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An analysis of state data on the distribution of teaching assignments filled by highly qualified teachers in New York schools

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Institute of Education Sciences
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ISSUES & ANSWERS REL 2008–No. 047

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April 2008

Prepared by

Ann Brackett
WestEd

Susan Mundry
WestEd

Sarah Guckenburg
WestEd

Patricia Bourexis
The Study Group

ies NATIONAL CENTER FOR EDUCATION EVALUATION AND REGIONAL ASSISTANCE
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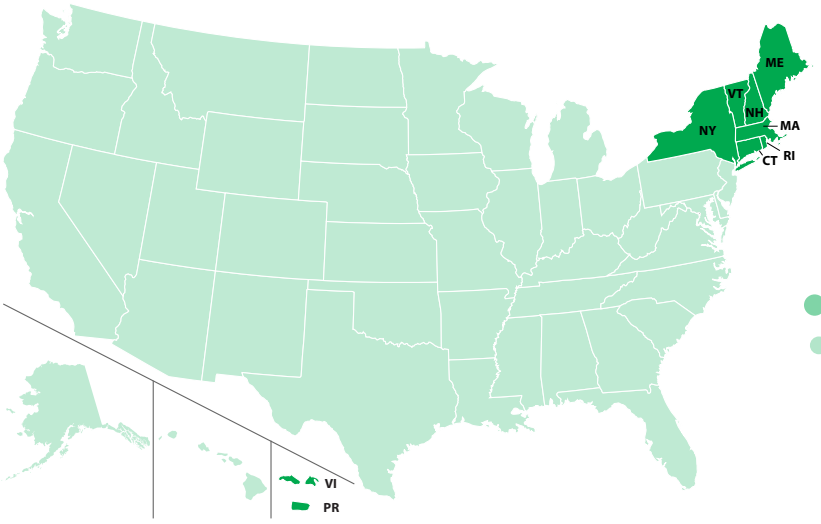

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April 2008

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Summary

REL 2008–No. 047

An analysis of state data on the distribution of teaching assignments filled by highly qualified teachers in New York schools

New York rural schools and districts have a high percentage of core teaching assignments filled by highly qualified teachers, with only small differences across key factors such as school poverty and school need for improvement. Urban schools—particularly those in New York City—have fewer core assignments filled by highly qualified teachers.

Policymakers in the Northeast and Islands Region have requested more information on their teaching workforce as they develop plans and programs to increase teacher quality and ensure equity in their schools. New York State Education Department representatives have also requested specific information on the needs of rural schools, which serve more than 330,000 students—about 12 percent of New York's student population—and receive 14 percent of the state's education funding. This report responds to those requests with a description and analysis of the distribution of highly qualified teachers in New York, focusing on rural schools.

This report addresses two research questions:

- What are the patterns in teaching assignments filled by highly qualified teachers across urban, suburban, and rural districts in New York?
- In rural districts in New York how does the percentage of teaching assignments filled by highly qualified teachers vary by school poverty level, school level, school need for improvement, and subject matter?

Of the 542,290 core teaching assignments in New York, 93.6 percent are filled by highly qualified teachers. When core teaching assignments are broken down by location, 97.1 percent of rural assignments are filled by highly qualified teachers—more than the 83.5 percent of New York City assignments and the 95.8 percent of other urban assignments but less than the 98.1 percent of suburban assignments. New York City has consistently lower percentages of teaching assignments taught by highly qualified teachers in general and across variables such as poverty and school need for improvement.

When the analysis focuses only on rural schools, the distribution of highly qualified teachers by variables such as school poverty level, school level, and school need for improvement does not differ much—that is, most differences by location in the statewide

data disappear. For example, when only rural schools are examined, the difference between the percentage of core teaching assignments filled by highly qualified teachers in low- and high-poverty schools is only 0.4 percentage point.

There are, however, noticeable differences among subject areas in rural schools. In both middle and high schools foreign languages other than French and Spanish are taught by lower percentages of highly qualified teachers than other subjects are.

April 2008

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New York rural schools and districts have a high percentage of core teaching assignments filled by highly qualified teachers, with only small differences across key variables such as school poverty and school need for improvement. Urban schools—particularly those in New York City—have fewer core assignments filled by highly qualified teachers.

WHY THIS STUDY?

Policymakers and practitioners across the country are working to meet the teacher quality requirements of the No Child Left Behind Act of 2001 to ensure that all students are taught by highly qualified teachers, especially in hard-to-staff schools in rural and urban areas (Schwartzbeck & Prince, 2003). States are implementing the teacher quality provisions of No Child Left Behind, but they are facing challenges. In July 2006 the U.S. Department of Education announced that only nine states had fully acceptable plans for ensuring teacher quality. Four states failed the review of their teacher quality plans entirely, and the rest were instructed to revise their plans to better meet the requirements.

All jurisdictions in the Northeast and Islands Region were required to submit revised plans by September 2006, addressing how they will ensure that core academic subjects are taught by teachers who are highly qualified to teach them and that teachers who teach poor and minority students have qualifications and experience similar to those of teachers who teach other students (U.S. Department of Education, 2006). The plans all included data collection and analysis strategies to determine whether teaching assignments in high-need and high-poverty schools are disproportionately staffed by unqualified teachers.

In support of state efforts to ensure a highly qualified teacher in every classroom, New York State Education Department representatives requested that the Regional Educational Laboratory Northeast and Islands examine specific information on teacher quality and equitable staffing of schools in rural areas. This report responds to that request with a description and analysis of the distribution of highly qualified teachers in New York (see box 1 for a definition of highly qualified teachers). It further explores whether rural areas show a difference in the percentage of teaching assignments filled by highly qualified teachers between high-need and low-need schools or between high-poverty and low-poverty schools (see box 2 for definitions of these variables).

The quality of education in rural communities is an important consideration for New York. The state's rural schools serve more than 330,000

BOX 1

Defining highly qualified teachers in New York

Teachers achieve highly qualified status in New York when they have a set of qualifications such as degrees and certifications. All highly qualified teachers must have a bachelor's degree or higher and must meet state certification standards for their teaching assignments. They must also demonstrate subject knowledge and teaching skills; how they do so varies by type of teaching assignment.

- New elementary school teachers (in the first year of first certification) must pass two New York State Teacher Certification Examinations: the Liberal Arts and Sciences Test and the Assessment of Teaching Skills–Written.

- Existing elementary school teachers (after the first year of first certification) must pass the Liberal Arts and Sciences Test and the Assessment of Teaching Skills–Written, comparable examinations,[1] or the High Objective Uniform State Standard of Evaluation, as permitted by federal law.

