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Some Perspectives from Rural School Districts on The No Child Left Behind Act

Key Findings

While considerable policy research has spotlighted the impact of the No Child Left Behind Act (NCLB) on urban schools, less attention has been paid specifically to the experiences of rural schools and school districts as they implement the Act. This report by the Center on Education Policy (CEP), an independent nonprofit organization, examines the impact of NCLB on student achievement and teacher quality in some rural districts and the challenges those rural districts face in complying with the Act. It also analyzes differences in responses to NCLB between rural districts and urban or suburban districts (sometimes combined into a "non-rural" category).

The findings in this report are drawn from CEP's 2006-07 nationally representative survey of NCLB implementation in 349 responding districts, but it did not include the smallest districts (as explained later), and also from interviews with administrators in eight rural districts in various parts of the country. Our research led us to the following key findings about some rural districts and NCLB:

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1001 Connecticut Avenue NW Suite 522 ▪ Washington, D.C. 20036 ▪ Ph. 202.822.8065 ▪ Fax 202.822.6008
www.cep-dc.org

- ***Rural districts surveyed by CEP, like urban and suburban districts, rated their own district policies and programs as more important causes of improved student achievement than they rated the provisions of NCLB except for Reading First programs and school improvement plans.*** Among rural districts reporting that their achievement had improved in ELA or math, the majority (68% in ELA and 69% in math) cited district policies and programs unrelated to NCLB as important/very important causes of these improvements. By contrast, the majority of these rural districts—often a large majority—rated the major provisions of NCLB as only somewhat or minimally important contributors to achievement gains. Among the provisions of NCLB, these rural districts most often cited the requirements for adequate yearly progress (AYP), research-based programs, and school improvement plans as important causes of improved English language arts and math achievement.

- ***Reading First programs and school improvement plans are considered as important/very important contributors to improvements in student achievement by the majority of rural districts that participate in these aspects of NCLB.*** A significantly higher percentage of rural than non-rural districts surveyed by CEP rated Reading First and school improvement plans as important/very important. Among rural districts that received Reading First subgrants, about 79% rated Reading First's instructional programs and assessments systems as important/very important contributors to improved achievement in English language arts (ELA). Among rural districts with schools identified for improvement, about 72% cited school improvement plans as important/very important causes of improved achievement in English language arts, and 80% did so in math.

- ***In response to NCLB, CEP's rural case study districts have better aligned their curriculum with test content and have sharpened their focus on individualized instruction.*** Several interviewees in case study districts noted that these two strategies have been effective in raising student achievement.

- ***Sizeable percentages of those rural districts surveyed have achievement gaps for students with disabilities and low-income students.*** These two subgroups are large enough to track for AYP purposes in most rural districts. About 68% of rural districts reported that achievement gaps existed between students with disabilities and non-disabled students in English language arts and math, and 50% reported gaps between low-income and non-low-income students.

- ***A smaller share of rural districts than of urban or suburban districts report having achievement gaps for racial/ethnic minority students or English language learners (ELLs), but this is because they enroll too few of these students to calculate gaps under NCLB***. A large majority of the rural districts we surveyed—at least two-thirds or more, depending on the subgroup—reported having too few racial, ethnic, or language minority students to track separately for purposes of determining adequate yearly progress (AYP) under NCLB. For example, about 78% of rural districts said that the African American subgroup was too small to track for AYP purposes in English language arts (ELA), and about 69% said the same of the Latino subgroup. Consequently, a smaller proportion of rural districts than of urban or suburban districts reported having achievement gaps between minority students and white students or between ELLs and other students.

- ***NCLB's highly qualified teacher requirements appear to have had a limited impact on teacher recruitment and retention in most rural districts included in CEP's survey.*** Nearly half of all rural districts (47%) reported no outcomes as a result of the NCLB highly qualified teacher requirements. Among those rural districts that did report outcomes, only 11% reported that the NCLB highly qualified teacher requirements have enhanced their strategies for teacher recruitment or teacher retention to a moderate or great extent, a slightly smaller share than the percentage of non-rural districts reporting this degree of impact. Interviewees from some case study districts attributed this relatively low impact to declining student enrollments (which mean fewer new teachers

are needed), low teacher turnover rates, and an oversupply of teachers. A greater impact was perceived in the area of professional development: 35% of rural districts reporting outcomes concurred that NCLB had resulted, to a moderate or great extent, in more sustained and long-term professional development for teachers.

- ***Interviews with officials in CEP's rural case study districts indicate that they use recruitment and retention strategies shaped by their geographical and social environments.*** For instance, some of our rural case study districts attract teachers by advertising the benefits of a rural lifestyle, small class sizes, and strong community ties. Several districts have created partnerships with local higher education institutions to ensure a supply of qualified teachers.

- ***In our survey, rural districts report having the most difficulty complying fully with the highly qualified teacher requirements for secondary school science and math teachers.*** About 16% of rural districts found it difficult to comply with the NCLB requirements for secondary school science teachers, and 10% reported difficulties for secondary school math teachers. Eight percent of rural districts reported having difficulty complying fully with the highly qualified requirements for special education teachers, in contrast to 23% of non-rural districts.

Despite geographic and size differences between rural and non-rural school districts, few clear distinctions emerged between the two types of districts in their responses to survey questions about the impact of NCLB on student achievement, teacher quality, and school improvement. Data from the eight school district case study interviews, however, provides additional information that expands our understanding of some rural districts' experiences, and reveals some unique rural challenges and concerns related to NCLB. For example, small class size and school size may make it easier to individualize instruction, but it also means that the academic performance of a single student has a greater potential impact on the performance of the entire school.

Study Methods and Data Limitations

The first source of data for this report, CEP's fourth annual survey of NCLB implementation, which was administered during the winter of 2006-07 to directors of the federal Title I program and to other local administrators of federal programs. The survey was sent to a nationally representative sample of 491 school districts that received Title I funds. A total of 349 districts responded (a response rate of 71%); 116 of these districts were identified as rural based on their Metropolitan Statistical Code variable (MSC01) in the U.S. Department of Education's Common Core of Data (CCD) database (a response rate of 74%).[1] Weights were applied in the survey data analysis to ensure the representativeness of the sample.

For the second source of data, CEP staff and consultants conducted in-depth interviews with district- and school-level administrators in eight rural districts. Conducted during the fall and winter of 2006-07, these case study interviews focused on the impact of NCLB on student achievement, teacher quality, and school improvement. These eight districts have been participating for several years in CEP's long-term case studies of NCLB and were selected to represent rural districts in various geographic locations. Since the interviews were conducted, two superintendents who were our school district contacts have left the districts: Mike Midey, former superintendent of Romulus Central School District in New York, and Ronald Paquette, former superintendent of Orleans Central Supervisory Union No. 34 in Vermont. The table in appendix provides background information about the eight districts.

