



How the government defines **rural** has implications for education policies and practices



Institute of Education Sciences
U.S. Department of Education



How the government defines *rural* has implications for education policies and practices

June 2007

Prepared by

Michael L. Arnold, Ed.D.
Education Strategy Group

Belinda Biscoe, Ph.D.
University of Oklahoma

Thomas W. Farmer, Ph.D.
National Research Center on Rural Education Support

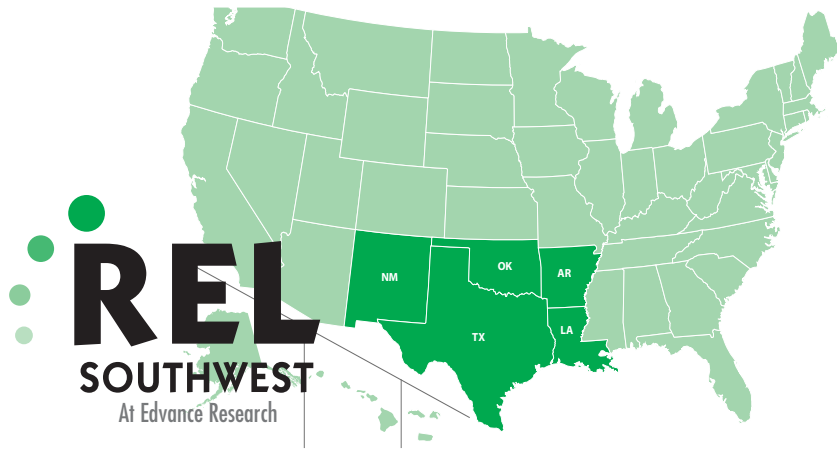
Dylan L. Robertson, Ph.D.
National Research Center on Rural Education Support

Kathy L. Shapley, Ph.D.
REL Southwest



Institute of Education Sciences

U.S. Department of Education



Issues & Answers is an ongoing series of reports from short-term Fast Response Projects conducted by the regional educational laboratories on current education issues of importance at local, state, and regional levels. Fast Response Project topics change to reflect new issues, as identified through lab outreach and requests for assistance from policymakers and educators at state and local levels and from communities, businesses, parents, families, and youth. All Issues & Answers reports meet Institute of Education Sciences standards for scientifically valid research.

June 2007

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-06-CO-0017 by Regional Educational Laboratory Southwest administered by Edvance Research. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

This report is in the public domain. While permission to reprint this publication is not necessary, it should be cited as:

Arnold, M. L., Biscoe, B., Farmer, T. W., Robertson, D. L., & Shapley, K. L. (2007). *How the government defines rural has implications for education policies and practices* (Issues & Answers Report, REL 2007–No. 010). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

This report is available on the regional educational laboratory web site at <http://ies.ed.gov/ncee/edlabs>.

Summary

How the government defines *rural* has implications for education policies and practices

Clearly defining what rural means has tangible implications for public policies and practices in education, from establishing resource needs to achieving the goals of No Child Left Behind in rural areas. Six definitions of rural are commonly applied in different contexts.

The word *rural* has many meanings. It has been defined in reference to population density, geographic features, and level of economic and industrial development. Some definitions use census tracts as the geographic building block to classify rural places, while others use counties or parishes. Some definitions use proximity to a metropolitan area as a measure of rurality, while others use proximity to an urbanized area. One system classifies rural schools according to their distance to an urbanized area, but others do not. Rapidly changing conditions and growing diversity in rural America make defining rural even more difficult.

This report documents national and state definitions of rural and considers their application to education policies and practices. Defining rural accurately is especially important for addressing two kinds of education policy

questions. One involves identifying the resource needs of rural populations and monitoring and evaluating effective use. Who receives resources and who does not? Another concerns whether rural schools are achieving the goals of the No Child Left Behind Act of 2001. Are there obstacles related to being rural that make achieving the goals more difficult, and if so, what accommodations can be equitably made for rural schools to help them achieve the goals?

Six definitions and classification systems for rural were identified through searches of major federal agency documents and databases. Some of these definitions were developed specifically to classify schools and districts, while others focus on a broader range of issues. All have been used in some way to better understand the challenges facing rural schools. In order of use, beginning with the most common, they are:

- U.S. Census Bureau classifications, which define rural by geographic features, population, and as a residual.
- Metropolitan status codes, which define rural relative to a core-based statistical area.

- Urban-rural continuum codes, which define rural by population and proximity to urban areas.
- Metro-centric locale codes, which are used primarily for statistical procedures.
- Urban-centric locale codes, which improve the reliability and precision of locale code assignment.
- Core-based statistical areas, which are statistically defined geographic areas.

Several issues need to be considered in applying definitions of rural to education policies and practices. One issue is the unit of analysis. The way rural is defined and specified (by school or district) is likely to yield different portrayals of rural students, which can affect education policies and practices. A second issue involves geographic and political differences among regions. What is considered rural in one part of the country may not be considered rural in another.

Demographic changes in rural America are a third issue. Some communities are gaining population, while others are losing population. School districts experiencing growth are noting an increase in student diversity.

Several questions arise from this study. Is a single definition of rural needed for educational policy and practice? Is it better to have multiple definitions that can be applied according to context? What are the key elements of a typology that can accurately reflect conditions in the Southwest Region? Research is needed to answer these questions by applying the most relevant definitions to demographic and geographic profiles of rural districts and communities. These profiles can then be used to examine the implications of applying each definition to rural education issues. The results can provide useful insight for developing policy initiatives aimed at improving educational outcomes in rural schools.