- New middle or secondary school teachers (in the first year of their first certification) must pass a New York State Teacher Certification Examination Content Specialty Test (CST) in the subject or, for grades 7–9, the Multi-Subject CST; complete an undergraduate major in the subject; complete coursework equivalent to a major (30 credits) in the subject; have a New York state permanent certificate in the subject; or have a graduate degree in the subject.

- Existing middle or secondary school teachers (after the first year of first certification) must pass a New York State Teacher Certification Examination CST in the subject or, for grades 7–9, the Multi-Subject CST; complete an undergraduate major in the subject; complete coursework equivalent to a major (30 credits) in the subject; have a New York state permanent certificate in the subject; have a graduate degree in the subject; pass examinations comparable to the CST that qualify them for certification or licensure; or pass the High Objective Uniform State Standard of Evaluation.

- Special education teachers in grades 7–12 (or the age equivalent) must meet the qualifications for middle or secondary assignments except for teachers who teach a class in which all the students qualify for the New York State Alternate Assessment; the Individuals with Disability Act of 1997 permits such teachers to meet the qualifications for existing elementary teachers, regardless of the age of the students.

1. Teachers in an approved alternative teacher preparation program are not required to pass the Assessment of Teaching Skills–Written to be considered highly qualified while they are enrolled in the program. In addition, teachers with conditional initial certificates obtained as a result of interstate reciprocity may use subject knowledge and teaching skills certification examinations for elementary grades from their former state to demonstrate subject matter competency until they have passed the Liberal Arts and Sciences Test and the Assessment of Teaching Skills–Written during the two-year validity period of their conditional initial certificates.

Source: New York State Education Department.

BOX 2

Definitions of variables in the report

Certification. The following types of assignment certifications for core courses qualify a teacher for highly qualified status for a teaching assignment: five-year provisional, five-year initial, permanent (New York City or Buffalo), permanent (life) or professional, and certificate of qualification. The following types of assignment certifications do not qualify a teacher for highly qualified status for a teaching assignment: temporary, not on teacher certification file, none, limited, and no certification required. Highly qualified status does not apply for noncore teaching assignments.

Core course. According to the New York State Education Department, based on No Child Left Behind, core courses are English, reading, language arts, mathematics, science, history, geography, economics, civics and government, foreign languages, and the arts. The New York State Education Department defines "the arts" as art, dance, music, theater (including public speaking) and drama.

Highly qualified teaching assignment. A highly qualified teaching assignment in a core course is an

BOX 2 (CONTINUED)

Definitions of variables in the report

assignment filled by a teacher who is highly qualified in that teaching assignment. Data for this study examined each teaching assignment for 2005/06. A teacher may have more than one assignment during the year (for example, one teacher may teach both French and Spanish, which would be counted as two teaching assignments). See box 1 for how highly qualified status is determined.

Need, high. A high-need school is a school that is on the New York State Education Department's 2006/07 list of schools in need of improvement, which is based on 2005/06 performance (http://www.emsc.nysed.gov/irts/school-accountability/home.shtml).

Need, low. A low-need school is a school that is not on the New York State Education Department's 2006/07 list of schools in need of improvement, which is based on 2005/06 performance (http://www.emsc.nysed.gov/irts/school-accountability/home.shtml).

New York City. The New York State Education Department classifies a school or district as New York City if it is located in New York City.

Other urban. The New York State Education Department classifies a school or district as other urban if it is located in a big-four city (in Buffalo, Rochester, Syracuse, or Yonkers), downstate small city (in two counties in the southern part of the state), or upstate small city (in 33 counties in the northern part of the state), based on data from the U.S. Census Bureau (2006), which defines "urban" as census block groups or blocks that have at least 1,000 people per square mile.

Poverty, high. A high-poverty school is a school in which 78.8 percent or more of students are eligible for free or reduced-price lunch. This definition is based on the New York State Education Department's definition for 2005/06, which reflects the No Child Left Behind statutory definition and was used in reporting data to the U.S. Department of Education's Consolidated Annual Report for 2005/06. The New York State Education Department has different cutoff values for defining high poverty for elementary (79.8 percent) and middle and secondary schools (77.9 percent). The analysis for this report looked at poverty by all school levels (elementary, middle, and secondary); therefore, one measure of high poverty was created based on the average of high poverty for elementary schools and middle and secondary schools. The cutoff varies by year, based on an analysis required by No Child Left Behind.

Poverty, low. A low-poverty school is a school in which 18.4 percent or less of students are eligible for free or reduced-price lunch. This definition is based on the New York State Education Department's definition for 2005/06, which reflects the No Child Left Behind statutory definition and was used in reporting data to the U.S. Department of Education's Consolidated Annual Report for 2005/06. The New York State Education Department has different cutoff values for defining low poverty for elementary (18.7 percent) and middle and secondary schools (17.9 percent). The analysis for this report looked at poverty by all school levels (elementary, middle, and secondary); therefore, one measure of low poverty was created based on the average of low poverty for elementary schools and middle and secondary schools.

Rural. A school or district is classified as rural by the New York State Education Department based on data from the U.S. Census Bureau (2006), which defines "rural" as open country and settlements with fewer than 2,500 people (or what remains after all of the urbanized areas have been identified).

School level: elementary school, kindergarten through grade 6; *middle school,* grades 7 and 8; *high school,* grades 9–12.

Suburban. The New York State Education Department classifies a school or district as suburban if it is located in a downstate suburb or an upstate suburb, based on data from the U.S. Census Bureau (2006).

Source: New York State Education Department.

students, about 12 percent of New York's student population, and receive 14 percent of state education funding. About 28 percent of students in rural areas qualify for free or reduced-price lunches. Of these students, fewer than 5 percent are members of minority groups, 14 percent receive special education services, and 72 percent graduate within four years of entering 9th grade (Johnson & Strange, 2005). Understanding more about the staffing in these schools will inform the state whether students in rural areas have equitable access to highly qualified teachers and whether efforts are needed to recruit qualified teachers to rural districts.

The No Child Left Behind Act requires all teachers to have at least a bachelor's degree, hold valid state certification for which no requirement has been waived, and demonstrate content knowledge in the core academic subjects they teach (for example, through academic coursework, prior experience, or a passing score on content knowledge assessments). One rationale behind these requirements is the positive relationship between some teacher qualifications (such as coursework in subject matter for secondary teachers, performance on teaching tests, and master's degrees) and student achievement (see, for example, Goldhaber & Brewer, 2000; Ferguson, 1991; Monk, 1994; Rockoff, 2004).

