7) | 39.2 (12.6) |
| Suburban | 30.4 (7.7) | 18.8 (5.6) | 17.0 (4.9) | 8.8 (3.0) |
| Rural | 37.8 (12.2) | 23.1 (11.1) | 25.4 (10.6) | 5.7 (2.1) |
| **By district size** | | | | |
| Large | 62.1 (7.8) | 52.1 (8.0) | 63.6 (7.2) | 52.2 (8.5) |
| Medium | 57.5 (9.1) | 31.2 (7.3) | 39.7 (8.0) | 23.2 (6.3) |
| Small | 27.9 (8.5) | 16.9 (7.1) | 16.7 (6.9) | 3.0 (1.6) |

Source: NLS-*NCLB*, District Survey.

**Exhibit B.58 (W1)**
**Percentage of Districts Making Various Staffing Adjustments With Regard to Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by District Characteristics, 2003–04**

| | Reassigned paraprofessionals to noninstructional tasks based on qualifications | Transferred paraprofessionals to non–Title I schools based on review of qualifications | Dismissed paraprofessionals based on review of qualifications |
|---|---|---|---|
| n | 224 | 227 | 222 |
| All districts | 8.7 (4.2) | 1.3 (0.5) | 1.5 (0.6) |
| **By district poverty level** | | | |
| High-poverty | 24.2 (12.6) | 2.9 (2.2) | 4.7 (2.4) |
| Medium-poverty | 10.5 (8.8) | 0.8 (0.5) | 1.9 (1.2) |
| Low-poverty | 2.3 (1.3) | 1.4 (0.8) | 0.1 (0.1) |
| **By district minority concentration** | | | |
| High-minority | 3.7 (2.5) | 3.5 (3.0) | 4.0 (2.9) |
| Medium-minority | 11.4 (7.3) | 1.2 (0.7) | 2.8 (1.8) |
| Low-minority | 8.5 (6.1) | 0.9 (0.6) | 0.2 (0.2) |
| **By district urbanicity** | | | |
| Urban | 22.2 (16.0) | 1.8 (0.9) | 7.9 (4.7) |
| Suburban | 10.9 (7.0) | 1.3 (0.7) | 0.8 (0.6) |
| Rural | 1.9 (1.4) | 1.3 (0.9) | 0.6 (0.5) |
| **By district size** | | | |
| Large | 12.4 (5.2) | 13.6 (5.5) | 15.9 (7.1) |
| Medium | 5.1 (3.6) | 2.2 (1.6) | 2.4 (1.5) |
| Small | 9.5 (5.8) | 0.0 (0.0) | 0.0 (0.0) |

Source: NLS-*NCLB*, District Survey.

**Exhibit B.58 (W2)**
**Percentage of Districts Making Various Staffing Adjustments With Regard to Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by District Characteristics, 2005–06**

| | Reassigned paraprofessionals to noninstructional tasks based on qualifications | Transferred paraprofessionals to non–Title I schools based on review of qualifications | Dismissed paraprofessionals based on review of qualifications |
|---|---|---|---|
| n | 224 | 227 | 222 |
| All districts | 9.9 (2.8) | 6.6 (2.5) | 6.6 (1.8) |
| **By district poverty level** | | | |
| High-poverty | 14.6 (6.7) | 6.6 (3.7) | 17.0 (6.2) |
| Medium-poverty | 13.8 (5.9) | 10.0 (5.4) | 7.0 (3.7) |
| Low-poverty | 5.3 (3.0) | 4.0 (2.7) | 3.3 (1.5) |
| **By district minority concentration** | | | |
| High-minority | 9.8 (6.4) | 5.5 (4.6) | 16.3 (9.4) |
| Medium-minority | 24.4 (8.1) | 13.1 (6.2) | 12.7 (5.4) |
| Low-minority | 2.9 (1.7) | 3.8 (2.7) | 1.6 (0.8) |
| **By district urbanicity** | | | |
| Urban | 40.0 (14.1) | 22.4 (10.9) | 12.0 (4.1) |
| Suburban | 8.2 (3.7) | 7.5 (4.1) | 7.0 (3.1) |
| Rural | 3.7 (1.9) | 1.2 (0.8) | 4.7 (2.2) |
| **By district size** | | | |
| Large | 27.9 (7.6) | 20.2 (6.7) | 33.2 (7.5) |
| Medium | 29.3 (8.8) | 14.7 (7.1) | 16.8 (6.4) |
| Small | 1.9 (1.4) | 2.9 (2.3) | 1.3 (1.0) |

Source: NLS-*NCLB*, District Survey.

