## Snapshot of Demographic Changes in the Great Plains

Briefing prepared for the Population and Community Development Conference in Dickinson, ND


By
Richard R. Rathge
Karen L. Olson
Ramona A. Danielson

Photograph by Mitchel Scott Hoffart

North Dakota State Data Center - North Dakota State University
IACC 424, Fargo, North Dakota 58105 Tel: 701-231-7980 Fax: 701-231-9730
URL: http://www.ndsu.edu/sdc Email: "Richard Rathge"[Richard.Rathge@ndsu.nodak.edu](mailto:Richard.Rathge@ndsu.nodak.edu)

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## Purpose of the Great Plains Population Study

## Great Plains Population Study

This study is part of a larger research and policy effort to advance understanding and viability of the Great Plains. This effort includes three separate parts. First, researchers will explore and document various social, economic, and demographic dimensions of the Great Plains. Second, findings from these research activities will serve as the backdrop for a mini research conference aimed at community leaders. Third, the research findings will serve as the foundation for a symposium aimed at raising national awareness and corresponding policy debate.

## Population and Community Development Conference

This is a one day conference focusing on the work of academic researchers and community leaders within the Great Plains region. The conference will be held in Dickinson, North Dakota, September 13 and 14, 2001. See details at: http://gppop.dsu.nodak.edu/community.htm.

The purpose is to provide an opportunity for researchers, planners, and community leaders from within the region to share their work and learn from each other.

Great Plains Population Symposium
This is a three day conference to be held at the Holiday Inn in Bismarck, North Dakota, October 15, 16, and 17, 2001. See details at: http://gppop.dsu.nodak.edu/.

The purpose of the Great Plains Population Symposium is to investigate the continuing depopulation of the rural Great Plains and to raise the nation's awareness of the facts and ramifications relating to the emptying of the nation's central region. It is also intended that the symposium will help advance a vision of social and economic well-being for the region and promote the dialog and development needed to attain that vision.

## Geographic Territory of the Great Plains

What is the Great Plains? The definition of the Great Plains is debated. Typically, it refers to the territory from Montana to Minnesota and down to New Mexico and Texas. In this study, we use an entire 12 state area; this is approximately $42 \%$ of all U.S. land area outside of Alaska and Hawaii. Rather than narrow the territory to select counties within these 12 states (i.e., delineation typically used by the USDA), we include all 1,009 counties especially for those Federal policymakers who represent these states.

A more in-depth discussion of different ways to delineate the Great Plains can be found in:
Donald L. Bogue and Calvin L. Beale, Economic Areas of the United States, Free Press, 1961.
S.R. Johnson and Aziz Bouzaher (eds.), Conservation of Great Plains Ecosystems: Current Science, Future Options, Kluwer Academic Publishers, 1995.

## Highlights

Figure 1. The metropolitan counties tend to lie on the outside borders of the region.

Table 1. The Great Plains is sparsely populated. Only $14 \%(N=142)$ of the counties in the region are metropolitan. In contrast, $36 \%$ ( $\mathrm{N}=358$ ) are rural (i.e., lacking a city of at least 2,500 people).

Table 2-3. Nearly 39\% of the counties in the region are "farm-dependent" (i.e, at least $20 \%$ of their total labor and proprietor income is derived from farming). Approximately $14 \%$ of the counties in the region have persistent poverty (i.e., a poverty rate of at least $20 \%$ for the past 4 decades). These are typically counties that include Native American reservations.

Figure 1. Metropolitan Status of Counties in the Great Plains States: 1993
Note: Metropolitan Status was determined based on 1993 Rural-Urban Continuum Codes provided by the USDA, ERS.

The Great Plains states shown are those identified as the research area for the Great Plains Depopulation Symposium in October 2001

Metropolitan and Non-Metropolitan Status Metropolitan
Non-Metropolitan: Urban
Non-Metropolitan: Rural

Metropolitan Counties are defined as those counties included in Metropolitan Areas (MA). The general concept of an $M A$ is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. Each MA must contain either a place with a minimum population of 50,000 or a Census Bureau-defined urbanized area and a total MA population of at least 100,000. An MA comprises one or more central counties. An MA also may include one or more outlying counties that have close economic and social relationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards regarding metropolitan character, such as population density, urban population and population growth.

Nonmetropolitan Urban counties are those counties outside an MA with places having a population of 2,500 persons or more.

Nonmetropolitan Rural counties are those counties outside an MA with places having a population less than 2,500.

