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## **Economic Development Options and Constraints in Remote Rural Counties: A Case Study of the Great Plains Region**

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Tadlock Cowan  
Resources, Science, and Industry Division

# Economic Development Options and Constraints in Remote Rural Areas: A Case Study of the Great Plains Region

## Summary

Although many rural areas fared relatively well over the past decade, there remain wide swathes of rural America that continue to decline. One of the more significant indicators of this selective decline is the population out-migration in remote rural areas of the Great Plains where agriculture and natural resource-based economies are predominant. Congress is concerned about these areas and has proposed legislation to address the decline. Current conditions in much of the Great Plains suggest a continuing and deepening decline in the absence of new sources of competitive advantage. This is especially true for remote counties, which present distinct challenges for rural development policy in the 21<sup>st</sup> century. This report discusses socioeconomic characteristics and trends of 242 remote rural counties in seven states of the Great Plains region stretching from Texas to the Dakotas. Remote counties are defined here as those with populations under six persons per square mile and on the extreme end of two widely used scales of rurality that categorize counties based on the extent to which they are influenced by urban areas or larger population centers. Appendices provide individual county level data on socioeconomic trends in population, education, employment, and income for the 242 remote counties.

Remote rural counties in the Great Plains experienced extensive population out-migration over the 1990s. With few employment alternatives in the private sector to replace the exodus of jobs from agriculture, mining, and timbering, remote counties are a particular concern to policymakers because the remaining population is disproportionately elderly, low-income, low-wage, and more dependent on agriculture and other natural resources than other rural areas. While the Great Plains area receives higher per capita federal funding than the country as a whole, most of the funds direct payments to individuals, e.g., Social Security, disability, farm subsidies rather than to capital-generating areas. This does not represent a difference from federal spending in non-metro areas generally, but in the Great Plains, programs that promote rural economic development may be even more important than in rural areas with more diversified economies, such as those within commuting distance to urban areas. The possibilities of regionally based solutions are discussed.

Most rural development researchers agree that the great diversity exhibited from one rural area to another makes crafting effective federal policy especially difficult. Contributing to this difficulty is the relative dearth of research that might help policymakers understand why some policies seem to work well in some rural areas and not so well in others. The United States Department of Agriculture classifications of rural areas into particular policy types and their dominant economic activity are two of the more widely cited efforts to impose some analytic order on the diversity of rural areas. Yet they still paint rural areas with a very broad brush. Understanding the particular characteristics and economic conditions of remote rural areas in the Great Plains may help legislators in making rural economic development policies to better deal with the circumstances of that region.

This report will not be updated.

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# Economic Development Options and Constraints in Remote Rural Areas: A Case Study of the Great Plains Region

## Introduction

Congressional interest in rural policy involves a wide range of issues, including agriculture, forestry, and mining production, community infrastructure, natural resource conservation and management, and socioeconomic development. Current challenges to and reform of existing federal rural policies are evolving in an environment of increasing concern about national competitiveness, new federal political strategies that devolve more power to state and local areas, deregulation of financial markets, budget constraints, and the increasing degree of separation between farm policies and rural economic development policies. Global socioeconomic changes are being felt especially in rural areas that have historically depended on natural resource based economies, including agriculture. A changing rural America is also producing pressures for different policies and raising new questions about the role Congress might play in shaping effective rural development policies for the future.

## The Great Plains

Much of rural America lying outside urban commuting zones faces significant economic development challenges as the United States has increasingly become a largely urban/suburban and increasingly high-technology, bi-coastal economy.<sup>1</sup> Yet, the myriad problems facing rural America are often invisible to an urban and suburban world. Faced with weaknesses in the farm economy, persistent poverty, and the loss of manufacturing jobs to lower labor costs abroad, large expanses of rural America, especially those areas sparsely populated and remote from population centers, are falling farther behind their urban and suburban counterparts. This trend is not new nor are spatial inequalities a new phenomenon. Spatially unequal development characterizes virtually all countries in the developed world as well as the developing world. But these spatial inequalities have grown more pronounced in some U.S. regions over the past decade as the United States makes adjustments to the internationalization of markets and the division of labor. These patterns are visible throughout the United States. Nowhere is this perhaps more pronounced than

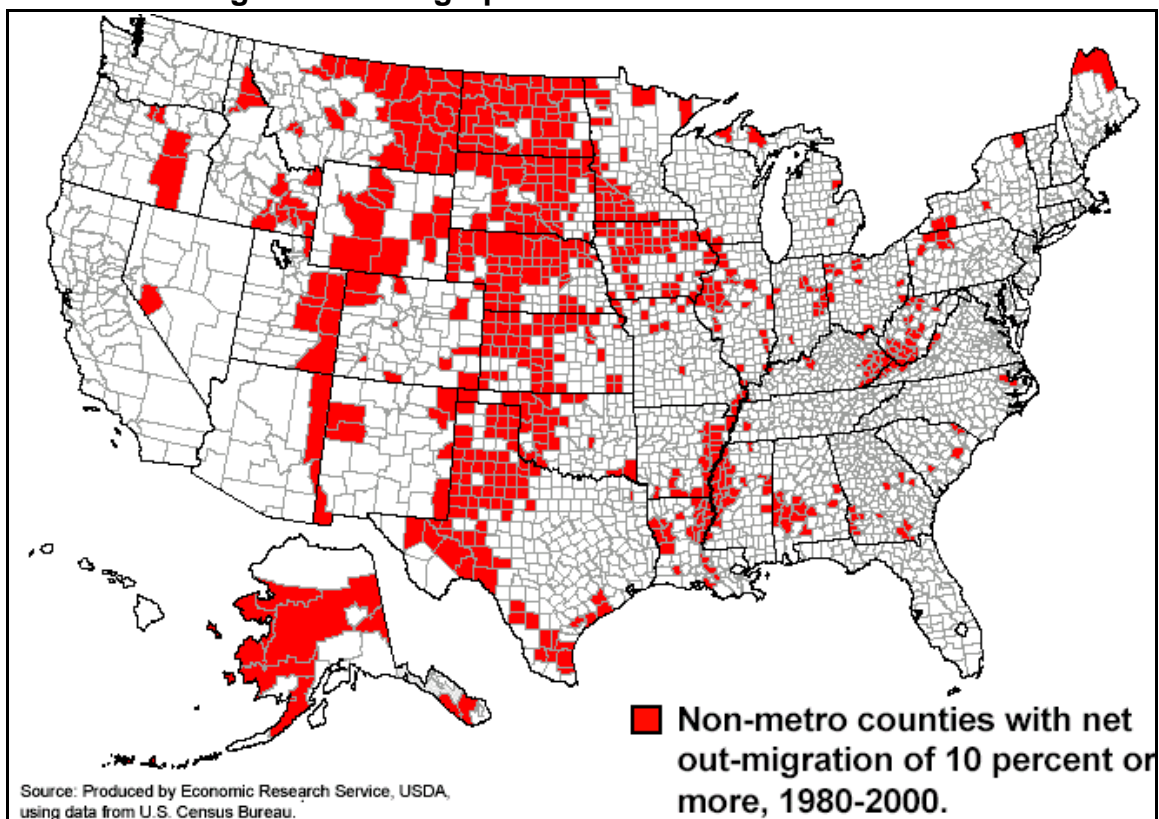
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<sup>1</sup> U.S. economic activity is overwhelmingly concentrated along the country's ocean coasts and Great Lakes coasts, as well as its navigable rivers. See Jordan Rappaport and Jeffrey Sachs, "The United States as a Coastal Nation," Center for International Development, Harvard University, July 2001.

in the Great Plains region, especially in that region's remote rural counties. (See definition and description of "remote rural areas" on page 5).

Remote rural areas of the Great Plains Region present distinctive spatial and socioeconomic dynamics that offer a stark example of the significant difficulties facing many other rural areas. Unlike many other rural areas, however, much of the Great Plains is undergoing significant population out-migration (see **Figure 1**). In this report, data on 242 remote rural counties in seven states of the Great Plains (Texas, Oklahoma, Nebraska, Kansas, South Dakota, North Dakota, and Montana) are examined. In Appendices C-I, individual remote county level data are provided on population change, household income, employment, and other socioeconomic variables.

**Figure 1. Demographic Decline in the Great Plains**



The remote counties discussed here have experienced significant population loss, highlighting the fact the non-metro Great Plains counties have seen a relatively steady population decline. While the total population of these 242 counties is just under a million, representing a little over 12% of the non-metro population in the seven states, these counties might be regarded as an extreme case of more general phenomena accompanying widespread population decline in the region as a whole (see **Table 1**).

**Table 1. Remote Great Plains County Population**

State	State Population, 2000	State Non-Metro Population	Remote County Population	Percentage of Remote to State Non-Metro Population
Kansas	2.7 million	1.17 million	92,013	7.9%
Montana	902,195	692,486	275,393	39.8%
Nebraska	1.4 million	811,425	90,394	11.1%
North Dakota	642,200	347,724	131,877	37.9%
Oklahoma	3.4 million	1.35 million	29,965	2.2%
South Dakota	754,844	493,867	144,368	29.2%
Texas	20.8 million	3.16 million	209,699	6.6%
Total	30.5 million	8.0 million	973,709	12.2%

**Source:** Census 2000, Bureau of the Census, U.S. Department of Commerce.

As used here, the Great Plains region includes parts or all of Texas, Oklahoma, Nebraska, Kansas, North Dakota, South Dakota, and Montana stretching from central Texas to the Canadian border. Cycles of growth and decline have long characterized the region. In the late 1870s and early 1880s, an abnormal abundance of rain led many settlers to the region only to experience, a few years later, the blizzards of 1887 followed by a decade of withering drought. Periods of drought and depression lasted until the beginning of the 20<sup>th</sup> century, which ushered in a period of high agricultural commodity prices and good crop years that lasted through the first World War.<sup>2</sup> Following the Depression and World War II, another period of strong growth in the agricultural sector again made the Great Plains an economically competitive region. Since then, the steady decline in numbers of farms and the limited creation of non-farm jobs has left the region searching for new ways to rejuvenate local economies.

Over 60% of the counties in the Great Plains region had population declines from 1990-2000. In North Dakota, the state as a whole had a negative growth rate while the United States grew at an average of over 13% between 1990-2000. As younger persons migrate from many of these areas in the Great Plains, the elderly population increases proportionately, the tax base dwindles, public services decline, employers close shop, and small communities disappear. When Frederick Jackson Turner presented his landmark essay, *The Significance of the Frontier in American History*, to the American Historical Association at the Chicago World's Fair in 1893, an area of 6 or fewer persons was the defining criterion of frontier territory. Despite

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<sup>2</sup>See Walter Prescott Webb, *The Great Plains* (Blaisdell Publishing Co.: Waltham, Mass., 1931); James R. Dickenson, *Home on the Range: A Century on the High Plains* (New York: Scribner, 1995).

the large population growth of the U.S. during the 20<sup>th</sup> century, there are remote rural areas that have fewer persons living there today than lived there in 1890.<sup>3</sup>

These counties are also more dependent on farming than other non-metropolitan counties. While non-metro counties in general suffer higher rates of poverty than metro-counties, have lower wages than metro areas, low population densities, and/or less diversified economies, these 242 counties may fall into a distinct category that warrants special attention from policymakers. Although other states may have low-density rural areas and significant out-migration (e.g., Delta South and Central Appalachia), the remote rural areas of the Great Plains represent a distinct geographic region in the central part of the United States where farming is still important, out-migration is significant, employment opportunities are limited, environmental amenities are few, and the challenges of rural economic development particularly significant.

**Rural Definitions.** Rural areas, when compared to urban and suburban areas, are characterized by sparse populations, often great distances to population centers, and, accordingly, low scale efficiencies that make the provision of public and private services costly. Rural areas, according to the U.S. Census, comprise open country and settlements with fewer than 2,500 residents. The formal definition of rural is essentially a residual category: Rural areas consist of all territory outside of Census Bureau-defined *urbanized areas* and *urban clusters*. *Urbanized areas* have an urban nucleus of 50,000 or more people. They may or may not contain individual cities with 50,000 or more. In general, they must have a core with a population density of 1,000 persons per square mile and may contain adjoining territory with at least 500 persons per square mile. The same computerized procedures and population density criteria are used to identify *urban clusters* of at least 2,500 but less than 50,000 persons. This delineation of built-up territory and small towns and cities is new for the 2000 census.

*Metro and non-metro* areas are defined by the Office of Management and Budget. Metropolitan Statistical Areas and Micropolitan Statistical Areas are collectively referred to as Core Based Statistical Areas (CBSAs). Metro areas consist of (1) central counties with one or more urbanized areas and (2) outlying counties that are economically tied to the core counties as measured by worker commuting data. Outlying counties are included if 25% of workers living there commute to the core counties, or if 25% of the employment in the county consists of workers coming from the central counties. Non-metro counties are outside the boundaries of metro areas and are further subdivided into *micropolitan areas* centered on urban clusters of 10,000 or more residents, and all remaining “non-core” counties.<sup>4</sup>

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<sup>3</sup>This result has led to the counter-argument to Turner that the U.S. frontier not only remains but is growing. See Deborah E. Popper and Frank Popper, “The Great Plains: From Dust to Dust,” *Planning* 53, no. 12, 1987.

<sup>4</sup>For statistical details concerning the Census Bureau’s formal definitions of rural and urban, see *Federal Register*, vol. 67, no. 51, March 15, 2002, pp. 11663-11670. In June 2003, the Office of Management and Budget promulgated revised definitions of Metropolitan Statistical Areas (MSAs). See *OMB Bulletin* no.03-04, June 6, 2003.



Metropolitan and Micropolitan Statistical Areas do not equate to an urban-rural classification. All counties included in CBSAs, as well as “non-core” counties, contain both rural and urban territory and populations. Based on the most recent definitions above, there were 59.1 million *rural* residents of whom 49.2% lived in *non-metro counties* in 2000. There were 49.2 million non-metro county residents, 59% of whom lived in rural areas. Nationally, 17% of the population lived in non-metro counties and 21% lived in rural areas in 2000.<sup>5</sup> For programmatic as opposed to statistical analysis and demographic modeling purposes, however, “rural” most often refers to socioeconomic trends and conditions in non-metropolitan areas.<sup>6</sup> For example, statutory language in the 2002 farm bill (P.L. 107-171, Sec. 6020) defines rural and rural area as any area other than an area with a city or town over 50,000 and the “urbanized area contiguous and adjacent to such a city or town.” In this report, the terms rural, rural area, and non-metropolitan will be used interchangeably to refer to non-metropolitan areas unless otherwise specified to include the rural residents of metropolitan counties. Similarly, metropolitan and urban areas will be used interchangeably unless a specific reference is made to rural areas within metropolitan counties.<sup>7</sup>

*Remote rural areas* are defined in this report as (1) those with county population densities of 6 or fewer persons per square mile and (2) on the far end of a rural-urban continuum scale and a scale measuring the degree of urban influence on a rural area.<sup>8</sup> These remote counties are, arguably, even more vulnerable to the “tyranny of distance” when it comes to attracting residents and businesses that might provide the basis for creating new sources of economic growth and development. During the 1990s, some rural areas such as the Mountain West, while sparsely populated and with few large population centers, have seen significant population growth stemming from the presence of attractive environmental amenities. However, in the Great Plains region, containing a high proportion of farm-dependent counties, socioeconomic conditions have continued to decline.<sup>9</sup>

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<sup>5</sup>John Cromartie, “Measuring Rurality: What Is Rural?” USDA-ERS Briefing Room, 2003, [<http://www.ers.usda.gov/Briefing/Rurality>].

<sup>6</sup>The Bureau of the Census and Office of Management and Budget definitions are created solely for the purposes of demographic measurement and analysis. Keenly aware that this purpose can conflict with policies that target specific populations and geographic regions, these agencies have long recommended and encouraged other agencies that use their definitions to modify them to serve the objectives of their particular programs. See *Federal Register*, vol. 65, no. 249, December 27, 2000, pp. 82228-82238.

<sup>7</sup>Most (91%) metro county residents are urban area residents.

<sup>8</sup>Appendix A describes two widely used scales developed by USDA’s Economic Research Service (ERS) that measure rural non-metropolitan counties by their population, their proximity to metropolitan areas, and the relative size of population centers within the non-metro county. In addition, Appendix A also describes two ERS typologies that categorize non-metro counties on the basis of economic and policy types.

<sup>9</sup>Farming-dependent counties are defined by USDA as those where 20% or more of total labor and proprietors’ income stems from agriculture. Inflation adjusted total personal income in farm-dependent counties grew 13% between 1990 and 1998, compared to 21% growth in other non-metro counties. See Fred Gale, “How Important Are Farm Payments (continued...)”

## Background

An important issue for many rural areas is how to create new sources of rural competitive advantage beyond the traditional economies based on commodity agriculture, resource extraction, and peripheral manufacturing jobs. A recent survey indicates that, while state leaders regard rural economic development as vital to their respective states, actual legislative priorities have not placed rural development as a central issue of their states' legislative agendas. Approximately half the national sample of rural, suburban, and urban legislators reported that they personally dealt with rural issues. However, these legislators also noted that urban and suburban issues often took priority in the legislative agenda. They cited lack of opportunity for young people as the most important rural problem followed by decline of family farming.<sup>10</sup> Yet, when asked what legislative work occupied most of their agenda, 84% of the legislators reported that quality of education attracted the most legislative attention. Other areas cited were, the environment (70%), access to technology (69%), access to healthcare (64%) and access to transportation (59%). While some of these concerns are relevant to rural areas, economic development issues *per se* scored considerably lower on the legislative agenda: Only a third of the legislators cited lack of opportunity for young people as a key legislative concern.

The focus on rural oriented economic development policies has not been among the highest federal priorities, as measured by federal initiatives, since the 1960s and 1970s. Much national rural policy attempts either to reinvigorate traditional production spheres, such as agriculture, to build or improve physical infrastructure, and to create or preserve small businesses. Analysis by USDA's Economic Research Service (ERS) of data in the Consolidated Federal Funds Reports show that when compared to metropolitan areas, rural areas receive fewer federal funds per capita for funding that might be characterized as capital investment and more funds that are income support payments.<sup>11</sup> Although non-metro areas, in general, receive somewhat less funding per capita than metro areas, rural areas also often have even more limited access to important private investment resources because their remoteness and low population densities may increase project risks. Credit in rural areas, for example, can often be more expensive and offer fewer financial product options than those available in metropolitan areas. Rural communities also may have more difficulty in financing infrastructure projects and providing rental and middle income housing construction. Moreover, smaller rural communities often have limited taxing and repayment capacity. Large infrastructure projects, for example, may have

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<sup>9</sup>(...continued)

to the Rural Economy?" *Agriculture Outlook*, October 2000.