**Exhibit B.59 (W1)**
**Percentage of Principals Reporting Various School or District Support to Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by School Level, 2003–04**

| | Monitored individual paraprofessional's progress toward becoming qualified | Created a school-level liaison to work with paraprofessionals on qualifications | Provided training related to classroom duties | Provided incentives for paraprofessionals to increase qualifications |
|---|---|---|---|---|
| n | 582 | 576 | 579 | 580 |
| All schools | 68.0 (4.9) | 36.5 (4.8) | 65.7 (4.0) | 37.7 (3.7) |
| **By school level** | | | | |
| Elementary | 70.2 (4.7) | 39.1 (5.2) | 65.3 (4.5) | 36.5 (4.3) |
| Secondary | 58.5 (9.8) | 25.1 (6.5) | 67.4 (7.8) | 43.0 (9.5) |

Source: NLS-*NCLB*, Principal Survey.

**Exhibit B.59 (W2)**
**Percentage of Principals Reporting Various School or District Support to Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by School Level, 2005–06**

| | Monitored individual paraprofessional's progress toward becoming qualified | Created a school-level liaison to work with paraprofessionals on qualifications | Provided training related to classroom duties | Provided incentives for paraprofessionals to increase qualifications |
|---|---|---|---|---|
| n | 604 | 603 | 603 | 604 |
| All schools | 54.5 (4.4) | 31.9 (4.4) | 54.0 (4.4) | 30.8 (3.9) |
| **By school level** | | | | |
| Elementary | 57.2 (4.9) | 34.3 (5.3) | 55.9 (5.0) | 32.3 (4.5) |
| Secondary | 47.3 (8.5) | 25.2 (6.1) | 49.4 (7.7) | 26.5 (6.3) |

Source: NLS-*NCLB*, Principal Survey.

## Exhibit B.60 (W1)
## Percentage of Principals Reporting Various School and District Actions With Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by School Level, 2004–05

| | Percentage of Principals Reporting That Their School or District Has… | | |
|---|---|---|---|
| | Transferred Paraprofessionals to a Non–Title I School Based on a Review of Their Qualifications | Reassigned Paraprofessionals to NonInstructional Tasks Based on a Review of Their Qualifications | Dismissed Paraprofessionals Based on a Review of Their Qualifications |
| All schools | 4.9 (2.3) | 7.5 (2.5) | 6.8 (2.4) |
| **By school level** | | | |
| Elementary | 5.4 (2.8) | 7.0 (2.9) | 5.0 (1.9) |
| Secondary | 4.4 (3.8) | 12.8 (5.7) | 18.8 (10.8) |

Notes: 1. The percents shown in the exhibit are based on schools that had at least one Title I instructional paraprofessional who was not qualified under *NCLB*. 2. There are three response options to the relevant survey question: "no," "yes," and "don't know." The percentages reported above are percentages of schools reporting that the school or district had taken the action (a "yes" response option). 3. n = 459 to 461.

Source: NLS-*NCLB*, Principal Survey.

## Exhibit B.60 (W2)
## Percentage of Principals Reporting Various Staffing Adjustments Made by Schools or Districts Regarding Title I Instructional Paraprofessionals Who Were Not Qualified Under *NCLB*, by School Level, 2006–07

| | Percentage of Principals Reporting That Their School or District Has… | | |
|---|---|---|---|
| | Transferred Paraprofessionals to a Non–Title I School Based on a Review of Their Qualifications | Reassigned Paraprofessionals to NonInstructional Tasks Based on a Review of Their Qualifications | Dismissed Paraprofessionals Based on a Review of Their Qualifications |
| All schools | 15.2 (4.0) | 18.2 (4.0) | 11.8 (1.7) |
| **By School Level** | | | |
| Elementary | 18.0 (5.1) | 19.4 (4.9) | 12.3 (2.0) |
| Secondary | 6.9 (2.3) | 14.8 (5.1) | 10.1 (2.9) |

Notes: 1. The percents shown in the exhibit are based on schools that had at least one Title I instructional paraprofessional who was not qualified under *NCLB*. 2. There are three response options to the relevant survey question: "no," "yes," and "don't know." The percentages reported above are percentages of schools reporting that the school or district had taken the action (a "yes" response option). 3. n = 602 to 603.