In addition to these eight districts, CEP collected information specifically about rural teacher quality issues from a district with special teacher challenges, Kodiak Island Borough School District in Alaska. The Kodiak district, which has participated since 2003 in CEP's local case studies of NCLB, enrolls 2,749 students in the town of Kodiak and more remote Native Alaskan

[1]In the CCD, districts that primarily serve the central city of a metropolitan statistical area (MSA) are classified as urban, those that primarily serve areas other than the central city of an MSA are classified as suburban, and those that do not primarily serve a MSA are classified as rural.

villages. Our findings about Kodiak's efforts to recruit and retain highly qualified teachers are described later in this report in Box A.

It should be noted that CEP's survey data used in this report reflect the experiences of rural school districts with an enrollment larger than 200 students. As stated in the Methodology report that accompanies this document, the CEP school district survey includes a sample of districts that received federal Title I, part A funds. This sample was stratified by urban, suburban, and rural school districts. For the rural district stratum, our survey sample excluded extremely small districts in order to increase the efficiency of the remaining sample. That is, although these very small districts make up an appreciable percentage of all districts (approximately 14%), they enroll a very small number of students, serving only approximately .4% of the students attending schools in districts that participate in Title I. Eliminating these very small rural districts from the sampling frame allowed us to sample more districts with enrollments over 200, thus increasing the efficiency of the sample. The downside of this strategy, particularly for reporting policy impacts on rural districts, is that extremely small school districts have important characteristics and unique challenges in implementing the No Child Left Behind Act. Caught in the dilemma of representing nearly all school districts or the districts serving the vast majority of students, we chose the latter. Therefore, the information contained in this report may not reflect the experience of all rural schools and rural districts.

Student Achievement in Rural Schools

The overarching goals of NCLB are to improve academic achievement for all students and eliminate achievement gaps between different subgroups of students. To better understand the impact of NCLB on achievement in rural districts, we looked at two main questions:

1. To what extent do achievement gaps exist in rural districts, and are they the same types of gaps found in non-rural districts?

2. To what extent have various programs and requirements of NCLB contributed to improvements in student achievement in rural districts, and has the impact on achievement been different in rural districts than in non-rural districts?

ACHIEVEMENT GAPS IN RURAL DISTRICTS

A smaller proportion of rural districts than of non-rural districts reported having achievement gaps between racial/ethnic minority students and white students, and between English language learners and other students. This is largely because rural districts on the whole enroll fewer racial, ethnic, or language minority students than non-rural districts do. A recent report on rural education by the U.S. Department of Education indicated that rural schools tend to have lower percentages of African American, Hispanic, and Asian/Pacific Islander students than urban and suburban schools do (Provasnik et al., 2007). The proportion of students identified as English language learners is also smaller in rural public schools than in urban and suburban public schools.

Consistent with these national demographic data, a large majority of the rural districts responding to our survey—at least two-thirds or more, depending on the subgroup—reported having too few racial, ethnic, or language minority students to "count" them as separate subgroups in determining adequate yearly progress under NCLB for either English language arts[2] or math.

Under NCLB regulations, districts and schools are not held accountable for the adequate yearly progress of a particular subgroup if the number of students in the subgroup falls below a state-set minimum. This provision recognizes that the smaller a group is, the more its overall test results may fluctuate from year to year based on the performance of one or two students, for reasons related more to changes in group composition than in learning. This provision also attempts to

[2]The survey questions asked about "reading/language arts"; this report uses the broader term "English language arts" to encompass reading, English, and other aspects of language arts tested for NCLB purposes at the elementary and secondary levels.

protect the privacy of students, whose individual test results may be easier to infer from overall results when a group is very small. To cite an example of how the minimum subgroup size provision works according to the rules established by a state, if a school enrolls fewer than 40 African American students (the minimum subgroup size in several states), the school is not held accountable for the performance of the African American subgroup. However, the performance of African American students is still taken into account in determining whether the school or district makes AYP as a whole. In this respect, many rural districts face less difficulty in making AYP than larger or more diverse districts do because rural districts have fewer subgroups that must meet achievement targets for the district or its schools to make AYP.

Our survey sought to learn more about the impact of small subgroups by asking districts whether a particular subgroup was "too small to track" for purposes of calculating AYP and reporting an achievement gap under NCLB. As shown in **table 2,** 78% of the rural districts in our survey reported that the African American subgroup was too small to track in English language arts, compared with just 25% of urban districts and 56% of suburban districts. About 69% of rural districts reported that the Latino subgroup was too small to track for AYP, compared with 24% of urban districts and 49% of suburban districts. Similarly, about 69% of rural districts responded that the subgroup of English language learners was too small to track; this compares with only 18% of urban districts and 50% of suburban districts. Similar differences in subgroup size for math emerged between rural and urban or suburban districts.

In short, a higher percentage of rural districts than of non-rural districts reported that all racial/ethnic minority subgroups, as well as the ELL subgroup, were too small to track for purposes of demonstrating AYP and reporting achievement gaps in English language arts or math. (It is also noteworthy that the racial/ethnic subgroups listed in table 2, except for Latino students, were too small to track in a majority of suburban districts.)

By contrast, most rural districts reported having sufficient numbers of students with disabilities and low-income students to track these subgroups for AYP purposes. In both English language

arts and math, the disabilities subgroup was too small to track in 23% of rural districts, and the low-income subgroup was too small to track in just 16% of rural districts.

Table 2. Percentage of Districts Reporting Whether Subgroups Are Too Small To Track and Whether Achievement Gaps Exist

Student Subgroup	Subject	School Type	Subgroup is too small to track/ Don't know	There is a gap	There is NO gap
African American (gap w/ white)	ELA	Rural	***78%***	***8%***	14%
		Urban	**25%**	**65%**	10%
		Suburban	*56%*	*30%*	14%
	Math	Rural	***75%***	***8%***	17%
		Urban	**26%**	**64%**	10%
		Suburban	*56%*	*31%*	13%
Asian (gap w/ white)	ELA	Rural	***87%***	***0***	**13%**
		Urban	**46%**	**10%**	**44%**
		Suburban	*66%*	*6%*	28%
	Math	Rural	***84%***	1%	**15**
		Urban	**49%**	12%	**40%**
		Suburban	*67%*	6%	27%
Latino (gap w/ white)	ELA	Rural	***69%***	***17%***	14%
		Urban	**24%**	**66%**	10%
		Suburban	*49%*	*37%*	15%
	Math	Rural	**67%**	***16%***	17%
		Urban	**24%**	**62%**	13%
		Suburban	49%	*33%*	18%
Native American (gap w/ white)	ELA	Rural	82%	8%	11%
		Urban	71%	19%	11%
		Suburban	77%	8%	15%
	Math	Rural	79%	8%	13%
		Urban	70%	20%	10%
		Suburban	78%	8%	14%
ELLs (gap w/ non-ELLs)	ELA	Rural	***69%***	***17%***	14%
		Urban	**18%**	**75**	75%
		Suburban	*50%*	*42%*	8%

Student Subgroup	Subject	School Type	Subgroup is too small to track/ Don't know	There is a gap	There is NO gap
	Math	Rural	**68%**	***17%***	15%
		Urban	**16%**	**70%**	14%
		Suburban	50%	*36%*	14%
Students with disabilities (gap w/ non-disabled)	ELA	Rural	**23%**	***68%***	8%
		Urban	**3%**	**95%**	2%
		Suburban	10%	*86%*	4%
	Math	Rural	***23%***	***68%***	9%
		Urban	**1%**	**95%**	4%
		Suburban	*11%*	*82%*	6%
Low-income students (gap w/ not low-income)	ELA	Rural	16%	**50%**	**34%**
		Urban	6%	**78%**	**15%**
		Suburban	12%	55%	33%
	Math	Rural	16%	***50%***	34%
		Urban	5%	**75%**	19%
		Suburban	12%	*53%*	34%

Table reads: Seventy-eight percent of rural districts responding to CEP's nationally representative survey reported that the subgroup of African American students is too small to track for AYP purposes in the district. Eight percent of rural districts reported an African American-white achievement gap exists in their districts, while 14% said there is no gap for this subgroup.