<sup>10</sup>The other eight most highly ranked rural problems, in descending order, are access to healthcare, low-wage jobs, quality of education, sprawl, access to technology, access to transportation, breakup of the family, and the environment. See W. K. Kellogg Foundation, *Perception of Rural America: National State Legislator Survey*, Battle Creek, MI, November 2002.

<sup>11</sup>Richard Reeder, F. Bagi, and S. Calhous, "Who's Vulnerable to Federal Budget Cuts?" *Rural Development Perspectives* 11(2), June 1996.

the effect of raising taxes disproportionately for small rural communities, simply because there are fewer people over which costs can be spread.

Analysts have sometimes asked the question: “Why invest in rural America?”<sup>12</sup> America today is a suburban nation and becoming more so by the decade.<sup>13</sup> When the United States was younger, the rural sector was the “Frontier.” In the early 20<sup>th</sup> century, it became the “Storehouse,” the geography providing the raw commodities to support a growing urban industrial population.<sup>14</sup> In both periods, the rationale for investment and public support was clear. The importance of rural areas to the nation as a whole today appears to be more ambiguous.

In the 1960s and 1970s, the urban cores of many major U.S. cities, e.g., Detroit, Chicago, Cleveland, New York, Boston, Washington, D.C., were faced with the challenges of serious social and physical decline. Newspapers, news magazines, and television were awash in stories about urban decline, which generated a national debate about its causes and solutions. Over several years, Congress responded with a broad range of innovative policies aimed at reversing the deterioration and reinvigorating much of the country’s older centers. The long-term decline of rural America, on the other hand, is happening relatively more quietly and often out of the public eye. Yet some would argue that rural challenges today are as great on a community level as were the challenges of cities 35 years ago. According to the General Accounting Office, the patchwork of programs that constitutes rural policy today is not the outcome of comprehensive and systematically crafted policy goals targeted to rural areas as much as it is extensions and modifications of programs designed for urban areas.<sup>15</sup> The agricultural and manufacturing sectors remain the primary foci in terms of amounts spent on rural areas. Some have questioned whether financial support to production agriculture necessarily translates into economically diverse and viable rural communities. Similarly, low-wage and low-skill manufacturing that often predominates in many rural areas may be unable to provide these areas with the capacity to rebuild local economies for the future, particularly with globalization and outsourcing of production.

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<sup>12</sup> See Karl N. Stauber, “*Why Invest in Rural America — and How? A Critical Public Policy Question for the 21<sup>st</sup> Century.*” Paper presented at Exploring Policy Options for a New Rural America, Center for the Study of Rural America, Kansas City Federal Reserve Bank, May 2001.

<sup>13</sup> Some observers even argue that the United States has now entered a “post-suburban” era of development. See Rob Kling, Spencer Olin, and Mark Poster, *Postsuburban California: The Transformation of Orange County Since World War II*, (Berkeley: University of California Press, 1995).

<sup>14</sup> Ibid.

<sup>15</sup> See General Accounting Office, *Rural Development: Patchwork of Federal Programs Needs to Be Reappraised*, GAO/RCED-94-165, July 1994.

### **Population Change in Non-Metro Areas During the 1990s.**

Approximately 49.2 million persons resided in non-metropolitan areas in 2003, 17.4% of the U.S. population.<sup>16</sup> After years of little or no growth in population, rural and small towns grew faster than suburban and urban areas in the 1970s. In the 1980s, however, this trend reversed with the 1981-1982 recession and the farm financial crisis, and a decline in number of retirees — a major source of rural population growth — moving to rural areas. A shift occurred again during the 1990s when most non-metro counties either increased their growth rates, shifted from a 1980s loss to a gain, or, continued a decline, although at a somewhat reduced rate. Population growth was highest in the Mountain West and lowest or non-existent in the Great Plains, Mississippi Delta, and Corn Belt. Non-metro counties adjoining metro areas accounted for almost two-thirds of all non-metro growth, increasing about 12% on average. Much of this growth stemmed from metro residents relocating to the adjoining non-metro areas and from other sources of immigration. Despite this net inflow of people from metro areas, the rate of net migration into rural areas, which had steadily increased during the early and mid-1990s, dropped to one-half of 1% during 1997-1999.<sup>17</sup> Because many low-growth farming areas, such as those in the Great Plains, lack the attraction of amenities such as those found in the Mountain West or Florida, it is hard to see how they will experience future population growth without new sources of employment.

During the 1990s, population remained stable or grew in those rural areas and small communities able to attract jobs in the service sector, the major source of employment growth in non-metro economies. Farm-dependent counties generally saw little or no growth or lost population in the 1990s. Foreign immigration was the major source of growth in the U.S. population, accounting for nearly 20% of the national non-metro growth in the 1990s. While about 83% of all residents and nearly 90% of immigrants lived in urban areas in 2003, the immigration into rural and agricultural areas may be more socially significant than these broad data might suggest.

Immigration is important to farming, meat packing, and textiles; and immigrant professionals, e.g., physicians, also play an increasingly important role in many rural areas. Much of labor-intensive agriculture is located in the South and in geographically large western counties classified by the census as metropolitan areas. Crop production, fruit and vegetable farming, and meat packing industries are reliant on hired farm workers. Hispanics comprised 42% of hired farm workers in 2002.<sup>18</sup> Some are new immigrants from central Mexico and non-Spanish speaking Indians of southern Mexico and Guatemala. In the Upper Midwest, Mexicans and Mexican-Americans from the Rio Grande Valley along with a few middle-class Cubans and Puerto Ricans and other Latin Americans also reside. The majority of Hispanic immigrants in the Upper Midwest arrived to work in the region's new and expanding

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<sup>16</sup>USDA Economic Research Service calculation from Census of Population data, U.S. Bureau of the Census.

<sup>17</sup>John Cromartie, "Non-metro Migration Drops in the West and Among College Graduates," USDA-ERS, *Rural Conditions and Trends*, 11(2), December 2000.

<sup>18</sup>Jack Runyan, "Farm Labor: Demographic Characteristics of Hired Farmworkers," USDA-ERS Briefing Room, 2003, [<http://www.ers.usda.gov/Briefing/FarmLabor/Demographics/>].

swine and turkey processing plants. In the Lower Midwest, many immigrants took jobs in the meat packing plants.<sup>19</sup>

## **The Declining Opportunity Structure of Remote Rural Areas of the Great Plains**

Population loss throughout much of the rural and farming dependent areas of the Great Plains region has been persistent and continual for over 50 years. Out-migration of young residents and lower fertility rates of those who remain have led not only to population loss, but also to the increased proportion of the aging in the population remaining. When low population densities are added to this demographic mix, a picture of a slowly declining region emerges (see **Table 2**). The average population in the remote counties in all of the states but Montana had negative growth rates between 1990 and 2000 (**Table 2**). All the states but Montana had growth rates below the national average of approximately 13%.<sup>20</sup> Not only did North Dakota's remote counties have the lowest growth rate among the 7 states, the state average was negative as well. Population densities in the region, as measured by population per square mile, average less than a tenth of the average non-metro county average of slightly over 36 persons per square mile.

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<sup>19</sup>For an overview of rural population trends, see [<http://www.ers.usda.gov/Briefing/Population>].

<sup>20</sup> A recent analysis of rural population growth rates showed that rates varied greatly across counties and across decades. Interestingly, the research showed that only about 20% of the variance in population growth could not be attributed to state- or national-level variables, leaving nearly 80% of the variance that must be explained by variables that vary across or within counties. See Tzu-Ling Huang, P. Orazem, and D. Wohlgemuth, "Rural Population Growth, 1950-1990: The Roles of Human Capital Industry, Structure, and Government Policy," *American Journal of Agricultural Economics* 84, no. 3 (2002), pp. 615-627.

**Table 2. Great Plains Population**

	Average Remote County Population, 2000 (1)	Average Remote County Population Change, 1990-2000 (%)	Average State Population Change, 1990-2000 (%) (2)	Average Remote County Population Density (population per sq.mi) (3)	Average State Population Density (population per sq.mi) (4)
Kansas	3,173	-5.10	8.5	4.0	32.9
Montana	6,120	2.6	12.9	2.3	6.2
Nebraska	2,825	-6.1	8.4	2.7	22.3
North Dakota	3,768	-13.0	-1.2	3.5	9.3
Oklahoma	4,281	-10.0	9.7	4.0	50.3
South Dakota	4,125	-0.4	8.5	3.2	9.9
Texas	3,554	-1.0	22.8	2.8	79.6

**Sources:** Census 2000, Bureau of the Census; USDA-Economic Research Service; Bureau of Economic Analysis.

(1) Remote counties are defined as those with county population densities of 6 or fewer persons per square mile and on the far end of a rural-urban continuum scale and a scale measuring the degree of urban influence on a rural area. (See Appendix A).

(2) Average U.S. Population Change, 1990-2000 is 13.1%

(3) Average U.S. non-metro-county population density (2000) is 36.3 persons per square mile

(4) Includes a state's metropolitan areas.

Persons aged 65 and over comprise about 12% of the total U.S. population. For the remote counties of the Great Plains region, this age group makes up 16-21% of the counties' population (see **Table 3**). A proportionately higher elderly population produces significant challenges for rural areas, perhaps most important is providing health care services. The migration from rural areas also displays distinctive patterns. The number of non-metro counties with decreasing population rose from 600 from 1990-1995 to 855 in 1999 suggesting that there may be growing momentum for population loss.<sup>21</sup> Much of this more recent increase in rural out-migration (1997-1999) occurred among college graduates, with those moving out in numbers nearly equal to those moving in for the first time since the early 1990s.<sup>22</sup> Whether this pattern also characterized the remote counties is not clear. Average state high school

<sup>21</sup>Ibid., p.29.

<sup>22</sup>See John Cromartie, "Non-Metro Migration Drops in the West and Among College Graduates," USDA-ERS, *Rural Conditions and Trends*, 11(2), December 2000; Daniel Lichter et al., "Migration and the Loss of Human Resources in Rural Areas," in *Investing in People: The Human Capital Needs of Rural America*, ed. L. J. Beaulieu and D. Mulkey (Boulder: Westview Press, 1995).

graduation rates in the Great Plains states, with the exception of Texas, exceed the national average. For remote rural counties, the percentage of high school graduates is somewhat lower in North Dakota, South Dakota, and Texas than either their state or national averages. For those with bachelors degrees or higher, the Great Plains states are slightly below national averages while their remote counties are substantially below both averages.

**Table 3. Great Plains Age and Education Structure, 2000**

	Average Remote County Population 65 and older (%)	Average State Population 65 and older (%)	Average Remote County High-School graduates, 25 and older (%)	Average State High-School graduates, 25 and older (%)	Average Remote County Bachelors degree or higher (%)	Average State Bachelors degree or higher (%)
Kansas	21.2	13.3	84.1	86.0	17.0	25.8
Montana	16.4	13.4	83.1	87.2	17.9	24.4
Nebraska	20.1	13.6	86.7	86.6	16.0	23.7
North Dakota	21.3	14.7	77.3	83.9	14.5	22.0
Oklahoma	20.0	13.2	80.8	80.6	17.5	20.3
South Dakota	17.6	14.3	78.2	84.6	14.4	21.5
Texas	16.9	9.9	69.6	75.7	15.5	23.2
United States		12.4		80.4		24.4

**Sources:** Census 2000, Bureau of the Census, U.S. Department of Commerce.

Based on per capita income levels, many of the poorest counties in the United States are in very rural, farming-dependent counties.<sup>23</sup> Only one county among the poorest 50 counties is a metropolitan county. Eleven of the 20 poorest counties in the United States are located in remote counties in Nebraska, and North and South

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<sup>23</sup>Based on U.S. Bureau of the Census measures of poverty, farm-dependent counties (see definition, page 35), while still having relatively high rates of poverty (an average of 15.7% in 1999), saw the largest decline in county poverty rates of the various ERS county economic classifications from 1989-1999, probably due to relatively larger farm payments and relatively strong national economy. The Census measures the poverty rate by establishing poverty thresholds, i.e., the dollar amounts used to determine poverty status. Each person or family is assigned one out of 48 possible poverty thresholds. Thresholds vary according to size of the family and ages of the household members. The same thresholds are used throughout the United States and updated annually for inflation using the Consumer Price Index for all urban consumers.

Dakota (see **Table 4**). Other high-poverty counties are located in the South and Appalachia and in areas where there is a high proportion of racial minorities.<sup>24</sup>

**Table 4. Poor Great Plains County Rankings (1999)**

County/State	Rank (1)	Rural-Urban Continuum Code (2)	Urban Influence Code (3)	Per Capita Income (4)(5)
Loup, Nebraska	1	9	9	\$ 4,896
McPherson, Nebraska	2	9	9	\$ 6,940
Keya Paha, Nebraska	5	9	9	\$ 9,993
Ziebach, South Dakota	6	9	9	\$ 10,390
Arthur, Nebraska	7	9	9	\$ 10,655
Todd, South Dakota	10	9	9	\$ 10,920
Sioux, North Dakota	11	9	9	\$ 11,023
Sioux, Nebraska	12	9	9	\$ 11,147
Shannon, South Dakota	13	7	8	\$ 11,351
Blaine, Nebraska	16	9	9	\$ 11,576
Slope, North Dakota	19	9	9	\$ 12,097

**Source:** Bureau of Economic Analysis; USDA Economic Research Service

(1) Rank is among the 3,141 counties in the Nation, with 1 being the county with the lowest per capita income.

(2) (3) See Appendix A for a discussion of these ERS scales

(4) U.S. per capita income, 1999=\$28,543

(5) Non-metro per capita income, 2000=\$19,850

Average poverty and unemployment rates are higher in rural areas than in urban areas. The non-metro poverty rate declined from a high of 17.1 in 1993 to a record low of 13.4 in 2000. By 2001, the non-metro poverty rate had increased to 14.2% while for metro areas the rate was 11.1%.<sup>25</sup> The remote rural counties of the Great Plains often had higher rates of poverty than non-metro areas as a whole and

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<sup>24</sup>Dean Joliffe, "Non-Metro Poverty: Assessing the Effects of the 1990s," *Amber Waves*, USDA-ERS, June 2003.

<sup>25</sup>Ibid.



substantially lower median household incomes (see **Table 5**). It should be noted, however, that North Dakota, South Dakota, Oklahoma, and Montana are also home to significant Native American populations, who rank among the poorest in the nation, with unemployment rates often exceeding 50% on some reservations.

**Table 5. Remote County Household Income, Poverty, and Unemployment Rates, 2000-2001**

	Median Remote County Household Income	Median State Household Income	Average Remote County Poverty Rate(%) (1)	Average State Poverty Rate (%)	Average Remote County Unemployment Rate (%) (2)	Average State Unemployment Rate (%) (2)
Kansas	\$ 32,856	\$ 40,624	11.3	9.9	2.6	4.3
Montana	\$ 29,426	\$ 33,024	17.4	14.6	4.8	4.6
Nebraska	\$ 29,241	\$ 39,250	13.9	9.7	2.5	3.1
North Dakota	\$ 29,169	\$ 34,604	15.0	11.9	3.4	2.8
Oklahoma	\$ 30,889	\$ 33,400	13.7	14.7	2.6	3.8
South Dakota	\$ 28,010	\$ 35,282	22.3	13.2	5.1	3.3
Texas	\$ 29,569	\$ 39,927	18.4	15.4	3.6	4.9
United States	\$ 41,944		13.4		4.8%	

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

(1) U.S. average, 12.4%

(2) These data are for 2001

## Human Capital Issues in Remote Rural Areas

Human capital refers generally to the level of education and training of a defined group (e.g., population or labor force) and is important because of the direct relationship between educational attainment and earnings.<sup>26</sup> The demand for workers with at least some postsecondary education has been increasing in recent decades and is projected to rise at an above average rate in coming years.<sup>27</sup> Compared to metro areas, rural areas are chronically short of human capital.<sup>28</sup> As **Table 3** shows, remote

<sup>26</sup>See CRS Report 95-1081, *Education Matters: Earnings by Highest Year of Schooling Completed*.

<sup>27</sup>See CRS Report 97-764, *The Skill (Education) Distribution of Jobs: How Is It Changing?*

<sup>28</sup>Lief Jenson and D. McLaughlin, "Human Capital and Non-metropolitan Poverty," in L. J. Beaulieu and D. Mulkey (eds.), *Investing in People: The Human Capital Needs of Rural* (continued...)

counties in the Great Plains have many fewer residents with a bachelors degree than the nation as a whole. While the national average for a bachelors degree or higher is 24.4%, the metropolitan rate is higher still at 29.1%. For remote rural counties in the Great Plains, the average is about 16%, about the same as the U.S. average for all non-metro counties in 2000. High-school graduation rates in non-metro areas have improved over the decade. Data from the Census of Population, calculated by USDA's Economic Research Service, showed that in 2000, only 23.2% of persons 25 and over had less than a high school education, down from 31.2% in 1990.

It would be misleading to attribute the economic problems of remote rural economies to a comparatively low-skilled population alone. As Table 5 shows, the unemployment rates in remote counties, with the exception of South Dakota, are actually lower than the national average. These relatively low unemployment rates suggest that rural workers may suffer more from low-wage employment and underemployment than they do from unemployment. This in part, reflects the types of industries that dominate rural areas: peripheral manufacturing, extractive industries, and low-wage service sector jobs.<sup>29</sup> Even highly skilled rural workers however, earn lower wages than their urban counterparts.<sup>30</sup> In 2000, the percentage of non-metro adults 25 and older with a high school diploma was higher in non-metro areas than in metro areas (35.5% vs. 26.9%), although only 15.5 percent of non-metro adults 25 and older held bachelors degrees compared to 26.6 of metro residents 25 and older.<sup>31</sup> According to data from the Rural Sociological Society Task Force on Rural Poverty, at every level of education, average earnings and income are lower in non-metro than in metro areas.<sup>32</sup>

The low reported unemployment rates could also suggest that, due to limited opportunities, rural workers have dropped out or never entered the workforce and are,

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<sup>28</sup>(...continued)

*America* (Boulder, CO: Westview Press, 1995).

<sup>29</sup>Earnings, income, rates of poverty, education and training, etc., are factors both of the characteristics of the labor force and of an area's industrial structure. They can be analyzed separately, but the economic characteristics of an area result from both the organization of labor supply and the economic structure of labor demand within a region.