Source: NLS-*NCLB*, Principal Survey.

## Exhibit B.61
## Percentage of Title I Instructional Paraprofessionals Receiving Various Types of Training and Support for Training, by Qualified Status and by District Characteristics, 2005–06

| Characteristics | Received Professional Development and Training | Took College Courses | Release Time for Course Work or Studying for a High School Diploma, GED or College Courses | Money for College Courses | Money to Cover Work-Related Expenses |
|---|---|---|---|---|---|
| All paraprofessionals | 70.9 (4.1) | 25.2 (3.6) | 8.3 (2.3) | 4.6 (1.3) | 9.0 (2.5) |
| **By qualified status** | | | | | |
| Qualified | 73.0 (5.2) | 23.6 (4.1) | 9.9 (3.2) | 4.8 (1.7) | 9.5 (3.1) |
| Not qualified | 96.1 (4.2) | 7.8 (8.3) | 4.8 (5.2) | 0.0 (0.0) | 0.0 (0.0) |
| Do not need to meet requirements | 72.3 (16.2) | 15.2 (10.1) | 8.3 (6.0) | 5.4 (4.0) | 39.2 (21.3) |
| Don't know | 85.2 (7.8) | 16.4 (8.1) | 0.0 (0.0) | 1.1 (1.1) | 0.0 (0.0) |
| Missing | 63.6 (6.7) | 31.7 (8.0) | 4.9 (2.3) | 4.4 (1.9) | 4.4 (2.0) |
| **By district poverty level** | | | | | |
| High-poverty | 77.9 (3.1) | 32.7 (3.8) | 9.4 (1.9) | 7.6 (1.7) | 7.4 (2.5) |
| Medium-poverty | 66.5 (6.9) | 24.0 (6.4) | 8.8 (4.4) | 4.0 (2.3) | 8.6 (4.1) |
| Low-poverty | 72.2 (9.2) | 17.7 (6.4) | 6.0 (3.1) | 1.9 (1.6) | 12.3 (6.0) |
| **By district minority** | | | | | |
| High-minority | 78.8 (3.3) | 38.8 (5.3) | 13.8 (3.7) | 14.4 (4.0) | 12.5 (6.5) |
| Medium-minority | 69.8 (6.1) | 26.7 (6.2) | 7.5 (4.1) | 1.5 (0.9) | 6.1 (2.0) |
| Low-minority | 65.0 (10.1) | 8.2 (3.4) | 4.1 (2.3) | 0.3 (0.2) | 10.8 (5.1) |
| **By district location** | | | | | |
| Urban | 69.3 (6.7) | 36.8 (6.2) | 13.8 (5.0) | 6.8 (1.7) | 7.1 (2.3) |
| Suburban | 75.5 (6.7) | 17.8 (4.5) | 4.8 (2.6) | 4.7 (2.8) | 9.9 (4.9) |
| Rural | 66.6 (7.4) | 19.4 (6.9) | 6.2 (2.9) | 1.6 (0.9) | 10.2 (5.3) |
| **By district size** | | | | | |
| Large | 77.3 (4.0) | 23.3 (3.4) | 7.0 (1.4) | 5.2 (1.2) | 9.1 (3.8) |
| Medium | 67.3 (7.4) | 34.4 (7.5) | 9.6 (5.7) | 3.2 (1.8) | 6.4 (2.7) |
| Small | 60.0 (12.5) | 10.8 (5.7) | 9.6 (6.1) | 5.6 (5.4) | 13.9 (7.3) |

Note: n = 533 to 734.

Source: NLS-*NCLB*, Paraprofessional Survey.