June 2007

TABLE OF CONTENTS

Summary	iii
Governments recognize the special needs of rural areas	3
Federal programs provide special support	3
State programs also acknowledge the unique needs of rural areas	3
Six definitions and classification systems for rural are used in education policy and practice	4
U.S. Census Bureau defines rural by geographic features, population, and as a residual	4
Metropolitan status codes define rural relative to a core-based statistical area	4
Urban-rural continuum codes define rural by population and proximity to urban areas	4
Metro-centric locale codes are used primarily for statistical procedures	5
Urban-centric locale codes improve the reliability and precision of locale code assignment	6
Core-based statistical areas are statistically defined geographic areas	7
How <i>rural</i> is defined in education policy	7
Rural Education Achievement Program	7
Regional Educational Laboratories	8
Issues to be resolved in applying definitions of rural to education policies and practices	8
Choosing the unit of analysis	9
Understanding regional differences	9
Considering diversity and change in rural communities	9
Implications for additional research	10
Appendix Key terms	11
References	14
Boxes	
1 Defining <i>rural</i> —no consensus definition	2
2 Methods used for identifying definitions of <i>rural</i>	4

Clearly defining what rural means has tangible implications for public policies and practices in education, from establishing resource needs to achieving the goals of No Child Left Behind in rural areas. Six definitions of rural are commonly applied in different contexts.

One of the obstacles to developing policy for rural schools is that the word *rural* has many meanings. It has been defined in reference to population density, geographic features, and level of economic and industrial development (Haas, 1990). Some definitions use census tracts as the geographic building block to classify rural places, while others use counties or parishes. Some definitions use proximity to a metropolitan area as a measure of rurality, while others use proximity to an urbanized area.

One system classifies rural schools according to their distance to an urbanized area, but others do not. Rapidly changing conditions and growing diversity in rural America make defining rural even more difficult (McGranahan, 1994; Stephens, 1992).

In a discussion of rural policy in the 21st century, Marshall (2001, p. 59) summarizes the complexity of the issue:

An examination of rural policy requires an understanding of the unique conditions in rural places that justify separate national policies. The great differences among rural people and places in America make it hard to fashion national policies that fit all of the places. The analytical problem also is complicated by this diversity as well as the absence of a common statistical definition of rural and the need by policy makers to both accommodate rapidly changing rural conditions and balance diverse interests.

Defining rural accurately is especially important for addressing two kinds of education policy questions. The first type involves targeting resources to rural populations. What are the needs of rural populations? What resources should be targeted to address these needs? How do we know these resources have been used effectively? Who receives these resources and who does not?

The second type of policy questions concerns whether rural schools are achieving the goals of the No Child Left Behind Act of 2001. Are rural schools achieving those goals? Are there obstacles related to being rural that make achieving the goals more difficult? What accommodations can be equitably made for rural schools to help them achieve the goals? Answering these questions requires a clear understanding of what is meant by rural.

Identifying what is rural has long challenged policymakers, analysts, and educators (Stern, 1994). Bob Mooneyham, executive director of the National Rural Education Association, observes that when people come together to talk about rural

issues it is not uncommon for them to get to the middle of a discussion and realize they are not talking about the same thing (personal communication, January 7, 2007). Echoing the need for clarity, Rachel Tompkins, president of the Rural School and Community Trust, suggests that care must be taken to avoid definitions that are too exclusive or narrow (personal communication, January 7, 2007). In a similar vein, Dale Lestina, president of Organizations Concerned with Rural Education, argues that defining rural requires both precision and flexibility (personal communication, January 7, 2007).

Although agreement appears to be fairly widespread that this is a complex and important issue, a solution for defining rural continues to

be elusive (box 1). Many questions remain. Is a single, universally accepted definition needed, or is it appropriate to have different definitions specific to particular issues or policy needs? Answering these questions requires documenting the current definitions of rural and articulating how they are used in major education policy. It also requires elucidating key issues in the application of rural definitions to educational policy and research.

This report documents current national and state definitions of rural and considers their application to education policies and practices. And while other sources also offer information on definitions of rural and issues relating to them, this report looks at the definitions most relevant in education

BOX 1

Defining *rural*—no consensus definition

Getting rural right has proven elusive because rural is a complex concept, with no single attribute capable of characterizing rural places (Hart, Larsen, & Lishner, 2005). This complexity is reflected in the different definitions of rural used in research and policy.

The Rural Policy Research Institute (2006) identifies nine definitions of rural that have been used in research and policymaking. Definitions generally classify rural places based on population size and density, level of urbanization, and adjacency and relationship to an urbanized area. Some definitions also incorporate principal economic activity. But none of these attributes alone is sufficient to guide policymaking (Haas, 1991). Each definition applies these characteristics differently, resulting in potentially

contradictory research results or dissimilar policy outcomes (Rural Policy Research Institute, 2006).

At the federal level different agencies use different definitions, depending on purpose. The National Center for Education Statistics (NCES) uses multiple definitions in its databases and publications. On its Navigating Resources for Rural Schools web site (2006b), it describes three classification systems for identifying rural schools and districts: rural-urban continuum codes, metropolitan status codes, and locale codes. NCES also uses metropolitan status codes and locale codes to classify rural schools and districts in the Common Core of Data, which contains data on all U.S. public elementary and secondary schools and all state and local education agencies (National Center for Education Statistics, 2007b). In 2004 NCES revised its locale code system to reflect changes in the Office of Management and Budget's definition of metropolitan

and nonmetropolitan areas and to take advantage of improvements in geocoding technology (Schneider, 2006). The new system assigned locale codes based on a school's relation to an urban area (urban-centric locale codes), whereas the original system classified schools based on proximity to a metropolitan statistical area (metro-centric locale codes). (See appendix for definitions of urban and metropolitan statistical areas.)