<sup>30</sup>Some research suggests that this poses a paradox in regard to public policies aimed at raising the level of human capital in rural areas. A times series analysis of rural areas showed that rural population growth was affected most by improvements in human capital stock over time. Because urban returns to education appear to be higher than those of rural areas, increasing the rural human capital stock actually decreased the working-age population, largely because more educated labor moved elsewhere. See Tzu-Ling Huang, P. Orazem, and D. Wohlgemuth, "Rural Population Growth, 1950-1990: The Roles of Human Capital Industry, Structure, and Government Policy," *American Journal of Agricultural Economics* 84, no. 3 (2002), pp. 615-627.

<sup>31</sup>Robert Gibbs, "Rural Labor and Education: Rural Education," USDA-ERS Briefing Room, 2003. See [<http://www.ers.usda.gov/Briefing/LaborandEducation>].

<sup>32</sup>Data were based on Bureau of Economic Analysis personal income data adjusted for inflation with the implicit price deflator for personal consumption expenses. See Rural Sociological Society Task Force on Persistent Rural Poverty, *Persistent Rural Poverty in Rural America* (Boulder, CO: Westview Press, 1993).

accordingly, not officially counted as unemployed. This is undoubtedly true, but such bias in measuring unemployment is likely equally true for metropolitan areas as well, even though the composition of available employment differs. The non-farm employment change in remote counties shown in Table 6 gives a picture of a slow growth area relative to the state as a whole. This could be discouraging to would-be workers choosing areas to which they might migrate. There is also evidence to suggest that some rural labor market groups, such as underemployed workers and discouraged workers, respond less to business cycle movements. Therefore, an expansion may be less likely to benefit these individuals in rural areas than in urban areas.<sup>33</sup> Evidence, however, is lacking that unemployment counts in rural areas are any less or any more accurate than those for metro areas.

One substantive implication seems clear: rural people may suffer less from unemployment than from myriad forms of underemployment, e.g., working less than full time.<sup>34</sup> While average rates of high school graduation increased in rural areas over the 1990s, earnings per job did not. The inflation adjusted rural-urban earnings gap (as opposed to total income) was over 30% greater in 1995 than it was in 1977.<sup>35</sup> There are also other possible reasons for this gap including the lower likelihood of non-metro workers moving out of low wage jobs than central city residents, greater involuntary part-time work among non-metro workers, higher proportion of non-metro workers in minimum wage jobs (12% vs. 7%), and higher rates of underemployment and unemployment among women compared to metro areas.<sup>36</sup> Some recent research also suggests that an increased demand for unskilled, largely Hispanic labor may have contributed to lower wages for skilled workers (largely men with high school education) in some rural areas. Results from this research indicated

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<sup>33</sup>See Jill L. Findies and L. Jensen, "Employment Opportunities in Rural Areas: Implications for Poverty in a Changing Environment," *American Journal of Agricultural Economics* 80 (1998), pp. 1000-1007.

<sup>34</sup>*Ibid.*

<sup>35</sup> Douglas Rhoades and Mitch Renkow, "Explaining Rural-Urban Earnings Differentials in the United States," paper presented at the Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, 1998, *American Journal of Agricultural Economics* 80 (5), p. 1172. A study of rural and urban North Carolina counties also showed that rural areas had both lower rates of return to schooling and a greater sensitivity of earnings to local labor market conditions than urban counties, although national macroeconomic trends had the dominant impact on both metro and non-metro counties. See Mark Renkow, "Rural versus Urban Growth: Why Do Rural Counties Lag Behind?" Center for Regional Development, North Carolina State University, 1995 (<http://www.ces.ncsu.edu/resources/economics/crdnews/>).

<sup>36</sup>See Jill L. Findies and L. Jensen, "Employment Opportunities in Rural Areas: Implications for Poverty in a Changing Environment," *American Journal of Agricultural Economics* 80 (1998), pp. 1000-1007; Jill L. Findeis, "Gender Differences in Human Capital in Rural America," in Lionel Beaulieu and David Mulkey (eds.), *Investing in People: The Human Capital Needs of Rural America* (Boulder, CO: Westview Press, 1995); Tim Parker and Leslie Whitener, "Minimum Wage Legislation: Rural Workers Will Benefit More than Urban Workers from Increase in Minimum Wage," USDA-ERS, *Rural Conditions and Trends* 8 (1), 1997.

that increased labor demand favored skilled and professional workers overall but favored unskilled workers in some rural industries, e.g., meatpacking.<sup>37</sup>

Real non-metro per capita income (in 1996 dollars) — as opposed to earnings alone — increased 2.4% between 1995-96 compared to 2.1% in metro areas. The ratio of non-metro to metro income improved from 71.2% in 1995 to 71.4% in 1996.<sup>38</sup> **Table 6** shows that the average wage per non-farm job in remote counties is substantially lower than the average for their respective state's as a whole and that remote county per capita income change was substantially lower than for their respective states with the exception of North Dakota. Moreover, while per capita income grew by over 21% from 1990-2000 in the United States as a whole, per capita income grew in Great Plains remote counties on average by only about 5%.

**Table 6. Remote County Employment Structure**

	Remote County Average Wage per non-Farm Job, 2000	State Average Wage per non-Farm Job, 2000	Remote County Private Non-Farm Employment Change, 1990-1999 (%)	Average State Private Non-Farm Employment Change, 1990-1999 (%)	Average Remote County Per Capita Income Change, 1990-2000 (%)	Average State Per Capita Income Change, 1990-2000 (%)
Kansas	\$ 19,094	\$ 29,360	31.2	18.4	-4.6	14.3
Montana	\$ 20,111	\$ 24,274	19.1	30.0	4.6	10.2
Nebraska	\$ 17,842	\$ 27,692	17.5	25.0	-11.1	16.0
North Dakota	\$ 20,777	\$ 24,683	22.8	27.3	22.7	18.2
Oklahoma	\$ 20,928	\$ 26,988	12.7	24.5	0.7	10.8
South Dakota	\$ 19,194	\$ 24,802	32.0	37.2	17.1	21.4
Texas	\$ 22,540	\$ 34,941	26.2	32.4	6.0	20.7
United States		\$ 35,323		18.4		21.3

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

Although low-wage employment is not unique to rural areas, it does make up a significant portion of all rural jobs. In a detailed examination of low-wage rural employment, USDA's Economic Research Service identified 465 counties they

<sup>37</sup> Constance Newman, *Impacts of Hispanic Population Growth on Rural Wages*, USDA, AER-826, September 2003.

<sup>38</sup> Linda M. Ghelfi, "Rural Per Capita Income Grows Slightly More than Urban," USDA-ERS, *Rural Conditions and Trends* 9 (2), 1997.

defined as low-wage counties.<sup>39</sup> A county was defined as low-wage if it fell into the top quintile of rural counties ranked by the share of wage and salary workers in low-wage industries. While federally-defined poverty, unemployment, and population growth rates in low-wage counties did not differ significantly from other rural counties, low-wage counties were characterized by a different mix of jobs. Industries that tend to pay well on average are less likely to be located in low-wage counties and jobs pay less on average than similar jobs elsewhere. With less diverse economies to begin with, employers in low-wage counties also have little competition in setting prevailing wage rates. Unsurprisingly, low-wage counties have relatively small numbers of workers and a larger proportion of older, less educated workers. These factors, coupled with out-migration of younger, higher skilled workers, make it difficult to attract the more technologically advanced production sectors that might improve both the wage structure and the level of work skills.

The northern Great Plains region has the largest cluster of low-wage counties. Nearly half are located in North and South Dakota and Nebraska. Low-wages and small per capita income growth characterize both low-wage counties and remote counties as defined here. Counties remote from metro centers and with small pools of skilled workers are not positioned to attract employers who need access to suppliers and customers. The absence of skilled workers is also reflected in the lack of economic diversity in low-wage counties. Nearly half of the 465 low-wage counties analyzed by ERS are also classified in the county typology in Appendix A, Table 7 as “farming-dependent.” Most of these are also located in the northern Great Plains region. This is not to imply that farm-employment *per se* is the source of the low-wages. Rather, farm-dependent counties may be low-wage because they are remote, have low population densities, and/or have been unable to diversify their economies outside the traditional agriculture economy. Few low-wage counties are dependent on manufacturing which generally pays higher wages in rural counties compared to other rural employment options.<sup>40</sup> Residents of remote counties without diverse economies simply have very limited opportunities to improve education and skill levels beyond that required for rudimentary, entry level jobs. The primary economic base of remote rural areas — farming/ranching, mining, forestry, and oil and gas extraction — is also prone to boom-bust cycles that not only make earning a living difficult, but may also help explain the frequent out-migration.

Six of the 10 industries with the largest share of employment in low-wage counties were classified as low-wage industries. The 10 largest low-wage industries all have greater shares of employment in low-wage counties than in other non-metro counties. Lower wages also exist within each industry so that the same job pays less

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<sup>39</sup>In the study’s sample, at least 41% of all workers in these 465 counties were employed in industries paying average wages that would not lift a full-time, full-year worker above the weighted-average poverty threshold for a family of four (\$15,569 in 1995). Average wages were calculated for each three-digit Standard Industrial Code (SIC) industry in each county rather than assuming a single average for each industry. See Robert Gibbs and J. B. Cromartie, “Low-wage Counties Face Locational Disadvantages,” USDA-ERS, *Rural Conditions and Trends* 11 (2), 2000.

<sup>40</sup>The low-wage counties that are dependent on manufacturing tend to be located in the rural South. Similarly, all mining-dependent low-wage counties are in the West.

in a low-wage county than in other non-metro counties. For example, medical doctors and health care personnel in low-wage counties earn on average 28% less than comparable workers in rural medical clinics elsewhere. Appendix B presents data on the top 25 industries in rural counties and compares low-wage counties with other rural counties.<sup>41</sup>

While many remote counties are poor and low-wage, the dynamics that drive these two processes are not necessarily the same. Of the 465 counties that ERS identified as low-wage, only about one-third were persistently poor and only about one-third of the persistently poor counties were low-wage.<sup>42</sup> This relation suggests that the underlying economic and social conditions associated with significant poverty and low-wages may differ. If low-wage earnings employment were the sole source of poverty, one would expect low-wage counties to have higher poverty rates, on average, than non low-wage counties. Conversely, one might expect persistently poor counties to be mostly low-wage counties. While it is substantially true that the economies of rural America were historically grounded in a manufacturing and agricultural base that produces large numbers of low-wage jobs, changes over the last 50 years have resulted in fewer agricultural jobs and more in services. Still, these jobs pay lower wages on average than similar sectoral employment in urban areas.

In the Great Plains region, remote, low-density counties are low-wage counties. The Great Plains region and, to some extent, the greater Midwestern region, also depends heavily on large-scale, capital-intensive agricultural production. Thirty of the 242 remote rural counties are in the leading 100 U.S. counties in total acreage in

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<sup>41</sup>Some observers point to cost-of-living differences between rural and urban areas to account for earnings differentials or to account for price differences when comparing standards of living between geographic areas. Conceptual and measurement issues in developing indexes that might estimate geographic cost-of-living are significant. Commonly accepted measures such as Bureau of Labor Statistics Family Budget Studies, the American Chamber of Commerce Researchers Association Cost of Living Index, and the Bureau of Labor Statistics city Consumer Price Indexes generally focus on metropolitan areas. Rural areas, in particular, are excluded from these calculated measures. See Laura A. Blanciforti and Edit Kranner, "Estimating County Cost of Living Indexes: The Issue of Urban versus Rural," Research Paper 9718, West Virginia Regional Research Institute, 1997. For an analysis of the conceptual and measurement complexities of cost-of-living indexes, see National Academy of Sciences, *At What Price: Conceptualizing and Measuring Cost-of-Living and Price Indexes* (Washington, D.C.: National Academy Press, 2002). One study of rural and urban residents in Wisconsin concluded that metro and non-metro households spent about the same on such essentials as food, clothing, transportation, utilities, and medical care (although in the National Academy of Sciences study cited above, constructing an index for medical care proved more difficult than any other component of the Consumer Price Index). Non-metro residents lived on less income largely because they were disproportionately elderly and had higher concentrations of households with paid-up mortgages than metro areas. See Linda M. Ghelfi, "About That Lower Cost of Living in Non-Metro Areas," USDA-ERS, *Rural Development Perspectives*, October 1988.

<sup>42</sup>"Persistently poor" counties are defined by ERS as those counties with 20% or more of their population with poverty level incomes in each of four years 1960, 1970, 1980, and 1990.

cropland.<sup>43</sup> Policies that have largely targeted farm household income have not produced an economic reversal in this region. *The evidence of demographic and socioeconomic trends in the Great Plains suggests to many observers that a continuing reliance on commodity agriculture to the exclusion of other, better paying employment, may be a formula for continuing population out-migration, fewer service and retail centers, and declining living standards for many rural households in the non-farming sector.* With significant changes occurring as well in the structure of agriculture leading to further concentration in production, non-farm employment, and closer ties between population centers and rural areas, more attention to regional solutions may hold greater promise for the Great Plains in the intermediate term than the traditional state or county-based solutions alone.

## Federal Funding in the Great Plains

This section relies on 1995 Bureau of the Census data generated by USDA's Economic Research Service.<sup>44</sup> The data focused on funding for 750 federal programs that were traceable to the county level. These programs accounted for 88% of all federal funds including funding to individuals, to businesses, and to public entities. Based on an examination of all federal funds received in FY1995, the Great Plains received more federal funds, per capita, than the country as a whole. (The Great Plains region as defined in the ERS report, in addition to the 7 states discussed in this report, also includes parts of eastern Wyoming, Colorado, New Mexico and western Minnesota). Per capita funds were 10% higher in the region (\$5,447) than in the Nation as a whole (\$4,973). Most of these funds were direct payments to individuals, e.g., Social Security and disability, farm subsidies, salaries, wages, and procurement contracts. Compared to the Nation as a whole, the region gets relatively more funding from such programs as agriculture and natural resource payments, defense and space, and community resource programs. While retirement and disability payments in the Great Plains account for slightly less than the Nation as a whole (32% vs. 34%), these payments are significant to local economies because of the relatively high percentages of elderly and disabled in the non-metro population (See Table 4 above and Appendices C-I)).

Non-metro counties rather than metro counties accounted for the greater levels of federal funding for the Great Plains as compared to the national average. Federal funding to non-metro counties in the Great Plains was 19% more per capita than for non-metro counties nationally and was 8% more per capita for Great Plains' metro counties compared to all metro counties. This difference in non-metro funding is explained by the relatively high level of payments to individuals in farm-dependent counties. Over half (277) of the 477 Great Plains counties were farm-dependent. The per capita annual government payments to these farm-dependent counties was \$6,196. The 26 ERS-defined government-dependent counties and the 62 persistent

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<sup>43</sup>U.S. Census of Agriculture, *Ranking of States and Counties*, vol. 2, part 2, 1997.

<sup>44</sup> See Rick Reeder, F. Bagi, and S. Calhoun, "Which Federal Programs Are Most Important for the Great Plains?" USDA-ERS, *Rural Development Perspectives*, vol. 13. no. 1, June 1998.

poverty counties received \$6,462 and \$5,886 per capita, respectively.<sup>45</sup> The relatively few non-metro counties receiving low federal payments per capita tended to be (1) near or adjacent to metro counties, (2) specialize in mining, and (3) have little farming or were involved mostly in ranching operations.

Aside from retirement, disability, wages, salaries, and contracts, non-metro areas of the Great Plains are distinguished in their receipt of “other” direct payments, which include farm payments. Nationally, “other” direct payments to non-metro counties account for only 2% of federal funds and direct loans only about 4% of federal funds. For Great Plains non-metro counties, “other” direct payments account for 10% of funds and direct loans account for 7% of federal receipts. Farm-dependent counties in the Great Plains receive 17% of their total federal funds from non-farm “other” direct payments, and 12% from direct loans (farm and non-farm).

Federal funding in the Great Plains region may raise questions about the effectiveness of certain rural development strategies or human capital improvements in the region. The region receives higher per capita funding than the nation as a whole for elementary and secondary education, for higher education, and for agricultural and natural resource programs. Much of this latter funding goes to farm-dependent counties which are also disproportionately remote counties. Yet, socioeconomic data indicates that, despite these programs, there has not been a strong positive effect in improving the social welfare for most of the residents of these counties (See Appendices C-I). There are a number of possible explanations. In other rural economies outside the Great Plains, the agricultural sector may be important, but it is situated in an overall economy that is more diverse, thus the agricultural income and employment multiplier effects tend to be diluted in the local economy. In the Great Plains region, direct federal payments for agriculture and community resources are significant within the local economy, even more so in remote counties.<sup>46</sup> Yet, this funding, as an income transfer, appears to have a generally weak effect in building local economic development capacity. Given that farm payments in the late 1990s provided as much as 60% of farm household incomes in some areas of the United States, one can clearly understand their importance to certain families. Because the populations are so small in remote Great Plains counties, however, a few farm households receiving disproportionately higher direct farm payments may give a very misleading impression about per capita income and earnings for the county as a whole. The fact that farming-dependency, remoteness, and poverty are intertwined within a particular county may suggest a distinctive confluence of socioeconomic forces that limit the development potential of these areas.

Federal payments make up a relatively significant share of personal income in the Great Plains. There are also few employment alternatives in the private sector to

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<sup>45</sup>See footnote 9, above. The ERS county classification defines “government-dependent” counties as those where at least 25% of total county income comes from government. See Appendix A for ERS county profiles.

<sup>46</sup>Community resource funding supports economic development, community facilities, environmental protection, housing, and transportation. Compared with non-metro counties nationally, non-metro Great Plains counties receive 32% more in community resources..



replace the exodus of jobs from agriculture and mining. Non-metro counties in general and remote counties of the Great Plains in particular have relatively high proportions of elderly and disabled residents, making the federal funds they receive significantly more important to rural residents and communities. Changes in Medicare, federal transportation policies, or agricultural/natural resource programs may, in the absence of employment alternatives, may have a significantly greater effect in the Great Plains than in other regions.

Nationally, the counties with the highest job growth in the 1990s were service-based and government based counties. From 1995-1998 these counties grew at a rate of approximately 1.2%. Mining-dependent counties grew at about 0.7% and manufacturing-dependent counties grew at approximately 0.5% during that period. Job growth was about 0.25% in farm-dependent counties. While the number of farm-dependent counties has decreased nationally from over 60% of non-metro counties in 1950 to about 15% in 2000, most of the counties that remain dependent on agriculture are in the Great Plains region, along with Minnesota and Iowa.