Note: Numbers in **bold** indicate that the difference between urban and rural districts is statistically significant. Numbers in *italics* indicate that the difference between suburban and rural districts is statistically significant. Because of missing data, the percentages in ELA and math across districts are not necessarily the same.

Source: Center on Education Policy, February 2007, District Survey, items 16 and 17.

While it is no surprise that, on average, rural districts have smaller proportion of non-white student population, the demographic changes over the past decade are worth noting. According to a report by the Rural School and Community Trust (Johnson & Strange, 2007), in the past decade the number of rural minority students has increased by more than 50% country wide. The report calls for policies to address student diversity in rural area, particularly in southern states where the majority of rural minority students attend public schools.

Our survey also collected information about student subgroups in four aspects other than race, 1) eligibility for free/reduced-price lunch (FRPL), 2) Individualized Education Program (IEP), 3) English language learners (ELLs), and 4) migrant students who move from school to school because they are children of migrant agricultural workers, including migratory dairy workers and migratory fishers. The biggest difference between rural and non-rural districts is the percentage of students eligible for FRPL. Rural districts have approximately 45% of their students eligible for FRPL which is 10% more than non-rural districts. The high percentage of FRPL students is an indicator of socioeconomic challenges many rural district face, and according to the Rural School and Community Trust, the situation worsens in the Southeast and Mid-South Delta (Johnson & Strange, 2007).

Table 2 also displays the percentages of districts reporting that achievement gaps exist in English language arts and math. Lower proportions of rural than urban or suburban districts reported gaps, which is not surprising in light of their smaller numbers of minority students. For most of the racial, ethnic, and language minority subgroups, less than 10% of rural districts reported having an achievement gap; the exceptions were the Latino and ELL subgroups, for which roughly 17% of rural districts reported achievement gaps.

A substantial share of rural districts did report the presence of achievement gaps between students with disabilities and non-disabled students (68% of rural districts), and between low-income and non-low-income students (50% of rural districts).

Our survey also asked districts which achievement gaps they found most challenging to close. Here, few distinctions appeared between rural and non-rural responses. As shown in **table 3**, 73% of rural districts found the gap between students with disabilities and non-disabled students by far the most challenging to close in either subject, a view also expressed by a large share of urban and suburban districts. This agreement across district types may reflect both the pervasive national concern about the relatively low academic performance of students with disabilities on average, as well as similarities across district types in the percentage of students receiving

special education services, 13.2% in rural districts and 12.8% in urban districts (Provasnik et al., 2007).

A smaller proportion of rural than urban districts found the gap between ELLs and non-ELLs most challenging to close (5% of rural districts versus 24% of urban districts). Other differences between different types of districts were less pronounced or not statistically significant.

Table 3. Percentage of Districts Reporting That Specific Achievement Gaps Were Most Challenging to Close in 2005-06

Student Subgroup	Subject	Rural	Urban	Suburban
African American – white gap	ELA	**2%**	**14%**	6%
	Math	**1%**	**9%**	8%
Latino – white gap	ELA	5%	5%	4%
	Math	**3%**	**8%**	3%
Native American – white gap	ELA	*2%*	1%	*0*
	Math	*3%*	1%	*0*
ELLs – non-ELLs gap	ELA	**5%**	**24%**	*17%*
	Math	7%	12%	13%
Student with disabilities – non-disabled gap	ELA	73%	49%	68%
	Math	73%	62%	71%
Low-income – non-low-income gap	ELA	13%	7%	5%
	Math	14%	8%	5%

Table reads: In English language arts, 2% of rural districts, 14% of urban districts, and 6% of suburban districts found the achievement gap between African American and white students the most challenging to close.

Note: Numbers in **bold** indicate that the difference between urban and rural districts is statistically significant. Numbers in *italics* indicate that the difference between suburban and rural districts is statistically significant.

Note: The Asian subgroup is not shown because no district cited this gap as the most challenging to close.

Source: Center on Education Policy, February 2007, District Survey, items 16 and 17.

Concern about closing achievement gaps for students with disabilities also emerged from our interviews with administrators in rural districts. In some of our case study districts, the rising number of students identified for special education services has intensified the pressure on teachers and administrators to meet NCLB achievement targets and has led some district officials to doubt the practicality of the law's expectations. Ronald D. Paquette, former superintendent of Orleans Central Supervisory Union No. 34 in Vermont, described the situation in this way:

> *Of the 401 students in my high school, 160 of them are at risk on IEPs [individualized education programs] and in need of additional support. That's an inordinate number . . . I've put in two reading teachers to teach reading in grades 9 and 10 now to help literacy, to help these kids become proficient on their 10th grade exam, which is the one that gets counted for AYP. I'm still not able to move that 20% to 0%. It still isn't a reasonable requirement.*

Several rural districts noted the challenge of helping students with disabilities to achieve on grade level when their academic needs are often severe. Francie Marbury, principal of Marlboro Elementary School in Vermont, took particular issue with the federal policy that limits to 1% the share of students who can be tested with "out-of-level tests" (tests geared to students' learning level, as defined by their individualized education program, rather than their grade level of enrollment). "I don't think it has kids' best interests at heart at all," she said of this policy.

Students from low-income families comprise another subgroup that sometimes has difficulty meeting AYP targets. Our survey found no significant differences between rural and non-rural districts in their views of how challenging it is to close the gap for the low-income subgroup. Interviewees in some rural case study districts, however, noted the challenge of closing achievement gaps for low-income students at a time when their Title I funds, which are targeted to high-poverty schools, have decreased. Many rural districts (as well as some suburban and urban districts) have lost Title I funding in recent years due to declining enrollments and the

application of the various funding formulas and set-asides in federal law (CEP, 2007). Randy Thudin, a principal in Cloquet Independent School District #94 in Minnesota, described the Title I cuts in his district over the years:

> *We'll probably lose support . . . [O]ver the last four years we've lost $147,000 in Title I money, which for some districts would be a drop in the bucket. But we've gone from just over $400,000 four years ago, and now our Title I allocation is down to about $255,000. So it has decreased tremendously.*

Some case study districts have experienced decreasing enrollments but rising poverty levels. With declines in Title I funding, these rural districts have to increase the district budget to subsidize salaries for Title I teachers. In the Heartland, Nebraska, School District, "right now Title I is paying for about 80%" of the salaries of Title I staff, said Superintendent Norm Yoder; the remainder is made up from the district budget.

