



POLICY BRIEF

Teachers and Teaching Conditions in Rural Texas

By Lorna Jimerson, Ed.D.

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The Rural School and Community Trust (Rural Trust) is the premier national nonprofit organization addressing the crucial relationship between good schools and thriving rural communities. Working in some of the poorest, most challenging rural places, the Rural Trust involves young people in learning linked to their communities, improves the quality of teaching and school leadership, advocates for appropriate state educational policies, and addresses the critical issue of funding for rural schools.

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Executive Summary

Almost half a million children attend schools in rural Texas. Though this population is large, more than 80% of Texans live in urban and suburban areas, making it easy for rural students to be lost in educational policy discussions. This report investigates the extent to which the educational needs of rural students are being met in one crucial area of education in Texas: the quality of the teaching corps and the conditions under which they teach.

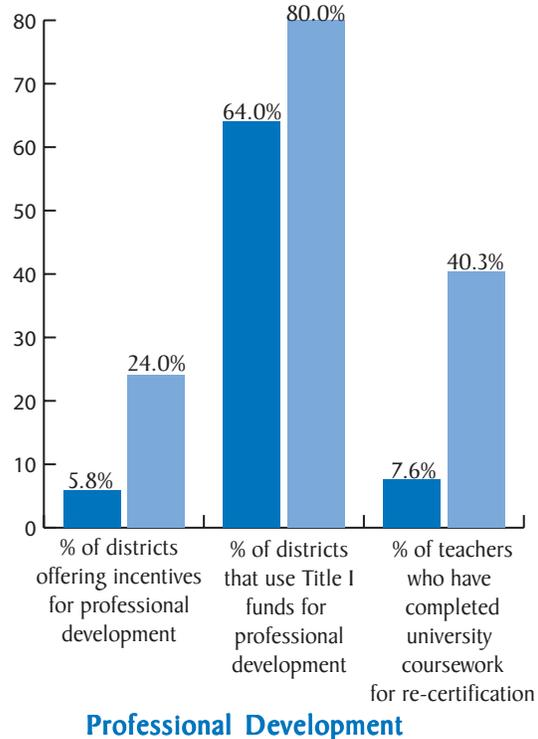
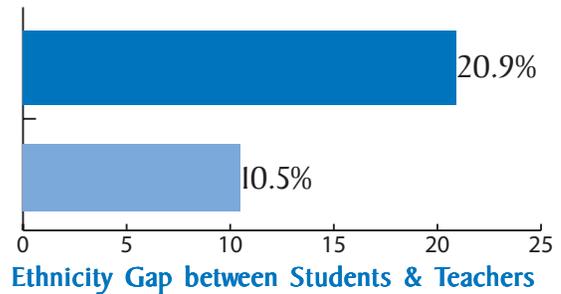
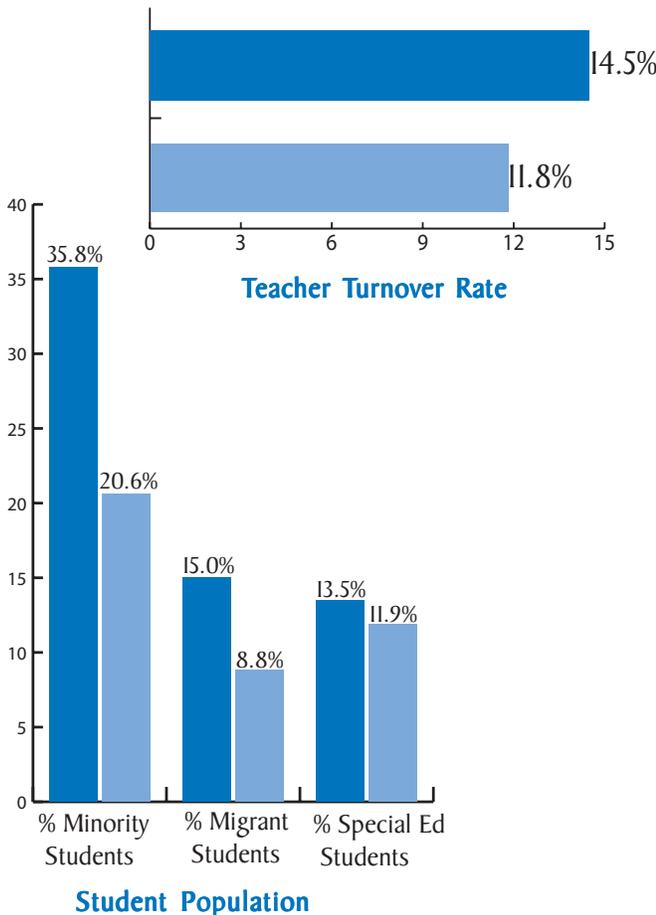
Our research reveals substantial deficits in offering rural students in Texas an excellent education and in meeting their educational needs. The study examines more than 100 relevant indicators, grouped into four categories or gauges. Gauge I looks at the characteristics of rural stu-

dents and communities. Gauge II focuses on characteristics of the present educator corps. The third gauge examines selected conditions of rural Texas districts that can be modified by policy (such as staffing patterns). The last gauge centers on issues related to teacher professional development.

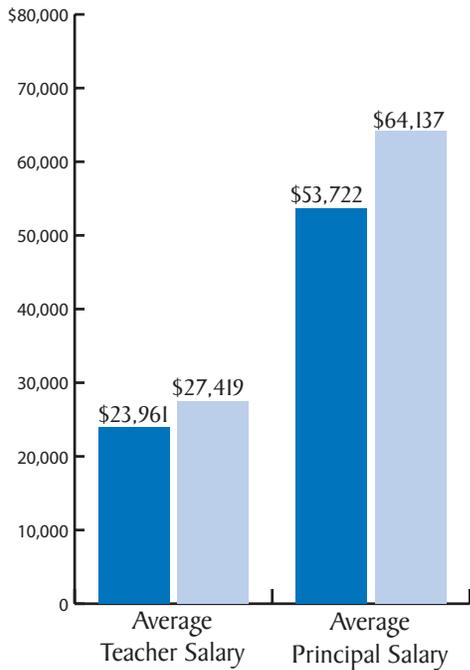
In general, we focus on factors that impact student learning and that *can* be improved, when necessary, by thoughtful policies. We present data, primarily from the School and Staffing Survey, 1999-2000, and compare it to rural areas of other states and non-rural areas within Texas. These comparisons offer a comprehensive picture of the conditions and challenges of rural Texas education. Here are a few of the highlights.

How Rural Texas Compares with Rural Areas Nationwide

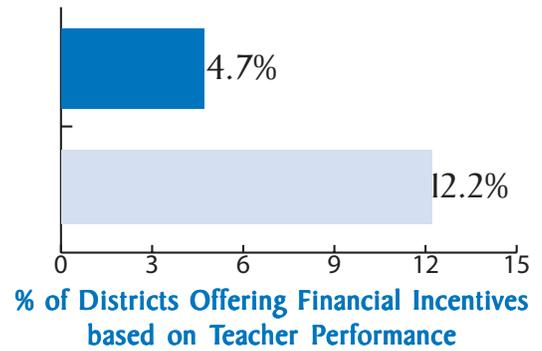
■ Rural Texas
■ Rural USA



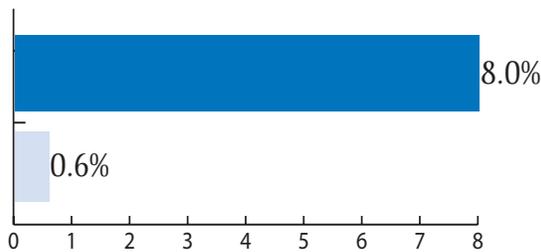
How Rural Texas Compares to Non-Rural Texas



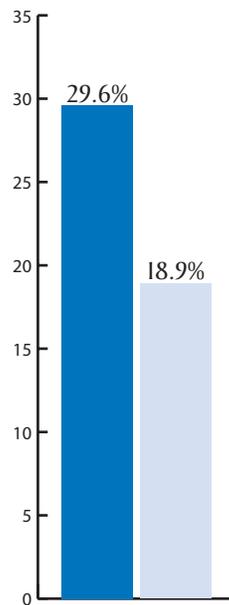
Salaries



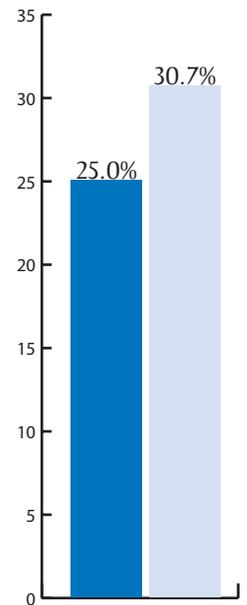
% of Districts Offering Financial Incentives based on Teacher Performance



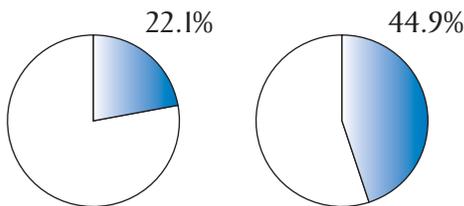
% of Schools that Use Administrators to Fill Teacher Vacancies



% of Teachers Teaching Out-of-Field



% of Teachers with a Master's Degree



Rural Texas

Non-Rural Texas

% of Schools that Received Private Grants to Fund Professional Development

Summary of Key Findings

Taken together, the indicators related to teachers and teaching conditions reveal the strengths and weaknesses of rural education in Texas.

There are some very **positive characteristics** of rural schools in Texas. For example:

1. Rural teachers report a high level of job satisfaction.
2. Rural principals are perceived by teachers as good communicators and supportive of their staff.
3. There are fewer serious student discipline issues identified by rural teachers than by urban teachers in Texas. Pregnancy, cutting classes, and high dropout rates are not perceived as major problems by principals in rural Texas.
4. Rural Texas schools have adequate technology hardware and most computers are connected to the Internet.

On the other hand, rural schools in Texas face some **major challenges** and suffer some deficiencies. For example:

5. Compared to either non-rural districts in Texas or to rural districts nationwide, rural districts in Texas are challenged by:
 - higher poverty levels
 - a larger migrant student population
 - a higher than average special education population
 - a higher percentage of students with limited English skills
6. Compared to either non-rural districts in Texas or to rural districts nationwide, rural Texas districts tend to have
 - a higher teacher turnover rate
 - a higher percentage of new teachers hired at the last minute
 - a higher incidence of out-of-field teaching assignments
 - much lower teacher and principal salaries
7. Rural Texas schools have relatively few support staff (such as nurses, social workers, special education, Title I aides, etc.) even on a limited and part-time basis.
8. There is a significant ethnicity mismatch between students and educators in rural Texas schools.

9. There are significantly fewer outside sources of funding for professional development in rural Texas in all categories (such as funding with private grants, Title I monies, and school improvement funds).

10. Despite adequate technology, many rural Texas schools lack adequate technology personnel, and teachers and administrators must fill in the gap.