## **Policy Options for Remote Rural Areas of the Great Plains**

Current strategies for rural economic development in the Great Plains are not substantially different from the strategies used in other rural regions. Given the distinctiveness of the problems facing remote rural areas in the region, the effectiveness of current government policies is an important question. It might be impractical to suggest that the tremendous diversity characterizing rural America also implies that separate federal policies should be created for each distinctive rural area. The range of existing federal loans and grants designed to create or support small businesses, improve rural infrastructure, and address the most pressing needs of low-income populations in housing, sewerage, and water have made important contributions to rural residents. One issue that Congress may ultimately face is whether such programs will provide needed economic stimulus in an internationalized economy where U.S. rural areas not only compete with each other, but increasingly with foreign countries, whose labor costs, land, and various regulatory structures may give them advantages.

Virtually any state can point to numerous small-scale, public and private sector rural economic development initiatives achieving notable successes within their borders. New jobs have been created, existing jobs retained, worker skills upgraded, new infrastructure built, and small rural communities revitalized based on a mix of agriculture, small-businesses, public service employment, and entrepreneurial activity. A larger number of remote rural communities, however, either are only holding their own or losing ground in terms of quality of life that the area's existing economic structure can provide. While their socioeconomic characteristics and histories are quite different, they appear to pose some seemingly intractable development problems — intractable in the sense that the current set of federal rural policies do not seem to create the necessary local capacities to effect a significant change in social well-being. The remote rural areas of the Great Plains reveal these challenging development problems, perhaps to a greater extent than any other region

of the United States. Manufacturers find remoteness a significant barrier to relocating facilities; the growth and demand for business and professional services is greatest in urban areas; climate and landscape in the Great Plains offer little to encourage growth of tourism-related development. The result is very few well-paid jobs to replace lost employment in traditional sectors.

One overarching strategy that seems to be emerging is to consider rural economic development in regional terms. New regional development alliances are appearing throughout the United States (discussed below). One reason they may be doing so now is because the long-standing patterns of poverty and economic distress that characterize the Northern Great Plains, as well as other relatively impoverished and socially isolated areas, have not responded as successfully to the existing range of economic development programs as have other rural areas. Second, agricultural production, perhaps more so than in other regions, is central to the economies of remote Great Plains counties. But the summary of research presented here suggests that unless new initiatives in integrating agriculture and rural development strategies are successful, even the long-standing importance of that sector may not reverse the trends now shaping the Great Plains region. Finally, the remoteness of so much of the Great Plains is a significant factor in frustrating even the most optimistic development strategies.

## **A Continuing Role for Agriculture?**

It appears that the agriculture-dependent counties of the Great Plains region generally and remote counties in particular may have stark choices before them. These areas may remain in agriculture because non-agricultural development strategies have not been as successful in the Great Plains region as they have been in other parts of the United States. This is so even though, on a per capita basis, the counties of the Great Plains receive a relatively high level of federal funds. Population in this area is declining because modern agriculture does not provide high-wage jobs and there are few choices for non-farm work. What non-farm work is available is generally low-skilled and/or pays less than comparable work in urban areas.

Single-sector dominated economies are highly vulnerable to external shocks, e.g., global price declines for raw agricultural commodities, cheaper sourcing sites for timber and minerals. Even in local economies where tourism is important, shifts in vacation destinations can damage businesses and related tax revenues. More economically diverse areas weather macro-economic shocks better. With most U.S. farm households heavily dependent on off-farm income, those in rural areas without diversified economies are at an increasing disadvantage.<sup>47</sup> This disadvantage is especially severe for farm-dependent counties. If one assumes that agriculture will remain a significant economic sector in the Great Plains for the foreseeable future, successful rural development strategies may need to consider the extent to which agriculture can impede or promote more diverse rural economies. Rather than

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<sup>47</sup>Only approximately 13% of farm households receive more than 80% of their household income from farming. See Ashock Mishra and M. Morehart, "Farm Families' Savings: Findings from the Arms Survey," *Agricultural Outlook*, April 2002.

focusing largely on policies that aim at bulk production of agricultural commodities, policymakers may begin to evaluate non-traditional ways in which agriculture might contribute to healthy rural economies. In many areas of the country, it may be the case that a healthy non-farm rural economy will become the most effective means of maintaining communities and the future sustainability of the farm population. Rural development researchers and others observe that because less than 2% of rural residents identify farming as their primary occupation, efforts to stimulate economic development through agriculture may not directly address the large majority of the population who have few if any substantial ties to agriculture. The Great Plains might arguably be one area of the United States where a greater emphasis on non-farm policies might have the effect of integrating agriculture in ways that enhance the overall regional economy.<sup>48</sup>

As discussed above, farming-dependent counties are disproportionately represented among remote and low-wage/income counties. Few development strategies that focus on the non-farm sector have had pronounced positive effects in the Great Plains. Other variables limit the economic development opportunities of the region. First, the remoteness of the region makes it unlikely that advanced manufacturing facilities will locate there. Many high-technology manufacturing enterprises increasingly choose to locate near suppliers or their customer base. They also rely on business and professional services that are almost non-existent in remote rural areas. Second, there are fewer natural environmental amenities such as are found in the Mountain West or in many retirement destination areas. The Plains may hold their own beauty to many, but the climate may not be conducive to strategies that rely on attracting and retaining high-paying manufacturing firms. With estimates as high as 300,000 U.S. communities vying for 15,000 firms reportedly seeking to relocate, remote areas of the Great Plains face a serious challenge.

**Structural Changes in Agriculture.** Changes in agriculture have led some analysts to suggest new policy considerations for the Great Plains.<sup>49</sup> Long-standing trends toward fewer, larger, and more specialized commercial farms and ranches in the United States (horizontal integration) are well documented. Not only have these trends been observed for many years, recent data suggest they may be accelerating as pressures increase from global competitors and as new agricultural technologies continue to reinforce the substitution of capital for labor. Some researchers have argued that current trends are leading to a farm structure where 10,000 acre corn farms may soon become the economically efficient size unit for that commodity.<sup>50</sup> Rapid and increasing consolidation and coordination and deepening vertical integration in agriculture are indicators of a more fundamental restructuring occurring in the global food and fiber system today. A growing share of commodity producers,

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<sup>48</sup>Edwin S. Mills, "The Location of Economic Activity in Rural and Non-Metropolitan United States," in E.N. Castle (ed.), *The Changing American Countryside*, (Lawrence: University of Kansas Press, 1995), pp. 103-133.

<sup>49</sup>Michael D. Boehlje, Steven L. Hofing, and R. Christopher Schroeder, *Farming in the 21<sup>st</sup> Century*, Staff Paper # 99-9, Department of Economics, Purdue University, 1999.

<sup>50</sup>National Corn Growers Association, *Changes in the Evolution of Corn Belt Agriculture*, February 2002.

mostly within animal production currently, are joining supply chains.<sup>51</sup> A supply chain is a tightly organized production system formed by agribusiness firms that, in its most coordinated form, could potentially link each step of food production from proprietary genetic material to the grocery shelf. Broiler production is the exemplar of this trend. Approximately 40 firms now contract to produce 97% of all broilers. These trends are appearing increasingly in pork production and are beginning in cash grains.

A distinguishing characteristic of supply chains is their reliance on contractual agreements, licenses, joint ventures, integrated ownership, and other business arrangements with different segments of the agro-food system. These alliances with producers may permit contracting firms to by-pass more traditional commodity markets. To better insulate themselves from price volatility and dwindling markets, many commodity producers are abandoning their independent operations and adopting contract commodity production and marketing arrangements with agribusiness firms. According to the USDA's Economic Research Service, about 35% of the total value of U.S. agricultural production in 1998 was produced under some form of contractual arrangement.<sup>52</sup> Over half of large family farms are involved in some form of contracting and these farms accounted for over 66% of the total value of commodities under contract.<sup>53</sup> Over 90% of the total value of contract production was in 10 commodity groups: soybeans, corn, fruit, vegetable, nursery, cotton, cattle, hogs, poultry, and dairy.

The growth of supply chains has implications for remote Great Plains counties because of their potential for creating geographically specific production sectors in agriculture that some observers have characterized as a hub, spoke, and wedge cluster.<sup>54</sup> For example, a livestock-processing plant located at a hub is built near livestock-feeding operations. These feeding operations are supplied by mills drawing their grain and oilseed through transportation and communication spokes connecting crop production "wedges" in the periphery. Few clusters may be needed to supply the demand. Many farming areas that might wish to become a "hub" may not be able to assemble the necessary capital and managerial services to do so. The characteristics of remote rural counties of the Great Plains might make the region compatible with large-scale animal operations. On the other hand, it is possible that only a relatively few hubs will be economically feasible under supply chain arrangements. Other countries, e.g., Canada, may also become increasingly competitive as supply hubs. Some industry observers believe that under a supply chain arrangement, for example, 50 or fewer pork producers and 12 state-of-the-art

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<sup>51</sup>Mark Drabenstott, "Rural America in a New Century," *Main Street Economist*, Federal Reserve Bank of Kansas City, October 1999.

<sup>52</sup> USDA-ERS, *Agricultural Resource Management Study*, 1998.

<sup>53</sup>*Ibid.*

<sup>54</sup>Mark Drabenstott and L. G. Meeker, "Consolidation in U.S. Agriculture: The New Rural Landscape and Public Policy," *Economic Review*, Kansas City Federal Reserve, October 1999.

packing plants could, in the near future, supply the entire U.S. pork market.<sup>55</sup> Integrated ownership of a supply hub could also displace resources from traditional farms and rural areas.<sup>56</sup>

The trends toward supply chains and integrated agro-food chains may pose problems for remote, farm-dependent areas in the Great Plains. A different kind of agriculture, however, one that is not oriented exclusively to the production of bulk commodities, may have some potential in revitalizing the Great Plains. A recent workshop on integrating agriculture into rural development strategies pointed to many new agricultural ventures that have been successful.<sup>57</sup> They tend to be based on small-scale entrepreneurship, new marketing strategies, and the needs of rural people and consumers. New opportunities in value-added production may also offer remote counties in the Great Plains a way to build production agriculture into new economic development strategies.<sup>58</sup> Given the role that the land-grant system plays in the “treadmill of production,” Congress may also consider ways of making publicly funded agricultural research more responsive to the needs of new agricultural enterprises, e.g., non-traditional crops, alternative production systems, marketing strategies for value-added agricultural development. With the aging of existing farm owner/operators, new opportunities for beginning farmers may offer other ways to revitalize the relation between agriculture and rural economic development.<sup>59</sup> This is not to suggest that large-scale agriculture will cease to have a significant role in the Great Plains. The Great Plains may actually offer new competitive advantages for this sector through innovations in environmental control and management technologies directed toward the agricultural sector.

It has long been a central statement of hope and optimism that support for agriculture would translate into strong, sustainable rural communities. When agriculture dominated the rural economy in the early 20<sup>th</sup> century, this was, in large part, true. But, with the exception of some areas of the United States, agriculture plays a relatively small role in most rural economies now. Modernizing agriculture has traditionally meant improving production; and improving production has been defined almost exclusively as increasing output per unit. Supported by the land-grant university system, research into ever-increasing production efficiency has also been

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<sup>55</sup>G. Benjamin, “Industrialization in Hog Production: Implications for Midwest Agriculture,” *Economic Perspectives*, Federal Reserve Bank of Chicago, 1997.

<sup>56</sup>Opposition to these industrialization trends is also widespread because concentration and consolidation in the agro-food industry continues to be regarded as a significant threat to the survival of small family farms. See, for example, William Heffernan, *Consolidation in the Food and Agriculture System*, Report to the National Farmers Union, February 1999.

<sup>57</sup>See *Agriculture as a Tool for Rural Development: Workshop Proceedings*, Henry A. Wallace Center for Agricultural and Environmental Policy, April 2003.

<sup>58</sup>Nontraditional crops, new agricultural production techniques, small-scale processing facilities, and bio-fuel plants may offer rural areas new ways of integrating agriculture into local economies. See CRS Report RL31598, *Value-Added Agricultural Enterprises in Rural Development Strategies*.

<sup>59</sup>Some programs do exist. A portion of Farm Security Agency loans are earmarked each year for beginning farmers.

associated with ever increasing scales of production. Larger and larger farms and ranches capable of taking advantage of scale efficiencies were often seen as a necessary correlate to technologically driven agriculture. That model has been captured most succinctly in Willard Cochrane's analogy of the "treadmill of production."<sup>60</sup> Output-enhancing research benefits consumers in lowering the price of food, but it can be argued it does so at the expense of the producer who must adopt the newest output-enhancing research on ever-shrinking profit margins.

## Overcoming Remoteness: An Interstate Skyway System

While other rural areas in the United States may be at some distance from urban areas or even sizeable population centers, the Great Plains region has few population centers and very few large cities. The Northern Great Plains Regional Authority is working on a regional transportation plan that will integrate new telecommunications technology and rail, bus, truck, maritime, and air transportation.<sup>61</sup> Certain innovations occurring in air transport may also hold new possibilities for the region in mitigating the impact of remoteness.

In 2001, Congress authorized the Commission on the Future of the U.S. Aerospace Industry (P.L.106-398).<sup>62</sup> The Commission's final report was issued in November, 2002. The report envisions an integrated 21st Century transportation system based on a common infrastructure of communications, navigation, and surveillance systems. The report proposes an "interstate skyway system" — like the Eisenhower highway program of the 1950s and 1960s — using broadband digital communications, precision surveillance and navigation, and high-resolution weather forecasts. Such a system could link small, remote areas within a larger region and thus make them more appealing areas for economic development.

The Commission report reviewed data that suggest the hub-and-spoke system characterizing the existing passenger airline system may become obsolete as it

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<sup>60</sup>The "treadmill effect" refers to technology and its influence on agricultural production. In the quest for a safe, plentiful, and inexpensive food supply, land grant universities and a public support system promote this as a public good. Advancements in technology create the "treadmill effect" for agricultural producers by continuously requiring the systematic adoption of new technology in order to remain competitive. In turn, this systematic adoption of technology either reduces or holds prices down for farmers while it increases their cost of production. Producers who fail to adopt new technology lose their competitive advantage. Producers who adopt new technology are often rewarded with even lower prices and a narrower profit margin. See Willard Cochrane, *The Development of American Agriculture: A Historical Analysis*, 2nd ed., (Minneapolis: University of Minnesota Press, 1993).

<sup>61</sup>*Overview of Transportation Infrastructure and Services in the Northern Great Plains*, report prepared for the Northern Great Plains Regional Authority by the Northeast-Midwest Institute, 2000.

<sup>62</sup>The Commission on the Future of the United States Aerospace Industry was established by Section 1092 of the Floyd D. Spence National Defense Authorization Act of 2002. The Commission was formed to study the future of the United States aerospace industry in the global economy, particularly in relationship to United States national security; and to assess the future importance of the domestic aerospace industry for the economic and national security of the United States.

becomes increasingly congested. In its stead, the Commission recommended the further investigation of a Small Aircraft Transport System (SATS), essentially an air-taxi system. Such a system could link small, remote areas within a larger region, and, with capacity for regional travel, some of the disadvantages of remote locations might be mitigated. Whether this innovation could make the Great Plains more attractive to manufacturers is unknown.

The SATS concept is based on a new generation of affordable small aircraft supported by an airborne “internet.” Each would operate within a system of small airports serving thousands of suburban, rural and remote communities. The SATS concept makes greater use of small aircraft for personal and business transportation. SATS should be able to do this by increasing the supply of smaller aircraft for “flight-on-demand” and for use in “point-to-point” direct travel between smaller aviation facilities (such as regional airports, general aviation and other landing facilities including heliports).

The SATS architecture would incorporate an advanced, on-board weather data collection system for any landing facility in the United States. SATS would use Internet communications technologies for travel planning and scheduling. SATS research is intended to create the possibility of using landing facilities that would not require control towers or radar surveillance. The SATS architecture would be created to operate within the National Airspace System (NAS), but in a more automated manner among the 5,000 or so existing public-use landing facilities. With a total of over 18,000 of these smaller landing facilities serving vast numbers of communities in the United States, ultimately, all of these facilities could employ SATS operating capabilities.

National Aeronautical and Space Administration (NASA) investments in technologies have led to the emergence of a new generation of small aircraft. These new aircraft would possess near-all-weather operating capabilities and would be compatible with the modernization of the National Airspace System. The new aircraft would incorporate state-of-the-art advancements in avionics, airframes, engines, and advanced pilot training technologies.

## **Regional Approaches to Rural Economic Development**

**Introduction.** Regional economic development alliances are enjoying a resurgence of interest in many parts of the United States. While the concept of such alliances is not new, its application to rural areas has been minimal. Proponents of regional approaches share the view that the historic pattern of community-based economic development no longer addresses the complexity of rural issues that may characterize a larger geography. The fiscal crises in many states are also creating pressures on many rural communities to seek new solutions to providing essential community services through pooling resources. Largely the creation of state and regional development entities and metropolitan planning organizations, these new regional organizations have adopted two general categories of strategies. First, strategies based on the types of regions involved, i.e., regional organizations that attempt to address common problems arising between urban and rural areas or that better balance urban and rural needs as these areas overlap. A second development category is based on the types of projects in which regions are involved, e.g., building

or revitalizing rural cultures, developing broadband capacity, preserving natural resources, enhancing transportation infrastructure.<sup>63</sup>

Congress has had a long history of support for regional authorities such as the Tennessee Valley Authority (TVA) and the Appalachian Regional Commission (ARC). Both the TVA and the ARC have continued to support economic development and social change in their respective regions. A substantial body of literature now exists on the impact of these regional authorities. While there continue to be differences in opinion about the development successes of these authorities, an empirical assessment of ARC's impact over 26 years in the region's 391 counties, concluded that the programs did produce significant growth. Using a methodology based on paired communities, the authors concluded that growth was significantly faster in the 391 Appalachian counties than it was in the control counties. This also held true for Central Appalachia, the poorest sub-region in the ARC. Another reported result was improved local planning in ARC counties compared to the control counties.<sup>64</sup>

More recently, Congress has authorized new regional approaches to common concerns by establishing the Denali Commission (1998), the Delta Regional Authority (2000) and, most recently, the Northern Great Plains Regional Authority (2002). Legislation for three other regional bodies was also introduced in the 108<sup>th</sup> Congress: (1) a bill to establish a Southwest Border Authority to promote economic development in the border regions of Arizona, California, New Mexico and Texas (S. 458/H.R. 1071); (2) a bill to create a regional authority in the Southeast (H.R. 141), The Southeast Crescent Authority (SECA). The SECA would assist economically distressed communities in Alabama, Georgia, Florida, Mississippi, North Carolina, South Carolina, and Virginia; and (3) a bill to create the Delta Black Belt Regional Authority (H.R. 678). The bill to create the Southwest Border Authority was referred to the Committee on Environment and Public Works in February 2003. The bill to establish the SECA was referred in January, 2003 to the Subcommittee on Economic Development, Public Buildings and Emergency Management of the House Transportation and Infrastructure Committee and in February, 2003 to the Subcommittee on Domestic and International Monetary Policy, Trade, and Technology of the House Financial Services Committee. In June, 2003, the Subcommittee on Economic Development, Public Buildings and Emergency Management forwarded the measure to its Full Committee. The bill to create the Delta Black Belt Regional Authority was referred to the Subcommittee on Domestic and International Monetary Policy, Trade, and Technology on March 10, 2003.