**Exhibit B.62**
**Percentage of Title I Instructional Paraprofessionals Engaging in Specific Forms of School-Based Professional Development At Least Once or Twice a Month, 2005–06**

| | All Paraprofessionals | Elementary Paraprofessionals | Secondary Paraprofessionals |
|---|---|---|---|
| Met informally with a teacher to discuss classroom activities and instruction | 77.9 (2.7) | 77.6 (3.8) | 79.6 (5.1) |
| Observed by a teacher while working with students | 68.5 (4.3) | 66.2 (4.9) | 76.7 (6.0) |
| Received in-class coaching from a teacher | 48.5 (4.7) | 48.4 (5.2) | 48.7 (8.5) |
| Participated in professional development activities | 19.3 (2.8) | 17.0 (2.9) | 25.7 (6.2) |
| Formally evaluated by a supervising teacher or the school principal | 13.6 (2.5) | 13.0 (2.9) | 16.3 (3.9) |

Note: n = 719 to 727.

Source: NLS-*NCLB,* Paraprofessionals Survey.

**Exhibit B.63**
**Percentage of Title I Instructional Paraprofessionals Receiving Training in Various Topics, 2005–06**

| | All Paraprofessionals | Elementary Paraprofessionals | Secondary Paraprofessionals |
|---|---|---|---|
| How to help teach reading | 51.3 (4.6) | 53.9 (4.8) | 42.8 (8.3) |
| How to help teach mathematics | 34.3 (4.2) | 35.8 (4.7) | 29.1 (6.7) |
| How to help teach LEP students | 17.5 (3.3) | 18.8 (4.0) | 12.7 (3.3) |
| How to help teach IEP students | 36.2 (4.2) | 32.7 (4.6) | 50.2 (8.6) |
| Classroom management | 43.6 (5) | 41.1 (5.6) | 54.1 (9.2) |
| Use of educational technology | 42.8 (4.7) | 42.2 (5.2) | 46.4 (8.6) |
| Working with parents | 19.3 (3.2) | 18.2 (3.6) | 23.7 (6.3) |
| Other | 36.5 (5.3) | 29.7 (5.1) | 61.6 (7.6) |

Note: n = 576 to 714.

Source: NLS-*NCLB,* Paraprofessionals Survey.

# APPENDIX C
# SUPPLEMENTAL STATE EXHIBITS

**Exhibit C.1**
**Components of the *NCLB* Highly Qualified Teacher Requirements, by Teacher Experience and Grade Level**

| | Full State Certification or Licensure | Bachelor's Degree | Options for Demonstrating Content Knowledge | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Assessment | Academic Major | Graduate Degree | Course Work Equivalent to Major | Advanced Certification or Credentials | HOUSSE |
| New elementary school teacher | ✓ | ✓ | ✓ | | | | | |
| Current elementary teacher | ✓ | ✓ | ✓ | | | | | ✓ |
| New middle or high school teacher | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Current middle or high school teacher | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Note: Teachers not new to the profession have the option of using the High Objective Uniform State Standard of Evaluation (HOUSSE) described below.

Source: *ESEA,* Title II, Part A, Non-Regulatory Guidance, Revised, Aug. 3, 2005, U.S. Department of Education.