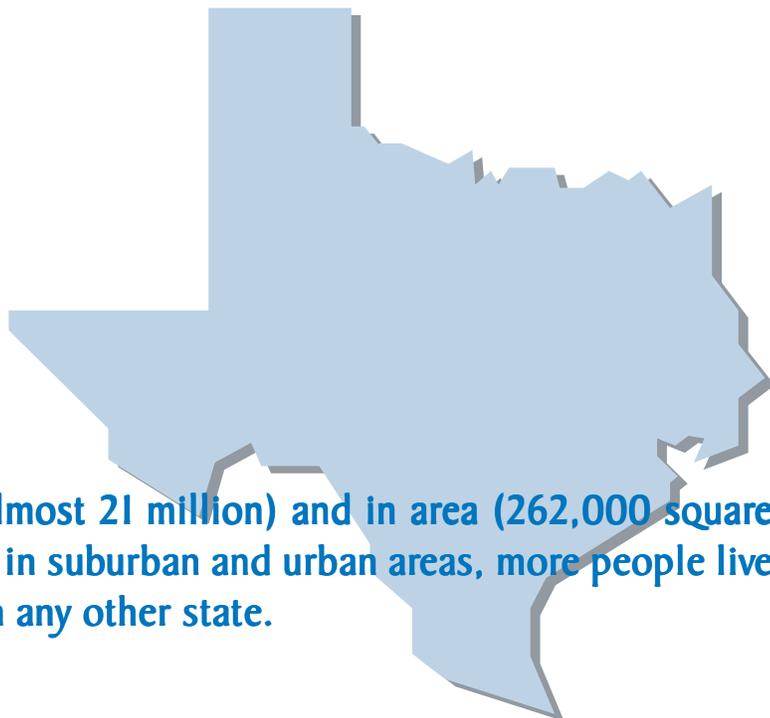
Recommendations

The report includes 19 recommendations for state level action that we believe will be helpful in addressing some of the challenges of rural schooling in Texas. Among these recommendations are the following:

1. Study the allocation and use of federal dollars, especially Title I funds, to ensure that the money is reaching the appropriate districts and that the money is used effectively.
2. Review certification standards to allow flexibility for qualified teachers to teach other subjects in addition to their main certified teaching field.
3. Eliminate the teacher and administrator salary gaps between rural and non-rural districts with additional state aid.
4. Provide additional state aid to fully support adequate technology personnel in all districts.
5. Improve the collection of data on student and teacher characteristics and refine categorical definitions as needed.
6. Evaluate the Texas school finance system to determine the degree to which it is equitable and adequate.

This portrait of rural teachers and teaching conditions in Texas reveals a number of areas of significant deficiencies for rural schools. With many high-need students and lagging support, rural schools are required to do more with less. This is a disservice to rural students and staff.

These deficiencies can and should be rectified. This will require thoughtful policies, and in many cases, financial support. We believe these efforts are crucial, however—the half million rural students in Texas should not be underserved *or* left behind.



Texas is big—both in population (almost 21 million) and in area (262,000 square miles). And though most Texans live in suburban and urban areas, more people live in rural communities in Texas than in any other state.

Over four million children go to public schools in Texas. Of these, almost half a million (474,000) students attend school in rural areas. Thirty-six percent of rural Texas students are members of a minority group, 46% are poor, and more than 31,000 students in rural Texas do not speak English well. These are Texas-style large numbers that begin to reveal some of the challenges of ensuring that all students in Texas receive an excellent education. In a huge state like Texas, where more than 80% of the population lives in urban and suburban areas, it is easy for rural children to be neglected or discounted. It is important, therefore, to investigate the extent to which the needs of rural children are being met in Texas schools.

To do this, we examined selected information about rural Texas communities and students, rural educators, conditions in rural schools, and professional development opportunities offered teachers in rural areas. Our goal was to highlight conditions and practices in rural schools that influence student learning and can be improved, when necessary, by thoughtful policies.

Our findings reveal significant deficiencies in offering an excellent education to rural students in Texas and in meeting their educational needs.

Much of this report is focused on teachers in rural Texas. Though there are many other ingredients to successful educational reform strategies (for example, adequate facilities), research clearly reveals that effective, qualified teachers are the keystones to such efforts. Without competent teachers, all other efforts are insufficient.

The data in this report is organized around four “gauges” measuring the condition of rural education in Texas. Each gauge is presented in a separate section of the report, including the questions investigated, a summary of the key findings, and a comparison chart of the data.

Gauge I: The Rural Texas Landscape - This gauge describes characteristics of rural students and communities. These are the “givens” that confront teachers as they enter the classroom each day and that cannot be changed through educational policies. This gauge examines questions such as: How rural is Texas? How many rural students live in poverty? How many rural students are members of minority groups? How many are classified as Limited English Proficient?

Gauge II: The Educator Corps - This gauge presents the characteristics of the present teacher force in rural Texas. It answers questions such as: Who are the members of the current teacher and principal corps? To what extent does the ethnicity of teachers match that of the students? How experienced are rural teachers? How qualified are they? To what degree is there a teacher shortage? Who are the principals in rural Texas?

Gauge III: The Teaching Policy Environment - This gauge is constructed to examine some of the practices and conditions of rural Texas schools that can be modified (directly or indirectly) by state and/or local policy. It explores questions such as: What are the staffing patterns found in rural Texas schools? How much support do teachers get from other personnel? To what degree is there a “digital divide” in rural Texas? Do rural schools have the staffing capacity to effectively use technology? Are rural teachers provided professional development to use technology?

Gauge IV: The State of Teacher Professional Development - This gauge measures efforts to provide teachers with professional development opportunities. Questions in this section include: What types of professional development are available to rural educators? How is professional development funded in rural Texas? How useful is professional development?

The “Conclusions” section summarizes the main findings of this investigation and makes policy recommendations to better serve the needs of rural Texas students.

The Data Sources

Most of the data used in this analysis are from the School and Staffing Surveys, 1999-2000 (SASS), the U.S. Census (2000), and the Common Core of Data (2001-2002). In addition, when available, more recent data were obtained from the Texas Education Agency website.

Since this report is primarily based on data from 1999-2000, we realize that the data in some areas may be outdated and may not reflect present conditions. For example, recent financial problems in Texas have caused a reduction in state aid for technology, down substantially from the 1999 level. Also, federal requirements under the No Child Left Behind Act (NCLB) are undoubtedly causing some reordering of priorities in all districts, rural and non-rural alike. We know, for example, that meeting the requirements for “highly qualified” teachers presents additional burdens for rural districts that are already hard to staff. In spite of this limitation, the SASS data presented here offer an excellent basis for comparison between rural and non-rural Texas, and between rural Texas and rural districts in other states. As such, we believe this report accurately exposes the major challenges facing rural Texas schools and serves as a useful baseline for future studies.

Gauge I: The Rural Texas Landscape

This gauge gives a demographic snapshot of Texas' rural areas and the rural student population. These factors set the context for schooling in rural Texas and help to determine the nature and extent of rural student needs. This gauge explores the following questions:

How rural is Texas?

- ★ What percent of the population lives in rural areas?
- ★ What percent of public schools are in rural areas?
- ★ What percent of the children go to school in rural places?
- ★ What percent of rural schools are experiencing enrollment declines of at least 10%?

Who are the students in rural Texas?

- ★ What percent of students live in poverty?
- ★ What percent of students are minorities?
- ★ What percent of students are migrants?
- ★ What percent of the students are in special education (i.e., on Individual Education Plans or IEPs)?
- ★ What percent of the students are classified as Limited English Proficient?
- ★ What are the main student discipline issues (from principals' perspectives)?

Key Findings

How rural is Texas?

About 3.7 million people live in rural areas of Texas. That's more than 17% of the entire population of the state. This relatively low percentage can be deceiving; there are more rural people living in Texas than in any other state.

Twenty-three percent of all public schools in Texas are in rural areas.¹ Fourteen percent of all Texas students attend these rural schools. And in spite of some areas of rapid population growth, 27% of rural schools in Texas have experienced declining enrollment of at least 10% from 1996 to 2000. That figure is 10 percentage points lower than the national average.

Who are the students in rural Texas?

Poverty. Texas is a poor state. Forty-three percent of all Texas students are eligible for free and reduced-priced lunch.

This compares to 36% nationally. Rural students in Texas are even poorer. Forty-six percent of rural Texas students qualify for free or reduced-price lunch.

Minority enrollment. Texas has high percentages of minority student enrollment. In non-rural Texas districts, 58.9% of all students are members of a minority group; in rural Texas that figure is 35.8%. The national average in rural areas is 20.6%. While rural Texas has a lower percentage of minorities than other areas in Texas, it still has significantly more minorities than many other rural areas in the United States. Hispanic students constitute the largest minority group in Texas, both in rural areas (29%) and in non-rural areas (38.7%).

Migrant population. SASS data indicate that very large segments of the rural student population in Texas are migrants (15%). This compares with 4.5% for non-rural Texas districts and a national average of 5.7%.

Special education population. In a reversal of national trends, rural Texas districts have more special education students than non-rural Texas districts (measured by number of students on IEPs). The difference is not very dramatic, however. Special education students account for 13.5% of students in rural areas, versus 12.1% in non-rural Texas. The non-rural percentage is close to the national average, but the rural percentage is notably higher than the national average.

	U.S.	Texas
% state population that is rural	21.0% 	17.5% 
% rural schools with declining enrollments of at least 10%	31.3% 	23.2% 
% of public schools in rural areas	21.0% 	13.8% 
% state students enrolled in rural schools	37.9% 	27.1% 

Graph I.1: Texas' Rurality

	Student Population					
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural ¹	Texas Non-Rural
Student poverty (students eligible for free or reduced-price lunch)	36.2%	35.8%	36.3%	43.4%	46.2%	43.1%
Minority enrollment (student population that is a member of a minority group)	34.4%	20.6%	37.7%	56.3%	35.8%	58.9%
Hispanic student population	12.0%	4.8%	13.8%	37.6%	29.0%	38.7%
African-American student population	16.2%	9.4%	17.9%	16.0%	5.8%	17.2%
Migrant student population	5.7%	8.8%	4.9%	5.4%	15.0%	4.5%
Special education students (students with IEPs)	12.1%	11.9%	12.2%	12.2%	13.5%	12.1%
Students with Limited English Proficiency	5.0%	2.7%	5.5%	8.6%	4.4%	9.2%

Table I.1: Student Population

Limited English Proficient (LEP) population. Texas as a whole has a significantly higher percentage of LEP students than the national average due to the high numbers of Spanish-speaking people, including many immigrants. SASS data from 1999-2000 indicate that 4.4% of students in rural Texas and 9.2% in non-rural areas are classified as LEP. These are both about two-thirds higher than the national averages.

Principals' perceptions of major student discipline issues. In SASS, principals were asked to rate certain student discipline problems according to their seriousness. For this analysis, we calculated the percentage of principals who indicated that a particular problem was "moderate" or "serious."

These perceived problems are not direct correlates to the demographics in rural Texas. However, student discipline problems are sometimes a reflection of stresses in the home and the community, and are part of the "givens" for any school.