IMPACT OF NCLB ON RURAL STUDENT ACHIEVEMENT

Rural public school students as a group outperform urban public school students at grades 4, 8, and 12, as gauged by the percentage of students scoring at or above the proficient level on the reading, math, and science tests of the National Assessment of Educational Progress (Provasnik et al., 2007). Although rural districts in general may start from a higher baseline than urban districts, rural districts still need to raise student achievement to meet NCLB's ultimate goal of 100% of students reaching the proficient level on state tests by 2014.

The majority of school districts in our survey reported improvements in student achievement, with 64% reporting increases in English language arts and 54% reporting increases in math. Our survey asked districts that reported improved achievement about the extent to which various policies have been important causes of increased student achievement. **Table 4** (ELA) and **table 5** (math) show the responses of those districts. Most rural districts (79%) that received a Reading

First subgrant rated Reading First's instructional program and assessment systems as important/very important causes of improvement in student achievement in ELA. Among rural districts with schools identified for improvement, 72% rated school improvement plans as important/very important causes of improved student achievement in ELA, and 80% rated the plans as important/very important causes of improved math achievement. The percentages of rural districts rating these two NCLB components as having positive effects on student achievement are significantly higher than the percentages of non-rural districts.

Like the other types of districts we surveyed, rural districts cited school district policies and programs unrelated to NCLB as important causes of improved student achievement in both English language arts and math. At least two-thirds of rural and non-rural districts rated districts policies and programs as important or very important causes in both subjects.

As for the influence of other NCLB components, rural districts, like other types of districts, tended to view several NCLB programs and requirements as relatively minor causes of increased student achievement. At least half of the responding rural districts that reported improvements in student achievement in English language arts or math—and often a much larger share—rated the NCLB provisions listed in tables 4 and 5 as a "somewhat" or "not at all" important cause of higher achievement. The NCLB provisions cited as contributors to achievement gains by rural districts included the requirements for research-based programs and adequate yearly progress; each of these provisions was rated as an important/very important cause of higher achievement by at least 42% of rural districts.

Table 4. Percentage of Districts Rating Extent to Which Various Policies Are Important Causes of Improved Student Achievement in English Language Arts

Program or Requirement	District Type	Very Important/ Important	Somewhat/ Not at All Important
Reading First instructional program*‡	Rural	79%	21%
	Non-rural	57%	43%
Reading First assessment systems*‡	Rural	79%	21%
	Non-rural	59%	41%

Program or Requirement	District Type	Very Important/ Important	Somewhat/ Not at All Important
School improvement plans*§	Rural	72%	28%
	Non-rural	62%	39%
District policy & programs unrelated to NCLB	Rural	68%	32%
	Non-rural	69%	31%
State policy unrelated to NCLB*	Rural	48%	52%
	Non-rural	44%	56%
Research-based programs*	Rural	44%	56%
	Non-rural	55%	46%
Adequate yearly progress requirements†	Rural	42%	58%
	Non-rural	45%	55%
Highly qualified teachers requirements	Rural	29%	71%
	Non-rural	30%	70%
Student demographic changes	Rural	19%	81%
	Non-rural	19%	81%
Supplemental educational services requirements	Rural	7%	93%
	Non-rural	6%	94%
Public school choice requirements*	Rural	3%	97%
	Non-rural	7%	93%

Table reads: Among districts reporting improved student performance in English language arts, a total of 79% of rural districts viewed Reading First instructional programs as an important or very important cause of improvements in student achievement in English language arts, while 21% of rural districts viewed these programs as somewhat or not at all important causes.

Note: Programs and requirements are listed in descending order by the percentage of rural districts reporting them as very important/important.

*The difference between rural and non-rural districts is significant at the .01 level ($p<.01$).

†The difference between rural and non-rural districts is significant at the .05 level ($p<.05$).

‡Only responses from districts that have a Reading First grant are included.

§Only districts with schools in improvement are included, because only these districts are required to assist schools in improvement with writing school improvement plans.

Source: Center on Education Policy, February 2007, District Survey, item 11.

Table 5. Percentage of Districts Rating Extent to Which Various Policies Are Important Causes of Improved Student Achievement in Math

Program or Requirement	District Type	Very Important/ Important	Somewhat/ Not at All Important
School improvement plans*§	Rural	80%	20%
	Non-rural	43%	60%
District policy & programs unrelated to NCLB†	Rural	70%	30%
	Non-rural	72%	28%
Research-based programs	Rural	55%	45%
	Non-rural	38%	62%
Adequate yearly progress requirements	Rural	48%	52%
	Non-rural	49%	51%
State policy unrelated to NCLB*	Rural	38%	62%
	Non-rural	32%	68%
Highly qualified teachers requirements*	Rural	36%	64%
	Non-rural	30%	70%
Student demographic changes	Rural	17%	83%
	Non-rural	17%	83%
Supplemental educational services requirements*	Rural	11%	89%
	Non-rural	7%	93%
Public school choice requirements*	Rural	5%	95%
	Non-rural	7%	93%

Table reads: Among districts reporting improved student performance in math, a total of 80% of rural districts viewed school improvement plans as important or very important causes of improvements in student achievement in math, while 20% of rural districts viewed these plans as somewhat or not at all important causes.

Note: Programs and requirements are listed in descending order by the percentage of rural districts reporting them as very important/important.

*The difference between rural and non-rural districts is significant at the .01 level ($p<.01$).

†The difference between rural and non-rural districts is significant at the.05 level ($p<.05$).

§Only districts with schools in improvement are included, because only these districts are required to assist schools in improvement with writing school improvement plans.

Source: Center on Education Policy, February 2007, District Survey, item 14.

Several rural administrators that we interviewed pointed to two strategies they felt have been particularly effective in raising student achievement in their districts—curriculum alignment and individualized instruction. NCLB appears to have been a factor in encouraging districts to use these strategies. Mike Midey, former superintendent of Romulus Central Schools in upstate New York, explained how Romulus has changed its curriculum to ensure that tested material is adequately covered:

> *We give the test in March so they have the pre-March curriculum and the post-March curriculum. And what you do then is you try to figure out the strand. And I think the math core curriculum is up a hundred-plus pages. You try to map your curriculum and the strands and everything together to make sure that you've taught the right material at the right time.*

By the same token, when curriculum is not aligned with state standards and the state test, student performance is likely to drop dramatically, interviewees said. The Romulus district, for example, mapped its curriculum to New York State's core curriculum. In the 2005-06 school year, about 2% of the district's 7th grade students scored at level I, the lowest math achievement level defined by the state, but about 21% of its 6th graders scored at this level. According to Midey, the low math achievement at 6th grade is a statewide phenomenon. One reason for the substantial difference between 6th and 7th grades, he said, is that the state did not specify what content areas would be covered on the 6th grade test. As a result, the district's curriculum was not well aligned with the test content, and the percentage of students in the lowest achievement category was higher than in the other grades.