The country does not have common standards for defining a high-quality education workforce, and a teacher who is highly qualified to teach in one state may not meet the requirements in another state

However, teacher qualification through meeting a criterion, such as certification in the subject one teaches, is not necessarily an indicator of teacher quality, which is usually associated with actual teacher performance and effectiveness as assessed through student outcomes. In a previous New York study aimed in part at identifying the effect of teacher quality on student outcomes, Lankford, Loeb, and Wyckoff (2002) focused on teacher's cognitive ability as measured by test scores on the New York state teacher certification exam and the selectivity of the undergraduate institution from which the teachers graduated. Their study highlighted the importance of distinguishing teacher qualifications, which is the focus of this report, from teacher quality.

Additional evidence of the need to distinguish teacher qualifications from teacher quality and to clarify how each is measured can be found in the recent report of teacher and paraprofessional qualification provisions of the No Child Left Behind Act (U.S. Department of Education, 2007). The report used data from the Study of State Implementation of Accountability and Teacher Quality under No Child Left Behind and the National Longitudinal Study of No Child Left Behind to examine progress toward meeting the requirement for highly qualified teachers. The report found that most teachers meet No Child Left Behind qualifications but that "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 state 'HOUSSE' [High Objective Uniform State Standard of Evaluation] policies give existing teachers credit for years of prior teaching experience versus emphasizing more direct measures of content knowledge and teaching performance" (p. xix). For example, some states set passing scores below national median scores, creating differences of qualification across states. Some states allowed 40–50 percent of the required points on the HOUSSE to be awarded based on experience only. This variation in policy across states means that the country does not have common standards for defining a high-quality education workforce and that a teacher who is highly qualified to teach in one state may not meet the requirements in another state (U.S. Department of Education, 2007).

Despite the differences in how teacher qualifications are measured across states, effective teachers need extensive knowledge of their subject matter and an understanding of how students learn particular content. Therefore, teachers must know the key concepts and ideas that make up their discipline and the pedagogical content knowledge that informs how to teach it, including:

- Knowing what children in their grade range are capable of learning and doing.
- Understanding why some ideas are difficult for learners to grasp.
- Having strategies for representing and formulating subject matter to make it comprehensible to different learners with varying styles, abilities, and interests (see, for example, Shulman, 1986; Cochran, DeRuiter, & King, 1993; Grossman, 1990; van Driel, Verloop, & De Vos, 1998).

STAFFING RURAL SCHOOLS

Responding to the national priority that all students should be taught by qualified teachers, the No Child Left Behind Act requires state education agencies to ensure that all students have equitable access to highly qualified teachers. Researchers have identified many potential challenges that rural schools face in meeting this goal (Simmons, 2005; Monk, 2007; McClure & Reeves, 2004, Gaetane & Moore, 2004). While rural areas are diverse, they share some attributes: small populations sparsely settled; limited health, cultural, and retail services; and economic reliance on agriculture, extractive industries, and tourism. Many—though not all—rural areas have high rates of poverty—a characteristic shared with schools in other locations (Monk 2007). The characteristics that distinguish rural areas may create differences in working conditions that directly influence the recruitment and retention of highly qualified teachers. School funding and teacher compensation, school and class size, educational aspirations of students and their families, and the relationship between parents or the community and the school depend on the community (Monk 2007).

National data from the School and Staffing Survey of 2003–2004 indicate that base salaries of teachers in rural areas were lower than those of teachers in other locations but that more teachers in rural areas held favorable views on a range of working conditions. The average base salary for teachers was $43,000 in rural districts, $44,000 in urban districts, and $45,700 in suburban districts (data were adjusted for geographic cost differences; Provasnik et al., 2007). However, higher percentages of teachers in rural areas reported agreeing with statements reflecting a favorable view of the availability of necessary materials, support received from parents, satisfaction with class size, and receiving the necessary support to teach students with special needs (Provasnik et al., 2007).

The same national data highlight some of the similarities and differences in the challenges facing rural and nonrural schools as they attempt to secure highly qualified teachers. Rural schools have fewer teaching vacancies than nonrural schools, and teachers in rural areas have about the same number of years of teaching experience. In 2003/04, 67 percent of rural and small town schools had teaching vacancies compared with 77 percent of urban fringe and large town schools and 75 percent of central city schools (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2007). Teachers in rural public schools averaged 15 years of teaching experience, while teachers in city public schools averaged 14 years (Provasnik et al., 2007).

But teachers in rural areas are less likely to have advanced degrees or to be qualified to teach advanced courses such as calculus or Advanced Placement courses, which in turn may reduce the opportunities for rural school students to advance and compete with their nonrural peers in these subjects (Carlsen and Monk, 1992). Provasnik et al. (2007) report that 43 percent of teachers in rural areas held a master's degree or higher in 2003/04, compared with 49 percent of urban teachers and 52 percent of suburban teachers. Furthermore, 69 percent of students in rural areas attended high schools offering Advanced Placement courses, compared with 93 percent of urban students and 96 percent of suburban students.

Special education, English as a second language, mathematics, science, and foreign languages are frequently cited as areas in which it is especially difficult to meet requirements for highly qualified teachers

Special education, English as a second language, mathematics, science, and foreign languages are frequently cited as areas in which it is especially difficult to meet requirements for highly qualified teachers (Provasnik et al., 2007). Nationally, English as a second language and foreign languages were the teaching positions that rural schools found most difficult to fill in 2003/04. Some 42 percent of rural schools reported that it was difficult or impossible to fill an English as a second language vacancy, compared with 28–30 percent of schools in other locations. And 43 percent reported that it was difficult or impossible to fill a vacancy in foreign languages, compared with 29–37 percent of schools in other locales. For special education, mathematics, and the sciences 18–31 percent of rural schools reported that it was difficult or impossible to fill a vacancy.

These national data paint a mixed picture of working conditions and teachers' perceptions of them, the difficulty of recruiting and retaining teachers, and the experience and education levels of teachers in rural and nonrural schools. But the data do not directly address whether students in rural schools have equitable access to highly qualified teachers.

As states develop policies and programs to support all schools in meeting the goals of the No Child Left Behind Act, they must understand the distribution of highly qualified teachers, particularly in schools with high percentages of students from households with incomes below the poverty level and in schools designated as in need of improvement under the No Child Left Behind Act. A recent policy study found that 2.2 percent of core classes in all rural New York districts were taught by teachers who were not highly qualified, compared with 5.5 percent of core classes statewide (University of the State of New York, 2007). Building on this knowledge base, this report examines the distribution of highly qualified teachers across different types of locations in New York and within each location by poverty level and by whether the school is in need of improvement.