The chart to the right lists the top five student

discipline issues and other problems that were identified by 25% or more of the principals.

The top four problems are almost universal across all groups nationally and in Texas: unprepared students, poverty, lack of parental involvement, and student apathy. In rural Texas, "poverty" was the second most cited problem. "Alcohol use" was listed in the

top five in rural Texas, while in non-rural Texas and non-rural schools nationally, "student absenteeism" was the fifth leading discipline issue. Though percentages vary somewhat between rural and non-rural, and between national data and Texas data, what is most striking are the similarities of the percentages and the issues identified. Non-rural Texas principals included problems of pregnancy and dropouts, neither of which was identified by at least 25% of rural principals.

Rank	Top Student Discipline Issues From Principals' Perspectives (rated by 25% or more of principals as a "serious" or "moderate" problem)					
	U.S.					
	U.S. All	U.S. Rural	Non-Rural	Texas All	Texas Rural	Texas Non-Rural
1	Unprepared Students (68%)	Unprepared Students (66%)	Unprepared Students (68%)	Unprepared Students (69%)	Unprepared Students (65%)	Unprepared Students (70%)
2	Lack of Parent Involvement (60%)	Lack of Parent Involvement (58%)	Lack of Parent Involvement (61%)	Lack of Parent Involvement (61%)	Poverty (59%)	Lack of Parent Involvement (62%)
3	Poverty (58%)	Student Apathy (54%)	Student Apathy (56%)	Poverty (58%)	Lack of Parental Involvement (57%)	Poverty (58%)
4	Student Apathy (56%)	Poverty (48%)	Student Absenteeism (54%)	Student Apathy (55%)	Student Apathy (51%)	Student Apathy (57%)
5	Student Absenteeism (52%)	Student Absenteeism (47%)	Disrespect (50%)	Student Absenteeism (52%)	Alcohol use (47%)	Student Absenteeism (54%)
6	6. Disrespect for teachers (49%)	Alcohol use (46%)	Poverty (48%)	Disrespect (50%)	Student Absenteeism (42%)	Disrespect (52%)
7	Tardiness (43%)	Disrespect (46%)	Tardiness (46%)	Tardiness (45%)	Disrespect (42%)	Tardiness (48%)
8	Alcohol use (38%)	Drug Abuse (37%)	Alcohol use (36%)	Alcohol use (38%)	Drug Abuse (34%)	Alcohol use (36%)
9	Teacher Absenteeism (37%)	Tardiness (36%)	Drug Abuse (35%)	Drug Abuse (34%)	Tardiness (31%)	Drug Abuse (34%)
10	Drug Abuse (36%)			Pregnancy (27%)		Cutting classes (29%)
11				Cutting classes (26%)		Pregnancy (28%)
12						Drop Outs (27%)

Table I.2: Principals' Perceptions of Discipline Issues

Gauge II: The Current Educator Corps

This gauge provides a glimpse of the characteristics of the current teaching and administrative staff in rural Texas. Indicators were selected to illuminate the extent to which rural schools are staffed with qualified educators. This gauge investigates the following questions:

Teachers:

- ★ What is the educational level of teachers?
- ★ To what extent are teachers assigned “out-of-field”?
- ★ How high is the teacher turnover rate?
- ★ How experienced are teachers?
- ★ To what extent are teachers hired at the last minute to fill vacancies?
- ★ How well are teachers paid?
- ★ To what degree does the ethnicity of the teaching force match that of the students?

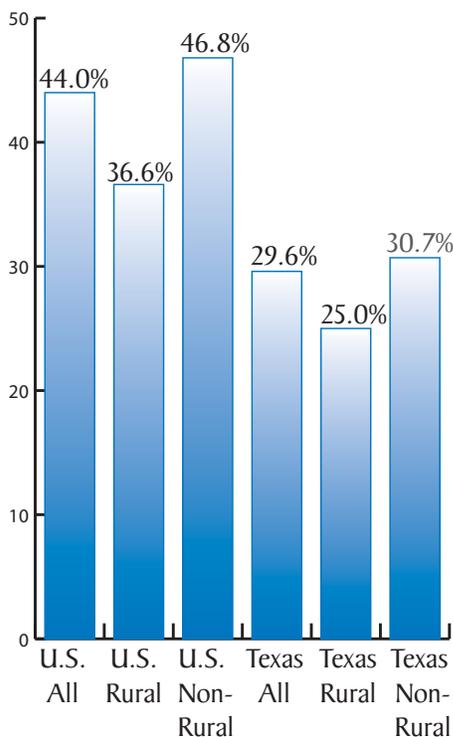
Principals:

- ★ How stable is the administration in Texas schools?
- ★ How much teaching and administrative experience do principals have?
- ★ What is the education level of principals?
- ★ How well are principals paid?
- ★ To what degree does the ethnicity of principals match that of students?
- ★ How well do principals support their teaching staff?
- ★ To what extent do principals (from teachers’ perspectives): communicate expectations to staff; support staff; discuss instruction; and communicate school vision?

Key Findings

Teachers

Education levels of teachers. Nearly all teachers throughout Texas and in the nation have a Bachelor’s degree. However, rural teachers in Texas are less likely to have a Master’s degree than teachers in non-rural Texas districts and much



Graph 2.1: % of Teachers with Master's Degree

less likely to have a Master’s degree than other rural teachers nationally. Non-rural Texas teachers are also less likely to have a Master’s degree than non-rural teachers nationally.

Out-of-field teaching assignments. Reports abound about the high incidence of out-of-field teaching assignments on a national scale. We therefore explored the item in the Teachers’ Survey in SASS that asked teachers if they “were assigned to teach classes in *other* fields in addition to their main teaching assignment field.” We recognize that not every out-of-field assignment indicates that the teacher is unqualified. Some teachers hold certification in several subjects.² In other cases, teachers may be very knowledgeable in this second field (for example, hold a minor in the subject), but are not fully certified. Thus, while out-of-field placement is not necessarily equal to “unqualified,” research suggests that a high incidence of this practice is associated with lower academic achievement.³

The survey data for this indicator confirm that this practice is alarmingly common, especially in rural districts, both within Texas and nationally. More than 29% of rural teachers in Texas report teaching classes in other fields outside their main area, compared to 18.9% in non-rural Texas districts. The occurrence of “out-of-field” teaching is higher in *all* locales in Texas than it is nationally.

	Teacher Characteristics					
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
% teachers with Bachelor’s degree	98.9%	98.8%	98.9%	99.1%	99.2%	99.1%
Teacher turnover rate (% of staff who are newly hired) (By number of staff—not FTE)	11.4 %	11.8%	11.2%	14.8%	14.5%	14.9%
Teaching experience	13.7 years	13.4 years	13.9 years	12.9 years	13.6 years	12.9 years
Last minute hires (% of new teachers who were hired during the summer)	32.5 %	35.6%	32.2%	28.4%	36.0%	28.2%

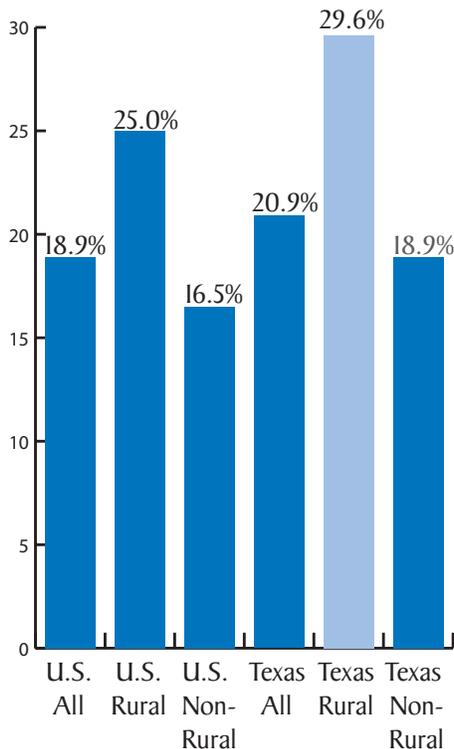
Table 2.I: Teacher Characteristics

Teacher turnover and stability. The teacher turnover rate in Texas is about 30% higher than the rest of the nation. This higher turnover rate is evident in both rural districts in Texas (14.5%) and non-rural districts (14.9%). Teacher stability in Texas (average number of years teaching in the present school) is also lower than national averages. Both indicators highlight the problem of teacher retention throughout Texas.

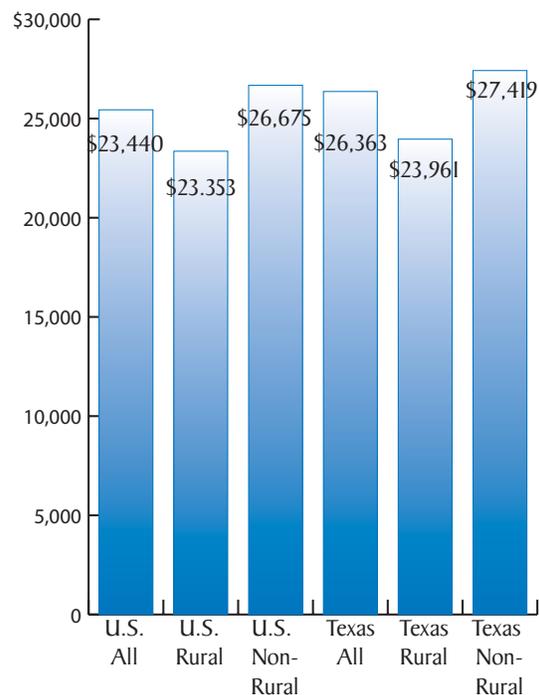
Teacher experience. Statewide, teachers in Texas are less experienced than teachers nationally. Rural teachers tend to be more experienced than non-rural teachers in Texas and slightly more experienced than rural teachers nationally.

Last minute hires. Though the implications of this practice are not clearly known, there is some speculation that the practice of last-minute hiring (i.e., hired during the summer) leads to less qualified teacher hires. The assumption is that the most qualified teachers will be picked first from the teacher candidate pool, and those least qualified will be left for last-minute hiring.