**The Northern Great Plains Regional Authority (NGPRA).** The NGPRA is a newly created federal-state-provincial partnership that includes Iowa,

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<sup>63</sup>For a selective overview of five case studies of regional development organizations, see *Multi-Region Economic Development Strategies Guide: Case Studies in Multi-Region Cooperation to Promote Economic Development*, National Association of Regional Councils, 2000.

<sup>64</sup>Andrew Isserman and T. Rephann, "The Economic Effects of the Appalachian Regional Commission: An Empirical Assessment of 26 Years of Regional Development Planning," *Journal of the American Planning Association* 61 (3), summer 1995.



Minnesota, Nebraska, North and South Dakota, and the Provinces of Manitoba and Saskatchewan. In 1994, Congress passed the Northern Great Plains Rural Development Act (P.L.103-318). The following year, the Northern Great Plains Rural Development Commission was established. In 1997, the Commission issued its regional development report to Congress and the Commission was sunset. Later that year, NGP, Inc. was established to implement the Commission's recommendations. Discussions with the region's congressional delegation led to a plan to create a regional development authority similar to the one Congress created for the Delta Authority. The Farm Security and Rural Investment Act of 2002 (P.L.107-171, Section 6028) established the NGPRA to implement the Commission's plan and authorized \$30 million to be appropriated each year (2002-2007) to support the Authority's programs. No funding, however, was appropriated for the Authority in FY2002 or FY2003. For FY2004, the Authority was provided \$1.5 million in funding by the Consolidated Appropriations Act of 2004 (P.L.108-199).

At the local level, the NGPRA intends to rely on the existing network of the Economic Development Administration's (EDA) designated economic development districts to coordinate efforts within a multi-county area. These EDA districts, known as local development districts (LDDs), are regional entities with extensive experience in assisting small municipalities and counties improve basic infrastructure and help stimulate economic growth. They also serve as the delivery mechanism for a variety of other federal and state programs, such as aging, economic development, emergency management, small business development, telecommunications, transportation and workforce development programs.

***NGPRA Economic Development Strategies.*** The NGPRA has identified four areas for their strategic planning: (1) Agriculture and Natural Resources, (2) Economic and Policy Analysis, (3) Information Technology, and (4) Leadership Capacity Development. Given the central role of agriculture in the regional economy, the Authority is integrating into its planning: shifts in consumer demand toward organic foods; a recognition of the shift to supply-chains in production (discussed above) and the corresponding need to develop identity preserved commodities; and the emerging importance of non-food commodities, i.e., bio-based industrial commodities. A central objective is to turn the Great Plains into an internationally recognized center for biomass research and use. These agricultural plans are also grounded more broadly in transforming the transportation systems of the regions, developing local and regional leadership capacity, and expanding the availability and use of information technologies within the region.

## **Legislation in the 108<sup>th</sup> Congress**

As with past congresses, Members of the 108<sup>th</sup> Congress have introduced a wide range of bills that would have direct implications for rural areas. Legislation addressing health care, business development, Medicare, community development organizations, telecommunications, transportation, conservation, and Native American issues, among others, either target rural areas specifically or are open to all political jurisdictions. In addition to these initiatives, funds for rural development programs authorized by the 2002 farm bill (P.L.107-171) also provide loan and grant support specifically to rural areas for water and waste water facilities, value-added

agricultural development, telemedicine, rural business development, alternative energy, Native Americans, and rural housing.

Two bills introduced in the 108<sup>th</sup> Congress (H.R. 2194 and S. 602) and discussed below, specifically target areas that have suffered significant population out-migration over the past 20 years. While not designating remote rural areas *per se*, the bills' provisions may be of particular interest to remote areas. Approximately one-third of the 242 remote counties had the population losses in the last decade alone that qualify for assistance authorized in these two bills (see also Figure 1 above). A third bill (H.R. 137) targets rural job creation and labor training from a regional basis. Supporters say that regional approaches to rural development may hold particular promise through the increased recognition of the significant ties that exist between urban/suburban areas and their outlying rural areas.

**New Homestead Act (H.R. 2194 and S. 602).** These identical bills provide financial assistance and incentives designed to stem population out-migration from rural areas. The qualifying criterion is that an individual live in or relocate to a county that is (1) outside a metropolitan statistical area and (2) has suffered a 10% or greater population out-migration over the previous 20 years. Modeling itself on the original Homestead Act of 1862, the bill would provide financial incentives to both individuals and businesses. Provisions include:

### **I. New Homestead Opportunities**

- Student loan repayments: Authorizes the Secretary of Education to pay up to a total of \$10,000 over five years to any person who (1) completes either an associate or bachelor degree and (2) resides in a qualifying county and (3) is employed in a qualifying county. These provisions would potentially have the effect of stemming the loss of the most educated ;
- Tax incentives for new home buyers: Provides \$5,000 tax credit for the home purchases of individuals who locate in qualified areas for five years (or 10% of purchase price, whichever is lower);
- Tax deductions: Protects home values by allowing losses in home value to be deducted from federal income taxes;
- Individual Homestead Accounts: Creates tax-favored accounts to help build savings and increase access to credit. Individuals can contribute a maximum of \$2,500 per year for up to five years and there is a government-matching contribution of 25-100% depending on income. Tax and penalty-free distributions can be made after five years for small business loans, education expenses, first-time home purchases, and un-reimbursed medical expenses. Accounts can grow tax-free and all funds are available for withdrawal upon retirement.

### **II. New Incentives for Main Street Businesses**

- Creates Rural Investment Tax Credits to target investments in high out-migration counties. States receive \$1 million of these credits per eligible county. Credits are allocated to businesses that move to or expand to a qualifying county. Businesses use these credits to offset the cost of newly

constructed or existing buildings. Over a 10-year period, businesses can use these credits to reduce their taxes by as much as 80% of their total investment.

- Authorizes Micro-enterprise Tax Credits to aid small businesses (5 or fewer employees) in high out-migration counties. Micro-enterprises can use the tax credits to reduce their taxes by 30-percent of their qualifying new investment (limited to \$25,000 lifetime). For equipment purchases tied to Rural Investment Tax Credit projects, businesses would be able to accelerate the equipment's depreciation.

### **III. New Homestead Venture Capital Fund**

- Establishes a \$3 billion venture capital fund to invest in businesses in high out-migration counties. The fund would guarantee up to 40% of private investments in existing business and start-ups, and up to 60% of such investments in manufacturing or high-technology ventures;
- The fund can take equity positions and extend credit to other approved entities;
- Federal government would invest \$200 million per year for 10 years; states and private investors would be required to provide yearly matching funds of \$50 million each (or \$1 for each \$4 of federal funds).

**New Homestead Economic Opportunity Act (H.R. 1686).** This bill is almost identical to H.R. 2194 and S. 602. It includes the same titles and authorizes the same provisions with some slight modification (e.g., the student loan repayment maximum is \$3000 per year rather than \$2000). As with the New Homestead Act, this bill also makes living and working in a county with a 10% population out-migration over the previous 20 years the qualifying criterion for assistance.

**Rural America Job Assistance and Creation Act (H.R. 137).** This bill is also aimed at improving the opportunities available to areas where population out-migration is significant.

- Expands the Work Opportunity Tax Credit within designated "development zones" where population has declined, where job growth is low, and where poverty is high;
- Provides grants to business consortia for developing the work skills of regional workers. The training is directed toward the development of skills that are benchmarked to advanced industry practices;
- Provides grants for business "incubators" for newly established small and medium-sized businesses.

**Status of Legislation.** In June 2003, H.R. 2194 was referred to the House Agriculture Subcommittee on Conservation, Credit, Rural Development and Research and S. 602 was read twice and referred to the Committee on Finance. H.R. 1686 was also referred to the House Agriculture Subcommittee on Conservation, Credit, Rural Development and Research. H.R. 137 was referred to the House Financial Services Committee Subcommittee on Domestic and International Monetary Policy, Trade, and Technology in February, 2003.

## Conclusion

Some might argue that what is occurring in the remote counties of the Great Plains region today is the inevitable logic of technological progress, the decline of older industries, and the existence of more attractive opportunities in urban areas. Moreover, it represents a long-standing cycle of economic ups and downs for the region. But an argument can also be made that the output-enhancing technologies of public agriculture research were never neutral. From this perspective, it is necessary to review real, tangible costs as well as gains. There is ample evidence that relocation decisions are not uni-dimensional: People do not relocate simply to increase income; opportunities to increase household income are weighed against competing desires and interests. The desire to live in a rural community where one's family has long resided are understandable decisions made with conscious trade-offs. People do leave areas, however, when there are very few choices for gaining a livelihood. Data discussed above indicates that the Great Plains remains disproportionately farm-dependent, that it is suffering a substantial population out-migration, that traditional rural economic development strategies have not been notably successful in the region, and that the Great Plains relies heavily on various forms of federal payments. While such payments also go to other areas in the United States, they are now central to the well-being of many residents of the Great Plains. Yet, the form of payments, i.e., income supports, may not have the same long-term impact as capital investment funds. In the absence of successful efforts to reverse the decline, the result of these various trend lines appears somewhat pessimistic.

Historical evidence reveals how the changing organization of industrial production produces clear winners and clear losers. The rise of the textile industry in 18<sup>th</sup> century Britain depopulated rural areas in the course of two generations, displaced skilled craftsmen, and forever altered the social and spatial histories of that country. The long trend-line of a shrinking farm sector in the United States is not news. It has happened in every region of the country. But, the conditions in the remote counties of the Great Plains are different in degree if not kind and may require different responses. The slow decline of agricultural employment has not been accompanied by significant opportunities in other areas. One observer testified before Congress, "the farm and ranch communities of the nation's heartland are in the midst of an opportunity crisis."<sup>65</sup>

Some analysts and observers would hold that, in the absence of evidence that public intervention was a necessary correction to otherwise well-functioning markets, what is occurring in the Great Plains, while disruptive, may be inevitable. From that perspective, the question asked above of "Why invest in rural America?" will have been definitively answered by market logic.<sup>66</sup> Not doing anything but allowing existing trends to continue unabated, may, in effect, be a public policy. The

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<sup>65</sup>Chuck Hassebrook, testimony on rural development before the Senate Agriculture, Nutrition, and Forestry Committee, 107<sup>th</sup> Congress, 2<sup>nd</sup> session, August 2, 2001.

<sup>66</sup>This is not to imply that economic criteria are the only or even the most important basis for making economic development decisions. While market forces remain the dominant means of allocating resources and wealth in the United States, they have never been the sole means of making policy decisions.

consequences of such policy a decision may not have been adequately assessed, however. The great difficulty is determining what the realistic options are from a public policy perspective. Initial congressional efforts to create new incentives to reverse regional population out-migration would predictably be welcomed by Great Plains communities. In their view, reversing population out-migration may be the first order of business.<sup>67</sup>

It can be argued that the Great Plains is not remote because it is economically undeveloped; it is economically undeveloped because it is remote and remains largely dependent on a single dominant but declining economic sector. New initiatives in regional transportation and developments in broadband telecommunications may offer important if partial solutions to some of the problems of remoteness. At their height in the 1960s and 1970s, however, U.S. regional policies to address rural-urban disparities were still relatively modest efforts.<sup>68</sup> Current congressional efforts to expand on regional solutions in other geographic areas may produce outcomes that the Great Plains Regional Authority can adapt to their own circumstances. But unless the areas become more attractive for people to live and work, such interventions may produce only modest changes.<sup>69</sup> Market changes and the deepening of economic internationalization may direct precisely that outcome. Yet, policymakers, rural researchers, and rural observers have yet to fully understand how spatial and socioeconomic environments have interacted to produce the existing development patterns in the Great Plains and retarded alternative patterns.<sup>70</sup> Remoteness is not the only variable in these interactions, but it may serve

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<sup>67</sup> Michael Lind, "The new Continental Divide," *The Atlantic Monthly*, January-February 2003.

<sup>68</sup>In contrast, Europe has embraced relatively ambitious regional programs. This regional emphasis in Europe may reflect more pronounced disparities between urban areas and rural regions there compared to the United States. Most recently, one can see this policy difference in the EU's Common Agricultural Policy reforms, where rural development is one of the three central pillars of agricultural reform.

<sup>69</sup> Some regional development analysts have argued that making areas attractive to the "creative classes" is a necessary ingredient for successful economic development in the future. Conventional economic development models may no longer suffice. Focusing more on why certain cities are declining and others thriving, these observers cite the importance of making adaptations in local cultures to attract and retain creative class employees. Business have begun doing this, but civic leaders have generally not grasped that what is true for corporations may also be true for cities and regions. See Richard Florida, *The Rise of the Creative Class* (New York: Basic Books, 2002). In contrast, other analysts have argued that the statistical evidence for the role of the "creative class" is far less convincing. See Steve Malanga, "The Curse of the Creative Class," *City Journal*, vol. 14 (1), winter 2004.

<sup>70</sup>It is also the case that what rural researchers often think is effective might be otherwise. In a late 1980s study of 548 non-metro counties, researchers for the National Governors' Association were surprised to learn that 13 variables widely thought to be important factors in differentiating communities that grew from those that did not (e.g., change in employment, federal spending on development, county population, adjacency to a metro area) could only explain about 17% of the growth that actually occurred. See Sandra S. Batie, DeWitt John, and Kim Norris, *A Brighter Future for Rural America? Strategies for* (continued...)

as a proxy for a multi-dimensional set of characteristics that exerts a powerful influence on the possibilities available to the Great Plains region. Rural development programs that are *place-specific*, i.e., that take existing social and economic development programs and modify them to address the particular circumstances of specific rural areas, could have value to the Great Plains region and other distinctive rural areas.

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<sup>70</sup>(...continued)

*Communities and States* (Washington, D.C.: National Governors' Association, 1988).

## Appendix A. Measuring Rurality

Rural development researchers have pointed out the importance of developing more analytically sound rural taxonomies for public policy.<sup>71</sup> Probably the most widely cited rural typologies were developed by USDA's Economic Research Service. These typologies are based on a county's general economic specialization and its policy type (**Tables 7 and 8**). While they have been very useful for breaking down the great diversity of rural areas into more manageable units, they may not be as useful for targeting rural development policies as typologies that are comprised of multi-dimensional scales. Linking a particular set of rural development policies to varied rural conditions would be aided by the development of a rural taxonomy permitting the delineation of one group of rural places from another based on a set of particular characteristics of the rural places. Remote rural areas have characteristics that are different from, for example, rural areas that are within closer commuting distance to a city. They do not differ from other rural areas simply in terms of their remoteness, although this is a significant characteristic. Rather, remoteness seems to be a central identifier encompassing multidimensional attributes of these areas, for example, significant population loss, low-wages, above average poverty, distinctive demographic characteristics, single-sector economies and/or high-unemployment. Particular combinations of socioeconomic characteristics could be helpful in identifying particular policy regimes to address the particular needs of these areas.<sup>72</sup>

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<sup>71</sup>See David Freshwater, "What Can Social Scientists Contribute to the Challenges of Rural Economic Development?" *Journal of Agricultural and Applied Economics* 32 (2), August 2000.

<sup>72</sup>*Ibid.*, p.348.

**Table 7. USDA Classification of Non-Metro Counties by Economic Type**

<b>Economic Type (1)</b>	<b>Definition</b>	<b>Number of Counties (1989 data)</b>
Farming-dependent	Greater than or equal to 20% of total labor and proprietors' income from agriculture	556 <sup>73</sup>
Manufacturing-dependent	Greater than or equal to 30% of total income from manufacturing	506
Mining-dependent	Greater than or equal to 20% of total income from mining	146
Government-dependent	Greater than or equal to 25% of total income from government	244
Service-dependent	50% or more of total income from service sector employment (2)	323

**Source:** Cook, Peggy J. and Karen L. Mizer. *The Revised ERS County Typology*. USDA-ERS, November. 1994.

(1) Economic and policy types can and do overlap

(2) The service sector encompasses a wide variety of employment and includes such areas as retail, business and professional services, education, finance, insurance, and real estate.

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<sup>73</sup>The data here are quite old. This table provides a general distributional picture that may still be valid, although the counties falling into each category have likely changed. For example, in 1999, ERS reported that there were 312 farming-dependent counties, a decline of 44% since 1989.



**Table 8. USDA Classification of Non-Metro Counties by Policy Type**

Policy Type (1)	Definition	Number of Counties (1989 data)
Transfer-dependent	25% or more of personal income from Federal/State/local transfer payments (weighted average)	381
Retirement-destination	Population aged 60 and older increased 15% or more during 1980-1990	190
Persistent Poverty	20% or more of county population in each of four years: 1960, 1970, 1980, 1990 with poverty-level income	535
Commuting	40% or more of county's workers commuting outside their county of residence in 1990	381
Federal Lands	30% of county's land area federally owned in 1987	270

**Source:** Cook, Peggy J. and Karen L. Mizer. *The Revised ERS County Typology*. USDA-ERS, November, 1994.

(1) Economic and policy types can and do overlap.

Researchers at the USDA's Economic Research Service also developed two widely used, unidimensional scales that divide the 3,141 counties, county equivalents, and cities into nine codes. The first (**Table 9**) classifies urban counties by size and non-metro counties by their degree of urbanization and proximity to a metro area. The scale permits analysis of trends in non-metro areas that may be related to population density and the influences from the metro area. "Adjacent" non-metro counties are physically adjacent to one or more of the Office of Management and Budget's (OMB) Metropolitan Statistical Areas (MSA) and have at least 2% of the employed labor force in the non-metro county commuting to central metro counties. Non-metro counties that do not meet these criteria are classified as "not adjacent."