Some analysts have tried to overcome the rural definition problem by developing typologies of rural schools (Haas, 1991). Gjeltén (1982) identified five types of rural communities based on assets and liabilities: stable rural communities, depressed rural communities, high growth rural communities, reborn rural communities, and isolated rural communities. Following a review of rural education and research on at-risk students, Khattri, Riley, & Kane (1997) argued for developing a taxonomy of rural areas and their educational systems.

and specifically from the perspective of education policies and practices.

GOVERNMENTS RECOGNIZE THE SPECIAL NEEDS OF RURAL AREAS

Clearly defining what rural means has tangible implications for public policy. Isserman (2005, p. 466) maintains, “getting rural right is in the national interest. When we get rural wrong, we reach incorrect research conclusions and fail to reach the people, places, and businesses our governmental programs are meant to serve.”

Federal programs provide special support

Congress has acknowledged that rural districts need additional support in meeting the achievement requirements of the No Child Left Behind Act. The Rural Education Achievement Program initiatives include programs to help rural districts meet adequate yearly progress goals. The Small Rural School Achievement program provides formula funding to rural districts with enrollments of fewer than 600 pupils. The Rural and Low-Income School program distributes funds through state education agencies to rural and small town districts with 20 percent or more students from families with incomes below the poverty line (U.S. Department of Education, 2006).

Congress also passed legislation requiring the National Center for Education Research (NCER) to support research on rural education through its national research and development centers (Education Sciences Reform Act of 2002, § 9533). NCER established the National Research Center on Rural Education Support. The 10 regional educational laboratories are required to allocate at least 25 percent of their funds for rural areas, including schools funded by the Bureau of Indian Affairs (Education Sciences Reform Act of 2002, § 9584).

The U.S. Department of Education also recognizes that rural districts need additional assistance in achieving the goals of No Child Left Behind. For

instance, teachers in small rural districts often teach more than one academic subject, yet No Child Left Behind requires them to become highly qualified in each of those subjects in the same timeframe as teachers from nonrural districts. In response to feedback from the field the U.S. Department of Education issued rules providing additional time (up to three years) for teachers in eligible rural districts to become highly qualified in all the content areas they taught as long as they were already highly qualified in at least one subject (U.S. Department of Education, 2004).

State programs also acknowledge the unique needs of rural areas

State legislatures have also enacted laws to address the needs of rural districts. Some states allow rural schools to implement a four-day school week to reduce costs for transportation, heating, and other services (National Conference of State Legislatures, 2007). The National School Boards Association (2003) reports that rural districts in nine states (Arizona, Colorado, Kansas, Louisiana, New Mexico, Oregon, South Dakota, Wisconsin, and Wyoming) were implementing the four-day school week in 2003. Several states also take the higher costs resulting from geographic isolation (Idaho, for example) or small scale (New Mexico and Texas) into account through the geographic cost adjustment in their funding formulas (National Center on Education Finance, 2007).

Recognizing the unique needs of rural schools, the New Mexico Public Education Department (2007) established a Rural Education Bureau. The bureau’s goal is “to create a world-class rural education system based on holistic community revitalization in all rural areas of the state of New Mexico.” The bureau works with other units within the department and with other organizations to assist in improving educational opportunities, advocate for rural districts, provide

Congress has acknowledged that rural districts need additional support in meeting the achievement requirements of the No Child Left Behind Act

a comprehensive school-led community partnership for revitalization, and support programs to strengthen relationships among schools, families, and communities.

SIX DEFINITIONS AND CLASSIFICATION SYSTEMS FOR RURAL ARE USED IN EDUCATION POLICY AND PRACTICE

Six definitions and classification systems for rural were identified (see box 2). Some of these were developed specifically to classify schools and districts, while others focus on a broader range of issues. All have been used in some way to better understand the challenges facing rural schools. While not an exhaustive list of definitions used to describe rural areas, it includes those most widely used in education. They are described in the order of frequency of use, beginning with the most common.

Six definitions and classification systems for rural were identified—all have been used in some way to better understand the challenges facing rural schools

U.S. Census Bureau defines rural by geographic features, population, and as a residual

The U.S. Census Bureau defines rural areas as open country and settlements with fewer than 2,500 people—rural areas are what remains after all of the urbanized areas have been identified (U.S. Census Bureau, 2006). Urbanized areas include a central city and the surrounding densely populated areas. Together these areas have a combined population of at least 50,000 and, generally, a population density of more than 1,000 people per square mile. This definition uses census tracts to

identify rural areas. The U.S. Census Bureau definition is the foundation on which other definitions of rural are built.

Metropolitan status codes define rural relative to a core-based statistical area

Metropolitan areas were first identified in 1949 by the Bureau of the Budget (the predecessor to the Office of Management and Budget) and have been revised periodically since then (U.S. Census Bureau, 2005). The metropolitan status of a school district is determined by the location of the superintendent's office in relation to a core-based statistical area (CBSA). A CBSA has at least one urban area with a population of 10,000 or more.

Metropolitan status codes classify districts into three categories:

- 1: Central city of a CBSA.
- 2: Located in a CBSA but not in a central city.
- 3: Not located in a CBSA.

Urban-rural continuum codes define rural by population and proximity to urban areas

The urban-rural continuum codes are one of the three classification systems described on NCES's *Navigating Resources for Rural Schools* web site (National Center for Education Statistics, 2006b). They were developed by the U.S. Department of Agriculture's Economic Research Service to enable a more precise description and analysis of county-level rural and urban differences. Sometimes

BOX 2

Methods used for identifying definitions of *rural*

Different definitions of rural and related key terms used by federal and state government in the United States were identified through

web-based searches of major federal agencies: Census Bureau, Office of Management and Budget, Department of Health and Human Services, Department of Education, Department of Agriculture, and Government Accountability Office. Definitions used for statistical

purposes or for determinations of eligibility for specific funding opportunities were included if they were relevant to policies and practices in education. Definitions that were outdated or specific to a state or region outside the Southwest were excluded.

referred to as Beale codes after their creator, Calvin Beale, rural-urban continuum codes differentiate nonmetropolitan counties by the extent of urbanization and by whether they border a metropolitan area. Metropolitan counties are classified based on their population. Although better known than other classification systems, NCES has never used rural-urban continuum codes to conduct analysis.