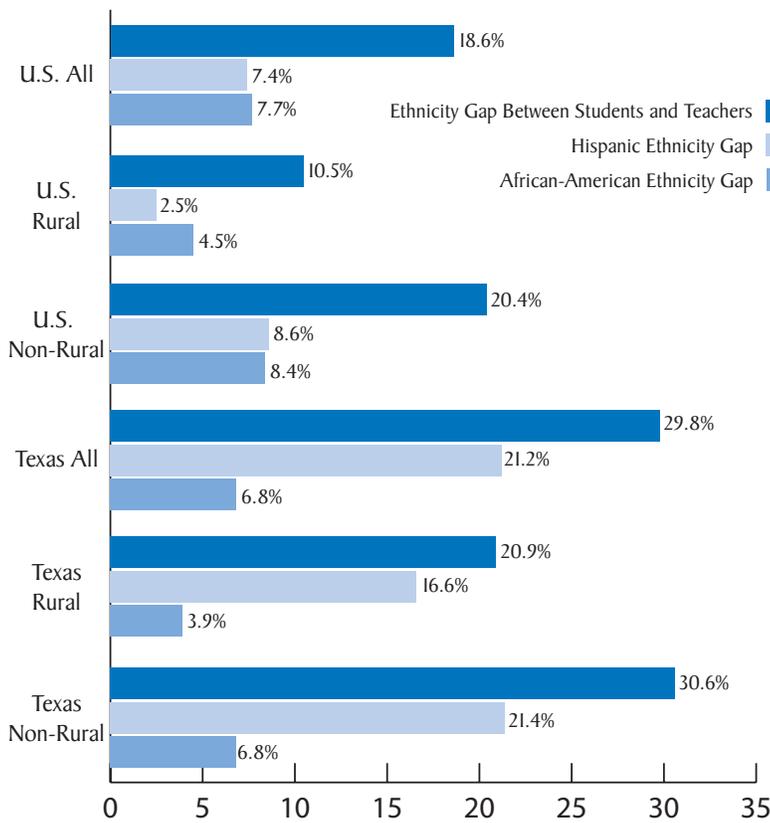
In rural Texas, more than one-third (36%) of all new teachers were hired during the summer, which is close to the national rural average. In non-rural settings, 28.2% were hired in the summer, considerably lower than the non-rural average nationally.



Graph 2.2: % of Teachers Who Were Assigned to Teach Classes in Another Field in Addition to Their Main Teaching Assignment



Graph 2.3: Beginning Teachers' Salary



Graph 2.4: Student Teacher Ethnicity Gap
 (% minority students minus % minority teachers)

Teacher salary. Beginning rural Texas teachers earn significantly less than non-rural beginning Texas teachers, who make 14.4% more. This mirrors the national situation. Both rural and non-rural beginning salaries are higher than the national average in Texas, but the difference is small, especially in the rural sector.

Student-teacher ethnicity gap. For this indicator we subtracted the percentage of minority teachers from the percentage of minority students. A larger number indicates that minority teachers are underrepresented compared to the ethnic composition of the student body. The ideal situation is a 0% ethnicity gap. For example, a school where 50% of the students are Hispanic and 25% of the teachers are Hispanic would result in a 25% ethnicity gap. Since our data use statewide data only, this indicator is an inexact proxy for ethnic match between students and teachers. It does, however, show the degree to which the teacher corps reflects its students. Ideally a more precise analysis would examine data at the school level to document the degree of student-teacher ethnicity match.

The national data suggest that rural teachers match the ethnicity of their students to a greater

	Principal Characteristics					
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
% of principals with advanced degrees (Master's or higher)	98.8 %	97.1%	99.0%	98.1%	95.9%	98.8%
Overall ethnicity gap between students and principals (% minority students minus % minority principals)	20.1 %	12.9%	22.5%	43.9%	29.7%	44.6%

Table 2.2: Principal Characteristics

	Principals' Effectiveness from Teachers' Perspectives (% of teachers indicating they "strongly agree" or "somewhat agree" with statement)					
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Principal communicates expectations	86.2%	88.5%	85.1%	88.3%	91.5%	87.4%
Principal supports staff	78.7%	79.5%	78.4%	79.3%	84.2%	78.1%
Principal discusses instruction with teaching staff	50.7%	53.9%	49.3%	44.5%	54.3%	41.9%
Principal has a school vision and communicates it to staff	79.1%	71.2%	82.3%	83.7%	86.3%	83.0%
Principal communicates expectations	86.2%	88.5%	85.1%	88.3%	91.5%	87.4%

Table 2.3: Principals' Effectiveness from Teacher's Perspectives

degree than non-rural teachers do. The Texas data show this same relationship. However, across Texas, there is a much larger ethnicity gap in general than in the rest of the United States, and the difference between rural and non-rural schools in this respect is proportionately smaller in Texas than it is in the nation. These differences are especially pronounced for Hispanics. The Texas ethnicity gap for Hispanics (21%) is three times higher than the national average (7%). The gap for African Americans is lower in Texas, in both rural and non-rural schools, than in the nation.

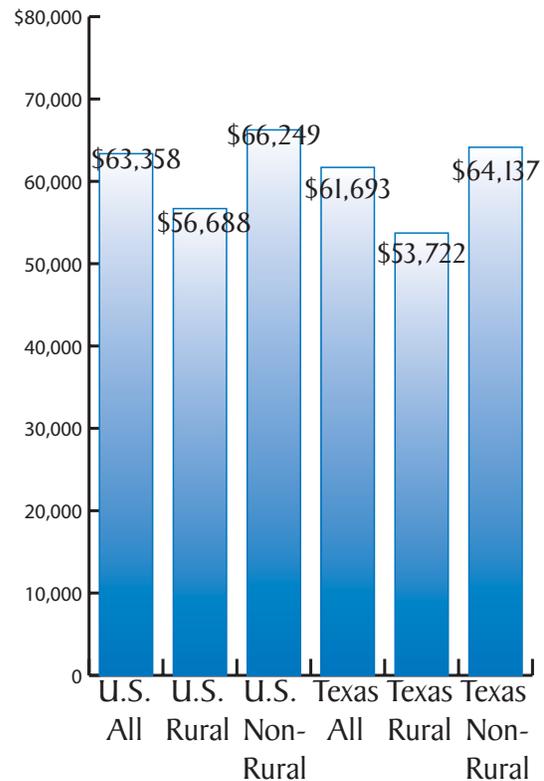
Principals

Stability of principals. There are no appreciable differences between the national data and the Texas data, or Texas rural and non-rural districts, in the average number of years principals have served in this capacity in their present schools. On average, the current principals have been at their present school three to four years.

Experience level of principals. Again, the data across all four groups do not indicate any notable differences. In general, the current principal corps has about 12 years of prior teaching experience and between four and five years' experience as a principal.

Educational level of principals. Rural Texas principals are a little less likely to hold an advanced degree than non-rural Texan principals. Although this reflects the national situation, the differences are higher in Texas. Ninety-six percent of principals have a Master's or higher degree in rural Texas districts, compared to 99% of principals in non-rural Texas districts.

Principal salaries. On average, rural Texas principals earn a staggering \$10,400 less than their peers in non-rural Texas districts. Principal salaries are 19.4% higher in urban and suburban districts. This reflects a similar nationwide disparity.



Graph 2.5: Principal Salary

Ethnicity gap between students and principals. Nationally and in Texas, there is a smaller ethnicity gap between students and principals in rural districts than in non-rural districts. However, the ethnicity gap in Texas is about double the national rate in both rural and non-rural schools.

Effectiveness of principals. The Teachers' Survey of SASS asked a series of questions that reveal teachers' perceptions about the degree to which their school principal exhibited good leadership and communication skills. We looked at four of these: To what degree did principals (1) communicate expectations, (2) support the staff, (3) discuss instructional strategies with individual teachers, and (4) have a clear school vision and communicate this with staff members. In *all four* of these measures, rural Texas principals were rated higher than non-rural principals were.

Gauge III: The Teaching Policy Environment

This gauge explores selected conditions, resources, and practices of rural schools that impact teaching and learning *and* that are influenced directly or indirectly by state and local policies. These factors ought to be the concern of policymakers. As noted in the introduction, we primarily focus on teachers, but also explore technology and more general staffing patterns that shape the teaching environment. This gauge is centered on the following questions:

Class size:

- ★ How does class size in rural Texas compare to other locales?

Staffing patterns:

- ★ To what degree are rural schools staffed with appropriate professionals?
- ★ To what degree are there adequate student support personnel in rural schools?

Availability of extra remedial or enrichment opportunities:

- ★ To what degree do rural schools offer students extra learning experiences, outside the usual school day?

Teacher compensation:

- ★ How well are teachers compensated?
- ★ How do benefits offered to rural teachers compare with benefits offered to non-rural teachers?
- ★ What other kinds of financial incentives are available for teachers?

Teacher vacancies:

- ★ What subject areas are difficult to staff?
- ★ What strategies do districts use if teaching vacancies are not filled?

Teacher morale:

- ★ How satisfied are teachers in their present school?

Technology:

- ★ To what degree do classrooms have necessary infrastructure for information technology?
- ★ What personnel are available to help with technology?
- ★ How much professional development is offered in the use of technology for instruction?

Key Findings

Class size. Class size in rural Texas tends to be small as measured imperfectly by the student-teacher ratio (14.1:1). The ratio is smaller than that in non-rural areas of Texas (20.3:1) and smaller than rural classes nationally (18.4:1). This corresponds with national trends of smaller class sizes in rural areas than in non-rural areas.

Staffing patterns. SASS asks a series of questions that explore staffing patterns in schools. We grouped them into four areas: Administrators (principals and assistant principals); Other Administrators (e.g., curriculum specialists, library/media personnel, school counselors); Student Support Staff (e.g., nurses, social workers, speech therapists, etc.); and Assistants (e.g., classroom aides, library aides, special education assistants, Title I aides, bilingual/ESL aides, etc.).

In all four areas, rural Texas schools have significantly fewer personnel available within the school building than Texas' non-rural schools. Though this differential matches the national trend, the differences are *greater* in Texas than the national averages. And in some cases, these differences are quite dramatic.

At first glance, it might seem appropriate that small rural schools have fewer dedicated staff members to provide these services. Certainly many small schools cannot afford (nor need) full-time speech therapists, curriculum specialists, or school nurses. However, the survey asks for number of personnel per school, *even if* that person is only part-time, shared with other schools, etc. Therefore, this indicator indicates the availability of student (and staff) support and services *independent* of school size.