**Table 9. Rural-Urban Continuum Codes**

Code	Description
<b>Metropolitan Counties</b>	
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 250,000 population
<b>Non-Metropolitan Counties</b>	
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area.
7	Urban population of 2,500 to 19,999, not adjacent to a metro area
8	Completely rural or less than 2,500 urban population, adjacent to a metro area.
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area

**Source:** USDA Economic Research Service.

**Table 10** presents a second scale based on the evidence that an area's geographic context has a significant effect on its development. It is somewhat discouraging for rural development researchers to acknowledge that over the past 20 years, most successful rural areas became so through some urban-based influence.<sup>74</sup> The Urban Influence Codes in Table 10 recognize this empirical reality and classify counties both by size and by access to larger economies. Small rural economies with access to centers of trade, finance, and communication fare much better socially and economically than remote counties. While the Internet may make some physical access less important in the future, those rural areas with access to dynamic population centers are more likely than remote rural areas to create and maintain diverse and successful economies.

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<sup>74</sup> Some researchers regard the city as the essential engine of development. See Jane Jacobs, *The Economy of Cities* (1969) and *Cities and the Wealth of Nations* (1984).

**Table 10. Urban Influence Codes**

<b>Code</b>	<b>Description</b>
<b>Metropolitan Counties</b>	
1	Large - in a metro area of 1 million or more population.
2	Small - in a metro area of fewer than 1 million population.
<b>Non-Metropolitan Counties</b>	
3	Adjacent to a large metro area and contains a city of at least 10,000 population.
4	Adjacent to a large metro area and does not contain a city of at least 10,000 population.
5	Adjacent to a small metro area and contains a city of at least 10,000 population.
6	Adjacent to a small metro area and does not contain a city of at least 10,000 population.
7	Not adjacent to a metro area and contains a city of at least 10,000 population.
8	Not adjacent to a metro area and contains a town of at least 2,500-9,999 population.
9	Not adjacent to a metro area and does not contain a city of at least 2,500 population.

**Source:** USDA Economic Research Service.

The Urban Influence Codes are based on the official OMB metro status as announced in June, 1993, and rely on population and commuting data from the 1990 Census of Population. Non-metro counties are considered adjacent if they abut a metro area and have at least 2% of employed persons commuting to work in a core county of the metropolitan area.

There are 836 metro counties, of which 311 are part of large metro areas and 525 are part of small metro areas. There are 2,305 non-metro counties, 186 adjacent to large metro areas and 63 that contain their own city. Another 815 non-metro counties are adjacent to small metro areas, of which 188 have their own city. Of the 1,304 non-metro counties that are not adjacent to a metro area, 234 have their own city, 555 have a town, and 515 are rural. Not all metro areas are completely surrounded by adjacent counties. Some counties abutting metro areas do not meet the 2% commuting requirement to be considered "adjacent." Some of the urban influence groups are concentrated in particular census divisions. The most concentrated are the rural non-adjacent counties: 41% are in the West North Central Division of the United States which includes Nebraska, South Dakota, North Dakota, and Montana.

## Appendix B. Top 25 Industries in Low-Wage Rural Counties

Low-Wage Counties				Other Rural Counties		
Rank	Standard Industrial Classification	Share of Jobs (%)	Annual Earnings per Job	Rank	Share of Jobs (%)	Annual Earnings per Job
1	Elementary and secondary schools	10.6	\$20,230	1	7.5	\$22,487
2	<b>Eating/drinking places</b>	7.3	\$6,997	2	6.6	\$7,788
3	<b>Grocery stores</b>	4.1	\$10,671	4	3.4	\$12,047
4	<b>Nursing and personal care</b>	3.9	\$12,015	5	2.4	\$13,981
5	<b>Government offices</b>	3.5	\$14,062	7	2.0	\$18,572
6	Hospitals	3.4	\$19,917	3	3.9	\$24,161
7	<b>Hotels and motels</b>	2.2	\$9,878	9	1.6	\$12,584
8	<b>Mens/boys clothing</b>	2.1	\$12,714	25	0.7	\$14,705
9	Banks	2.0	\$22,291	12	1.3	\$23,091
10	<b>Amusement/recreation</b>	1.5	\$12,611	14	1.1	\$13,498
11	<b>Gas stations</b>	1.5	\$10,674	17	1.0	\$11,907
12	Trucking and courier	1.4	\$21,067	10	1.6	\$24,714
13	Meatpacking	1.4	\$15,817	11	1.4	\$19,986
14	<b>Department stores</b>	1.3	\$11,352	6	2.0	\$12,216
15	Public safety	1.0	\$20,289	13	1.3	\$27,359
16	Solid waste management	0.9	\$24,682	44	0.5	\$28,274
17	Sawmills	0.9	\$18,725	22	0.7	\$24,311
18	U.S. Postal Service	0.9	\$26,783	28	0.6	\$30,625

Low-Wage Counties				Other Rural Counties		
Rank	Standard Industrial Classification	Share of Jobs (%)	Annual Earnings per Job	Rank	Share of Jobs (%)	Annual Earnings per Job
19	Medical offices/clinics	0.9	\$30,364	15	1.1	\$42,290
20	<b>Farm wholesaling</b>	0.9	\$15,044	64	0.3	\$18,758
21	Car dealers	0.9	\$23,171	18	0.9	\$27,269
22	<b>Family services</b>	0.9	\$13,499	24	0.7	\$15,386
23	Home health care	0.8	\$16,458	40	0.6	\$16,678
24	Nondurable wholesaling	0.8	\$19,581	31	0.6	\$21,533
25	Highway construction	0.8	\$20,963	29	0.6	\$21,147

**Source:** 1995 Bureau of Labor Statistical data prepared by USDA Economic Research Service (Gibbs and Cromartie at footnote 39, above).

**Note:** Industries with average earning per job in low-wage counties below the four-person poverty threshold are in bold.

The following tables in Appendices C-I present socioeconomic data on the 242 remote rural counties in seven states of the Great Plains region. Two criteria were used to select the counties: (1) a county population density of 6 or fewer persons per square mile and (2) a Rural-Urban Continuum Code of 6-9 and a Urban Influence Code of 6-9. Only a few of these counties have codes less than 8, making them among the most rural counties in the United States. For a description of these two scales, see Appendix A above.

These county codes are based on the 1990 Census data on worker commuting and the 1993 classification of OMB Metropolitan Statistical Areas (MSA). New Urban Influence Codes and new Rural-Urban Continuum Codes based on the 2000 Census are not expected to be available until mid-2004. The development of updated codes requires commuting data (journey-to-work) from the U.S. Census and the new updated OMB Metropolitan Statistical Areas.

## Appendix C. Remote Kansas Counties

**Table 1**

Kansas Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$) 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Barber	9	9	5307	(10)	5.2	\$33,407	10.1	3.3	\$19,725
Chase	9	9	3030	0	3.9	\$32,656	8.6	4.3	\$17,386
Clark	9	9	2390	(1)	3.2	\$33,857	12.7	1.7	\$21,111
Comanche	9	9	1967	(15)	2.9	\$29,415	10.2	1.5	\$15,604
Decatur	9	9	3472	(14)	4.5	\$30,257	11.6	2.3	\$15,502
Elk	9	9	3261	2	5.1	\$27,267	13.8	4.9	\$16,702
Gove	9	9	3068	5	5.1	\$33,510	10.3	1.6	\$18,690
Graham	8	6	2946	(17)	3.0	\$31,286	11.5	2.3	\$18,616
Greeley	9	9	1534	(13.5)	3.9	\$34,605	11.6	3.6	\$19,158
Hamilton	9	9	2670	11.8	2.4	\$32,033	11.5	1.8	\$20,354
Hodgeman	9	9	2085	(4.2)	2.5	\$35,994	11.5	2.7	\$18,900
Jewell	9	9	3791	(10.8)	4.7	\$30,537	11.6	1.7	\$16,557
Kearny	9	9	4531	12.5	4.6	\$40,149	11.7	4.5	\$20,742
Kiowa	9	9	3278	(10.4)	5.1	\$31,576	10.8	2.1	\$18,275
Lane	9	9	2155	(9.3)	3.3	\$36,047	8.2	3.9	\$20,761
Lincoln	9	9	3578	(2.1)	5.1	\$30,893	9.7	2.9	\$16,288
Logan	9	9	3046	(1.1)	2.9	\$32,131	7.3	2.5	\$19,534
Meade	9	9	4631	9.0	4.3	\$36,761	9.3	2.1	\$21,862
Morton	9	9	3496	0.5	4.8	\$37,232	10.5	2.4	\$26,057
Ness	9	9	3454	(14.4)	3.8	\$32,340	8.7	1.8	\$19,575
Osborne	9	9	4452	(8.5)	5.5	\$29,145	10.4	3.1	\$16,730
Rawlins	9	9	2966	(12.9)	3.2	\$32,105	12.5	2.5	\$17,961
Rush	9	9	3551	(7.6)	5.3	\$31,268	9.7	2.3	\$21,042
Sheridan	9	9	2813	(7.6)	3.4	\$33,547	15.7	1.7	\$21,394
Smith	9	9	4536	(10.7)	5.7	\$28,486	10.7	1.9	\$17,458
Stanton	9	9	2406	3.1	3.4	\$40,172	14.9	2.1	\$20,759

Kansas Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$) 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Trego	9	9	3319	(10.2)	4.2	\$29,677	12.3	2.2	\$17,719
Wallace	9	9	1749	(4.0)	2.0	\$33,000	16.1	3.0	\$17,236
Wichita	9	9	2531	(8.2)	3.8	\$33,462	14.8	3.2	\$22,029
<b>County Average</b>			3173	(5.1)	4.0	\$32,856	11.3	2.6	\$19,094
Kansas			2.69 million	8.5	32.9	\$40,624	9.9	4.3	\$29,360
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

Table 2

Kansas Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999 (Negative numbers in parentheses)	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Barber	5307	21.5	85.8	21.0	2.4	0.2	(8.8)
Chase	3030	18.7	87.1	19.6	(42.5)	26.6	20.6
Clark	2390	21.8	87.4	22.1	27.4	(14.9)	12.4
Comanche	1967	25.8	91.3	15.1	3.8	(20.5)	22.3
Decatur	3472	26.2	86.4	15.4	(16.2)	(3.0)	10.5
Elk	3261	25.3	80.0	10.6	5.2	9.2	17.5
Gove	3068	22.7	84.5	18.4	28.3	(23.6)	47.8
Graham	2946	23.7	83.6	17.4	23.0	16.7	53.2
Greeley	1534	17.7	83.7	17.4	(0.9)	(19.9)	13.4
Hamilton	2670	18.4	76.7	17.4	73.1	(10.6)	48.8
Hodgeman	2085	19.0	86.9	19.7	128.3	(3.0)	63.6
Jewell	3791	25.9	87.6	13.8	22.1	(13.7)	38.7
Kearny	4531	11.1	75.8	15.0	58.7	(29.2)	34.3
Kiowa	3278	21.3	85.2	18.9	26.7	(1.1)	32.9
Lane	2155	20.5	88.5	18.5	27.0	(4.6)	15.1
Lincoln	3578	23.5	85.0	17.4	97.1	(6.8)	3.7



<b>Kansas Counties</b>	<b>Population, 2000</b>	<b>Population 65 and older</b>	<b>High-School graduates, 25 and older (%)</b>	<b>Bachelors degree or higher, (%)</b>	<b>Private non-farm employment change, 1990-1999 (Negative numbers in parentheses)</b>	<b>Per capita income change, 1990-2000 (Negative numbers in parentheses)</b>	<b>Per capita income change, 1980-2000 (Negative numbers in parentheses)</b>
Logan	3046	20.7	86.7	17.5	14.7	(9.3)	(5.0)
Meade	4631	17.9	80.3	19.6	56.4	6.9	36.0
Morton	3496	13.9	81.9	16.6	72.4	15.2	29.2
Ness	3454	24.2	84.4	17.9	36.6	(2.4)	18.5
Osborne	4452	25.7	84.8	15.5	7.6	(9.5)	17.9
Rawlins	2966	25.6	84.7	15.9	19.2	(3.1)	35.9
Rush	3551	25.3	82.8	16.4	31.6	0.4	(0.3)
Sheridan	2813	20.3	87.8	15.9	28.6	14.2	64.3
Smith	4536	27.9	84.6	16.7	6.7	7.7	32.6
Stanton	2406	13.0	78.0	16.9	52.7	(20.2)	62.3
Trego	3319	24.0	84.3	14.0	15.7	(8.6)	7.3
Wallace	1749	18.1	84.0	17.2	41.8	2.0	22.6
Wichita	2531	16.0	77.7	15.5	56.2	(28.5)	60.2
<b>County Average</b>	3173	21.2	84.1	17.0	31.2	(4.6)	27.8
Kansas	2.69 million	13.3	86.0	25.8	18.4	14.3	30.5
<b>United States</b>	281.4	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

## Appendix D. Remote Montana Counties

Table 1

Montana Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$) 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job 2000
Beaverhead	7	8	9202	9.2	1.5	\$28,962	17.1	3.3	\$21,025
Bighorn	6	6	12671	11.8	2.3	\$27,684	29.2	16.8	\$24,234
Blaine	9	9	7009	4.2	1.6	\$25,247	28.1	5.6	\$20,516
Broadwater	9	9	4385	32.2	2.8	\$32,689	10.8	4.3	\$23,852
Carbon	8	6	9552	18.2	3.9	\$32,139	11.6	4.6	\$17,971
Carter	9	9	1360	(9.5)	0.5	\$26,312	18.1	2.3	\$14,572
Chouteau	8	6	5970	9.5	1.4	\$29,150	20.5	3.1	\$16,823
Custer	7	8	11696	0.0	3.1	\$30,000	15.1	3.7	\$21,695
Daniels	9	9	2017	(11.0)	1.6	\$27,306	16.9	2.8	\$20,597
Dawson	7	8	9059	(4.7)	4	\$31,393	14.9	2.7	\$19,602
Fallon	9	9	2837	(8.6)	1.9	\$29,944	12.5	2.6	\$22,622
Fergus	7	8	11893	(1.6)	2.8	\$30,409	15.4	5.8	\$20,657
Garfield	9	9	1279	(19.5)	0.3	\$25,917	21.5	2.2	\$16,007
Glacier	7	8	13247	9.3	4	\$27,921	27.3	11.1	\$22,496
Golden Valley	8	6	1042	14.3	0.8	\$27,308	25.8	4.7	\$17,226
Granite	9	9	2830	11.1	1.5	\$27,813	16.8	7.7	\$19,266
Jefferson	7	7	10049	26.6	4.8	\$41,506	9.0	4.4	\$25,616
Judith Basin	8	6	2329	2.1	1.2	\$29,241	21.1	3.7	\$17,933
Liberty	9	9	2158	(6.0)	1.6	\$30,284	20.3	2.9	\$19,513
Lincoln	7	8	18837	7.8	4.8	\$26,754	19.2	11.3	\$22,503
Madison	9	9	6851	14.4	1.7	\$30,233	12.1	3.4	\$19,597
McCone	9	9	1977	(13.1)	0.9	\$29,718	16.8	2.3	\$19,585
Meagher	8	6	1932	6.2	0.8	\$29,375	18.9	5.9	\$17,876
Mineral	9	9	3884	17.2	2.7	\$27,143	15.8	8.2	\$19,074
Mussel Shell	8	6	4497	9.5	2.2	\$25,527	19.9	6.6	\$17,639
Park	7	8	15694	8.1	5.5	\$31,739	11.4	4.7	\$19,412

Montana Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$) 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job 2000
Petroleum	9	9	493	(5.0)	0.3	\$24,107	23.2	2.4	\$16,212
Phillips	9	9	4601	(10.9)	1	\$28,702	18.3	4.4	\$18,769
Pondera	7	8	6424	0.1	4	\$30,464	18.8	4.2	\$20,180
Powder River	9	9	1858	(11.1)	0.6	\$28,398	12.9	1.9	\$15,200
Powell	7	8	7180	8.5	2.8	\$30,625	12.6	4.8	\$23,862
Prairie	9	9	1199	(13.3)	0.8	\$25,451	17.2	4.6	\$16,765
Richland	7	8	9667	(9.8)	5.1	\$32,110	12.2	4.9	\$21,219
Roosevelt	7	8	10620	(3.4)	4.7	\$24,834	32.4	7.2	\$19,971
Rosebud	7	8	9383	(10.7)	2.1	\$35,898	22.4	7.1	\$29,318
Sanders	9	9	10227	18.0	3.1	\$26,852	17.2	8.3	\$19,929
Sheridan	9	9	4105	(13.3)	2.8	\$29,518	14.7	3.2	\$18,185
Still Water	8	6	8195	25.4	3.6	\$39,205	9.8	3.1	\$37,366
Sweet Grass	9	9	3609	14.4	1.7	\$32,422	11.4	2.6	\$18,244
Teton	8	6	6445	2.8	2.8	\$30,197	16.6	3.5	\$19,512
Toole	7	8	5267	4.4	2.6	\$30,169	12.9	2.7	\$21,916
Treasure	8	6	861	(1.5)	0.9	\$29,830	14.7	3.2	\$17,393
Valley	7	8	7675	(6.8)	1.7	\$30,979	13.5	3.5	\$19,986
Wheatland	9	9	2259	0.6	1.6	\$24,492	20.4	3.5	\$16,953
Wibaux	9	9	1068	(10.3)	0.2	\$28,224	15.3	2.6	\$16,109
<b>County Average</b>			6120	2.6	2.3	\$29,426	17.4	4.8	\$20,111
Montana			902195	12.9	6.2	\$33,024	14.6	4.6	\$24,274
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