Data on teacher quality are rarely analyzed in a way that illuminates trends and patterns or helps decisionmakers understand teacher quality in rural districts

RESEARCH QUESTIONS

The report analyzes 2005/06 data from the New York State Education Department (see appendix A for information on data sources and methodology). States are required by law to collect and report data on teacher quality. Beyond summary reports, however, these data are rarely analyzed in a way that illuminates trends and patterns or helps decisionmakers understand teacher quality in rural districts. To address this issue, this report includes a descriptive analysis of data on New York teaching assignments. It looks at the distribution of highly qualified teaching assignments (see box 2) rather than highly qualified teachers (see appendix A). Teaching assignments through the Board of Cooperative Educational Services (BOCES), created by state legislation to allow rural school districts to pool and share their educational resources, are also analyzed because many of these assignments are in rural schools.

Two research questions are addressed:

- What are the patterns in teaching assignments filled by highly qualified teachers across urban, suburban, and rural districts in New York?
- In rural districts in New York how does the percentage of teaching assignments filled by highly qualified teachers vary by school poverty, school level, school need for improvement, and subject matter?

Research question 1: what are the patterns in teaching assignments filled by highly qualified teachers across urban, suburban, and rural districts in New York?

Some 8.8 percent of the 542,290 core teaching assignments are in rural schools, 49.6 percent are in suburban schools, and 41.5 percent are in New York City and other urban schools (table 1).

Of the 542,290 core teaching assignments in New York, 93.6 percent are filled by highly qualified teachers (table 2). When core teaching assignments are broken down by location, 97.1 percent of assignments in rural schools are filled by highly qualified teachers, 95.8 percent in other urban schools, 98.1 percent in suburban schools, and 83.5 percent in New York City schools.

The percentage of core teaching assignments filled by highly qualified teachers with five or more years of experience (table 3) is at least 10 percentage points lower than the overall percentage for each location (see table 2). Other urban districts have the highest percentage of assignments filled by both experienced and highly qualified teachers (85.2 percent), with rural and suburban districts slightly behind. New York City has the lowest percentage (70.1 percent).

High-poverty schools have a lower percentage of teaching assignments filled by highly qualified teachers (84.5 percent) than do low-poverty schools (93.6 percent; table 4). The difference is largely due to the low percentage of teaching assignments that are taught by highly qualified teachers in New York City regardless of poverty level (84.2 percent in low-poverty schools and 80.0 percent in high-poverty schools). When high- and low-poverty schools are looked at in rural districts only, this difference is negligible. However, there is a 4 percentage point difference between high- and low-poverty schools for both New York City and other urban districts.

In high-need schools 89.6 percent of teaching assignments are filled by highly qualified teachers, and in low-need schools 95.0 percent of assignments are filled by highly qualified teachers (table 5). This difference is explained largely by the low percentage of teaching assignments

TABLE 1
New York core teaching assignments, by school location, 2005/06

School location	Teaching assignments	Share of total (percent)
Rural	47,812	8.8
New York City	151,367	27.9
Other urban	74,015	13.6
Suburban	268,939	49.6
Unknown[a]	157	0.0
Total	542,290	100.0

Note: Percentages do not sum to 100 because of rounding. For the Consolidated State Performance Report the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Assignment data do not include data on school location.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 2
New York core teaching assignments, by highly qualified status and school location, 2005/06

	Highly qualified		Not highly qualified	
Highly qualified status and school location	Teaching assignments	Share of total (percent)	Teaching assignments	Share of total (percent)
Rural	46,439	97.1	1,373	2.9
New York City	126,336	83.5	25,031	16.5
Other urban	70,873	95.8	3,142	4.2
Suburban	263,734	98.1	5,205	1.9
Unknown[a]	118	75.2	39	24.8
Total	507,500	93.6	34,790	6.4

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Assignment data do not include data on school location.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 3

New York highly qualified core teaching assignments filled by teachers with five or more years of experience, by school location, 2005/06

School location	Total highly qualified teaching assignments	Highly qualified teaching assignments filled by teachers with five or more years of experience	Highly qualified teaching assignments filled by teachers with five or more years of experience as a share of total highly qualified teaching assignments (percent)
Rural	46,439	39,349	84.7
New York City	126,336	88,596	70.1
Other urban	70,873	60,400	85.2
Suburban	263,734	217,984	82.7
Total	507,382	406,329	80.1

Note: The table excludes 157 teaching assignments without data on school location. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 4

New York highly qualified teaching assignments, by level of school poverty and school location, 2004/05

Level of school poverty and school location	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)
Low poverty[a]	250,067	234,112	93.6
Rural	3,555	3,476	97.8
New York City	82,971	69,883	84.2
Other urban	5,025	4,929	98.1
Suburban	158,516	155,824	98.3
High poverty[b]	45,102	38,116	84.5
Rural	783	763	97.4
New York City	31,061	24,845	80.0
Other urban	10,415	9,803	94.1
Suburban	2,768	2,660	96.1
Unknown[c]	75	45	0.6
Total (low, middle, and high poverty)	504,118	471,905	93.6
Rural	43,367	42,231	97.4
New York City	145,875	122,118	83.7
Other urban	69,170	66,294	95.8
Suburban	245,706	244,262	98.2

Note: The table excludes 5,762 teaching assignments without poverty data and teaching assignments that have only district codes or that are through the Board of Cooperative Educational Services. It includes only teaching assignments that are based in a school. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here. The New York State Education Department did not have data on free or reduced-price lunch eligibility or enrollment for 2005/06, so data from 2004/05 were used instead. School-level demographic data are usually very similar when comparing consecutive years.

a. Defined as 18.4 percent or less of students are eligible for free or reduced-price lunch.
b. Defined as 78.8 percent or more of students are eligible for free or reduced-price lunch.
c. Assignment data do not include data on school location.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 5

New York highly qualified teaching assignments, by level of school need for improvement and school location, 2005/06

Level of school need and school location	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)
Low need[a]	367,009	348,785	95.0
Rural	39,849	38,771	97.3
New York City	75,014	62,791	83.7
Other urban	36,657	35,441	96.7
Suburban	215,489	211,664	98.2
Unknown[c]	0	118	
High need[b]	142,871	127,971	89.6
Rural	3,518	3,460	98.4
New York City	74,992	62,556	82.3
Other urban	33,302	31,575	94.8
Suburban	31,059	30,380	97.8
Total	510,037	476,756	93.5
Rural	43,367	42,231	97.4
New York City	150,006	125,347	83.6
Other urban	69,959	67,016	95.8
Suburban	246,548	242,044	98.2
Unknown[c]	157	118	75.1

Note: Includes only teaching assignments that are based in a school; does not include teaching assignments that have only district codes or that are through the Board of Cooperative Educational Services. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Based on their performance in 2005/06, these schools were not on the list of schools in need of improvement in 2006/07.
b. Based on their performance in 2005/06, these schools were on the list of schools in need of improvement in 2006/07.
c. Assignment data do not include data on school location.