Staffing Patterns						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Average class size	19.90	18.40	20.45	19.20	14.11	20.29
Administrators (# of principals and assistant principals per building)	1.90	1.31	2.15	2.42	1.35	2.77
Other administrators (# curriculum specialist, library media, school counselors, etc. per building)	2.92	1.88	3.38	3.31	1.88	3.77
Support staff (# of nurse, speech therapist, social worker, etc. per building)	1.64	0.97	1.93	1.86	0.84	2.19
Aides/assistants (# library, special education, Title I, bilingual/ESL aide, kindergarten, etc. per building)	5.96	4.40	6.63	6.84	4.27	7.67

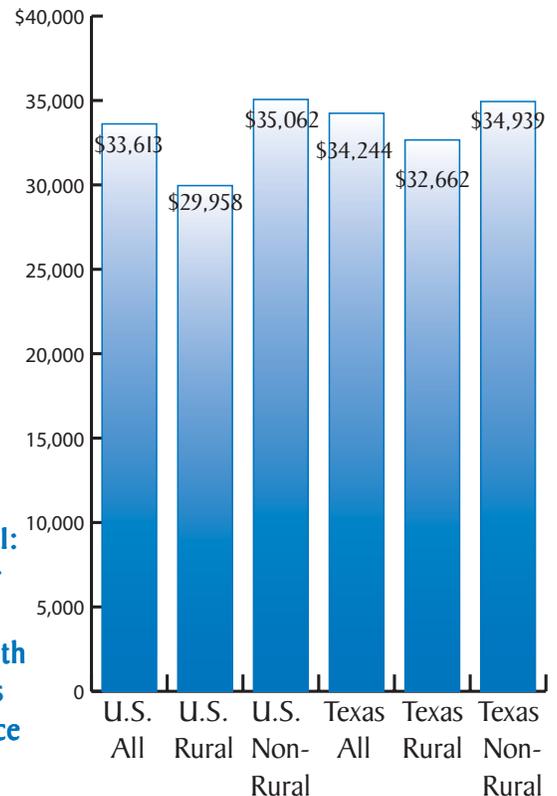
Table 3.1: Staffing Patterns and Class Size

Student Learning Opportunities (% of schools offering these opportunities)						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Before-/after-school enrichment (% of schools offering this)	52.7%	45.2%	55.9%	50.9%	39.0%	54.7%
Summer school/intersession for remediation	68.7%	62.4%	71.5%	76.3%	69.0%	78.6%
Summer school/intersession for advancement	29.5%	23.6%	32.1%	32.0%	24.0%	34.6%
Before-/after-school enrichment (% of schools offering this)	52.7%	45.2%	55.9%	50.9%	39.0%	54.7%
Summer school/intersession for remediation	68.7%	62.4%	71.5%	76.3%	69.0%	78.6%

Table 3.2: Student Learning Opportunities

Student learning opportunities beyond normal school hours. Fewer rural schools in Texas offer opportunities for enrichment and remedial work for students than their non-rural counterparts. This includes before- and after-school programs, summer schools, and intersession programs. Although this situation again matches the conditions nationally, the differences in enrichment and remediation in rural versus non-rural Texas in all three indices is larger than national differences. For example, only 39% of rural Texas schools provide before- and after-school enrichment opportunities compared to 54.7% of non-rural schools in Texas. On a national level, 45.2% of rural schools offer these experiences, compared to 55.9% of non-rural schools.

Teacher salaries. In Gauge I, we presented the salary differences for beginning teachers. Here we extend the analysis to include the salary differentials for 10-year veterans (with a Bachelor’s degree). As before, the pattern persists: rural teachers in Texas (and nationally) are offered less money than those in non-rural districts. Teachers with 10 years of experience can earn about 7% more in non-rural districts than in rural districts in Texas.

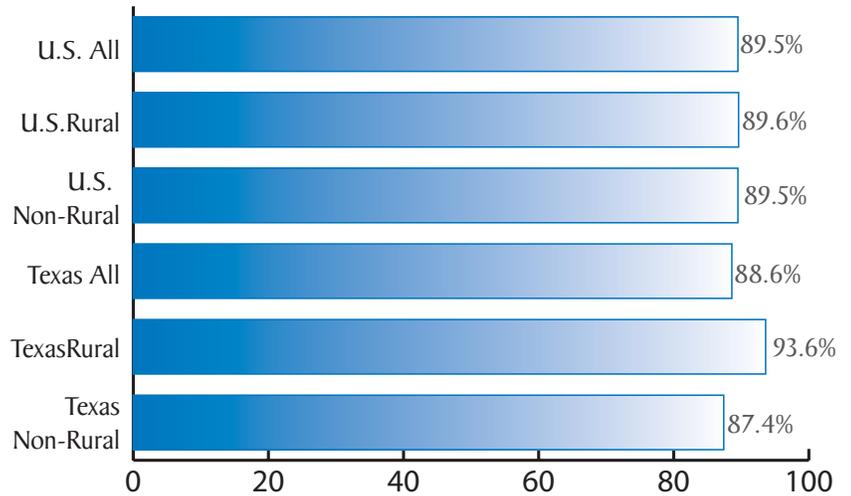


Graph 3.1: Teacher Salary, BA/BS with 10 Years Experience

Benefits. Rural teachers in Texas, as well as nationally, are less likely to have medical, dental, or transportation benefits included in their compensation package than non-rural teachers, although the difference with respect to health benefits within Texas is small. The differences were most acute for transportation benefits, but were also high for dental benefits. Since the survey only asks *if* teachers have a benefit (not the *extent* of the benefit), the differences between rural and non-rural may well be much greater.

Incentives offered teachers. Some states and districts offer financial incentives for teachers to participate in professional development or to accept positions in certain subjects or geographic locations. Examples include: offering financial incentives to teachers who complete National Board certification; increasing salary for completing a certain number of professional development hours; and offering incentives to teachers accepting positions in hard-to-staff locations or critical shortage subject areas.

The SASS survey indicated limited use of incentives in Texas in almost every category. And in general, rural districts tend to offer incentives less often than non-rural districts. There is, however, a somewhat different pattern in Texas than in the national data. Counter to the national situation, there



Graph 3.2: % of Teachers who Strongly Agree that they are “Generally Satisfied” with Their Job

is a slightly higher tendency in rural than in non-rural districts in Texas to offer incentives for National Board certification (though it is relatively rare in all Texan locales). Second, both rural and non-rural districts in Texas are more likely to offer incentives to teach in “less desirable” locations than districts nationwide. Lastly, both rural and non-rural districts in Texas are about three times more likely to offer incentives to teach in shortage subject areas than their counterparts nationally, although the percentage of rural Texas districts is lower than non-rural Texas districts.

Teacher Benefits (*% of districts that offer this benefit)						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
*Medical benefits	97.9%	97.1%	98.5%	98.9%	96.5%	100%
*Dental benefits	81.6%	72.0%	87.3%	76.2%	61.6%	82.7%
*Transportation benefits	42.0%	31.7%	48.1%	29.8%	12.8%	37.2%
Benefits as % of payroll	25.2%	26.4%	24.5%	16.6%	21.6%	14.5%

Table 3.3: Teacher Benefits

Teacher Incentives (% of districts that offer financial incentive or higher step on teacher salary scale)						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
National Board Certification	13.0%	10.2%	14.7%	1.8%	2.3%	1.5%
Teacher performance	7.5%	5.9%	8.5%	9.9%	4.7%	12.2%
Professional development	29.5%	24.0%	32.8%	8.5%	5.8%	9.7%
Teachers working in “less desirable” setting	4.8%	4.4%	5.1%	11.7%	11.6%	11.7%
Teachers who teach a subject that is a “shortage area”	12.9%	11.4%	13.8%	41.5%	36.0%	43.9%

Table 3.4: Teacher Incentives

Teacher shortages: Hard-to-staff subject areas. SASS asked principals to list the subject area vacancies that were the most difficult to fill. Though there were some differences between rural and non-rural Texas districts and between Texas and the rest of the country, the data are remarkable in their similarity, with one exception. In all Texas locales, English as a Second Language (ESL) was one of the most difficult areas to fill. ESL did not, however, make the top-five list for rural or non-rural settings on a national level. The other subjects in Texas' top-five list were special education, math, foreign language, and biology (or physical science for non-rural Texas districts).

Responses to teacher shortages. When asked what strategies they used to fill a teaching vacancy, 77% of rural Texas principals reported hiring a qualified teacher, compared to 79% in non-rural Texas districts. These numbers are slightly lower than national averages. The unstated implications are that for the remaining 23% (or 21% in non-rural Texas districts), the districts hired unqualified teachers or took other measures to fill the spot. In some cases, the class was cancelled. In other cases, class size was increased. Other strategies included adding to another's teaching load, assigning a teacher from another subject or

grade level (out-of-field assignment), assigning an administrator, or using a substitute.

Texas data indicate that the most common responses to teacher vacancies are to hire a substitute, increase class size, or use an out-of-field teacher. In comparison to non-rural Texas, rural Texas used substitutes less and relied more on assigning an administrator to teach the class. Also, rural Texas districts were slightly more likely to cancel a class if no qualified teacher could be found.

Teacher morale. A remarkable 93.6% of teachers in rural Texas were satisfied with their job. This compares to 87.4% of non-rural Texas teachers and 89.6% of rural teachers nationwide.

Availability of technology. Not surprisingly, rural Texas classrooms have fewer computers (per classroom) than larger classrooms in non-rural settings. This makes logical sense—fewer students require fewer computers. Also, there is no difference in the percentage of computers hooked up to the Internet in rural versus non-rural schools.

Technology staffing patterns. Differences do appear on

Difficult Subject Areas for Filling Teacher Vacancies (Top 5 areas in order ["very difficult " or "could not fill"])						
U.S.						
Rank	U.S. All	U.S. Rural	Non-Rural	Texas All	Texas Rural	Texas Non-Rural
1	special education	special education	special education	math	foreign language	math
2	math	math	math	special education	special education	special education
3	foreign language	computer science	foreign language	foreign language	math and English as second language (tied)	English as second language
4	music/art	music/art	physical science	English as second language		foreign language
5	biology	foreign language	biology	biology	biology	physical science

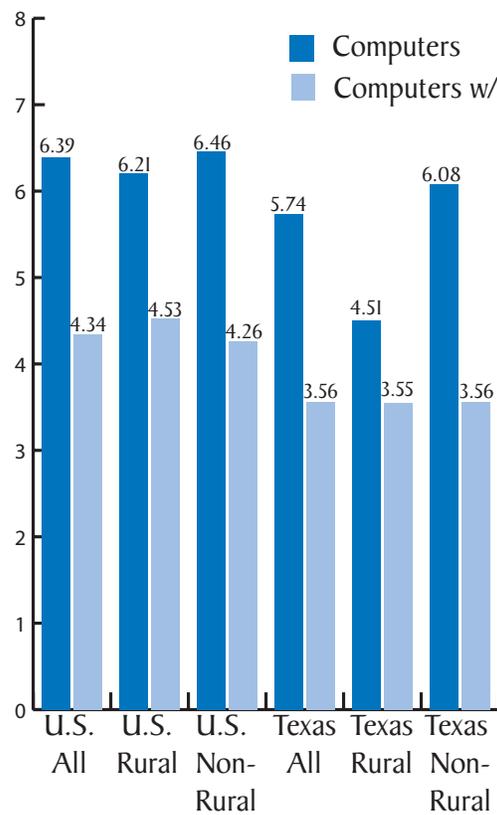
Table 3.5: Teacher Shortages

Response to Teaching Vacancies (*% of schools that used this strategy)						
U.S.						
	U.S. All	U.S. Rural	Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Hired qualified teacher (% of schools that had vacancy and hired qualified teacher)	80.9%	78.1%	82.1%	78.2%	77.0%	78.6%
*Cancelled class	4.5%	5.0%	4.3%	8.3%	9.0%	8.1%
*Increased class sizes	13.7%	12.1%	14.4%	20.8%	18.0%	21.7%
*Added to another's teaching load	11.2%	10.2%	11.7%	15.2%	10.0%	16.8%
*Assigned teacher from another subject/level	10.7%	10.3%	10.9%	17.8%	15.0%	18.8%
*Assigned administrator	2.7%	3.9%	2.1%	2.4%	8.0%	0.6%
*Used substitute	27.8%	20.2%	31.1%	33.0%	18.0%	37.9%