**Table 2**

Montana Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Beaverhead	9202	13.6	89.3	26.4	39.5	8.0	27.5
Big Horn	12671	8.6	76.4	14.3	22.9	3.8	(14.1)
Blaine	7009	12.9	78.7	17.4	3.3	(5.6)	166.3
Broadwater	4385	16.4	85.2	15.0	46.9	6.4	22.2
Carbon	9552	16.8	88.1	23.3	43.2	7.9	20.5
Carter	1360	17.9	83.3	13.6	(15.9)	7.3	16.1
Chouteau	5970	17.5	87.1	20.5	26.4	(32.6)	15.1
Custer	11696	17.1	84.9	18.8	21.8	4.1	(0.4)
Daniels	2017	23.5	85.3	14.1	36.5	37.3	63.4
Dawson	9059	17.7	82.7	15.1	6.6	11.3	(2.4)
Fallon	2837	17.9	85.7	14.4	33.3	13.3	(7.8)
Fergus	11893	19.9	86.3	19.1	18.2	5.7	15.1
Garfield	1279	19.3	84.7	16.8	(6.8)	11.8	23.5
Glacier	13247	9.2	78.6	16.5	9.2	6.1	(21.2)
Golden Valley	1042	16.5	70.5	16.2	43.2	(0.5)	19.2
Granite	2830	15.9	87.8	22.1	18.4	(0.8)	8.4
Jefferson	10049	10.3	90.2	27.7	83.5	10.9	29.6
Judith Basin	2329	17.2	87.6	23.6	(33.0)	(16.1)	26.4
Liberty	2158	19.7	75.0	17.6	59.8	(26.2)	0.7
Lincoln	18837	15.2	80.2	13.7	(3.9)	0.9	12.7
Madison	6851	17.2	89.8	25.5	7.2	11.7	21.2
McCone	1977	18.9	86.1	16.4	(7.4)	22.2	22.5
Meagher	1932	18.2	83.4	18.7	10.1	2.2	34.5
Mineral	3884	14.2	83.2	12.3	3.7	0.5	3.9
Musselshell	4497	17.5	82.6	16.7	(8.0)	(7.6)	(26.2)
Park	15694	14.9	87.6	23.1	28.2	15.4	6.9
Petroleum	493	17.0	82.9	17.4	(15.4)	(0.1)	117.2
Phillips	4601	17.6	82.4	17.1	(7.2)	(2.6)	20.8

Montana Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Pondera	6424	3.0	81.6	19.8	10.6	(4.9)	16.9
Powder River	1858	18.5	83.4	16.0	31.8	1.9	(8.3)
Powell	7180	14.0	81.9	13.1	16.6	5.6	13.4
Prairie	1199	24.1	78.8	14.8	116.7	14.1	26.1
Richland	9667	15.6	83.5	17.2	9.4	16.5	6.8
Roosevelt	10620	11.6	80.6	15.6	(3.2)	24.7	17.3
Rosebud	9383	8.9	84.4	17.6	(8.6)	6.6	28.4
Sanders	10227	16.9	81.2	15.5	27.1	4.5	12.5
Sheridan	4105	23.6	81.2	18.4	6.1	28.5	34.5
Stillwater	8195	14.5	87.5	17.8	7.0	29.4	31.8
Sweet Grass	3609	17.6	88.9	23.6	29.6	1.0	6.3
Teton	6445	16.6	83.4	20.8	34.7	(11.7)	15.7
Toole	5267	15.9	81.0	16.8	20.0	(11.3)	(3.0)
Treasure	861	16.7	86.3	18.2	(6.7)	(16.0)	(20.9)
Valley	7675	19.0	83.9	15.7	10.4	24.2	37.7
Wheatland	2259	19.3	69.0	13.5	14.7	(14.6)	(6.7)
Wibaux	1068	21.5	76.8	16.0	80.2	13.9	7.8
<b>County Average</b>	902195	16.4	83.1	17.9	19.1	4.6	18.6
Montana	902195	13.4	87.2	24.4	30.0	10.2	17.9
United States	281.4 million	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

## Appendix E. Remote Nebraska Counties

Table 1

Nebraska Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Arthur	9	9	444	(3.9)	0.6	\$27,375	13.8	3.4	\$13,194
Banner	9	9	819	(3.9)	1.1	\$31,399	13.6	1.7	\$18,604
Blaine	9	9	583	(13.6)	0.9	\$25,278	19.4	1.6	\$19,878
Boyd	9	9	2438	(14.0)	5.2	\$26,075	15.2	3.8	\$16,518
Brown	9	9	3525	(3.6)	3	\$28,356	11.1	3.4	\$19,007
Chase	9	9	4068	(7.1)	4.9	\$32,551	9.6	2.2	\$19,666
Cherry	7	8	6148	(2.5)	1.1	\$29,268	12.3	1.8	\$17,457
Custer	7	8	11793	(3.9)	4.8	\$30,677	12.4	1.9	\$20,363
Deuel	9	9	2098	(6.2)	5.1	\$32,981	9.1	2.8	\$18,206
Dundy	9	9	2292	(11.2)	2.8	\$27,010	13.6	2.0	\$20,528
Frontier	9	9	3099	(0.1)	3.2	\$33,038	12.2	2.1	\$19,218
Garden	9	9	2293	(6.8)	1.4	\$26,458	14.8	3.1	\$20,618
Garfield	9	9	1902	(11.2)	3.8	\$27,407	12.6	1.8	\$16,320
Gosper	9	9	2143	11.2	4.2	\$36,827	7.9	2.2	\$17,688
Grant	9	9	747	(2.9)	1	\$34,821	9.7	1.7	\$15,951
Greeley	9	9	2714	(9.7)	5.3	\$28,375	14.6	3.0	\$17,299
Hayes	9	9	1068	(12.6)	1.7	\$26,667	18.4	2.4	\$18,342
Hitchcock	9	9	3111	(17.0)	5.3	\$28,287	14.9	3.1	\$18,657
Holt	7	8	11551	(8.3)	5.2	\$30,738	13.0	3.0	\$18,439
Hooker	9	9	783	(1.3)	1.1	\$27,868	6.9	3.1	\$14,879
Keya Paha	9	9	983	(4.5)	1.3	\$24,911	26.9	1.3	\$21,236
Kimball	6	6	4089	(0.5)	4.3	\$30,586	11.1	2.2	\$18,881
Logan	9	9	774	(11.8)	1.5	\$33,125	10.5	2.3	\$16,025
Loup	9	9	712	4.2	1.2	\$26,250	17.7	1.9	\$15,521
McPherson	9	9	533	(2.4)	0.6	\$25,750	16.2	1.0	\$13,703
Morrill	9	9	5440	0.3	3.8	\$30,235	14.7	2.8	\$18,879

Nebraska Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Perkins	9	9	3200	(5.0)	3.8	\$34,205	13.6	1.9	\$20,938
Rock	9	9	1756	(13.0)	2	\$25,795	0.0	3.8	\$16,753
Sheridan	9	9	6198	(8.2)	2.8	\$29,484	13.2	2.7	\$16,713
Sioux	9	9	1475	(4.8)	0.7	\$29,851	15.4	1.3	\$14,792
Thomas	9	9	729	(14.3)	1.2	\$27,292	14.3	5.7	\$17,865
Wheeler	9	9	886	(6.5)	1.6	\$26,771	20.9	2.9	\$18,795
<b>County Average</b>			2825	(6.1)	2.7	\$29,241	13.4	2.5	\$17,842
Nebraska			1.4 million	8.4	22.3	\$39,250	9.7	3.1	\$27,692
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

**Table 2**

Nebraska Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Arthur	444	16.4	89.5	15.7	(7.0)	(36.8)	(42.4)
Banner	819	16.0	94.2	19.6	NA	(11.7)	(56.8)
Blaine	583	16.8	93.4	12.3	NA	(43.7)	(12.2)
Boyd	2438	24.3	83.0	12.8	33.1	(13.0)	(12.9)
Brown	3525	22.5	83.3	17.2	25.6	(6.8)	16.3
Chase	4068	21.1	86.4	16.6	26.7	9.5	58.0
Cherry	6148	17.3	85.3	19.4	48.0	1.5	6.3
Custer	11793	21.1	87.5	16.1	2.8	7.6	56.6
Deuel	2098	22.9	85.3	17.4	30.8	(6.7)	(15.3)
Dundy	2292	22.4	82.4	16.7	30.1	4.5	80.3
Frontier	3099	16.9	88.3	17.9	33.2	1.7	57.1
Garden	2293	24.0	85.2	14.2	(0.5)	(2.9)	(16.4)
Garfield	1902	24.8	81.1	13.4	1.2	24.5	65.8
Gosper	2143	20.8	88.9	17.6	7.1	(9.0)	89.7

Nebraska Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Grant	747	13.7	90.3	24.7	46.8	(19.0)	(27.1)
Greeley	2714	23.2	83.2	13.5	20.0	(7.4)	94.3
Hayes	1068	19.9	89.1	11.6	(5.1)	(37.1)	50.0
Hitchcock	3111	22.3	85.6	13.8	(15.5)	(8.8)	12.8
Holt	11551	19.8	84.5	14.5	19.5	4.7	73.1
Hooker	783	26.9	89.7	15.7	47.9	(25.3)	(12.3)
Keya Paha	983	20.7	82.2	15.7	(21.2)	(17.2)	38.5
Kimball	4089	21.0	84.6	13.5	38.9	0.7	(6.8)
Logan	774	17.6	90.8	10.5	28.9	(10.6)	(9.3)
Loup	712	19.5	91.8	13.3	(36.8)	(47.6)	(49.3)
McPherson	533	18.2	88.6	22.2	(36.4)	(40.3)	(27.5)
Morrill	5440	17.0	79.4	14.3	25.8	(13.4)	(22.1)
Perkins	3200	19.3	87.1	17.6	50.7	(7.1)	(0.7)
Rock	1756	22.3	87.4	12.2	38.5	(18.8)	41.2
Sheridan	6198	21.7	86.1	17.2	18.6	7.2	6.7
Sioux	1475	16.2	86.4	21.5	(82.1)	(36.6)	(50.2)
Thomas	729	20.3	83.7	17.2	186.4	10.2	(15.8)
Wheeler	886	16.8	90.8	14.9	(31.5)	(7.8)	140.3
<b>County Average</b>	2659	20.1	86.7	16.0	17.5	(11.1)	15.9
Nebraska	1.4 million	13.6	86.6	23.7	25.0	16.0	42.6
United States	281.4 million	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.



## Appendix F. Remote North Dakota Counties

Table 1

North Dakota Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Adams	9	9	2593	(18.3)	3.2	\$29,079	10.4	2.0	\$19,407
Benson	9	9	6964	(3.3)	5.2	\$26,668	29.1	7.5	\$21,613
Billings	9	9	888	(19.9)	1.0	\$32,667	12.8	3.9	\$16,890
Bottineau	7	8	7149	(10.8)	4.8	\$29,853	10.7	3.1	\$19,113
Bowman	9	9	3242	(9.8)	3.1	\$31,906	8.2	1.9	\$18,126
Burke	9	9	2242	(25.3)	2.7	\$25,330	15.4	2.5	\$21,444
Cavalier	9	9	4831	(20.3)	4.1	\$31,868	11.5	2.9	\$20,209
Dickey	9	9	5757	(5.7)	5.4	\$29,231	14.8	2.2	\$19,293
Divide	9	9	2283	(21.2)	2.3	\$30,089	14.6	1.9	\$15,699
Dunn	9	9	3600	(10.1)	2.0	\$30,015	17.5	3.6	\$20,235
Eddy	9	9	2757	(6.6)	4.7	\$28,642	9.7	4.8	\$18,615
Emmons	8	6	4331	(10.3)	3.2	\$26,119	20.1	4.6	\$18,149
Golden Valley	9	9	1924	(8.7)	2.1	\$29,967	15.3	2.1	\$16,948
Grant	8	6	2841	(19.9)	2.1	\$23,165	20.3	2.7	\$16,760
Griggs	9	9	2754	(16.6)	4.7	\$29,572	10.1	1.7	\$20,207
Hettinger	9	9	2715	(21.2)	3.0	\$29,209	14.8	2.2	\$18,839
Kidder	9	9	2753	(17.4)	2.5	\$25,389	19.8	5.3	\$17,760
La Moure	9	9	4701	(12.7)	4.7	\$29,707	14.7	2.9	\$18,000
Logan	9	9	2308	(18.9)	2.9	\$27,986	15.1	2.2	\$16,140
McHenry	9	9	5987	(8.3)	3.5	\$27,274	15.8	5.0	\$19,036
McIntosh	9	9	3390	(15.7)	4.1	\$26,389	15.4	2.2	\$16,826
McKenzie	9	9	5737	(10.1)	2.3	\$29,342	17.2	2.6	\$22,896
McLean	8	6	9311	(11.0)	5.0	\$32,337	13.5	5.9	\$25,880
Mountrail	9	9	6631	(5.6)	3.8	\$27,098	19.3	4.7	\$20,791
Nelson	8	6	3715	(15.8)	4.5	\$28,892	10.3	4.0	\$17,154
Oliver	8	6	2065	(13.3)	3.3	\$36,650	14.9	4.9	\$42,407

North Dakota Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Pierce	7	8	4675	(7.5)	5.0	\$26,524	12.5	3.3	\$18,035
Renville	9	9	2610	(17.4)	3.6	\$30,746	11	1.9	\$19,179
Sargent	9	9	4366	(4.0)	5.3	\$37,213	8.2	2.8	\$33,929
Sheridan	9	9	1710	(20.4)	2.2	\$24,450	21	6.2	\$18,693
Sioux	9	9	4044	7.5	3.4	\$22,483	39.2	5.4	\$24,520
Slope	9	9	767	(15.4)	0.7	\$24,667	16.9	2.2	\$10,375
Steele	8	6	2258	(6.7)	3.4	\$35,757	7.1	1.2	\$22,101
Towner	9	9	2876	(20.7)	3.5	\$32,740	8.9	2.7	\$19,638
Wells	9	9	5102	(13.0)	4.6	\$31,894	13.5	3.4	\$17,796
<b>County Average</b>			3768	(13.0)	3.5	\$29,169	15	3.4	\$20,077
North Dakota			642200	(1.2)	9.3	\$34,604	11.9	2.8	\$24,683
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

**Table 2**

North Dakota Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Adams	2593	24.1	83.1	16.6	(4.5)	24.1	48.9
Benson	6964	13.5	73.8	10.9	18.6	(10.6)	47.0
Billings	888	13.5	77.8	18.8	66.3	23.9	(2.8)
Bottineau	7149	21.3	81.3	14.9	21.5	15.2	75.9
Bowman	3242	21.8	82.2	17.9	9.4	13.7	37.1
Burke	2242	25.1	78.8	12.0	(29.5)	22.4	87.3
Cavalier	4831	2.9	78.8	13.1	27.4	54.2	107.6
Dickey	5757	21.3	79.6	16.6	28.6	15.4	87.6
Divide	2283	29.5	80.4	13.3	8.1	32.3	57.7
Dunn	3600	17.4	77.5	16.3	48.5	32.1	13.6

North Dakota Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Eddy	2757	24.7	75.5	15.9	(14.1)	(10.9)	51.4
Emmons	4331	25.6	65.9	12.3	79.8	45.6	102.2
Golden Valley	1924	21.3	87.4	19.8	4.2	(3.6)	7.9
Grant	2841	24.7	73.4	11.2	31.2	57.8	117.1
Griggs	2754	25.7	78.7	15.7	69.5	8.1	125.3
Hettinger	2715	25.2	74.8	14.4	(10.6)	65.4	210.8
Kidder	2753	24.0	72.0	11.0	(9.2)	24.5	204.0
La Moure	4701	23.4	75.3	13.9	31.1	18.0	196.9
Logan	2308	27.0	66.0	12.9	(5.8)	25.6	213.4
McHenry	5987	21.8	76.9	13.2	2.0	1.1	46.5
McIntosh	3390	34.2	59.3	9.9	14.8	40.9	134.2
McKenzie	5737	15.7	79.1	15.7	2.2	23.7	13.4
McLean	9311	20.4	79.0	15.1	15.0	7.9	51.7
Mountrail	6631	17.7	77.9	15.6	18.1	18.8	52.4
Nelson	3715	27.4	81.4	17.5	2.2	(13.8)	76.9
Oliver	2065	14.2	79.9	12.0	(8.9)	36.4	57.7
Pierce	4675	24.1	76.7	14.7	19.0	(0.3)	75.2
Renville	2610	22.0	84.1	16.1	34.7	23.2	126.6
Sargent	4366	16.9	81.1	12.7	26.0	25.5	128.2
Sheridan	1710	26.6	67.8	9.7	83.0	8.6	62.1
Sioux	4044	5.6	78.5	11.2	207.2	22.9	33.7
Slope	767	17.9	82.5	16.0	(18.5)	117.2	334.4
Steele	2258	19.6	86.1	19.8	20.1	(4.9)	230.7
Towner	2876	23.3	81.9	16.1	(5.7)	36.7	107.2
Wells	5102	26.0	72.6	13.7	16.2	(4.2)	60.3
<b>County Average</b>	3768	21.3	77.3	14.5	22.8	22.7	96.6
North Dakota	642200	14.7	83.9	22.0	27.3	18.2	46.1
United States	281.4 million	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

## Appendix G. Remote Oklahoma Counties

**Table 1**

Oklahoma Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Beaver	9	9	5857	(2.80)	3.3	\$36,715	11.7	2.7	\$23,288
Cimarron	9	9	3148	(4.60)	1.8	\$30,626	16.6	2.3	\$18,257
Dewey	9	9	4743	(14.60)	5.5	\$28,172	15	2.7	\$19,928
Ellis	9	9	4075	(9.40)	3.7	\$27,951	12.5	3.1	\$19,845
Grant	9	6	5144	(9.60)	5.7	\$28,977	13.7	2.7	\$23,796
Harper	8	6	3562	(12.30)	3.9	\$33,705	10.2	2.8	\$20,529
Roger Mills	9	9	3436	(17.10)	3.6	\$30,078	16.3	1.9	\$20,855
<b>County Average</b>			4281	(10.06)	3.93	\$30,889	13.71	2.6	\$20,928
Oklahoma			3.4 million	9.7	50.3	\$33,400	14.7	3.8	\$26,988
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

**Table 2**

Oklahoma Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Beaver	5857	16.9	81.2	17.6	(0.6)	4.4	(5.7)
Cimarron	3148	18.6	76.6	17.7	34.7	(12.4)	45.9
Dewey	4743	21.0	79.8	16.6	(16.1)	(3.5)	15.0
Ellis	4075	22.0	81.2	19.2	44.7	(3.2)	(1.8)
Grant	5144	21.4	85.7	16.2	(17.9)	(10.0)	11.1
Harper	3562	21.7	82.1	19.2	1.2	11.2	48.1
Roger Mills	3436	18.7	79.3	15.8	43.2	18.4	48.1
<b>County Average</b>	4281	20.0	80.8	17.5	12.7	0.7	23.0
Oklahoma	3.4 million	13.2	80.6	20.3	24.5	10.8	18.1
United States	281.4 million	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