Metropolitan counties include three codes:

- 1: County in a metropolitan area with 1 million population or more.
- 2: County in a metropolitan area of 250,000 to 1 million population.
- 3: County in metropolitan area of fewer than 250,000 population.

Nonmetropolitan counties include six codes:

- 4: Urban population of 20,000 or more, adjacent to a metropolitan area.
- 5: Urban population of 20,000 or more, not adjacent to a metropolitan area.
- 6: Urban population of 2,500-19,999, adjacent to a metropolitan area.
- 7: Urban population of 2,500-19,999, not adjacent to a metropolitan area.
- 8: Completely rural or less than 2,500 urban population, adjacent to metropolitan area.
- 9: Completely rural or less than 2,500 urban population, not adjacent to metropolitan area.

Metro-centric locale codes are used primarily for statistical procedures

NCES developed locale codes in the 1980s to identify the setting of schools and districts relative to populous areas (Schneider, 2006). Locale codes are

used primarily to identify schools and districts for sampling and statistical procedures. On occasion they have been used to identify target populations of federal programs (the Rural Education Achievement Program).

Locale codes are assigned based on the classification of a school's location. Under the metro-centric locale codes schools located in places with a population of fewer than 2,500 are considered rural (National Center for Education Statistics, 2006b). Two groups of rural schools are distinguished: schools located outside a CBSA or consolidated statistical areas (CSA) and schools located within such areas. District locale codes are determined based on the plurality of students because districts can have schools in more than two locales, with no locale having a majority of students (National Center for Education Statistics, 2006b).

The metro-centric locale codes are:

- 1: *Large city*: A central city of a CBSA or CSA, with a population of 250,000 or more.
- 2: *Midsized city*: A central city of a CBSA or CSA, with a population of less than 250,000.
- 3: *Urban fringe of a large city*: Any incorporated place, Census-designated place, or non-place territory within a CBSA or CSA of a large city and defined as urban by the Census Bureau.
- 4: *Urban fringe of a midsized city*: Any incorporated place, Census-designated place, or non-place territory within a CBSA or CSA of a midsized city and defined as urban by the Census Bureau.
- 5: *Large town*: An incorporated place or Census-designated place with a population of 25,000 or more and located outside a CBSA or CSA.

The urban-rural continuum codes were developed to enable a more precise description and analysis of county-level rural and urban differences

- 6: *Small town*: An incorporated place or Census-designated place with a population of less than 25,000 and greater than or equal to 2,500 and located outside a CBSA or CSA.
- 7: *Rural, outside CBSA*: Any incorporated place, Census-designated place, or non-place territory not within a CBSA or CSA of a large or midsize city and defined as rural by the Census Bureau.
- 8: *Rural, inside CBSA*: Any incorporated place, Census-designated place, or non-place territory within a CBSA or CSA of a large or midsize city and defined as rural by the Census Bureau. This code was added in 1998/99. Before that, codes 7 and 8 were combined (National Center for Education Statistics, 2007a).

Urban-centric locale codes improve the reliability and precision of locale code assignment

The U.S. Census Bureau developed the urban-centric locale codes in 2006, with support from NCES. This system classifies schools into four major types based on their location in relation to urban areas: city, suburban, town, and rural.

Schools in town and rural categories are further classified by their distance from an urbanized area or urban cluster. Schools in the city and suburb categories are further broken down by size: small, midsize, and large (Schneider, 2006). For districts with schools in multiple locales, the locale code is determined in the following manner:

If 50 percent or more of the public school students attend schools with the same locale code, that locale code is assigned to the district. . . . If no single locale code accounts for 50 percent of the students, then the major category (city, suburb, town, or rural) with the greatest percent of students determines the locale; the locale code assigned is the smallest or most remote

subcategory for that category (National Center for Education Statistics, 2006a).

The new urban-centric locale codes are thought to improve the precision and reliability of locale code assignment for descriptive and analytic purposes.

Technological advances make it possible to know the exact longitude and latitude of about 91 percent of schools, and the location of the remaining 9 percent is slightly less precise. Locale information is updated yearly for about a third of communities through the American Community Survey (National Center for Education Statistics, 2006a).

The urban-centric locale codes are:

- 11: *City, large*: Territory inside an urbanized area and inside a principal city with a population of 250,000 or more.
- 12: *City, midsize*: Territory inside an urbanized area and inside a principal city with a population of fewer than 250,000 and greater than or equal to 100,000.
- 13: *City, small*: Territory inside an urbanized area and inside a principal city with a population of fewer than 100,000.
- 21: *Suburb, large*: Territory outside a principal city and inside an urbanized area with a population of 250,000 or more.
- 22: *Suburb, midsize*: Territory outside a principal city and inside an urbanized area with a population of fewer than 250,000 and greater than or equal to 100,000.
- 23: *Suburb, small*: Territory outside a principal city and inside an urbanized area with a population of fewer than 100,000.
- 31: *Town, fringe*: Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area.