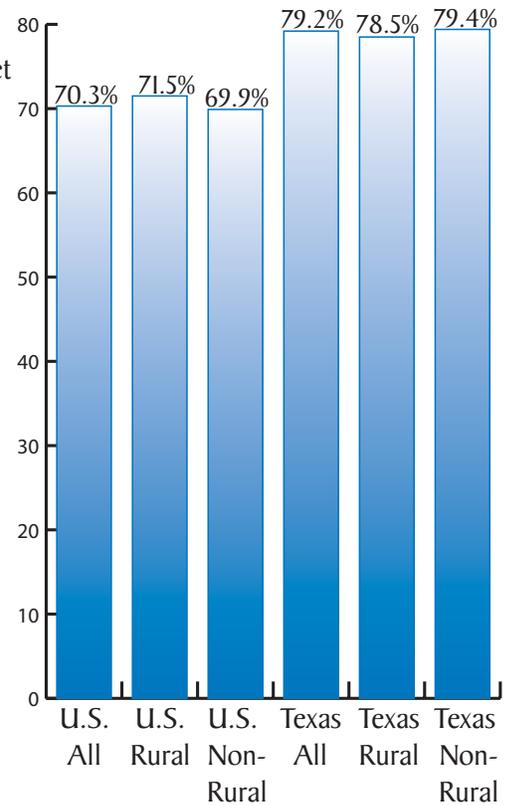
Table 3.6: Response to Teaching Vacancies

the personnel available to coordinate technology instruction and to provide technical support for the school. Adequate technology staff in all locales is in short supply. In rural Texas, the job of coordination and technical support is often assumed by teachers as an extra duty. This pattern is common in all rural areas nationally, but the practice is more pronounced in rural Texas than in the rest of the country. For example, in 31% of rural Texas schools, classroom teachers assume the role of technology coordinator as an extra responsibility. This practice occurs in 22.7% of non-rural Texas schools. Nationally, rural teachers assume this extra duty in 22.6% of the schools, with non-rural teachers doing this in 21.1%.

Professional development in using technology for instruction. Seventy-eight percent of all rural teachers re-



Graph 3.3: Technology - # of Computers per Classroom



Graph 3.4: % of Teachers who Participated in Professional Development in Use of Computers for Instruction

ported participating in professional development in using technology for instructional purposes. This is only slightly less than Texas teachers in other locales. All of Texas reported a slightly higher rate of this type of professional development than nationally.

Technology Staff						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Technology Coordinator position						
% of schools with designated Technology Coordinator within school staff	17.3%	14.8%	18.5%	23.2%	21.0%	23.9%
% of schools where Technology Coordinator is a teacher assuming extra duties	21.5%	22.6%	21.1%	24.7%	31.0%	22.7%
Technology support position						
% of schools with designated Technology support person within school staff	18.1%	14.6%	19.6%	24.0%	20.0%	25.2%
% of schools where Technology support person is a teacher assuming extra duties	15.7%	17.9%	14.7%	17.6%	25.0%	15.2%

Table 3.7: Technology Staff

Gauge IV: Teacher Professional Development

This gauge thoroughly explores some of the variables concerning professional development opportunities for teachers, by examining the following questions:

- ★ What is the format of professional development offered to teachers?
- ★ What is the content of their professional development?
- ★ How do teachers rate the usefulness of their professional development?
- ★ What “incentives” (or rewards) for professional development are available to teachers?
- ★ How well is professional development funded?
- ★ What are the sources of funding for professional development?
- ★ To what extent are teachers reimbursed for professional development costs?

Key Findings

Formats of professional development. Across Texas and the nation, attending workshops is the most common format for professional development. This is not surprising, since this type of professional development is probably the most cost-effective for districts. The second most common format is the use of “formal collaboration with other teachers.” This tends to occur less often in rural areas than in non-rural areas, both nationally and in Texas.

“Formal collaboration” is different from mentoring, which was a separate question. Only 34.8% of rural Texas teachers participated in mentoring programs compared to 46.5% of non-rural teachers. Mentoring is frequently cited as one of the most important elements in helping new teachers make a successful transition into the profession. Also, it has been found to significantly decrease attrition of new teachers. The relative lack of mentoring programs is a poor prognosis for new teachers in rural areas of Texas.

Another notable indicator concerning the format of professional development is the extremely low participation in university coursework. In rural Texas, only 7.6% of teachers participated in this form of professional development. Twice as many non-rural Texas teachers attended university-level classes, though both Texas groups were well below national averages. Thirty-seven percent of the total U.S. teaching force took university-level courses, compared to 13% in Texas overall.

Content and usefulness of professional development. The Teachers’ Survey in SASS included a list of various content areas of professional development and asked teachers to indicate those they had participated in and to rate the usefulness of those activities. The content areas are: in-depth study of an academic content area, state and local standards, teaching methods, instructional technology, assessment, discipline, special education (IEP), and LEP training.

	Professional Development Formats (% of teachers who participated in these formats)					
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Attended a workshop	94.4%	94.7%	94.3%	96.2%	95.6%	96.3%
Networked with other teachers	25.8%	25.4%	25.9%	27.1%	28.1%	26.9%
Mentor program	40.0%	37.0%	41.3%	44.2%	34.8%	46.5%
Formal collaboration with other teachers	69.7%	65.8%	71.4%	73.9%	68.7%	75.2%
Conducted research	45.4%	43.5%	46.3%	41.3%	40.4%	41.5%
Observational visits	33.1%	32.4%	33.4%	29.7%	27.8%	30.2%
Completed university coursework, related to teacher certification/recertification	36.8	40.3%	35.4%	13.1%	7.6%	14.4%

Table 4.1: Professional Development Formats

Professional Development Content Areas (% of teachers who participated in professional development involving these content areas)						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
In-depth study of teaching assignment content area	54.0%	50.7%	55.3%	63.0%	60.2%	63.7%
State/local standards	68.7%	66.1%	69.7%	71.5%	66.7%	72.7%
Teaching methods	69.6%	67.1%	70.6%	81.0%	78.1%	81.7%
Instructional technology	70.3%	71.4%	69.9%	78.5%	77.8%	78.7%
Assessment	59.9%	57.7%	60.8%	56.2%	51.5%	57.4%
Discipline	41.4%	40.0%	42.0%	54.9%	51.2%	55.8%
IEP training	33.2%	33.5%	33.1%	58.0%	65.5%	56.1%
LEP training	24.0%	10.1%	28.3%	35.1%	29.0%	36.3%

Table 4.2: Professional Development Content Areas

Though some of the differences were small in Texas, a definite trend emerges of rural teachers being engaged in fewer professional development activities than their non-rural counterparts. Rural teachers were less likely than non-rural teachers to participate in professional development events in all areas except IEP training. The notably higher percentage of rural teachers who participated in IEP training is not consistent with national data. The other indicator of note is the much higher percentage of all Texas teachers who attended professional development on LEP, a statistic aligned with the large number of students with limited English skills.

Rural Texas teachers rated professional development in the use of technology as the most useful.⁴ This differs from the national and non-rural Texas survey results, where teachers rated in-depth study of their content area as the most useful. Rural Texas teachers rated content area study far less

favorably than other Texas teachers and both rural and non-rural teachers in the U.S.

Overall usefulness of professional development. In general, both rural and non-rural Texas educators rate their professional development experiences higher than teachers throughout the U.S. Rural teachers, however, tend to rate the usefulness *lower* than non-rural teachers within Texas by a wider margin than do their rural peers nationally. Perhaps most striking is that the percentage of teachers across the board who consider professional development useful is embarrassingly low. For example, in Texas, only 54% of all teachers felt that these experiences were “useful” or “very useful.” Almost half of all teachers considered these activities as having no or limited value.

Incentives for professional development. This indicator consists of a series of questions about whether districts

Usefulness of Professional Development from Teachers' Perspectives (% indicating professional development was “useful” or “very useful—top two categories)						
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
In-depth study of teaching assignment content area	70.7%	70.4%	70.9%	69.6%	60.4%	70.1%
Standards	55.0%	55.1%	55.0%	57.0%	53.2%	59.1%
Teaching methods	58.6%	58.3%	58.8%	55.3%	54.3%	55.6%
Technology	64.8%	65.3%	64.7%	63.6%	65.0%	63.2%
Assessment	50.2%	50.5%	50.2%	53.4%	55.1%	53.0%
Discipline	53.5%	51.9%	54.1%	48.5%	47.4%	48.7%
Overall Usefulness: (% indicating that all professional development of last 12 months was “useful” or “very useful”—top two categories)	44.6%	43.5%	44.9%	53.9%	50.3%	54.8%

Table 4.3: Usefulness of Professional Development from Teachers' Perspectives

Incentives for Professional Development (% of districts that provide incentive)						
	U.S.			Texas		
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Stipends for completion	41.3%	46.7%	38.7%	29.2%	26.6%	29.8%
Reward or recognition	20.8%	20.0%	21.2%	32.9%	29.8%	33.6%
Increased pay for completion	17.3%	13.7%	18.9%	4.1%	2.0%	4.6%
Re-certification credit	44.1%	44.0%	44.1%	16.5%	15.2%	16.9%
Stipends for completion	41.3%	46.7%	38.7%	29.2%	26.6%	29.8%

Table 4.4: Professional Development Incentives

Professional Development Funded By (% of districts that fund professional development with this source)						
	U.S.			Texas		
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Eisenhower monies	90.6%	89.6%	91.4%	89.0%	84.9%	90.8%
"Other " federal programs	85.0%	82.5%	86.7%	84.0%	76.7%	87.2%
School improvement funds	67.7%	63.0%	70.6%	52.5%	39.5%	58.2%
Special project monies	75.8%	68.6%	80.1%	70.9%	58.1%	76.5%
State	75.8%	73.5%	77.3%	59.6%	59.3%	59.7%
School general funds	79.9%	77.9%	81.3%	91.5%	88.4%	92.9%
District general funds	94.2%	93.6%	94.7%	99.6%	98.8%	100.0%

Table 4.5: Professional Development Funding

offer certain incentives for teachers to complete professional development. The following four types of incentives were listed: stipends for professional development completion, rewards or recognition, increased pay for completed professional development, and recertification credits.

Texas in general offers far fewer incentives for professional development than the rest of the U.S., except for rewards and recognition. The differences between Texas and the rest of the United States are considerable in the other three categories. For example, 44.1% of all U.S. districts allow teachers to earn recertification credits for completed professional development activities. Only 16.5% of all Texas districts do this.

And mirroring the national situation, rural Texas districts offer fewer incentives than non-rural districts in every area. For example, only 2% of rural districts increase teacher pay for completion of professional development, compared to 4.6% of non-rural districts.

Funding of professional development. There is less available funding for professional development for rural teachers than for non-rural teachers. This is true throughout the United States and within Texas.