## Appendix H. Remote South Dakota Counties

Table 1

South Dakota Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Aurora	9	9	3058	(2.5)	4.4	\$29,783	11.4	2.4	\$18,915
Bennett	9	9	3074	11.5	2.7	\$25,313	39.2	5.9	\$20,293
Buffalo	9	9	2032	15.5	3.7	\$12,692	56.9	8.4	\$24,432
Butte	7	8	9094	14.9	3.5	\$29,040	12.8	4.0	\$20,001
Campbell	9	9	1782	(9.3)	2.7	\$28,793	14.1	6.8	\$16,942
Clark	9	9	4143	(5.9)	4.6	\$30,208	14.8	7.3	\$17,581
Corson	9	9	4181	(0.3)	1.7	\$20,654	41.0	8.3	\$18,520
Custer	8	6	7275	17.7	4	\$36,303	9.4	3.8	\$20,588
Dewey	9	9	5972	8.1	2.4	\$23,272	33.6	16.1	\$22,473
Edmunds	9	9	4367	(0.3)	3.8	\$32,205	13.8	2.2	\$18,802
Fall River	7	8	7453	1.4	4.2	\$29,631	13.6	4.1	\$20,871
Faulk	9	9	2640	(3.8)	2.7	\$30,237	18.1	2.7	\$17,841
Gregory	9	9	4792	(10.6)	5.3	\$22,732	20.1	3.7	\$17,887
Haakon	9	9	2196	(16.3)	1.4	\$29,894	13.9	2.6	\$19,336
Hand	9	9	3741	(12.4)	3	\$32,377	9.2	2.2	\$17,860
Hanson	9	9	3159	4.8	0.6	\$33,049	16.6	2.3	\$21,867
Hyde	9	9	1671	(1.5)	2	\$31,103	12.3	2.6	\$19,347
Jackson	9	9	2930	4.2	1.5	\$23,945	36.5	7.0	\$18,736
Jerauld	9	9	2295	(5.4)	4.6	\$30,690	20.6	2.4	\$18,159
Jones	9	9	1193	(9.9)	1.4	\$30,288	15.8	1.5	\$17,633
Lyman	9	9	3895	7.1	2.2	\$28,509	24.3	4.9	\$17,230
Marshall	9	9	4576	(5.5)	5.8	\$30,567	13.9	7.3	\$19,547
McPherson	9	9	2904	(10.0)	2.8	\$22,380	22.6	2.3	\$15,392
Mellette	9	9	2083	(2.5)	1.6	\$23,219	35.8	6.5	\$16,274
Miner	9	9	2884	(11.9)	5.7	\$29,519	11.8	5.8	\$18,433
Perkins	9	9	3363	(14.5)	1.4	\$27,750	16.9	2.7	\$17,556
Potter	9	9	2693	(15.6)	3.7	\$30,086	12.6	3.6	\$17,291
Sanborn	9	9	2675	(5.6)	5	\$33,375	14.9	3.4	\$15,970

South Dakota Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Shannon	7	8	12466	25.9	4.7	\$20,916	52.3	12.6	\$25,710
Spink	7	8	7454	(6.6)	5.3	\$31,717	12.8	3.6	\$19,878
Stanley	9	9	2772	13.0	1.7	\$41,170	8.7	2.8	\$20,458
Sully	9	9	1556	(2.1)	1.6	\$32,500	12.1	2.4	\$18,265
Todd	9	9	9050	8.5	6	\$20,035	48.3	8.3	\$21,262
Tripp	7	8	6430	(7.1)	4.3	\$28,333	19.9	3.1	\$18,847
Ziebach	9	9	2519	13.5	1.1	\$18,062	49.9	14.4	\$21,593
<b>County Average</b>			4125	(0.4)	3.2	\$28,010	22.3	5.1	\$19,194
South Dakota			754844	8.5	9.9	\$35,282	13.2	3.3	\$24,802
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

**Table 2**

South Dakota Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Aurora	3058	21.6	79.5	12.7	15.3	16.4	96.6
Bennett	3074	11.1	71.3	12.7	42.3	0.9	33.4
Buffalo	2032	6.5	63.9	5.4	(24.0)	0.4	51.8
Butte	9094	15.2	79.8	12.2	25.0	8.9	5.4
Campbell	1782	22.1	79.2	14.8	32.5	57.8	96.0
Clark	4143	22.2	76.6	11.4	22.0	20.2	73.6
Corson	4181	10.5	76.0	11.3	0.4	36.3	58.2
Custer	7275	16.0	88.9	24.4	0.2	3.1	11.7
Dewey	5972	8.3	77.4	12.2	121.0	25.9	44.0
Edmunds	4367	22.2	73.6	15.5	35.4	26.5	127.3
Fall River	7453	22.5	82.5	19.2	54.1	19.6	8.7
Faulk	2640	22.9	73.7	13.1	40.3	27.0	103.5
Gregory	4792	24.8	77.7	12.0	13.5	14.8	51.0

South Dakota Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Haakon	2196	18.0	86.3	15.4	20.5	22.7	87.7
Hand	3741	24.2	80.1	15.6	7.0	12.2	58.5
Hanson	3159	14.9	75.1	14.0	20.1	34.6	107.0
Hyde	1671	22.3	80.5	16.0	61.2	7.7	69.0
Jackson	2930	11.6	82.7	16.2	30.4	(0.7)	58.9
Jerauld	2295	25.6	79.6	12.3	15.7	11.2	108.9
Jones	1193	18.2	86.2	17.8	32.9	(0.7)	35.5
Lyman	3895	13.6	81.1	15.9	46.1	4.1	91.9
Marshall	4576	21.3	75.6	16.2	49.0	13.0	96.9
McPherson	2904	29.6	58.8	10.7	(8.5)	14.2	65.8
Mellette	2083	13.2	78.1	16.6	126.5	(5.6)	19.5
Miner	2884	23.9	79.6	13.5	(9.0)	16.0	92.2
Perkins	3363	23.7	80.3	14.6	(7.6)	5.7	46.4
Potter	2693	25.0	80.8	16.2	65.2	59.9	127.3
Sanborn	2675	19.5	82.7	14.8	26.8	30.4	110.3
Shannon	12466	4.8	70.0	12.1	53.8	34.3	51.8
Spink	7454	18.9	81.4	14.4	9.0	14.0	96.8
Stanley	2772	11.0	87.7	22.1	70.9	35.9	47.1
Sully	1556	17.4	84.9	16.4	8.1	13.5	197.5
Todd	9050	5.8	74.1	12.1	50.1	32.8	30.0
Tripp	6430	19.7	80.2	13.5	25.7	4.2	43.5
Ziebach	2519	7.5	71.4	12.0	49.0	(19.6)	(15.8)
<b>County Average</b>	4125	17.6	78.2	14.4	32.0	17.1	68.2
South Dakota	754844	14.3	84.6	21.5	37.2	21.4	52.6
United States	281.4 million	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.

## Appendix I. Remote Texas Counties

**Table 1**

Texas Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Armstrong	8	6	2,148	6.3	2.2	\$39,194	10.6	1.3	\$25,776
Baylor	7	8	4,093	(6.7)	5.0	\$24,627	16.1	4.2	\$19,654
Borden	9	9	729	(8.8)	0.9	\$29,205	14.0	2.0	\$25,395
Brewster	7	8	8,866	2.5	1.4	\$27,386	18.2	2.2	\$21,549
Briscoe	9	9	1,790	(9.2)	2.2	\$29,917	16.0	2.7	\$18,747
Cochran	7	8	3,730	(14.8)	5.6	\$27,525	27.0	6.5	\$21,645
Coke	8	6	3,864	12.9	3.8	\$29,085	13.0	1.9	\$21,997
Collingsworth	9	9	3,206	(10.3)	3.9	\$25,437	18.7	1.1	\$21,802
Concho	8	6	3,966	(15.3)	3.1	\$25,446	18.4	5.0	\$26,876
Cottle	9	9	1,904	30.3	2.5	\$31,312	11.9	1.9	\$19,761
Crane	6	6	3,996	(14.1)	5.9	\$32,194	13.4	6.0	\$31,329
Crockett	7	7	4,099	0.5	1.5	\$29,355	19.4	2.6	\$21,252
Culberson	7	8	2,975	(12.7)	0.9	\$25,882	25.1	7.6	\$18,935
Dallam	7	8	6,222	13.9	3.6	\$27,946	14.1	2.2	\$24,966
Dickens	9	9	2,962	7.4	2.8	\$25,898	17.4	3.1	\$22,250
Donley	9	9	3,828	3.6	4.0	\$29,006	15.9	2.6	\$18,789
Edwards	9	9	2,162	(4.6)	1.1	\$25,298	31.6	4.6	\$21,062
Fisher	9	8	4,344	(10.3)	5.4	\$27,659	17.5	3.2	\$21,151
Foard	9	9	1,622	(9.6)	2.5	\$25,812	14.3	2.8	\$16,897
Garza	6	6	4,872	(5.3)	5.7	\$27,206	22.3	2.5	\$22,592
Glasscock	8	6	1,406	(2.8)	1.6	\$35,655	14.7	3.0	\$22,661
Hall	9	9	3,782	(3.1)	4.3	\$23,016	26.3	4.2	\$17,922
Hartley	7	8	5,537	52.4	2.5	\$46,327	6.6	1.2	\$22,852
Hemphill	9	9	3,351	(9.9)	4.1	\$35,456	12.6	1.7	\$26,630
Hudspeth	8	6	3,344	14.7	0.6	\$21,045	35.8	4.3	\$24,227
Irion	8	6	1,771	8.7	1.5	\$37,500	8.4	2.3	\$28,254
Jeff Davis	9	9	2,207	13.4	0.9	\$32,212	15.0	1.8	\$21,340
Jim Hogg	6	6	5,281	3.4	4.5	\$25,833	25.9	4.5	\$20,361



Texas Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Kenedy	9	9	414	(10.0)	0.3	\$25,000	15.3	1.8	\$19,983
Kent	9	9	859	(15.0)	1.1	\$30,433	10.4	2.0	\$20,354
Kimble	7	8	4,468	8.4	3.3	\$29,396	18.8	1.7	\$18,812
King	7	8	356	0.6	0.4	\$35,625	20.7	3.8	\$31,445
Kenney	9	9	3,379	8.3	2.3	\$28,320	24.0	6.3	\$22,267
Knox	9	9	4,253	(12.1)	5.7	\$20,665	22.9	3.3	\$21,693
La Salle	6	6	5,866	11.6	3.5	\$21,857	29.8	6.2	\$23,579
Lipscomb	9	9	3,057	(2.7)	3.4	\$31,964	16.7	2.0	\$25,457
Loving	9	9	67	(37.4)	0.2	\$40,000	0.0	7.9	\$36,569
Martin	6	5	4,746	(4.2)	5.4	\$31,836	18.7	4.1	\$25,665
Mason	9	9	3,738	9.2	3.7	\$30,921	13.2	1.6	\$19,578
McMullen	9	9	851	4.2	0.7	\$32,500	20.7	3.1	\$31,205
Menard	8	6	2,360	4.8	2.5	\$24,762	25.8	4.0	\$18,031
Motley	9	9	1,426	(6.9)	1.5	\$28,348	19.4	1.7	\$18,846
Oldham	8	6	2,185	(4.1)	1.5	\$33,713	19.8	1.4	\$22,073
Pecos	7	8	16,809	14.5	3.1	\$28,033	20.4	5.0	\$22,994
Presidio	7	8	7,304	10.0	1.7	\$19,860	36.4	23.5	\$21,236
Reagan	6	6	3,326	(26.3)	3.8	\$33,231	11.8	3.0	\$24,434
Real	9	9	3,047	26.3	3.4	\$25,118	21.2	3.8	\$15,165
Reeves	7	7	13,137	(17.1)	6.0	\$23,306	28.9	6.8	\$18,204
Roberts	9	9	887	(13.5)	1.1	\$44,792	7.2	1.5	\$20,430
San Saba	7	8	6,186	14.5	4.8	\$30,104	16.6	2.9	\$20,451
Schleicher	8	6	2,935	(1.8)	2.3	\$29,746	21.5	2.3	\$21,094
Shackleford	8	6	3,302	(0.4)	3.6	\$30,479	13.6	2.2	\$23,488
Sherman	9	9	3,186	11.5	3.1	\$33,179	16.8	1.5	\$22,448
Sterling	8	6	1,393	(3.1)	1.6	\$35,129	19.3	3.8	\$21,282
Stonewall	9	9	1,693	(15.9)	2.2	\$27,935	18.0	4.7	\$21,153
Sutton	7	8	4,077	(1.4)	2.8	\$34,385	25.2	2.8	\$24,289
Terrell	9	9	1,081	(23.3)	0.6	\$24,219	13.5	3.0	\$23,783
Throckmorton	9	9	1,850	(1.6)	2.1	\$28,277	19.9	2.1	\$18,746

Texas Counties	Rural-Urban Continuum Code	Urban Influence Code	Population, 2000	Population Change, 1990-2000 (%) (Negative numbers in parentheses)	Population Density (pop/sq.mi.)	Median Household Income (\$), 2000	Poverty Rate (%)	Unemployment Rate, 2001 (%)	Average wage per non-farm job, 2000
Upton	8	6	3,404	(23.5)	3.6	\$28,977		4.1	\$28,407
<b>County Average</b>			3,554	(1.1)	2.8	\$29,569	18.4	3.6	\$22,540
Texas			20.8 million	22.8	79.6	\$39,927	15.4	4.9	\$34,941
United States			281.4 million	13.1	79.6	\$41,994	12.4	4.8	\$35,323

**Table 2**

Texas Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Armstrong	2148	19.2	82.4	20.5	NA	(5.8)	(19.2)
Baylor	4093	24.1	70.1	12.1	40.7	(3.6)	(5.5)
Borden	729	16.3	83.9	21.4	NA	(39.4)	(52.3)
Brewster	8866	14.6	78.6	27.7	28.8	28.3	21.5
Briscoe	1790	19.3	74.8	17.5	(7.9)	(6.0)	43.4
Cochran	3730	14.4	62.7	10.2	9.6	3.8	123.3
Coke	3864	24.1	74.2	14.7	67.8	2.6	5.3
Collingsworth	3206	22.0	71.3	15.3	(3.8)	2.1	73.0
Concho	3966	13.8	59.3	14.1	89.9	15.9	3.6
Cottle	1904	25.6	66.1	15.3	49.2	(23.1)	44.5
Crane	3996	10.9	68.7	12.8	(27.5)	7.5	(12.8)
Crockett	4099	12.9	62.1	10.4	26.8	(10.4)	(1.3)
Culberson	2975	11.2	56.1	13.9	31.6	21.3	(8.2)
Dallam	6222	10.3	65.0	9.6	38.9	24.1	88.5
Dickens	2962	19.0	70.6	8.4	26.0	(5.8)	17.8
Donley	3828	21.7	78.2	15.8	(17.6)	(8.4)	16.8
Edwards	2162	16.2	67.1	17.3	(31.7)	3.1	(0.1)
Fisher	4344	22.7	73.3	12.4	15.7	(4.0)	14.3
Foard	1622	23.1	70.0	10.5	(6.2)	(3.4)	28.5
Garza	4872	14.1	70.1	10.0	(2.6)	22.8	25.8

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Texas Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Glasscock	1406	9.0	69.9	18.7	117.2	(20.3)	74.5
Hall	3782	21.5	61.7	9.1	81.9	(11.5)	(31.8)
Hartley	5537	11.9	77.3	17.6	158.8	(8.2)	48.4
Hemphill	3351	14.7	79.9	17.9	14.7	39.3	96.1
Hudspeth	3344	9.9	46.1	9.7	25.0	26.1	22.0
Irion	1771	15.6	78.8	21.5	(16.4)	(5.8)	(12.2)
Jeff Davis	2207	16.3	74.7	35.1	53.4	(3.4)	(19.4)
Jim Hogg	5281	14.6	58.0	9.5	28.0	10.1	1.7
Kenedy	414	10.6	57.9	20.3	NA	9.3	22.0
Kent	859	25.5	78.1	15.1	162.2	42.2	68.0
Kimble	4468	20.9	72.1	17.3	23.0	(2.0)	(4.6)
King	356	10.4	78.1	24.6	NA	21.1	36.0
Kinney	3379	24.3	66.9	17.7	(26.1)	30.1	37.5
Knox	4253	22.7	66.8	11.8	(7.7)	10.4	40.8
La Salle	5866	11.6	50.1	6.4	49.6	23.7	84.0
Lipscomb	3057	18.4	74.5	18.9	17.4	(4.3)	30.3
Loving	67	16.4	86.3	5.9	NA	105.7	53.8
Martin	4746	13.3	65.8	11.8	16.7	(12.9)	47.7
Mason	3738	23.5	78.1	18.7	(19.3)	(6.0)	15.5
McMullen	851	17.9	74.7	16.2	(13.7)	24.7	43.7
Menard	2360	21.9	69.4	17.2	47.6	0.3	(2.3)
Motley	1426	23.7	73.5	14.7	(7.1)	(23.6)	(3.3)
Oldham	2185	11.3	80.5	19.4	206.4	4.2	117.5
Pecos	16809	10.8	62.5	12.9	9.5	2.5	(6.0)
Presidio	7304	13.9	44.7	11.7	7.0	16.8	(3.4)
Reagan	3326	10.3	63.0	9.2	14.7	10.4	0.8
Real	3047	20.8	73.0	17.3	128.2	13.0	53.2
Reeves	13137	12.6	46.8	8.0	3.8	19.9	4.4
Roberts	887	14.4	90.0	25.4	(46.3)	(10.7)	1.0
San Saba	6186	20.3	70.0	15.8	(12.9)	2.6	15.7

Texas Counties	Population, 2000	Population 65 and older	High-School graduates, 25 and older (%)	Bachelors degree or higher, (%)	Private non-farm employment change, 1990-1999	Per capita income change, 1990-2000 (Negative numbers in parentheses)	Per capita income change, 1980-2000 (Negative numbers in parentheses)
Schleicher	2935	16.4	60.4	17.6	50.4	5.8	(9.2)
Shackelford	3302	18.2	79.2	20.8	(23.5)	(3.1)	28.0
Sherman	3186	13.6	73.1	20.4	7.1	(2.3)	64.8
Sterling	1393	14.6	70.4	17.1	(16.7)	19.2	(8.5)
Stonewall	1693	24.0	71.0	12.6	12.6	(1.8)	20.2
Sutton	4077	12.5	64.4	13.0	37.5	5.9	13.8
Terrell	1081	17.7	70.9	19.0	(33.7)	26.9	61.3
Throckmorton	1850	20.5	77.4	18.2	42.0	(27.7)	22.4
Upton	3404	14.2	67.1	11.8	(4.3)	5.2	2.4
<b>County Average</b>	3554	16.9	69.6	15.5	26.2	6.0	24.3
Texas	20.8 million	9.9	75.7	23.2	32.4	20.7	33.4
United States	281.4 million	12.4	80.4	24.4	18.4	21.3	65.4

**Sources:** U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; USDA, Economic Research Service; U.S. Department of Commerce, Bureau of Economic Analysis.