Source: Authors' calculations based on data sources outlined in appendix A.

filled by highly qualified teachers in New York City regardless of need level (83.7 percent in low-need New York City schools and 82.3 percent in high-need New York City schools). The distribution of assignments filled by highly qualified teachers in high- and low-need schools remains similar across rural, other urban, and suburban schools.

A separate analysis of teaching assignments from the Board of Cooperative Educational Services (BOCES), created by state legislation to allow rural school districts to pool and share their educational resources, was conducted to

TABLE 6

New York Board of Cooperative Educational Services teaching assignments, by school location, 2005/06

School location	Teaching assignments (n = 10,154)	Share of total (percent)
Rural	2,149	21.2
Suburban	8,005	78.8

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

examine differences across suburban and rural districts, the only two types of districts that have board assignments (table 6). BOCES teaching assignments were not included in the tables in this report that are based on school level variables such as poverty and school need because BOCES teachers are not assigned to one school and therefore would not be appropriate to include in school-level analyses. Of the 6,651 core teaching assignments filled by BOCES teachers,[1] 94.2 percent are highly qualified (89.7 percent in rural schools and 95.4 percent in suburban schools; tables 7 and 8).

Additional data about the patterns of highly qualified teaching assignments across New York by school level and by subject matter are in appendix B. School subject matter analyses reveal high percentages of highly qualified core teaching assignments for both middle and high school. The subjects with less than 95.0 percent of core teaching assignments filled by highly qualified teachers are Spanish, French, and other foreign languages for middle school and Spanish and other foreign languages for high school.

The No Child Left Behind Act requires states to report highly qualified teachers by core course, which is the focus of this study. Appendix C provides additional data on all New York teaching assignments for both core and noncore courses by such variables as teaching experience, education attainment of teachers, certification of teachers, school poverty distribution, and teaching assignments by level of school need for improvement. This section is included to give more descriptive context for all teachers in the state on dimensions that go beyond highly qualified teacher status. New York City has more assignments at each grade level filled by teachers with fewer than five years of teaching experience. The share of teaching assignments taught by teachers with a master's degree ranges from 85 percent in urban areas, 81.9 percent in other urban areas, 79.3 percent in rural areas, and 75.9 percent in New York City. And analysis of teacher certification types show that 93.6 percent of assignments in New York have a certification that qualifies for highly qualified status and only 6.4 percent do not.[2]

TABLE 7

New York Board of Cooperative Educational Services core teaching assignments, by highly qualified status, 2005/06

Highly qualified status	Teaching assignments (n = 6,651)	Share of total (percent)
Not highly qualified	384	5.8
Highly qualified	6,267	94.2

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 8

New York Board of Cooperative Educational Services highly qualified core teaching assignments, by school location, 2005/06

School location	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)
Rural	1,317	1,181	89.7
Suburban	5,334	5,086	95.4
Total	6,651	6,267	94.2

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

Research question 2: in rural districts in New York how does the percentage of teaching assignments filled by highly qualified teachers vary by school poverty, school level, school need for improvement, and subject matter taught?

This section presents additional analyses focused on teaching assignments in New York rural schools only to determine the percentage of assignments filled by highly qualified teachers by level of school poverty, school level, school need for improvement, and subject matter.

The distribution of teaching assignments filled by highly qualified teachers in rural schools is nearly identical for high- and low-poverty schools; 97.4 percent of assignments in rural high-poverty schools are filled by highly qualified teachers compared with 97.8 percent of assignments in rural low-poverty schools (table 9).

The difference between the percentage of teaching assignments filled by highly qualified teachers across school levels is 1.8 percentage points. Analyses show that rural elementary schools have the highest percentage of assignments filled by highly qualified teachers (98.0 percent), middle schools have 97.1 percent of assignments filled by highly qualified teachers, and high schools have 96.9 percent of assignments filled by highly qualified teachers (table 10).

TABLE 9
New York highly qualified teaching assignments in rural schools, by level of school poverty, 2004/05

Level of school poverty	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)
Low poverty[a]	3,555	3,476	97.8
High poverty[b]	783	763	97.4
Total of low- and high-poverty rural schools	4,338	4,239	97.7

Note: Includes only teaching assignments that are based in a school; does not include teaching assignments that have only district codes or that are through the Board of Cooperative Educational Services. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here. The New York State Education Department did not have data on free or reduced-price lunch eligibility or enrollment for 2005/06, so data from 2004/05 were used instead. School-level demographic data are usually very similar when comparing consecutive years.

a. Defined as 18.4 percent or less of students are eligible for free or reduced-price lunch.
b. Defined as 78.8 percent or more of students are eligible for free or reduced-price lunch.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 10
New York highly qualified teaching assignments in rural schools, by school level, 2005/06

	Highly qualified		Not highly qualified	
School level	Teaching assignments	Share of total (percent)	Teaching assignments	Share of total (percent)
Elementary school	13,521	98.0	271	2.0
Middle school	10,048	97.1	302	2.9
High school	13,927	96.9	439	3.1
Mixed grades	8,493	96.2	335	3.8
Missing data for grade level	450	94.5	26	5.5
Total	46,439	97.1	1,373	2.9

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

High-need rural schools have a slightly higher percentage of teaching assignments filled by highly qualified teachers (98.4 percent) than do low-need rural schools (97.3 percent; table 11).

Overall, a high percentage of teaching assignments are filled by highly qualified teachers in every subject matter for both middle and high schools. Only a few subjects have fewer than 95.0 percent of teaching assignments filled by highly qualified teachers: French (94.2 percent), Spanish (91.9 percent), and other foreign languages (64.5 percent) in middle school and Spanish (94.7 percent) and other foreign languages (67.1 percent) in high school (table 12).