Individualized instruction was also viewed as an effective strategy for boosting rural student achievement. The limited enrollments and small class sizes of some rural schools may facilitate this type of instruction. The Cloquet district in Minnesota has taken full advantage of its small school size, staff stability, and close relationship with the community to address individual students' needs, according to Principal Randy Thudin. Even with a majority of its students from

low-income families, Cloquet has done well on state tests, he said, citing the importance of individualized instruction:

> *[We're under] constant pressure to always be tweaking our curriculum to make it better so we're reaching the needs of all the kids taking those MAP [Measures of Academic Progress] scores, identifying where our kids are weak in, not only every grade level but every classroom, and [asking] how do we meet the needs of those kids so we bring those scores up . . . Our number one goal is working on differentiated instruction.*

Schoolwide collaborations and the strong commitment of teachers to their students have been the keys to high student achievement in the Hermitage, Missouri, School District, according to Superintendent Shelly Aubuchon. Hermitage has been a high-performing rural district, even with a high proportion of students from low-income families. Aubuchon attributed some of this success to teachers collaborating across grade levels:

> *[T]he second grade teachers always felt great pressure to have the kids properly prepared for third grade because that's when they would take their first math test. And they certainly didn't want that teacher to have to spend half the year getting them up to speed before they could teach them the things they needed to know that might be tested.*

Aubuchon also described the strength of the teacher community in the district:

> *I think there is a more general acceptance that we are all truly in this together. We all are going to have students tested, so we need to work together to find strategies and mechanisms to make sure that we are covering all the things we need to cover and doing what we need to do for our students.*

It should be noted, however, that in some rural districts, the biggest gains in achievement have been made by students who scored slightly below the proficient level of achievement on the state test one year and reached proficiency the next year, according to interviewees. This practice of focusing classroom instruction on the "bubble kids," as these students are often called, is not just a rural phenomenon, and is encouraged by NCLB's emphasis on percentages reaching proficiency. It also has serious implications for the lowest-achieving students with the greatest academic needs. Ronald Paquette summed up the problem he faced when he was superintendent of the Orleans, Vermont, district:

> *So the middle group has moved up. We still have a group that did not meet AYP, and only a small percentage of those are moving to almost meeting [AYP targets] . . . We're not making a dent at the bottom.*

Highly Qualified Teachers in Rural Schools

Ensuring that all students are taught by highly qualified teachers is another primary goal of the No Child Left Behind Act. Our research looked at the impact of the law's highly qualified teacher (HQT) requirements in rural school districts.

IMPACT OF NCLB ON RECRUITMENT AND RETENTION

Our survey asked districts to indicate the extent to which the HQT provisions of NCLB had resulted in various outcomes. In response to this question, 41% of all districts and 47% of rural districts indicated that there were no outcomes of the HQT provisions of NCLB. Among the districts reporting outcomes, the NCLB requirements do not appear to have had a major impact on key aspects of building a high-quality teaching force, as summarized in **table 6**. Among the rural districts that indicated they had seen outcomes, about 11% reported that the HQT requirements have enhanced their strategies for teacher recruitment or teacher retention to a moderate or great extent. This is a smaller share than the 19% (for recruitment) and 16% (for

retention) of non-rural districts that reported seeing outcomes at this degree. The greatest teacher-related impact for both types of districts was in the area of professional development: 35% of rural districts indicating outcomes concurred that NCLB had resulted, to a moderate or great extent, in more sustained and long-term professional development for teachers.

Table 6. Percentage of Districts Reporting Extent to Which NCLB Highly Qualified Teacher Requirements Have Resulted in Various Outcomes

Outcome	District Type	Moderate/ Great Extent	Minimal/ Not at All
Enhanced strategies for teacher recruitment	Rural	11%	89%
	Non-rural	19%	81%
Enhanced strategies for teacher retention	Rural	11%	89%
	Non-rural	16%	84%
More sustained, long-term professional development	Rural	35%	66%
	Non-rural	38%	62%

Table reads: Of the rural districts that reported any outcomes of the NCLB highly qualified teacher requirements on CEP's survey, 11% reported that these requirements have resulted in enhanced strategies for teacher recruitment to a moderate or great extent, while 89% reported that these requirements have enhanced teacher recruitment strategies minimally or not at all.

Note: This analysis is limited to districts reporting there are outcomes resulting from NCLB's highly qualified teacher (HQT) requirements. The differences between rural and non-rural districts for all the rows in the table are significant at the .01 level ($p<.01$).

Source: Center on Education Policy, February 2007, District Survey, item 37.

Interview data from case study districts suggest three possible reasons why the HQT requirements are having a limited impact on recruitment strategies in some rural districts: decreasing student enrollments, low teacher turnover, and ample supply of teachers.

Student enrollment in many rural districts is declining. In fall 2005, about 33% of rural schools reported severe under-enrollment and about 36% reported moderate under-enrollment, according to a study by the U.S. Department of Education (Provasnik et al, 2007). In our interviews, even officials in districts where enrollment has been stable expressed concern about future declines. The factors fueling these declines range from a loss of overall population and an aging

population in many rural communities, to increasing numbers of families moving out, to growth in students being home schooled.

Persistent enrollment declines can have a detrimental effect on rural schools with limited financial resources and very few ways to cut significant costs (Jimerson, 2006). When enrollments decrease, funding often goes down as well, and many schools have to cut their teaching staff. Randy Thudin of Cloquet summed up the situation as follows:

> *[W]e went through three years of zero funding increases for education. Last year [our state] did fund education again but we're so far behind that basically—this is just an estimate—there were about 65% of the school districts in the state that had to make cuts this last year . . . For our teaching staff we ended up reducing the equivalent of seven full-time K-12 teachers last year.*

Ample supply of teachers, particularly at the elementary level, is another reason why some rural districts do not need to recruit aggressively. According to CEP's report on year 3 of NCLB implementation (CEP, 2005), four case study rural districts reported that in 2004-05 their teachers were already 100% highly qualified as defined by NCLB; the other rural districts also had a high proportion of highly qualified teachers. In our most recent interviews, some case study districts reported having a sufficient pool of highly qualified, experienced teachers and low turnover rates, a situation that allows them to choose teachers with graduate degrees and more years of teaching experience. In Cloquet, for example, only 20% of the teachers have fewer than three years' experience, said Thudin, and over half have more than 15 years' experience. "We're above the state average in staff with master's degrees or beyond," he added, noting that "the state average is 48% of teachers [with] their master's degrees, and we're at 55%."

Several of the rural districts we studied had stable teaching staff and low teacher turnover. In this situation, the number of new hires is predictable because it mostly depends on the number of retirements. Heartland School District in Nebraska, for example, reported that it had not needed

to hire a new elementary teacher in about 10 years. Many interviewees noted that teachers continue to work even after they reach retirement age, sometimes because their district has policies to encourage experienced teachers to stay in the profession.