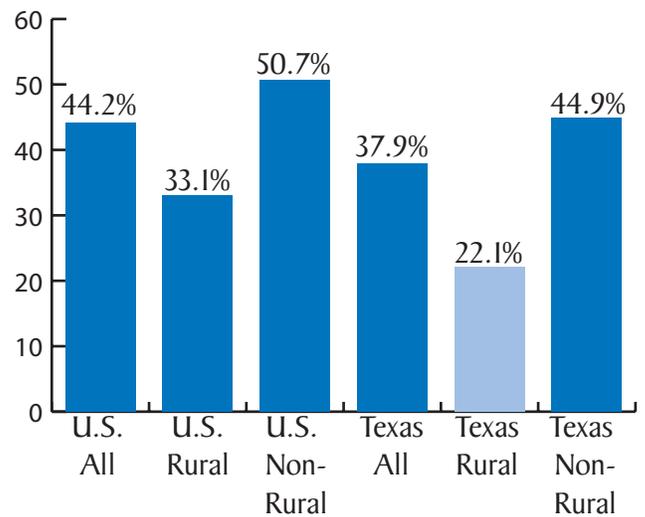
What is particularly noteworthy is the large discrepancy between rural and non-rural Texas in the use of Title I money for professional development. Only 64% of teachers in rural Texas reported having professional development funded by Title I, compared to 90.8% in non-rural Texas. Though poverty indices determine Title I allocation, poverty percentages in non-rural and rural Texas are fairly similar (46.2% in rural Texas; 43.1% in non-rural Texas) and cannot explain these large differences. The question arises whether rural Texas districts or schools are receiving their appropriate allocation of Title I funds and using them as intended—for student support and for professional development.

Another obvious difference is in access to funding through private grants and special project monies. In all rural areas both in Texas and nationally, these resources are not available to rural districts to the same extent as non-rural districts. The differentials are significant. For example in Texas, over twice as many non-rural districts (44.9%) received grants for professional development, as rural districts (22.1%). Though state resources are fairly equal, rural districts' inability to access other supplemental sources creates inequities in professional development for rural teachers.

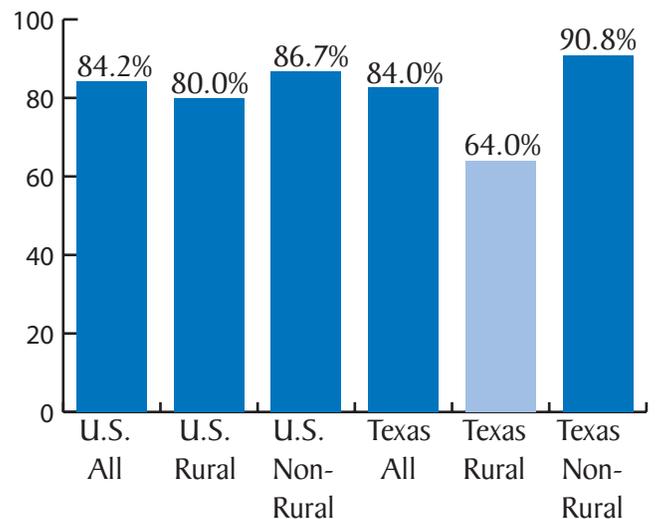
Probably as a result of these deficiencies in funding sources, rural teachers in Texas rely more on school and district general funds to support professional development than do rural districts nationally (but not more than non-rural teachers in Texas).

Reimbursement to teachers for professional development expenses. This set of questions explores the percentage of teachers who are reimbursed for extra expenses related to professional development. Three areas of reimbursement are analyzed: reimbursement for tuition, for fees, and for expenses. Rural Texas teachers are more likely to be reimbursed for fees and extra expenses incurred through professional development than are either non-rural teachers in Texas or other rural teachers nationally. The percentage of districts offering expense reimbursement is much higher in rural areas (56.7%) than in non-rural (37.5%). We speculate this is due to professional development opportunities occurring mainly in populated areas, requiring rural teachers to incur significant reimbursable travel expenses.

Lastly, the data indicate that an extremely low percentage of districts in Texas reimburse teachers for professional development tuition. Only 5% of Texas teachers report tuition reimbursement—well below the national rate of 21.3%. And in striking contrast to the 23.8% of rural teachers nationwide, only 2.3% of teachers in rural Texas report tuition reimbursement. We believe this low reimbursement history is at least partially responsible for the similarly low rates of participation in university-based professional development.



Graph 4.1: % of Districts that Fund Professional Development with Private Grants



Graph 4.2: % of Districts that Fund Professional Development with Title I Funds

Professional Development Reimbursement for Teachers						
(% of districts that reimburse teachers for professional development)						
	U.S.			Texas		
	U.S. All	U.S. Rural	U.S. Non-Rural	Texas All	Texas Rural	Texas Non-Rural
Tuition	21.3%	23.8	20.2	5.0%	2.3	5.7
Fees	47.3%	45.9	47.9	47.3	54.1	45.5
Expenses	38.9%	48.9	35.5	41.3	56.7	37.5

Table 4.6: Professional Development Funding

Conclusions and Recommendations

Putting it all Together: A Portrait of Teachers and Teaching Conditions in Rural Texas

Rural Students

Half a million students attend 1,742 public schools located in rural places in Texas. These rural schools exhibit all the ingredients that make for challenging teaching and learning conditions:

- ★ High poverty levels
- ★ A significant migrant student population
- ★ A higher than average special education population
- ★ Substantial percentages of students with limited English skills

All of these attributes are associated with students who have more learning challenges and who require additional resources, services, special programs and highly skilled teachers in order to be successful in school.

Limited English Proficiency (LEP) Challenges

One would predict that LEP is prevalent in Texas, especially in regions such as the borderlands in south Texas with high numbers of newly arrived Spanish-speaking immigrants. The SASS data does back that prediction, but other data sources (Common Core of Data and U. S. Census) indicate many more LEP students. For example for the year 1999-2000, the same year as the SASS surveys, the Common Core of Data indicates 14.5% of all Texan students were LEP, compared to 8.6% as reported in SASS.

No matter what percentile is used, limited English skills present serious learning challenges for students. According to a recent Texas study⁵, both LEP and “English as a Second Language” students in Texas (all locales) had the *lowest* graduation rates of all subgroups (53% for LEP students; 51% for English as Second Language students). These rates are significantly lower than the graduation rate for special education students (73%). Similar patterns are also evident in dropout rates. And the issue of limited English skills is certain to become even more of a dilemma with the requirements of the federal No Child Left Behind Act, which requires all students to take achievement tests in English after being in U.S. schools for three years. This will place an added premium on rapid English language acquisition.

The Current Status of Rural Educators

Rural Texas districts and their educator corps are characterized by:

- ★ High teacher turnover
- ★ Significant percentage of new teachers hired at the last minute
- ★ Principals and teachers with lower educational levels compared to other Texas districts
- ★ High incidence of out-of-field teaching assignments
- ★ Significantly lower teacher and principal salaries compared to other Texas districts

The composite picture of the teaching corps in rural Texas is disheartening. These factors suggest a scenario in rural Texas where qualified teachers are in short supply or don't stay long. Last-minute hiring, out-of-field assignments, and low salaries probably contribute to high attrition rates that make it difficult to establish a consistent and stable school culture. If rural districts are unable to attract *and* retain highly qualified educators, rural children will be denied an excellent education.

Teacher Shortages and Unfilled Vacancies

SASS data reveal a pattern of relatively high teacher turnover in rural Texas (14.5%), coupled with certain subject areas that are hard-to-staff. In general, all Texas districts have difficulty finding enough qualified teachers in math, special education, foreign language, English as a Second Language (ESL), and biology. This list is similar to the national pattern, with the exception that ESL is harder to fill in Texas than in other states.

According to SASS, qualified teachers were not found to fill 23% of the vacancies in Texas rural areas. Schools managed the unfilled vacancies by increasing class size, using a substitute, assigning an out-of-field teacher, assigning an administrator to teach the class, or adding the class to another teacher's load. Though these strategies may be useful in the short term, they are far from ideal. These are practices associated with lower student achievement and/or increased teacher workplace dissatisfaction.

Teacher shortages are a national problem, not confined to Texas or to rural locales. Also reflecting the national trend, a recent report in Texas⁶ documents the tendency for teacher shortages (especially out-of-field placements) to primarily

affect economically disadvantaged and minority student population. Thus, poor minority students in rural Texas are especially vulnerable to being taught by under-qualified teachers.

Inadequate Support Staffing

Though rural schools have higher-than-average special education populations, high student poverty (i.e., Title I eligibility), and significant numbers of students with limited English skills, they employ fewer support personnel, even on a limited or part-time basis. Compared to non-rural Texas schools, rural schools have fewer student support personnel such as Title I aides, special education assistants, bilingual/ESL aides, nurses, social workers, speech therapists, etc. This has serious implications about the capacity of rural schools to meet student needs.

Undoubtedly, some of the student service and support void is filled by teachers and administrators. However, this is on top of other “extra” responsibilities, such as covering classes when there are unfilled vacancies. In addition, surveys indicate that rural administrators and classroom teachers commonly assume roles related to technology when this area is understaffed. The pattern that emerges is one of *high* student needs, *less* support personnel in the schools, and *extra* responsibilities for teachers and administrators.

These practices are shortsighted and are implicitly based on the faulty assumption that professional expertise is expendable. Offering high quality student support and running high quality school programs requires staff with specialized training. The routine of asking current school staff to make up for chronic under-staffing is counterproductive and detrimental and probably accounts for some of the high teacher turnover rates.

Salary

These additional responsibilities are sadly and paradoxically accompanied by significantly lower salaries. In spite of a state mandated minimum salary scale, rural teachers and rural principals earn significantly less than do their peers in other locales. A beginning teacher can make 14% more in a non-rural district than in a rural district. And non-rural principals take home an astounding 19.4% more than rural principals do. Such disparities are often justified with the argument that it “costs” less to live in a rural district. But the educational issue is not what it costs a teacher or administrator to live in a district, but what it costs a district to get a highly qualified teacher or administrator to live and work there.

Both adequate staffing and salary levels are usually functions of the fiscal capacity of a district to compete in the market for personnel. The staffing inadequacies in rural Texas districts are likely to be a result of the inadequacies or inequities in the funding system.

Ethnicity

The mismatch between the ethnicity of students and educators in rural Texas is acute. Only 14.9% of teachers and 6.2% of principals in rural Texas are minorities. These professionals serve a student body in rural Texas that is made up of 35.9% minorities. This gap is not just a rural issue. In urban Texas, the differences are even greater. However, there is a much greater mismatch of ethnicity in all of Texas than in the rest of the United States. This is a discouraging reality and implies a real need for the state to adopt teacher and administrator preparation strategies for minorities.

Technology

The SASS data does not confirm a technology divide in rural Texas. Though there are fewer computers in rural classrooms, class size is smaller so the student-to-computer ratio is probably on par with other locales in the state. Most of these computers are hooked up to the Internet. In addition, substantial numbers of rural teachers have participated in professional development in the instructional use of information technology.

Gaps emerge, however, in providing adequate personnel to maximize the potential of technology. As previously noted, there often are no technology coordinators or support personnel in rural schools and these responsibilities commonly fall to teachers and administrators as an extra duty.

This is one area where the SASS data may be outdated. According to state officials, one major source of state aid for technology is now no longer available. Recent shortfalls in state revenues (for 2003-2004) have resulted in eliminating a previous state technology grant of approximately \$30 per student annually. Officials interviewed for this report predicted a re-emergence of a technology divide between the wealthiest and the poorest districts.