When the analysis focuses only on rural schools, the distribution of highly qualified teachers by variables such as school poverty, grade level, and school need does not differ much—that is, most differences found in the statewide data disappear. For example, when only rural schools are examined, the difference between the percentage of core teaching assignments filled by highly qualified teachers in low- and high-poverty schools drops from 9.1 percentage points to only 0.4 percentage point. However, New York City remains consistently lower in the percentage of teaching assignments taught by highly qualified teachers regardless of school poverty and school need.

National research indicates that rural schools share some characteristics with urban and suburban schools (for example, teacher vacancies and years of teaching experience; Provasnik et al., 2007). The data on rural schools in New York suggest that neither high-poverty nor high-need rural schools have high percentages of unqualified or inexperienced teachers, but there are differences by subject area, a result also identified in national research on rural schools (Carlsen and Monk, 1992; Provasnik et al., 2007). In both middle and high schools foreign languages are taught by lower percentages of highly qualified teachers than are other subjects. Additional investigation may explain the New York's policies and practices for addressing key goals of the No Child Left Behind Act and identify remaining challenges for rural schools.

TABLE 11

New York highly qualified teaching assignments in rural schools, by level of school need for improvement, 2005/06

Level of school need	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)
Low need[a]	39,849	38,771	97.3
High need[b]	3,518	3,460	98.4
Total	43,367	42,231	97.4

Note: Includes only teaching assignments that are based in a school; does not include teaching assignments that have only district codes or that are through the Board of Cooperative Educational Services. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Not included on the 2006/07 list of schools in need of improvement based on 2005/06 performance.
b. Included on the 2006/07 list of schools in need of improvement based on 2005/06 performance.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE 12

New York highly qualified teaching assignments in rural middle and high schools, by core subject matter taught, 2005/06

Subject matter taught	Middle schools			High schools		
	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as a share of total teaching assignments (percent)
Science	1,537	1,519	98.8	326	321	98.5
Social studies	1,568	1,542	98.4	2,448	2,408	98.4
English	1,705	1,665	97.7	3,138	3,082	98.2
Other	1,452	1,418	97.7	3,221	3,144	97.6
Art	457	445	97.4	127	124	97.6
Mathematics	1,829	1,779	97.3	497	478	96.2
Special education	364	349	95.9	997	959	96.2
Reading	286	273	95.5	920	880	95.7
French	346	326	94.2	359	341	95.0
Spanish	775	712	91.9	2,263	2,143	94.7
Other foreign languages	31	20	64.5	70	47	67.1
Total	10,350	10,048	97.1	14,366	13,927	96.9

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

RECOMMENDATIONS FOR FURTHER RESEARCH

The purposes of this report are to increase understanding of staffing in rural schools in New York, to inform the state whether rural students have equitable access to highly qualified teachers, and to determine whether efforts are needed to recruit highly qualified teachers to rural areas. Overall, New York rural schools and districts have a high percentage of core teaching assignments that are filled by highly qualified teachers. In fact, urban schools—particularly those in New York City—are in greater need of increasing the number of core assignments filled by highly qualified teachers than are rural schools.

One area for further analysis is in the Board of Cooperative Educational Services assignments in rural areas, where there was a difference of almost 6 percentage points between the suburban and rural highly qualified teacher percentages. Foreign language courses in rural middle and high schools have consistently lower percentages of teaching assignments filled by highly qualified teachers than do other subjects. There was little difference between highly qualified teaching assignments in rural high-need schools (98.4 percent) and rural low-need schools (97.3 percent) found in this study. Further research is needed to see if this remains constant over time.

APPENDIX A
DATA AND METHODOLOGY

The unit of analysis in this report is the teaching assignment. There are two reasons teaching assignment was selected. First, the No Child Left Behind Act identifies highly qualified teachers based on teaching assignment. Second, the New York State Education Department data system captures data on each teaching assignment and reports highly qualified teacher data by assignment. A recent New York state report on the supply of and demand for teachers also used teaching assignment as the unit of analysis (University of the State of New York, 2007).

This report examines teaching assignments in New York in the 2005/06 school year. Each teacher may teach more than one assignment (or course) in that school year. For example, a teacher may teach both a Spanish course and a French course; therefore, this teacher would have two teaching assignments for the year. As a result, the data included information on 215,268 teachers and 542,290 core teaching assignments. School-level analyses (such as those looking at the distribution of teachers across school need and school poverty level) include only teachers that were assigned to a school; they do not include any teaching assignments that have a district-level or Board of Cooperative Educational Services (BOCES) code because those assignments were filled by teachers assigned to multiple schools across the district.

The data in this report come from the 2005/06 Personnel Master File, which contains data collected from teachers on the October 2005 Basic Education Data Systems form. On the Basic Education Data Systems form teachers list the classes that they are teaching, whether they are highly qualified for that teaching assignment, and the location of the assignment as well as demographic variables.[3]

Because the analysis required additional variables not included in the Personnel Master File, additional data were obtained from the New York State Education Department's Institutional Master File:

- School location.
- Student eligibility for free or reduced-price lunch (available only for 2004/05).
- School enrollment (available only for 2004/05).
- Schools in need of improvement (table A1).

The 2005/06 Personnel Master File and the additional data from the New York State Education Department were merged into one dataset (table A2).

TABLE A1
Status of New York schools in need of improvement

Category	Number of schools
In corrective action	67
In need of improvement	199
Planning for restructuring	77
Requiring academic progress	193
Restructuring	163
Total	699

Note: Data are for schools on the 2006/07 list, which is based on performance during 2005/06.

Source: New York State Education Department.

Limitations of the dataset

As noted, district-level teachers are teachers who are not assigned to a single school but who teach in multiple schools across a district (Board of Cooperative Educational Services assignments are also included in this category). A district-level teacher variable was created in the master dataset so that teaching assignments filled by teachers assigned to a single school could be distinguished from teachers assigned to multiple schools in a district. It is also important to note that school-level data cannot be matched to district-level teacher assignments. All the descriptions of teaching assignments based on school characteristics (free or reduced-price lunch, school need, and the like) do not include district-level teachers.