In rural districts that face little competition for professionals from higher-paying urban or suburban communities, teachers often stay in their jobs for several years. This is the case in Fremont County School District #1, based in Lander, Wyoming, according to Karen Bierhaus, director of federal programs and consolidated grants:

> *Many teachers we hire are attracted to Lander because of some aspect of the quality of life here. Staying five, ten, fifteen years is more common than not. Teachers who choose to work in another district must deal with such factors as long commutes in inclement weather, added costs of fuel and time, and the difficulty of their spouses finding a job in their field if they move to a one- or two-industry community. Housing in some Wyoming communities with the energy industry expansion is becoming a huge issue. So if the whole family can find their niche in the community, they tend to want to stay.*

Still, teacher recruitment strategies are necessary in other rural communities, especially those that have lost population or face substantial competition from larger neighboring districts. Local competition can play an important role in a teacher's decision to stay in or leave a rural district, according to our interviews. For example, some rural case study administrators reported that their districts serve as new teacher "training camps" for neighboring urban districts. The rural districts hire and make an investment in new teachers, who are often only provisionally certified.[3] The teachers gain professional experience while they become certified, and then leave for an urban district that offers higher pay. Ronald Paquette said this was a problem in Orleans, Vermont:

[3]According to the flexibility policy issued on March 31, 2004, by the U.S. Department of Education, newly hired teachers in rural districts have three years from the date of hire to become highly qualified in each core academic subject that they teach (http://www.ed.gov/print/policy/elsec/guid/secletter/040331.hml).

> *[F]irst of all, although we offer a competitive starting salary, a B.A. with no experience [earns] about $30,098. In Vermont, that's fairly competitive; that's within $3,000 or $4,000 of the highest paying districts. However, as you reach up toward the master's level, our pay at the M.A. level with no experience is $33,000. An M.A. with a lot of experience tops out at $53,000, and the urban districts that are not far away, say 40 miles away, have top-outs at $70,000 to $80,000. So between our $10,000 differential in the middle, and up to $20,000 at the top, some teachers come here to get a year or two [of] experience then move on to a higher paying district.*

In the meantime, said Paquette, the teachers' union contract prohibits this district from paying teachers at different rates and makes it harder to compete with urban or suburban districts by offering a higher salary to teachers of hard-to-staff subjects.

RURAL STRATEGIES TO RECRUIT AND RETAIN TEACHERS

Our survey asked districts whether they used or did not use a range of special strategies to recruit and retain highly qualified teachers. As **table 7** shows, the majority of rural and non-rural districts used induction/mentoring programs and content-driven professional development as strategies to recruit and retain highly qualified teachers. A relatively high percentage of rural and non-rural districts also reported using the strategies of improved working conditions and support for teachers in meeting HOUSSE[4] requirements.

For nearly all of the strategies listed in table 7, a significantly smaller proportion of rural districts than of non-rural districts reported using them. The most notable difference was in the use of outreach or extended outreach strategies, such as advertising and attending job fairs. Only 24%

[4]HOUSSE is the "high, objective, uniform state standard of evaluation" that states have developed to provide avenues for experienced teachers to demonstrate they are highly qualified as defined by NCLB.

of rural districts said they employed these strategies, while about twice as many non-rural districts (49%) reported using them.

Table 7. Percentage of Districts Using Various Strategies to Recruit and Retain Highly Qualified Teachers

Strategy	Rural	Non-Rural
Induction/mentoring programs*	61%	80%
Content-driven professional development*	51%	69%
Support in meeting HOUSSE*	39%	48%
Improved working conditions*	38%	43%
Outreach or enhanced outreach*	24%	49%
Assistance in preparing for certification/licensure exams	22%	30%
Signing bonus*	7%	5%
Retention bonus†	3%	3%
Bonus or stipend/supplement for working in a high-need school*	2%	4%

Table reads: A total of 61% of rural districts in CEP's survey reported using induction or mentoring programs to recruit and retain highly qualified teachers, compared with 80% of non-rural districts

*The difference between rural and non-rural districts is significant at the .01 level ($p<.01$).

†The difference between rural and non-rural districts is significant at the .05 level ($p<.05$).

Source: Center on Education Policy, February 2007, District Survey, item 34.

The unique characteristics of rural schools and rural areas may limit the kinds of recruitment strategies rural districts can employ. Although some rural case study districts reported using signing bonuses and tuition reimbursement to attract and relocate teachers, these funding tools may not be an option in rural districts with limited budgets or with certain restrictions in their teachers' union contract. Often, rural districts must use their available funds to offer reasonable starting salaries rather than special incentives.

Some rural districts count on the appeal of a rural lifestyle, small class sizes, and a family-like atmosphere in schools and the community to draw applicants, interviewees said. But these

attractions can be short-lived in a community like Orleans, Vermont, as Ronald Paquette observed:

> *If you're a single male or female just out of college, and this is your first job, it sounds fun, and you're going to be near a ski area or something. But after you're there a couple of years, you find out that the youth population—in other words, your peers who you might want to socialize with or date—aren't here. They're in the urban settings. You say, gee, this is a pretty lonely area. I want to leave.*

Our case study interviews indicated that several rural school districts rely on technology, such as state education agency Web sites, to advertise for and recruit teachers. They also rely on partnerships with teacher preparation programs in their local higher education institutions. Some district officials reported that "word of mouth" is an effective tool for recruiting teachers with local ties to the area. When certified and qualified teachers cannot be found (since some districts allow for a one-year emergency license for hard-to-staff areas), districts may ask for a two-year provisional license to permit a teacher who is certified in one subject to teach another subject.[5] Often the teacher with the waiver has to earn the licensure by the end the contracted year.

Although not one of the eight case study districts that are the main focus of this report, the Kodiak Island Borough School District in Alaska faces unique challenges in finding and keeping highly qualified teachers. As discussed in **Box A**, the Kodiak district has taken steps to address these challenges that seem to be producing some early results.

[5]According to the flexibility policy issued on March 31, 2004, by the U. S. Department of Education, states may allow rural districts additional time for a teacher who is highly qualified in one subject area but teaching multiple subjects to become qualified in other subjects the teacher teaches (http://www.ed.gov/print/policy/elsec/guid/secletter/040331.hml).

Box A. Meeting Highly Qualified Teacher Requirements in Kodiak Island Borough School District, Alaska

Meeting the highly qualified teacher requirements of NCLB is complicated for some rural school districts. The districts must be aware of differences among their schools and sometimes must employ school-specific strategies. The Kodiak Island Borough School District in Alaska is one such district.

Kodiak is a rural district with schools in both remote rural area and rural towns. The geography of the region has had a great impact on teachers. **Table 8** displays the basic information for the seven more remote schools of the district's fifteen schools. Teacher recruitment and retention in these schools has been a big challenge, said Stuart McDonald, the district's director of educational support services. According to McDonald, teachers in these schools had an average of five years' teaching experience and a 50% turnover rate in 2004, compared with teachers in the rural town schools who averaged 14.5 years' teaching experience and a 15% turnover rate.