Urban-centric locale codes classify schools into four types based on their location in relation to urban areas: city, suburban, town, and rural

- 32: *Town, distant*: Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area.
- 33: *Town, remote*: Territory inside an urban cluster that is more than 35 miles from an urbanized area.
- 41: *Rural, fringe*: Census-defined rural territory that is less than or equal to 5 miles from an urbanized area as well as a territory that is less than or equal to 2.5 miles from an urban cluster.
- 42: *Rural, distant*: Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area as well as a territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster.
- 43: *Rural, remote*: Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.

Because the urban-centric locale codes are new, they have not been used extensively. They do not replace the metro-centric locale codes in qualifying rural schools for the Rural Education Achievement Program because the metro-centric codes are specifically identified in the statute creating the program.

Core-based statistical areas are statistically defined geographic areas

NCES also identifies the CBSA of every school district in the United States. Rural districts that are located outside a CBSA are coded as 00000. A CBSA contains:

at least one urban area of 10,000 or more population. Each metropolitan statistical area must have at least one urbanized area of 50,000 or more inhabitants. Each micropolitan statistical area must have at

least one urban cluster of at least 10,000 but less than 50,000 population. . . . Counties or equivalent entities form the geographic "building blocks" for metropolitan and micropolitan statistical areas throughout the United States and Puerto Rico (National Center for Education Statistics, 2007a).

Metro-centric locale codes and other criteria are used to determine eligibility for two Rural Education Achievement Program initiatives

HOW RURAL IS DEFINED IN EDUCATION POLICY

Definitions of rural have not been applied extensively to educational issues. There have been some notable exceptions including the Rural Education Achievement Program, which uses the NCES metro-centric locale codes to identify eligible districts. In most uses of the term *rural* in the education section of the U.S. Code, rural is not specifically defined, providing the Department of Education with flexibility in applying it.

Rural Education Achievement Program

The No Child Left Behind Act of 2001 provides additional support to rural districts through the Rural Education Achievement Program, which helps districts that:

- Lack the personnel and resources needed to compete effectively for federal competitive grants.
- Receive formula grant allocations in amounts too small to be effective in meeting their intended purposes (No Child Left Behind Act, § 7341a).

Metro-centric locale codes and other criteria are used to determine eligibility for two Rural Education Achievement Program initiatives: the Small Rural School Achievement Program and the Rural and Low-Income School Program.

Small Rural School Achievement Program. The Small Rural School Achievement Program provides funding to local education agencies to help them meet adequate yearly progress achievement goals. Eligible districts receive formula-based annual funding directly from the U.S. Department of Education. Districts are eligible if:

- The total number of students in average daily attendance at all the schools served by the local education agencies is fewer than 600, or each county in which a school is served by the local education agencies has a total population density of fewer than 10 people per square mile.

By law at least 25 percent of the funding for the regional educational laboratories must address issues in rural areas

- All the schools served by the local education agencies are designated with a school locale code of 7 or 8 by the Department's National Center for Education Statistics, or the secretary of education has determined, based on a demonstration by the local education agencies and concurrence by the state education agency, that the local education agencies is in an area defined as rural by a government agency of the state (U.S. Department of Education, 2006, p. 15).

tion agencies and concurrence by the state education agency, that the local education agencies is in an area defined as rural by a government agency of the state (U.S. Department of Education, 2006, p. 15).

Rural and Low-Income Schools Program. The Rural and Low-Income Schools Program provides funding to state education agencies on a formula basis. The state education agencies then issue subgrants to larger rural districts with higher percentages of low-income students to help them meet adequate yearly progress targets. To be eligible for a grant a local education agency must meet the following criteria:

- It cannot be eligible for a grant under the Small Rural School Achievement Program (# 84.358A).
- Twenty percent or more of children ages 5–17 served by the local education agency are from families with incomes below the poverty line.

- All schools served by the local education agency are designated with a school locale code of 6, 7, or 8 (U.S. Department of Education, 2006, p. 11).

Regional Educational Laboratories

The U.S. Department of Education funds a network of 10 regional educational laboratories to serve the educational needs of designated regions by providing access to high-quality scientifically valid education research. By law at least 25 percent of the funding for the regional educational laboratories must address issues in rural areas. Each lab is tasked to “develop strategies to utilize schools as critical components in reforming education and revitalizing rural communities in the United States” (Education Sciences Reform Act of 2002 § 9564). Neither Congress nor the Institute of Education Sciences established a definition of rural for the regional educational laboratories, leaving it up to each lab to determine a definition of rural.

ISSUES TO BE RESOLVED IN APPLYING DEFINITIONS OF RURAL TO EDUCATION POLICIES AND PRACTICES

Several issues need to be considered in applying definitions of rural to education policies and practices. One is the unit of analysis. The way rural is defined and specified (by school or district) is likely to yield different portrayals of rural students, which can affect education policy and practices. A second issue involves geographic and political differences among regions. What is considered rural in one part of the country may not be considered rural in another. The Southwest is less densely populated than the Southeast, for example, and has geographically larger counties and school districts. Demographic changes in rural America are a third issue. Some communities are gaining population, while others are losing population. School districts experiencing growth are noting an increase in student diversity.

Choosing the unit of analysis

Getting an accurate count of the number of rural students is important for developing an education policy aimed at improving outcomes in rural communities. Under the NCES locale code systems, the locales of schools are designated first, followed by their districts. Using school data to measure rural education indicators related to rural schools is more precise than using district data. Using district data can exclude students who attend rural schools that are part of larger districts that are not designated as rural. Johnson & Strange (2005, p.2) put this phenomenon into perspective: “8,797,497 students attend school in the 25,151 schools designated by NCES as rural, while 8,036,222 attend school in the 7,204 districts designated as rural.”