TABLE A2
Variables used in the project dataset

Variable	Data source
Identification	Personnel Master File
Personnel code	Personnel Master File
Basic Education Data Systems code (school code)	Personnel Master File
Gender	Personnel Master File
Board of Cooperative Educational Services	Personnel Master File
Education degree	Personnel Master File
Occupation type	Personnel Master File
Occupation location	Personnel Master File
Type of appointment	Personnel Master File
Education experience (district)	Personnel Master File
Education experience (other public)	Personnel Master File
Education experience (total)	Personnel Master File
Months employed	Personnel Master File
Percent time employed	Personnel Master File
Date of birth	Personnel Master File
Age	Personnel Master File
Salary	Personnel Master File
Legal certification	Personnel Master File
Assignment code	Personnel Master File
Subject	Personnel Master File
Assignment name	Personnel Master File
Assignment experience	Personnel Master File
Assignment certification	Personnel Master File
Grade level	Personnel Master File
Registration	Personnel Master File
Highly qualified status	Personnel Master File
Enrollment (2004)	Institutional Master File
Dropouts	System for Tracking Education Performance
Dropout rate	System for Tracking Education Performance
Free lunch (2004)	Institutional Master File
Reduced-price lunch (2004)	Institutional Master File
Free or reduced-price lunch total (2004)	Institutional Master File
Poverty	Created based on above data
School type	Institutional Master File
Community type	Institutional Master File
Race/ethnicity of students	Institutional Master File
Location of school	Institutional Master File
Subject of assignment	Personnel Master File
Fewer than five years of experience	Personnel Master File
Teaching assignment is in a core course	Personnel Master File

(CONTINUED)

TABLE A2 (CONTINUED)
Variables used in the project dataset

Variable	Data source
Highly qualified dichotomous variable	Created based on above data for core course
School need (whether school was on the 2006/07 schools in need of improvement list based on 2005/06 performance)	Schools and Districts in Need Information (http://www.emsc.nysed.gov/irts/school-accountability/home.shtml)
School level of need	Created based on schools in need of improvement data
School level	Created based on data from the grade level variable in the Personnel Master File.

For school-level analyses that used these variables, the missing data are noted. District-level teachers are included in all other analyses (education attainments, highly qualified status, and the like).

The New York State Education Department did not have data on free or reduced-price lunch eligibility or enrollment for 2005/06, so data from 2004/05 were used instead.

Teacher race and ethnicity data are not available at the assignment level. These data may be obtained at the school or district level but were not available for this report.

APPENDIX B
HIGHLY QUALIFIED TEACHING ASSIGNMENTS ACROSS NEW YORK, BY SCHOOL LEVEL AND BY SUBJECT MATTER

TABLE B1

New York highly qualified core teaching assignments, by school level and school location, 2005/06

School level and school location	Total teaching assignments	Highly qualified teaching assignments	Highly qualified teaching assignments as share of total (percent)
Elementary school	166,880	157,130	94.2
Rural	13,792	13,521	98.0
New York City	47,605	40,074	84.2
Other urban	23,164	22,446	96.9
Suburban	82,234	81,017	98.5
Unknown[a]	85	72	84.7
Middle school	110,997	104,386	94.0
Rural	10,350	10,048	97.1
New York City	24,550	20,241	82.4
Other urban	16,615	15,865	95.5
Suburban	59,426	58,200	97.9
Unknown[a]	56	32	57.1
High school	153,434	145,283	94.7
Rural	14,366	13,927	96.9
New York City	35,877	30,573	85.2
Other urban	20,558	19,772	96.2
Suburban	82,623	81,001	98.0
Unknown[a]	10	10	100.0
Mixed grades[b]	106,210	96,132	90.5
Rural	8,828	8,493	96.2
New York City	42,729	34,892	81.7
Other urban	12,788	11,959	93.5
Suburban	41,859	40,784	97.4
Unknown[a]	6	4	66.6
Total	537,521	502,931	93.6
Rural	47,336	45,989	97.2
New York City	150,761	125,780	83.4
Other urban	73,125	70,042	95.8
Suburban	266,142	261,002	98.1
Unknown[a]	157	118	75.1

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Assignments do not include data on school location.
b. Fewer than 75 percent of students in the same grade.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE B2

New York middle school teaching assignments, by core subject matter taught and highly qualified status, 2005/06

Subject matter	Total teaching assignments	Highly qualified		Not highly qualified	
		Number	Share of total (percent)	Number	Share of total (percent)
Mathematics	19,310	18,121	93.8	1,189	6.2
Science	16,236	15,251	93.9	985	6.1
Social studies	16,215	15,537	95.8	678	4.2
English	18,261	17,253	94.5	1,008	5.5
Art	5,069	4,779	94.3	290	5.7
French	2,179	2,084	95.6	95	4.4
Spanish	7,970	7,273	91.3	697	8.7
Other foreign languages	1,259	1,102	87.5	157	12.5
Reading	2,927	2,754	94.1	173	5.9
Special education (special classes only)	6,559	6,137	93.6	422	6.4
Other	15,012	14,095	93.9	917	6.1
Total	110,997	104,386	94.0	6,611	6.0

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE B3

New York high school teaching assignments, by core subject matter taught and highly qualified status, 2005/06

Subject matter	Total teaching assignments	Highly qualified		Not highly qualified	
		Number	Share of total (percent)	Number	Share of total (percent)
Mathematics	26,676	25,481	95.5	1,195	4.5
Science	23,716	21,806	91.9	1,910	8.1
Social studies	32,861	31,844	96.9	1,017	3.1
English	32,648	31,377	96.1	1,271	3.9
Art	3,644	3,417	93.8	227	6.2
French	3,144	3,022	96.1	122	3.9
Spanish	9,966	9,406	94.4	560	5.6
Other foreign languages	1,954	1,732	88.6	222	11.4
Reading	979	937	95.7	42	4.3
Special education (special classes only)	7,528	6,951	92.3	577	7.7
Other	10,318	9,310	90.2	1,008	97.7
Total	153,434	145,283	94.7	8,151	5.3

Note: For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

Source: Authors' calculations based on data sources outlined in appendix A.