Table 8. Background Information for Seven Rural Schools in Kodiak, Alaska

Information	Akhiok School	Ouzinkie School	Old Harbor School	Port Lions School	Chiniak School	Karluk School	Larsen Bay School
Title I school?	Yes	Yes	Yes	No	Yes	No	Yes
Grades served	K-12	K-12	PK-12	K-12	K-10	K-12	K-12
Student enrollment	15	44	60	39	12	10	17
Student demographics	100% AN	100% AN	95% AN 5% W	72% AN 28% W	67% W 17% AN 17% Asian	100% AN	76% AN 24% W
Student/ teacher ratio	7.5	9.0	10.9	7.8	8	10	8.5
Average years of teaching	1	5	2.5	4.75	21	0	1

Note: AN = Alaskan Native/American Indian; W = White.

Source: CCD public school data, 2005-2006 school year.

Many factors contribute to the high teacher turnover rates in the remote areas, but what seems to matter most is the quality of life outside schools. "Living can be tough without grocery stores or traditional commerce in these remote rural areas," said McDonald. In many cases, schools in the remote areas have become training camps for the schools in rural towns. Inexperienced teachers

were first hired by schools in the remote area. After they gained some teaching experience and became certified, they tended to move to schools in rural towns or other bigger districts.

To help schools retain highly qualified teachers, the Kodiak district has employed individualized strategies to meet the needs of remote rural schools. In some of these schools, one teacher often teaches multiple subjects but is not yet certified in all the subjects he or she is teaching. The district encourages these teachers to become certified in a second subject area and, at the same time, hires highly qualified teachers from other schools to prepare curriculum and provide guidance in these subjects for teachers in the remote schools who are not yet highly qualified. The district also uses mentoring and school collaboration programs to help retain teachers and improve school performance.

The district's individualized retention strategies had been implemented for two years at the time of the interview. McDonald said it is too early to draw conclusions about the effects of these strategies, but he noted that mentoring and school collaboration programs have shown evidence of an impact on teachers and school performance. Since the mentoring program was implemented in 2004, the teacher turnover rate in these schools has decreased dramatically, from 50% in 2004 to 22% in 2006. The collaboration between Chiniak School, a high-performing local rural school, and Akhiok and Larsen Bay Schools has had a great impact on these schools' performance after the first year. According to McDonald, Akhiok and Larsen Bay Schools have been recognized by the state for two consecutive years as high-performing schools due to their achievement growth.

Source: Center on Education Policy, case study of Kodiak Island Borough School District, Alaska, December 2006.

FINDING HIGHLY QUALIFIED TEACHERS FOR HARD-TO-STAFF SUBJECTS

Even districts with an adequate supply of teachers in general may face shortages in hard-to-staff subjects or areas of specialization. Our survey asked districts whether they were having difficulty complying fully with the NCLB highly qualified teacher requirements for various types of teachers. As shown in **table 9**, a substantial proportion of rural and non-rural districts did not report compliance difficulties with any of the teacher types listed.

The types of teachers that presented the greatest compliance difficulties for rural districts included secondary school science teachers (16% of rural districts) and secondary school math teachers (10%). The most notable difference between rural and non-rural districts was for special

education teachers: 8% of rural districts reported difficulty complying fully with the HQT requirements for special education teachers, compared with 23% of non-rural districts.

Table 9. Percentage of Districts Reporting Having Difficulty Bringing into Full Compliance with the NCLB Highly Qualified Teacher Requirements for Various Types of Teachers

Type of Teacher	District Type	Difficult
Secondary science teachers*	Rural	16%
	Non-rural	11%
Secondary math teachers†	Rural	10%
	Non-rural	12%
Special education teachers*	Rural	8%
	Non-rural	23%
Middle school teachers*	Rural	5%
	Non-rural	11%
ELL teachers*	Rural	2%
	Non-rural	9%
Elementary school teachers	Rural	2%
	Non-rural	2%
Teachers in high poverty and/or high minority schools*	Rural	1%
	Non-rural	2%

Table reads: A total of 16% of rural districts and 11% of non-rural districts reported having difficulty complying fully with the NCLB highly qualified teacher requirements for secondary school science teachers.

*The difference between rural and non-rural districts is significant at the .01 level ($p<.01$).

†The difference between rural and non-rural districts is significant at the .05 level ($p<.05$).

Source: Center on Education Policy, February 2007, District Survey, item 41.

Although recruiting special education teachers who meet NCLB requirements may not be as problematic in rural districts as in non-rural ones, it was repeatedly brought up in the case study

interviews as the greatest challenge for finding highly qualified teachers. Under the NCLB regulations, secondary school teachers who provide direct instruction to special education students are expected to be certified in both special education and a secondary subject area. Some case study districts resolved this dilemma by including more special education students and their teachers in regular education classrooms, where the special education teachers assist and supplement the classroom teachers but are not responsible for issuing grades and therefore do not have to be certified in all the subject areas. Superintendent Karen Bierhaus of Fremont County, Wyoming, explained how the district implemented this model:

> *So the students who have disabilities are enrolled in regular classes as much as they can be and the special education teachers are there as support and assistance . . . [The special education teachers will] perhaps have one part of the day where [the students are] pulled out and they work on things and they do interventions to cement more of the skills that were taught in the first teaching. But they're not responsible for main teaching . . . Again, it is because of our smaller population . . . Inclusion is our goal. However, we follow whatever the recommendations are in each student's IEP.*

As discussed earlier, a majority of rural districts in our survey used induction or mentoring programs to recruit and retain teachers. The case study rural districts similarly said that they used this strategy, especially to retain highly qualified teachers in hard-to-staff subject areas. For example, like many other rural districts, Romulus school district faced the challenge of a big wave of retirements that might impact some hard-to-fill subject areas. According to Mike Midey, mentoring programs allow experienced teachers to pass down their experience to new teachers and have helped to reduce the district's costs for outside experts to deliver induction and professional development programs.

The challenge of finding and keeping highly qualified teachers in certain specializations is complicated in rural districts when student enrollments fall in subjects like advanced math or

science classes. According to our case studies, some rural schools offer classes in certain subjects only every other year because yearly enrollments would be too low. Teachers of these subjects are expected to be certified in multiple subjects to accommodate these curriculum changes. Because highly qualified teachers with multiple endorsements in hard-to-staff areas are already hard to find, some districts share teachers with neighboring districts or provide instruction through technology-based distance learning programs.

Rural Challenges and Concerns about NCLB

Several common challenges and concerns related to NCLB's testing and accountability requirements emerged from our interviews with rural administrators. Some of these issues were the same as those mentioned by urban and suburban districts involved in our case study work, while others were particular to rural areas.

Rural schools tend to be much smaller than non-rural schools, which can affect how the AYP requirements play out in rural areas. According to a U.S. Department of Education report, about 37% of rural schools enroll fewer than 200 students, compared with 14% of urban schools and 10% of suburban schools (Provasnik et al., 2007). In some respects, this small size can be an advantage. But it also means that whether a school makes AYP may depend on the test results of a small number of students. In a small school, for example, the overall test results in grade 3 math could be skewed if one or two students in 3rd grade that year are unusually low-performing compared with students in last year's 3rd grade class.