A related issue concerns the geographic building blocks used to construct a definition of rural. Although *rural* and *nonmetropolitan* are often used interchangeably, they yield different population numbers because the nonmetropolitan designation is based on a county unit of measure while the Census Bureau definition of rural is based on census tracts. Cromartie & Swanson (1996) find that census tracts define rural populations and areas more precisely than do counties. They note that using county-based systems resulted in the misidentification of much of nonmetropolitan America.

Understanding regional differences

A challenge for policymakers in crafting rural education initiatives involves dealing with regional differences in what is considered rural. The two subprograms of the Regional Education Achievement Program illustrate the issue. In an analysis of adequate yearly progress in schools qualifying for the Small Rural Schools Achievement and the Rural Low Income Schools programs, Farmer et al. (2006) find regional differences in the distribution of districts participating in the two programs. Two-thirds of the schools participating in the Small Rural Schools Achievement program were concentrated in 31 states, primarily in the

northern and central regions, whereas more than 80 percent of the schools participating in the Rural Low Income Schools program were located in 16 southern states, including the five Southwestern Region states. Differences in participation between the two programs may reflect the larger size of rural districts in the south than in the northern and central regions.

Considering diversity and change in rural communities

Rural America is experiencing significant changes. About half of nonmetropolitan communities are growing, while the other half are declining. Statistics from the Economic Research Service (Kusmin, 2006) indicate that nonmetropolitan areas grew by 2.2 percent from 2000 to 2005. That growth was concentrated in nonmetropolitan counties contiguous to metropolitan areas. At the same time about half of all nonmetropolitan counties lost population. These declining counties were generally already sparsely populated and tended to focus on agriculture. The four states with the largest nonmetropolitan population loss between 2000 and 2005 were located in the Midwest: Kansas, Iowa, Illinois, and North Dakota, while the four with the largest nonmetropolitan population increases were in North Carolina, Florida, Georgia, and Texas.

Nonmetropolitan America is also becoming more diverse. Nearly a third of the growth is a result of international migration. This migration accounts for all of the population growth of nonmetropolitan areas in the Midwest and 18–28 percent in the South, West, and Northeast. The four states with the largest population growth from international migration are Indiana, Oklahoma, Alabama, and New Mexico. Among ethnic groups Hispanics have the largest percentage increase in population, followed by Asian, American Indian, African American, and non-Hispanic Whites.

About half of nonmetropolitan communities are growing, while the other half are declining. Nonmetropolitan America is also becoming more diverse.

International migration is potentially creating additional challenges to schools unaccustomed to working with English language learners. Some rural schools have difficulty recruiting trained staff to work with English language learners because of the limited professional development opportunities for teachers in rural areas (Johnson & Strange, 2005).

IMPLICATIONS FOR ADDITIONAL RESEARCH

The multiple definitions of rural used in policy-making and practice employ different criteria in identifying rural places. There are also differences in how the definitions are applied. Policymakers adapt these definitions to target specific types of rural schools. For example, the two subprograms of the Rural Education Achievement Program use the metro-centric locale codes to determine eligibility, but additional requirements limit which districts can participate. In the U.S. Government Accountability Office's (September 2004) study of the ability of small rural school districts to implement provisions of the No Child Left Behind Act, analysts restricted the sample to districts 55 miles or more from a metropolitan area and with enrollments of under 300 students.

Several questions arise from this study. Is a single definition of rural needed for educational policy

and practice? Is it better to have multiple definitions that can be applied according to the context? What are the key elements of a typology that can accurately reflect conditions in the Southwest Region? There is a need for research to answer these questions by applying the most relevant definitions to demographic and geographic profiles of rural districts and communities in the Southwest Region today. These profiles can then be used to examine the implications of applying each definition to rural education issues. The results of these studies can provide useful insight for developing policy initiatives aimed at improving educational outcomes in rural schools.

NOTE

Many individuals contributed to this report. The authors thank Dr. Bob Mooneyham, whose knowledge and understanding of rural education policy and practice was a valuable contribution. They also thank Jonathan Banks, who assisted with data collection and data analysis, and Dr. Rosemary Dawson, who retired from the University of Oklahoma in January 2006, for her early contributions in supporting the management and administration of this research study. In addition, project managers Kristin Newkirk and Geneva Strech and project coordinator Norma Reyna provided support to keep the project on schedule.

APPENDIX KEY TERMS

Central county: The county or counties of a core-based statistical area containing a substantial portion of an urbanized area or urban cluster or both and to and from which commuting is measured to determine qualification of outlying counties (U.S. General Accounting Office, June 2004, p. 29).

Commuting ties: At least 25 percent of the employed residents of the county work in the central county or counties of a core-based statistical area (CBSA); or at least 25 percent of the employment in the county is accounted for by workers residing in the central county or counties of the CBSA (U.S. General Accounting Office, June 2004, p. 32).

Consolidated statistical area: If an area that qualifies as a metropolitan area has more than 1 million people, two or more core-based metropolitan statistical areas may be defined within it. Each core-based statistical area (CBSA) consists of a large urbanized county or cluster of counties (cities and towns in New England) that demonstrate strong internal economic and social links, in addition to close ties to other portions of the larger area. When CBSA's are established, the larger metropolitan area of which they are a part is designated a consolidated statistical area (CSA). CSAs and CBSAs are established only where local governments favor such designations for a large metropolitan area (National Center for Education Statistics, 2007a).

Core-based statistical area: A statistical geographic entity consisting of the county or counties associated with at least one core (urbanized area or urban cluster) with a population of at least 10,000, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core. Metropolitan and micropolitan statistical areas are the two categories of core-based statistical areas (U.S. General Accounting Office, June 2004, p. 29).

Metropolitan area: The general concept of a metropolitan area is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. Some metropolitan areas are defined around two or more nuclei.