APPENDIX C
ADDITIONAL DATA ON ALL NEW YORK TEACHING ASSIGNMENTS

TABLE C1

New York teaching assignments filled by teachers with fewer than five years of teaching experience, by school level and school location, 2005/06

School level and school location	Total teaching assignments	Teaching assignments filled by teachers with fewer than five years of experience	Teaching assignments filled by teachers with fewer than five years of experience as share of total (percent)
Elementary school	225,853	39,632	17.5
Rural	20,147	2,664	13.2
New York City	58,379	15,752	27.0
Other urban	31,351	4,202	13.4
Suburban	115,857	16,963	14.6
Unknown[a]	119	51	42.8
Middle school	139,251	31,866	22.9
Rural	13,583	2,592	19.1
New York City	28,296	10,002	35.3
Other urban	20,903	4,130	19.8
Suburban	76,412	15,100	19.8
Unknown[a]	57	42	73.6
High school	178,046	42,013	23.6
Rural	17,509	3,004	17.2
New York City	38,995	15,329	39.3
Other urban	23,684	4,003	16.9
Suburban	97,846	19,669	20.0
Unknown[a]	12	8	66.6
Mixed grades[b]	151,403	27,250	18.0
Rural	14,216	1,984	14.0
New York City	54,048	13,820	25.6
Other urban	18,679	2,200	11.8
Suburban	64,444	9,242	14.3
Unknown[a]	16	4	25.0
Total	694,553	140,761	20.3

Note: 6,732 teaching assignments do not include data on the grade level of the assignment. Data are for teaching assignments in both core and noncore courses. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Assignments do not include data on school location.
b. Fewer than 75 percent of students in the same grade

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE C2

New York teaching assignments, by teacher's education attainment and school location, 2005/06

Highest degree held and school location	Total teaching assignments	Share of total (percent)
Certificate of Advanced Graduate Studies or doctoral degree	4,137	0.6
Rural	138	0.2
New York City	9	0.0
Other urban	817	0.9
Suburban	3,173	0.9
Unknown[a]	0	0.0
Master's degree	572,091	81.6
Rural	52,487	79.3
New York City	136,607	75.9
Other urban	78,396	81.9
Suburban	304,474	85.0
Unknown[a]	127	61.9
Bachelor's degree	122,851	17.5
Rural	13,231	20.0
New York City	43,406	24.1
Other urban	16,368	13.9
Suburban	49,768	13.9
Unknown[a]	78	38.0
Less than a bachelor's degree[b]	1,290	0.1
Rural	320	0.5
New York City	8	0.0
Other urban	180	0.2
Suburban	782	0.2
Unknown[a]	0	0.0
Total	700,369	
Rural	66,176	
New York City	180,030	
Other urban	95,761	
Suburban	358,197	
Unknown[a]	205	

Note: 916 teaching assignments do not include data on educational attainment. Total percent may not sum to 100 due to rounding. Data are for teaching assignments in both core and noncore courses. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Assignments do not include data on school location.
b. These teaching assignments are in vocational schools and most likely include career and technical education instructors.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE C3

New York teaching assignments, by type of certification and school location, 2005/06

Type of certification and school location	Total teaching assignments	Share of total (percent)
Certification qualifies for highly qualified status	656,059	93.6
Rural	64,017	96.7
New York City	148,742	82.4
Other urban	91,903	96.1
Suburban	351,294	98.0
Unknown[a]	103	67.3
Certification does not qualify for highly qualified status	44,910	6.4
Rural	2,176	3.3
New York City	31,675	17.6
Other urban	3,776	3.9
Suburban	7,233	2.0
Unknown[a]	50	32.7
Total	700,969	
Rural	66,193	
New York City	180,417	
Other urban	95,679	
Suburban	358,527	
Unknown[a]	153	

Note: 469 teaching assignments do not include certification data. The following types of assignment certifications for core courses qualify a teacher for highly qualified status for a teaching assignment: five-year provisional, five-year initial, permanent (New York City or Buffalo), permanent (life) or professional, and certificate of qualification. The following types of assignment certifications do not qualify a teacher for highly qualified status for a teaching assignment: temporary, not on teacher certification file, none, limited, and no certification required. Highly qualified status does not apply for noncore teaching assignments, and some noncore assignments do not require certification. Data are for teaching assignments in both core and noncore courses. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Assignments do not include data on location.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE C4

New York teaching assignments, by level of school poverty and school location, 2004/05

Level of school poverty and school location	Total teaching assignments	Share of total (percent)
Low poverty[a]	318,485	49.4
Rural	4,354	0.7
New York City	98,219	15.2
Other urban	6,586	1.0
Suburban	208,945	32.4
High poverty[b]	55,240	8.6
Rural	1,026	0.16
New York City	37,071	5.7
Other urban	13,651	2.1
Suburban	3,492	0.5
Total (low, medium, and high poverty)[c]	645,214	
Rural	58,923	
New York City	173,473	
Other urban	88,672	
Suburban	324,146	

Note: 6,987 teaching assignments lack data on level of school poverty. Includes only teaching assignments that are based in a school; does not include teaching assignments that have only district codes or that are through the Board of Cooperative Educational Services. Data are for teaching assignments in both core and noncore courses. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here. The New York State Education Department did not have data on free or reduced-price lunch eligibility or enrollment for 2005/06, so data from 2004/05 were used instead. School-level demographic data are usually very similar when comparing consecutive years. Percentages may not sum to 100 because of rounding

a. 18.4 percent or less of students are eligible for free or reduced-price lunch.
b. 78.8 percent or more of students are eligible for free or reduced-price lunch.
c. Totals include teaching assignments in low, medium, and high poverty schools.

Source: Authors' calculations based on data sources outlined in appendix A.

TABLE C5

New York teaching assignments, by level of school need and school location, 2005/06

Need status of school and school location	Total teaching assignments	Share of total (percent)
Low need[c]	478,941	73.4
Rural	54,330	92.2
New York City	90,496	50.8
Other urban	47,813	53.3
Suburban	286,097	88.0
Unknown[b]	205	100.0
High need[a]	173,465	26.6
Rural	4,593	7.8
New York City	87,802	49.2
Other urban	41,888	46.7
Suburban	39,182	12.0
Unknown[b]	0	0.0
Total	652,406	
Rural	58,923	
New York City	178,298	
Other urban	89,701	
Suburban	325,279	
Unknown[b]	205	

Note: Includes only teaching assignments that are based in a school; does not include teaching assignments that have only district codes or that are through the Board of Cooperative Educational Services. For the Consolidated State Performance Report, the New York State Education Department weights teaching assignments to equate elementary and middle or secondary assignments, which yields different numbers of teaching assignments from those reported here.

a. Included on the list of schools in need of improvement for the 2005/06 school year.
b. Assignments do not have data on level of school location.
c. Not included on the list of schools in need of improvement for the 2005/06 school year.

Source: Authors' calculations based on data sources outlined in appendix A.

NOTES

1. These teaching assignments are included in the calculations for tables 1–3.

2. These figures include data on both core and noncore teaching assignments. Highly qualified status does not apply for noncore teaching assignments, and some noncore assignments do not require certification.

3. These were obtained from the New York Data Policy Landscape (http://www.teachingdata.org/pdfs/cpre_data_ny.pdf) and New York State Education Department (2006).

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