## Exhibit C.2
## State-determined Minimum Passing Scores for Selected Praxis II Assessments, 2006–07

| | Elementary Education: Curriculum, Instruction, and Assessment | Elementary Education: Content Knowledge | Middle School: Content Knowledge | Middle School Mathematics | Middle School Language Arts | English Language, Literature and Composition | Mathematics Content Knowledge |
|---|---|---|---|---|---|---|---|
| Alabama | – | 137 | – | 142 | 148 | 151 | 118 |
| Alaska | 156 | 143 | 140 | 145 | 154 | 158 | 146 |
| Arizona | – | – | – | – | – | – | – |
| Arkansas | – | – | 139 | – | – | 159 | 116 |
| California | – | – | – | – | – | – | – |
| Colorado | – | 147 | – | – | – | 162 | 156 |
| Connecticut | 163 | – | – | 158 | 164 | 172 | 137 |
| District of Columbia | – | 151 | 155 | 148 | 161 | 163 | 141 |
| Delaware | – | 145 | – | – | – | 142 | 141 |
| Florida | – | – | – | – | – | – | – |
| Georgia | – | – | – | – | – | 168 | 136 |
| Hawaii | 164 | 135 | – | 143 | 160 | 164 | 136 |
| Idaho | – | 143 | – | – | – | 158 | 119 |
| Illinois | – | – | – | – | – | – | – |
| Indiana | 165 | – | – | 152 | 156 | 153 | 136 |
| Iowa | 151 | 142 | – | – | – | – | – |
| Kansas | 163 | – | – | 158 | 165 | 165 | 137 |
| Kentucky | – | 148 | – | 148 | 157 | 160 | 125 |
| Louisiana | – | 150 | – | 148 | 160 | 160 | 125 |
| Maine | – | 145 | – | 148 | 155 | 160 | 126 |
| Maryland | – | 142 | – | 152 | 160 | 164 | 141 |
| Massachusetts | – | – | – | – | – | – | – |
| Michigan | – | – | – | – | – | – | – |
| Minnesota | – | 145 | – | 152 | 161 | 157 | 125 |
| Mississippi | 158* | 153 | – | 140 | 145 | 157 | 123 |
| Missouri | 164 | – | – | 158 | 163 | 158 | 137 |
| Montana | – | see note below | – | – | – | – | – |
| Nebraska | 159 | – | – | – | – | – | – |
| Nevada | 158 | 135 | – | 139 | 158 | 150 | 133 |
| New Hampshire | – | 148 | – | 151 | 155 | 164 | 127 |
| New Jersey | – | 141 | – | 152 | 156 | 162 | 137 |
| New Mexico | – | – | – | – | – | – | – |
| New York | – | – | – | – | – | – | – |
| North Carolina | cut score is provided as a composite cut score in conjunction with one or more tests in the same field | cut score is provided as a composite cut score in conjunction with one or more tests in the same field | – | 141 | 145 | cut score is provided as a composite cut score in conjunction with one or more tests in the same field | cut score is provided as a composite cut score in conjunction with one or more tests in the same field |
| North Dakota | 158 | – | – | 148 | 157 | 151 | 139 |
| Ohio | – | 143 | – | 143 | 156 | 167 | 139 |
| Oklahoma | – | – | – | – | – | – | – |
| Oregon | – | – | – | 156 | 159 | 159 | 138 |
| Puerto Rico | 168 | – | – | 151 | 163 | 160 | 136 |
| Rhode Island | – | – | – | – | – | – | – |
| South Carolina | – | 145 | – | 158 | 162 | – | – |
| South Dakota | 164 | – | – | 149 | 155 | 162 | 131 |
| Tennessee | – | 137 | – | 139 | 143 | 154 | 124 |
| Texas | 159 | 140 | 150 | 143 | 145 | 157 | 136 |
| Utah | – | – | – | – | – | – | – |

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**Exhibit C.2**
**State-determined Minimum Passing Scores for Selected Praxis II Assessments, 2006–07**

| | Elementary Education: Curriculum, Instruction, and Assessment | Elementary Education: Content Knowledge | Middle School: Content Knowledge | Middle School Mathematics | Middle School Language Arts | English Language, Literature and Composition | Mathematics Content Knowledge |
|---|---|---|---|---|---|---|---|
| Vermont | – | 150 | – | – | – | – | – |
| Virginia | – | 148 | – | 161 | 154 | 172 | 141 |
| Washington | – | 143 | – | 163 | 164 | 172 | 147 |
| West Virginia | – | 141 | – | 152 | 158 | 158 | 134 |
| Wisconsin | 155 | – | – | 148 | 147 | 155 | 133 |
| Wyoming | – | 147 | 146 | – | – | 160 | 135 |

Note: "—" denotes that a specific test is not required by the state and no cut score is available.

Source: ETS Web site (www.ets.org) and state education agency Web sites.