The metropolitan areas and the central cities within them are designated and defined by the federal Office of Management and Budget following a set of official standards published in a Federal Register notice. These standards were developed by the interagency Federal Executive Committee on Metropolitan Areas, with the aim of producing definitions as consistent as possible for all metropolitan areas nationwide.

Each metropolitan area must contain either a place with a minimum population of 50,000 or a U.S. Census Bureau-defined urbanized area and a total population of at least 100,000 (75,000 in New England). A metropolitan area contains one or more central counties. It also may include one or more outlying counties that have close economic and social relationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards of metropolitan character, such as population density, urban population, and population growth. In New England metropolitan areas consist of groups of cities and county subdivisions (mostly towns) rather than whole counties.

The territory, population, and housing units in metropolitan areas are referred to as "metropolitan." The metropolitan category is subdivided into "inside central city" and "outside central city." The territory, population, and housing units located outside the territory designated "metropolitan" are referred to as "nonmetropolitan." The metropolitan and nonmetropolitan classification cuts across the other hierarchies; for example, generally there are both urban and rural territories within both metropolitan and nonmetropolitan areas.

To meet the needs of various users, the standards provide for a flexible structure of metropolitan

definitions that classify each metropolitan area as either a metropolitan statistical area or a consolidated metropolitan statistical area divided into primary metropolitan statistical areas (U.S. Census Bureau, 2007, pp. A-15–A16).

Metropolitan statistical area: A core-based statistical area associated with at least one urbanized area that has a population of at least 50,000. The metropolitan statistical area comprises the central county or counties containing the core, plus adjacent outlying counties having a high degree of social and economic integration with the central county as measured through commuting (U.S. General Accounting Office, June 2004, p. 29).

Micropolitan statistical area: A core-based statistical area associated with at least one urban cluster that has a population of at least 10,000 but less than 50,000. The micropolitan statistical area comprises the central county or counties containing the core, plus adjacent outlying counties having a high degree of social and economic integration with the central county as measured through commuting (U.S. General Accounting Office, June 2004, p. 29).

Outlying county: A county that qualifies for inclusion in a core-based statistical area on the basis of commuting ties with the CBSA's central county or counties (U.S. General Accounting Office, June 2004, p. 29).

Place: Places, for the reporting of decennial census data, include census designated places, consolidated cities, and incorporated places. Each place is assigned a five-digit Federal Information Processing Standards (FIPS) code, based on the alphabetical order of the place name within each state. If place names are duplicated within a state and they represent distinctly different areas, a separate code is assigned to each place name alphabetically by primary county in which each place is located, or if both places are in the same county, alphabetically by their legal description (for example, "city" before "village") (U.S. Census Bureau, 2007, p. A-17).

Rural: Rural consists of all territory, population, and housing units located outside of urbanized areas and urban clusters. Geographic entities, such as metropolitan areas, counties, minor civil divisions, and places, often contain both urban and rural territory, population, and housing units (U.S. Census Bureau, 2007, p. A-22).

Urban: The U.S. Census Bureau classifies as urban all territory, population, and housing units located within urban areas and urban clusters. It delineates urbanized area and urbanized cluster boundaries to encompass densely settled territory, which generally consists of:

- A cluster of one or more block groups or census blocks, each with a population density of at least 1,000 people per square mile.
- Surrounding block groups and census blocks, each with a population density of at least 500 people per square mile.
- Less densely settled blocks that form enclaves or indentations or are used to connect discontinuous areas with qualifying densities (U.S. Census Bureau, 2007, p. A-22).

Urban cluster: An urban cluster consists of densely settled territory that has at least 2,500 people but fewer than 50,000 people. (An urban cluster can have 50,000 or more people if fewer than 35,000 people live in an area that is not part of a military reservation.) The U.S. Census Bureau introduced the urban cluster for Census 2000 to provide a more consistent and accurate measure of the population concentration in and around places. Urban clusters replace the provision in the 1990 and previous censuses that defined as urban only places with 2,500 or more people located outside of urbanized areas (U.S. Census Bureau, 2007, p. A-22).

Urban cluster central place: A central place functions as the dominant center of an urban cluster. The U.S. Census Bureau identifies one or more central places for an urban cluster, with a

preference for the most populous incorporated places. Some urban clusters do not have a central place (U.S. Census Bureau, 2007, p. A-22).

Urbanized area: An urbanized area consists of densely settled territory that contains 50,000 or more people. The U.S. Census Bureau delineates urbanized areas to provide a better separation of urban and rural territory, population, and housing in the vicinity of large places. At least 35,000 people in a UA must live in an area that is not part of a military reservation. For Census 2000 the

urbanized area criteria specify that the delineations be performed using a zero-based approach. Because of the more stringent density requirements and the less restrictive extended place criteria, some territory that was classified as urbanized for the 1990 census has been reclassified as rural. (Area that was part of a 1990 urbanized area has not been automatically grandfathered into the 2000 urbanized area.) In addition, some areas that were identified as urbanized areas for the 1990 census have been reclassified as urban clusters (U.S. Census Bureau, 2007, p. A-22).