Jon Starkey, superintendent of the Napoleon School District in North Dakota, raised this issue when describing the stress of meeting rising AYP targets. He also alluded to what he saw as the unfair aspects of NCLB's reliance on test scores:

> *I'd have 93% of my students, let's say, proficient or advanced, but the state expected me to be at 95. Well, you teach your class of 20 or 25, and one of those*

> *kids could be in that 7% that doesn't make it to those higher levels. You have to consider that this is just a one-shot test. It doesn't look at students over 173 days; it looks at them over a number of days within a certain period of time. And maybe Grandma or Grandpa died, maybe Mom and Dad are having a squabble that could lead to divorce and they're worried about the dog; they're worried about the cat. It's just not a real indicator of what the kid is actually doing over time. It's an indicator of what that kid did on those particular days, and that's all it is.*

Even in small case study districts that had made AYP, interviewees expressed concern about being able to maintain high achievement in the future, as illustrated by this comment from Superintendent Norm Yoder of Heartland, Nebraska:

> *[O]ne of the problems with being so high and then a small school [is] that . . . you're going to drop. And the way the NCLB is set up, you're going to be looked at as a failure. That's the dilemma that we're leading up to. We're just hoping to hold that off as long as we can.*

Some case study interviewees discussed the limitations of how NCLB defines school performance. They suggested using alternative measures with more realistic goals for student achievement and school performance. Ronald Paquette noted that an alternative approach would be particularly helpful for evaluating progress of some students with disabilities:

> *If a school district could show, as I just demonstrated to you, that my student on an IEP at the high school made some significant progress, okay? Whether we determine that to be a year's growth or a half year's growth . . . for those special populations, that special education child in literacy and reading, a half year is quite an accomplishment.*

Several rural interviewees talked about the complexity of test score data produced for NCLB purposes and the challenge of explaining these data to school staff. Moreover, the data are not always informative for diagnosing individual students' needs, according to Francie Marbury, principal of Marlboro (Vermont) Elementary School:

> *[T]he information we received back, prior to No Child Left Behind, was using [a different examination] at 4th grade and 8th grade, and we received far more detailed reports back on that, in terms of individual student performance, than we do now . . . My understanding is that the purpose of these tests is to . . . rate schools and school districts, not really to provide information on individual students . . . I do get back an individual student profile, but it's not broken down by anything that's really useful.*

Marbury went on to explain how the data fall short in informing teachers' practice:

> *[F]or the [prior exam], for example, when they took a reading test, a certain number of questions would be considered . . . where one sort of needed to use skills of inference. And that would be broken down, then, in terms of how successful they were with that type of question . . .[I]n our action planning one year we looked at our writing scores and saw that one area where kids seemed to be not as strong was in organizing their writing. So then, that made sense for us to choose that as an area to focus on within the school. The results that we get now are not anywhere near as useful.*

Additionally, several rural districts in our case studies reported delays in receiving test results, which affected their ability to use these to inform decisions about curriculum. Jon Starkey of Napoleon, North Dakota, highlighted this problem:

> *I would say my biggest problem with all this testing that we're doing is by the time we get the data back, it's virtually useless . . . it comes in so late . . . We need to figure out a method of getting this data back into the hands of the professionals in a more timely manner. We are always telling teachers of the importance and necessity of timely feedback to improve learning. Yet on the measures [by] which we are evaluated . . . we can get results back months later. That just seems like a very ineffective method of improving schools.*

As a result, some case study districts have used additional tests, such as Northwest Evaluation Associates (NWA) tests, to collect evidence of student learning and to inform instructional decisions. These additional tests cost money, however, that not all districts have.

Finally, in some case study districts the push for standards and assessments has resulted in teachers spending more time on non-teaching duties. For example, in some districts teachers are pulled out of the classroom to develop and score tests while their classes are taught by substitutes. This was the case in Romulus, New York, according to Mike Midey:

> *[O]h, my goodness, try to find enough people to score! We have a complicated test schedule . . . We do at this point do our own scoring. We have done our own scoring but the teacher who teaches the student, for example, at the Regent's level, doesn't score the test . . . [W]hat we've done in the past is we've actually taken class time. We've brought in substitute teachers and unfortunately used the school day.*

Conclusion

This report employed both survey and case study methods to examine NCLB's impact on student achievement and teacher quality in rural districts. It was also an effort to illustrate challenges faced by some rural districts under a high-stakes testing policy.

Our study showed that the major concerns about achievement gaps in rural districts related to students with disabilities and students from low-income families. The gaps for these two student subgroups were also perceived by rural districts as the most challenging to close. The majority of rural districts reported that district policies and programs unrelated to NCLB were important causes of improved student achievement in English language arts and math. Compared to other NCLB programs and requirements, research-based programs, adequate yearly progress requirements, and school improvement plans were identified by a higher percentage of rural districts as important causes of improved student achievement. The case studies showed that curriculum alignment and individualized instruction, as influenced by NCLB, seemed to be effective in raising student achievement scores in some rural districts.

A lower percentage of rural districts than of non-rural districts reported that the NCLB highly qualified teacher requirements had impacted their teacher recruitment and retention strategies. Still, these requirements appear to have nudged rural districts to employ new strategies for recruiting and retaining teachers in hard-to-staff subject areas. Secondary science and math teachers were most difficult for rural districts to bring into full compliance with NCLB's highly qualified teacher requirements. Induction/mentoring programs and content-driven professional development were the most commonly employed strategies for rural districts to recruit and retain teachers.

Small school size and geographical isolation have created a wide range of challenges for rural districts in meeting NCLB's requirements. The special characteristics of rural schools impact school performance at both student and teacher level. At the same time, rural districts face

difficulties similar to those facing non-rural districts, such as delays in receiving test scores, lack of guidance about using data for curricular and instructional improvement, and the need for improved accountability measures for students receiving special education services.

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Appendix: Rural Districts Participating in CEP Case Studies

District Name	Location	# of Schools	Student Enrollment
Cloquet Independent School District #94	Northern Minnesota	5	2,313
Fremont County School District #1	West Central Wyoming	8	1,808
Romulus Central School District	North Central New York	2	600
Hermitage School District	South Central Missouri	3	363
Heartland School District	Southeastern Nebraska	4	336
Napoleon School District	South Central North Dakota	2	234
Orleans Central Supervisory Union No. 34	Northeastern Vermont	1	92
Marlboro School District	Southern Vermont	1	85

Source: Center on Education Policy, NCLB Case Studies, 2006-07; school district and state Web sites; and Common Core of Data public school district data for the 2005-06 school year.

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CENTER ON EDUCATION POLICY CEP

1001 Connecticut Avenue NW Suite 522 ▪ Washington, D.C. 20036 ▪ Ph. 202.822.8065 ▪ Fax 202.822.6008
www.cep-dc.org