## Exhibit C.3
## State-determined Minimum Passing Scores for the ParaPro Assessments, 2006–07

| | | Parapro Test Qualifying Score |
|---|---|---|
| Alaska | | N/A |
| Arizona | | 457 |
| Arkansas | | 459 |
| California | California, The Help Group | 458 |
| | California, Oakland Unified School District | 460 |
| | California, Ventura County | 458* |
| Colorado | | 460 |
| Connecticut | | 457 |
| District of Columbia | | 461 |
| Delaware | | 459 |
| Florida | Florida Consortium | 464* |
| | Florida, Duval County Public School | 457 |
| Georgia | | 456 |
| Hawaii | | 459 |
| Idaho | | 460 |
| Illinois | | 460 |
| Indiana | | 460 |
| Iowa | | N/A |
| Kansas | | 455 |
| Kentucky | | N/A |
| Louisiana | | 450 |
| Maine | | 459 |
| Maryland | | 455 |
| Massachusetts | | 464 |
| Michigan | | 460 |
| Minnesota | | 460 |
| Mississippi | | 458 |
| Missouri | | N/A |
| Montana | | N/A |
| Nebraska | | 456 |
| Nevada | | 460 |
| New Hampshire | | N/A |
| New Jersey | | 456 |
| New Mexico | | 457 |
| New York | | N/A |
| North Carolina | | N/A |
| North Dakota | | 464 |
| Ohio | | 456 |
| Oklahoma | | N/A |
| Oregon | | 455* |
| Pennsylvania | Pennsylvania, Chester Upland School District | 459 |
| Rhode Island | | 461 |
| South Carolina | | 456 |
| South Dakota | | 461 |
| Tennessee | | 456 |
| Texas | Texas Region 19 | 467* |
| | Texas, Anthony Independent School District | 467 |
| | Texas, Fort Worth Independent School District | 461 |
| | Texas, North East Independent School District | 465 |
| | Texas, South San Independent School District | 465 |
| Utah | | 460 |
| Vermont | | 458 |
| Virginia | | 455 |
| Washington | | 461 |

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**Exhibit C.3**
**State-determined Minimum Passing Scores for the ParaPro Assessments, 2006–07**

| | | Parapro Test Qualifying Score |
|---|---|---|
| West Virginia | | N/A |
| Wisconsin | | N/A |
| Wyoming | | 462 |

Note: *The qualifying score set by each school district may be different.

Source: ETS Web site (www.ets.org) and state education agency Web sites.

## Exhibit C.4
## States With Point-Based HOUSSE Systems, Illustrating the Maximum Percentage of Points That Could Be Earned for Each Area, 2006–07

| | Prior Teaching Experience | College Course Work in Content Area | Professional Development (Other Than College Courses) | Professional Activities or Service | Teaching Awards, Honors and Publications | Improved Student Achievement |
|---|---|---|---|---|---|---|
| Alabama | 30% | 40% | 36% | 20% | 4% | N/A |
| Alaska | 50% | No maximum | No maximum | No maximum | No maximum | N/A |
| Arizona | 50% | No maximum | No maximum | 30% | 30% | N/A |
| Arkansas | 50% | No maximum | 40% | Varies | 30% | N/A |
| California | 50% | 60% | No maximum | No maximum | N/A | N/A |
| Colorado | 45% | No maximum | No maximum | No maximum | N/A | |
| Delaware | 32% | No maximum for content; 30% for pedagogy | 50% | 15% | | N/A |
| District of Columbia | 50% | No maximum | No maximum | No maximum | 30% | N/A |
| Florida | 50% | 60% | 60% | 50% | N/A | 50% |
| Georgia | 50% | 70% | 30% | 30% | 30% | 30% |
| Hawaii | 45% | No maximum | No maximum | No maximum | 30% | N/A |
| Idaho | 45% | No maximum | 45% | No maximum | N/A | |
| Illinois | 50% | No maximum | No maximum | "Teacher consultation" 50% maximum | N/A | N/A |
| Indiana | 50% | No maximum | No maximum | 50% | N/A | N/A |
| Kansas | 45% | No maximum | No maximum | No maximum | 30% | N/A |
| Kentucky | 50% | 97% | 45% | No maximum | 35% | N/A |
| Louisiana | N/A | No maximum | No maximum | No maximum | N/A | N/A |
| Maine | 50% | No maximum | No maximum | No maximum | No maximum | N/A |
| Maryland | 50% | No maximum | 10% | 10% | | N/A |
| Minnesota | 50% | 50% | 50% | N/A | 50% | 50% |
| Mississippi | 30% in field; 20% regardless of field | 60% if in content; 30% if related to content | 30% | N/A | 10% | N/A |
| Missouri | 25% | 25% | 25% | 25% | 25% | N/A |
| Nebraska | 45% | No maximum | No maximum | Points unclear | N/A | |
| New Hampshire | 50% | No maximum | No maximum | N/A | N/A | N/A |
| New Jersey | 30% | No maximum | 60% | | N/A | N/A |
| New York | 50% | No maximum | 50% | 50% | N/A | N/A |
| North Dakota | 30% | No maximum | No maximum | No maximum | No maximum | N/A |
| Ohio | 24% | 27% | 24% | 25% | 6% | N/A |
| Oklahoma | 49% | No maximum | 30% | 20% | 20% | 20% |
| Pennsylvania | 45% | 95% | No maximum | 50% | 50% | N/A |
| Puerto Rico | 20% | 36% in content, 15% if pedagogy | 30% | 30% | 10% | N/A |
| Rhode Island | 24% | No maximum | No maximum | No maximum | No maximum | N/A |
| Tennessee | 40% | 40% | 40% | 30% | 10% | No maximum |
| Texas | 50% | No maximum | No maximum | N/A | N/A | N/A |
| Utah | 50% | No maximum | No maximum | N/A | N/A | N/A |
| Vermont | 50% | No maximum | No maximum | No maximum | N/A | N/A |