Participation in Professional Development

Research studies link effective teaching and teachers to ongoing, rigorous, relevant professional development that focuses on both content and teaching methods. Although high percentages of all teachers (rural and non-rural, in Texas and nationwide) participate in professional development in workshop formats, there is some question whether these workshops are effective. They tend to be “one shot” events and are of uncertain relevancy.

SASS survey questions do explore perceived “usefulness.” These ratings vary according to the specific content of the professional development event. Though there are some differences, in general, 40-50% of teachers do not find most of these activities useful. Interestingly, rural teachers in Texas gave the highest “usefulness” rating to professional development in the instructional use of technology.

These results suggest that teachers should have a much larger role in planning professional development activities and in identifying the areas of need. Rural teachers have different needs than urban teachers and relevant professional development must be locale-specific.

Mentoring

According to the SASS data, 34.8% of rural Texas teachers participated in mentoring programs. This is lower than in non-rural Texas districts, where 46.5% participated. The survey item is unclear, however, whether these are mentoring programs designed to help new teachers in the first few years of professional practice, or designed to address the needs of experienced teachers.

Texas now requires mentoring for all beginning teachers, though it is a local responsibility. There are no state requirements for training mentors, providing release time, or requiring that mentors have certain experience or expertise. In addition, the program is inadequately funded. Thus, according to state officials, the quality of mentoring across districts in Texas is very uneven.

Effective mentoring is associated with high levels of professional growth. For new teachers, mentoring is especially effective in reducing attrition in the first 3-5 years of teaching. And given the high teacher turnover rates in rural districts, if there is a “mentoring” gap, it is particularly troublesome.

Professional Development Funding

We found significant differences in the sources of professional development funding between rural Texas and non-rural Texas. More funding is available for non-rural districts than in rural districts in *every* category, including federal programs (such as Title I and Eisenhower monies), private grants, school improvement funds, and special projects. With the increased emphasis on professional development in the No Child Left Behind Act and research indicating its importance for effective teaching, this situation is disturbing and points to rural districts’ needs being discounted at many levels.

It is particularly baffling that rural Texas districts are accessing significantly less Title I money for professional development than non-rural districts (64% compared to 90.8%). Title I funds are allocated according to student poverty levels and designed to support economically disadvantaged students. Rural Texas districts are poor, and as discussed previously, are not adequately staffed with additional student support professionals. It is therefore reasonable to question what is happening with Title I monies in rural districts. Are rural districts receiving their appropriate share? And if so, are rural districts so financially strained that the money is used for other general operating expenses rather than for designated Title I purposes? Is this further evidence of inequitable school financing?

We don’t know if teachers misread the survey questions or did not accurately report professional development funding sources. Even with this uncertainty, the funding of professional development should be investigated further. If high quality professional development is necessary to ensure that current and future teachers are effective, then ample funding must be provided for all districts. Rural districts cannot be forgotten in the professional development funding streams, if the goal is to provide equal educational opportunities for all students.

Rural Strengths

Though this portrait of rural Texas schools is sobering, there are some bright spots. For example, we are encouraged about the apparent lack of a technology-divide in Texas. Effective use of technology can bring advanced courses, enrichment, and remedial programs to rural students and high quality professional development opportunities to rural educators.

One of the more intriguing and hopeful findings is that in spite of many challenges, rural teachers report a higher level of job satisfaction than non-rural teachers. Also, rural Texas principals have higher ratings from their teaching staff for being more supportive and better communicators than principals in non-rural schools. These results are supported by reports that the within-school culture in rural areas is more supportive and nurturing for students *and* for staff in rural areas.

The challenge for Texas policymakers is how to create policies that build on the cultural and community-based strengths of rural Texas, while also improving educational opportunities for rural students.

What's Needed?

In this last section we review some of the challenges that emerged from this investigation and propose policy recommendations to improve schooling for rural Texas students.

1) Meeting the needs of disadvantaged students with school-level student support programs and services.

As discussed above, a high percentage of rural students fall into one or more of the demographic groups that require additional services and support in order to be successful learners. At the same time, survey results suggest that many rural schools do not have access to adequate support personnel, even on a very limited basis. These students require services such as early literacy programs, school nurses, ESL and other one-on-one learner specific tutoring, programs to increase parental involvement, social workers and family-school coordinators, and more. The benefits of these services and programs have been recognized for years. Indeed, many federal programs (e.g., Title I) and state grants are designed to improve these services. If the survey data is correct, then rural schools in general lack the capacity to meet the needs of disadvantaged students. This needs immediate attention.

Recommendations:

1. Conduct a rigorous audit of student support services and personnel available for rural schools and make a financial commitment by providing state aid to guarantee that gaps are filled.
2. Focus efforts on the training, recruitment, and placement of teachers with the expertise to work with LEP students.
3. Study the allocation and use of federal dollars, especially Title I monies, to ensure that the money is reaching the appropriate districts and is used effectively. Attention must be directed toward rural districts to ensure these districts are properly benefiting from these programs.

2) Ensuring that all rural students have highly qualified teachers.

Problems of salary gaps, high teacher turnover, under-certified teachers, and out-of-field teaching assignments have been recognized by the state of Texas for years. However, little attention has been given to the unique challenges of rural districts in staffing all schools with highly qualified teachers.

Recommendations.

Salary:

1. Eliminate the teacher and administrative salary gap between rural and non-rural districts with additional state aid.
2. Offer state aid to supplement salary for: critical shortage subject areas, remote districts, and districts with high percentages of disadvantaged students.

Recruitment and retention:

3. Greatly increase the amount and types of financial aid available for teaching candidates. This should include:
 - ★ Scholarships for rural students to pursue teaching
 - ★ Targeted scholarships to increase the numbers of minorities in the teaching and administrative corps
 - ★ “Grow your own” programs that provide scholarships to young people who commit to returning to their home communities to teach.
4. Promote teaching as a career in public schools.
5. Create incentives for higher education teacher preparation programs to make student teacher placement in rural districts a priority.
6. Require and financially support mentoring programs for new teachers.
7. Review certification standards to allow flexibility for qualified teachers to teach other subjects in addition to their main certified teaching field.

Professional Development:

8. Provide technical assistance to help districts apply for grants to support professional development.
9. Provide state aid to poor districts for ongoing professional development.
10. Create incentives for higher education to actively work with rural districts to provide professional development in accessible locales.
11. Create incentives for colleges and universities that serve rural areas to develop professional development and pre-service programs that are relevant and specific to the context and culture of rural places.
12. Develop high quality professional development that uses technology and is accessible to remote rural locations.

There is good news. There are some encouraging signs that Texas is prepared to take on at least some of these challenges. In October 2002, the Higher Education Coordinating Board, in response to a request by the Texas Legislature, adopted a strategic plan for Texas to immediately increase the numbers of fully certified teachers. The plan si-

multaneously addresses other problems such as the salary gap, teacher retention, the need for coordination between higher education and local schools, and the necessity for continuing education (professional development). This strategic plan documents many of the same concerns reflected in the findings of this report, though not from a rural perspective.⁷

The plan contains a series of action steps to meet four objectives related to teacher shortages. Many of these recommendations are closely aligned with those we recommend above. For example, the plan urges:

- ★ Supplemental pay for high-needs schools and differential pay for subject matter shortage areas
- ★ Full development and utilization of grants to support professional development
- ★ Improved working conditions, including increasing the number of educational aides, clerical assistants, and other teacher support personnel
- ★ Grants, loans or scholarships for every teaching candidate
- ★ Financial assistance to certified teachers to obtain an additional certification in a critical shortage subject area
- ★ Expanded mentorships and induction programs for new teachers

Implementation of this plan will require legislative action, which has not yet occurred.

In addition, Texas has recently instituted a loan repayment program for teacher candidates. This program is available to college juniors and seniors who become certified teachers and agree to teach five years in geographic shortage locales or to teach a critical shortage subject area. The total maximum grant allowance is \$10,752 for three years. This program is a step in the right direction, but is financially inadequate, and probably will not provide enough of an incentive to entice the neediest students.⁸

3) Maximizing the Potential of Technology

We were pleased to see that rural classrooms appear to be supplied with reasonable numbers of computers, most of which are connected to the Internet. Effective use of information technology however, goes beyond the hardware. Technology educators are needed to help teachers integrate technology into the curriculum. Schools also need access to technical support personnel to maintain and upgrade systems. Unfortunately, many rural districts in Texas do not have adequate technology personnel, which limits the enormous potential of technology.

Recommendations:

1. Provide additional state aid to fully support adequate technology personnel in all districts.
2. Provide assistance through the Texas Education Agency to help small districts apply for grants, such as E-Rate, that can help reduce the costs of technology.

4) Getting a clearer picture

An enormous amount of data on student and school variables is collected by the state of Texas. However we found a number of areas of apparent discrepancies between SASS, the Common Core of Data, the U.S. Census, and various Texas-based reports. We identified potential inaccurate data in the areas of: the numbers of students with limited English skills, numbers of migrant students, teacher turnover rates, use and allocation of Title I funds, and levels of teacher certification. Policymakers and the public need reliable information and this situation needs to be corrected.

In addition, many of the key findings of this report suggest inadequate and inequitable financing for rural districts. Lower salaries, fewer sources of professional development funding, inadequate support personnel, and less mentoring are all symptomatic of insufficient financial resources. Since we did not investigate school financing mechanisms in Texas, we have not determined the extent to which rural districts are financially struggling. However, we suspect that this is the case.

Recommendations.

1. Improve the collection of data on student and teacher characteristics, and refine categorical definitions as needed.
2. Conduct an audit of the Texas school financing system to determine the degree to which it is equitable and adequate.

Final Thoughts

This portrait of rural teachers and teaching conditions in Texas reveals a number of areas of significant deficiencies for rural schools. With many high-need students and lagging support, rural schools are required to do more with less. This is a disservice to rural students and staff.

These deficiencies can and should be rectified. This will require thoughtful policies, and in many cases, financial support. We believe these efforts are crucial, however—the half million rural students in Texas should not be underserved *or* left behind.

Endnotes

1 “Rural” in this report is defined as National Council for Educational Statistics (NCES), locale codes 7 and 8. These are places in open rural areas or with a population under 2,500.

2 A follow-up question was asked about the level of certification in this second field. Unfortunately over 50% of the respondents did not answer this question, and the small number of respondents made the results of questionable validity.

3 See Darling-Hammond (2000, 2001) and Ingersoll (1999, 2001)

4 Teachers were not asked to rate the usefulness of professional development in the areas of Individual Educational Plans (IEP) or Limited English Proficiency (LEP).

5 Texas Education Agency report “Secondary School Completion and Dropouts, 2001-02”

6 “Texas Strategic Plan to Address the Teaching Shortage.” October 2002. Adopted by the Texas Higher Education Coordinating Board. Available at www.theccb.state.tx.us/

7 Id.

8 Financial Aid for Texas Students 2002-2003. Published by the Texas Financial Aid Information center. Available at www.CollegeforTexans.com

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