REFERENCES

- Cromartie, J. B., & Swanson, L. L. (1996). Census tracts more precisely define rural populations and areas. *Rural Development Perspectives, 11*(3), 31–39.
- Education Sciences Reform Act of 2002, 20 U.S.C. § 9501 *et seq.* Retrieved January 3, 2007 from Cornell Law School, Legal Information Institute, <http://www.law.cornell.edu/uscode/>.
- Farmer, T. W., Leung, M-C., Banks, J., Schaefer, V., Andrews, B., & Murray, R. A. (2006). Adequate yearly progress in small rural schools and rural low-income schools. *The Rural Educator, 27*(3), 1–7.
- Gjelten, T. (1982). *A typology of rural school settings*. Summary of presentation prepared for the Rural Education Seminar, U.S. Department of Education (Washington, DC, May 3-5, 1982). Abstract obtained from Education Resources Information Center ED 215858.
- Haas, T. (1990). Leaving home: Circumstances affecting rural America during the last decade and their impact on public education. *Peabody Journal of Education, 67*(4), 7–28.
- Haas, T. (1991). Why reform doesn't apply: Creating a new story about education in rural America. In A. DeYoung (Ed.), *Rural education: Issues and practice* (pp. 413–446). New York: Garland Publishing.
- Hart, G. L., Larsen, E. H., & Lishner, D. (2005). Rural definitions for health policy and research. *Journal of Public Health, 95*(7). Retrieved July 21, 2006 from Academic Search Premier.
- Isserman, A. (2005). In the national interest: Defining rural and urban correctly in research and public policy. *International Regional Science Review, 28*(4), 465–499.
- Johnson, J. & Strange, M. (2005). *Why rural matters 2005. The facts about rural education in the 50 states*. Arlington, VA: Rural School and Community Trust.
- Khatti, N., Riley, K. W., & Kane, M. B. (1997). Students at-risk in poor, rural areas: A review of the research. *Journal of research in rural education, 13*(2), 79–100.
- Kusmin, L. (Ed.) (2006). *Rural America at a glance. Economic Information Bulletin No. (EIB-18)*. Washington DC: U.S. Department of Education, Economic Research Service.
- Marshall, R. (2001). Rural policy in the new century. *International Regional Science Review, 24*(1), 59–83.
- McGranahan, D. E. (1994). Rural America in the global economy: Socioeconomic trends. *Journal of Research in Rural Education, 10*(3) 139–148.
- National Center for Education Statistics (2006a). *Identification of rural locales*. Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved October 20, 2006 from http://nces.ed.gov/ccd/Rural_Locales.asp.
- National Center for Education Statistics. (2006b). *Urban/rural classification systems*. Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved September 21, 2006 from <http://nces.ed.gov/surveys/RuralEd/definitions.asp>.
- National Center for Education Statistics. (2007a). *CCD school and district glossary*. Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved January 12, 2007 from <http://nces.ed.gov/ccd/commonfiles/glossary.asp>.
- National Center for Education Statistics. (2007b). *What is the CCD?* Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved January 12, 2007 from <http://nces.ed.gov/ccd/aboutCCD.asp>.
- National Center on Education Finance. (2007). *Geographic cost adjustments in education*. Denver, CO: National Conference of State Legislatures. Retrieved January 3, 2007 from <http://www.ncsl.org/programs/educ/PubsGeo.htm>.
- National Conference of State Legislatures. (2007). *Four day school week*. Denver, CO: Author. Retrieved January 3, 2007 from <http://www.ncsl.org/programs/educ/4DaySchWeek.htm>.
- National School Boards Association. (2003). *Four day school week survey*. Retrieved January 3, 2007 from

<http://www.nsba.org/site/view.asp?TrackID=&SID=1&DID=31750&CID=257&VID=2>.

- New Mexico Department of Public Education. (2007). Rural education. Santa Fe, NM: Author. Retrieved January 14, 2007 from http://www.ped.state.nm.us/div/rural_ed/index.html.
- No Child Left Behind Act of 2001, 20 U.S.C. § 7341 *et seq.* Retrieved January 3, 2007 from Cornell Law School, Legal Information Institute, <http://www.law.cornell.edu/uscode/>).
- Rural Policy Research Institute. (2006). *Defining rural: Definitions of rural areas in the U.S.* Columbia, MO: Author. Retrieved July 19, 2006 from <http://www.rupri.org/resources/context/rural.html>.
- Schneider, M. (2006). *New classification scheme for locale codes.* Washington, DC: US. Department of Education, National Center for Education Statistics. Retrieved August 30, 2006 from http://nces.ed.gov/whatsnew/commissioner/remarks2006/6_12_2006.asp.
- Stephens, E. R. (1992). The condition of the diverse regions of rural America. *Journal of Research in Rural Education*, 8(1), 1–13.
- Stern, J. D. (1994). *The condition of education in rural schools.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, Programs for the Improvement of Practice.
- U.S. Census Bureau. (2005). *About metropolitan and micro-politan statistical areas.* Retrieved July, 20, 2006 from <http://www.census.gov/population/www/estimates/aboutmetro.html>.
- U.S. Census Bureau. (2006). *Definition: Urban and rural.* Question and Answer Center. Washington, DC: Author. Retrieved July 12, 2006 from <https://ask.census.gov/>.
- U.S. Census Bureau. (2007). *Appendix A. Census 2000 geographic terms and concepts.* Washington, DC: Author. Retrieved January 13, 2006 from <http://www.census.gov/geo/www/tiger/glossry2.pdf>.
- U.S. Department of Education. (2004, October 27). *Teacher update: Rural teachers and No Child Left Behind.* Washington, DC: Author. Retrieved November 16, 2006 from <http://www.ed.gov/teachers/how/tools/initiative/updates/041027.html>.
- U.S. Department of Education. (2006). *Guide to U.S. Department of Education Programs,* Washington, DC: Office of Communications and Outreach. Retrieved January 5, 2006 from <http://www.ed.gov/programs/gtep/gtep.pdf>.
- U.S. General Accounting Office. (June 2004). *Metropolitan statistical areas: New standards on their impact on selected federal programs* (Report GAO-04-758). Washington, DC: Author.
- U.S. Government Accountability Office. (September 2004). *No Child Left Behind Act: Additional assistance and research on effective strategies would help small rural districts* (Report GAO-04-909). Washington, DC: Author.