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**Exhibit C.4**
**States With Point-Based HOUSSE Systems, Illustrating the Maximum percentage of Points That Could Be Earned for Each Area, 2006–07 (Continued)**

| | Prior Teaching Experience | College Course Work in Content Area | Professional Development (Other Than College Courses) | Professional Activities or Service | Teaching Awards, Honors and Publications | Improved Student Achievement |
|---|---|---|---|---|---|---|
| Virginia | N/A | No maximum | No maximum | No maximum | N/A | N/A |
| Washington | 49% | 90% | | 30% | 10% | N/A |
| Wyoming | 50% | No maximum | No maximum | 15% | 15% | N/A |

Note: Data only reflect policies as of spring 2007.

Source: SSI-*NCLB*, review of state HOUSSE policies, spring 2007 (n = 39).

# APPENDIX D
# DEFINITION OF PROFESSIONAL DEVELOPMENT IN SECTION 9101(34) OF *ESEA*

(34) PROFESSIONAL DEVELOPMENT- The term professional development' —

(A) includes activities that —

(i) improve and increase teachers' knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified;

(ii) are an integral part of broad schoolwide and districtwide educational improvement plans;

(iii) give teachers, principals, and administrators the knowledge and skills to provide students with the opportunity to meet challenging State academic content standards and student academic achievement standards;

(iv) improve classroom management skills;

(v)(I) are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom; and

(II) are not 1-day or short-term workshops or conferences;

(vi) support the recruiting, hiring, and training of highly qualified teachers, including teachers who became highly qualified through State and local alternative routes to certification;

(vii) advance teacher understanding of effective instructional strategies that are —

(I) based on scientifically based research (except that this subclause shall not apply to activities carried out under part D of title II); and

(II) strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers; and

(viii) are aligned with and directly related to —

(I) State academic content standards, student academic achievement standards, and assessments; and

(II) the curricula and programs tied to the standards described in subclause (I) except that this subclause shall not apply to activities described in clauses (ii) and (iii) of section 2123(3)(B);

(ix) are developed with extensive participation of teachers, principals, parents, and administrators of schools to be served under this Act;

(x) are designed to give teachers of limited English proficient children, and other teachers and instructional staff, the knowledge and skills to provide instruction and appropriate language and academic support services to those children, including the appropriate use of curricula and assessments;

(xi) to the extent appropriate, provide training for teachers and principals in the use of technology so that technology and technology applications are effectively used in the classroom to improve teaching and learning in the curricula and core academic subjects in which the teachers teach;

(xii) as a whole, are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement, with the findings of the evaluations used to improve the quality of professional development;

(xiii) provide instruction in methods of teaching children with special needs;

(xiv) include instruction in the use of data and assessments to inform and instruct classroom practice; and

(xv) include instruction in ways that teachers, principals, pupil services personnel, and school administrators may work more effectively with parents; and

(B) may include activities that —

(i) involve the forming of partnerships with institutions of higher education to establish school-based teacher training programs that provide prospective teachers and beginning teachers with an opportunity to work under the guidance of experienced teachers and college faculty;

(ii) create programs to enable paraprofessionals (assisting teachers employed by a local educational agency receiving assistance under part A of title I) to obtain the education necessary for those paraprofessionals to become certified and licensed teachers; and

(iii) provide follow-up training to teachers who have participated in activities described in subparagraph (A) or another clause of this subparagraph that are designed to ensure that the knowledge and skills learned by the teachers are implemented in the classroom.


The Department of Education's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.

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