Table 1. Distribution of Counties in the Great Plains by Metropolitan and Non-Metropolitan Status: 1993
Note: Metropolitan Status was determined using the 1993 Beale Codes provided by the USDA, ERS. For purposes of this report, the Great Plains is defined as all counties in Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Data reflect the actual number and percent of counties.

| States in the Great Plains | Total <br> Counties | Metropolitan Counties |  | Non-Metropolitan Counties |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Total |  | Urban population 20,000 or more |  | Urban population $\quad \mathbf{2 , 5 0 0}$ to $\mathbf{1 9 , 9 9 9}$ |  | Rural population less than2,500 |  |
|  |  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Colorado | 63 | 10 | 15.9 | 53 | 84.1 | 1 | 1.6 | 24 | 38.1 | 28 | 44.4 |
| Iowa | 99 | 10 | 10.1 | 89 | 89.9 | 9 | 9.1 | 60 | 60.6 | 20 | 20.2 |
| Kansas | 105 | 9 | 8.6 | 96 | 91.4 | 10 | 9.5 | 40 | 38.1 | 46 | 43.8 |
| Minnesota | 87 | 18 | 20.7 | 69 | 79.3 | 4 | 4.6 | 45 | 51.7 | 20 | 23.0 |
| Montana | 56 | 2 | 3.6 | 54 | 96.4 | 5 | 8.9 | 19 | 33.9 | 30 | 53.6 |
| Nebraska | 93 | 6 | 6.5 | 87 | 93.5 | 7 | 7.5 | 28 | 30.1 | 52 | 55.9 |
| New Mexico | 33 | 6 | 18.2 | 27 | 81.8 | 7 | 21.2 | 13 | 39.4 | 7 | 21.2 |
| North Dakota | 53 | 4 | 7.5 | 49 | 92.5 | 1 | 1.9 | 10 | 18.9 | 38 | 71.7 |
| Oklahoma | 77 | 14 | 18.2 | 63 | 81.8 | 7 | 9.1 | 45 | 58.4 | 11 | 14.3 |
| South Dakota | 66 | 3 | 4.5 | 63 | 95.5 | 1 | 1.5 | 17 | 25.8 | 45 | 68.2 |
| Texas | 254 | 58 | 22.8 | 196 | 77.2 | 12 | 4.7 | 127 | 50.0 | 57 | 22.4 |
| Wyoming | 23 | 2 | 8.7 | 21 | 91.3 | 2 | 8.7 | 15 | 65.2 | 4 | 17.4 |
| TOTAL | 1,009 | 142 | 14.1 | 867 | 85.9 | 66 | 6.5 | 443 | 43.9 | 358 | 35.5 |

1993 Beale Codes (Rural-Urban Continuum Codes): The U.S. Department of Agriculture uses what it terms rural-urban continuum codes to classify metropolitan and non-metropolitan counties within states.

Metropolitan Counties are defined as those counties included in Metropolitan Areas (MA). The general concept of an MA is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. Each MA must contain either a place with a minimum population of 50,000 or a Census Bureau-defined urbanized area and a total MA population of at least 100,000 . An MA comprises one or more central counties. An MA also may include one or more outlying counties that have close economic and social relationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards regarding metropolitan character, such as population density, urban population and population growth.

Non-metropolitan Urban Counties are those counties outside an MA with places having a population of 2,500 persons or more.
Non-metropolitan Rural Counties are those counties outside an MA with places having a population less than 2,500.

Table 2. Distribution of Counties in the Great Plains by Economic Type: 1989
Note: Economic Type was determined using the 1989 Revised County Typology codes provided by the USDA, ERS. For purposes of this report, the Great Plains is defined as all counties in Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Data reflect the actual number and percent of counties.

| States in the Great Plains | County Economic Type |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Counties | Farming Dependent |  | Mining Dependent |  | Manufacturing Dependent |  | Government Dependent |  | Services Dependent |  | Non-specialized |  |
|  |  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Colorado | 63 | 17 | 27.0 | 6 | 9.5 | 0 | 0.0 | 6 | 9.5 | 20 | 31.7 | 4 | 6.3 |
| Iowa | 99 | 41 | 41.4 | 0 | 0.0 | 11 | 11.1 | 2 | 2.0 | 9 | 9.1 | 26 | 26.3 |
| Kansas | 105 | 44 | 41.9 | 1 | 1.0 | 7 | 6.7 | 5 | 4.8 | 14 | 13.3 | 25 | 23.8 |
| Minnesota | 87 | 29 | 33.3 | 0 | 0.0 | 10 | 11.5 | 6 | 6.9 | 7 | 8.0 | 17 | 19.5 |
| Montana | 56 | 21 | 37.5 | 7 | 12.5 | 1 | 1.8 | 7 | 12.5 | 14 | 25.0 | 4 | 7.1 |
| Nebraska | 93 | 70 | 75.3 | 0 | 0.0 | 4 | 4.3 | 0 | 0.0 | 7 | 7.5 | 6 | 6.5 |
| New Mexico | 33 | 7 | 21.2 | 4 | 12.1 | 1 | 3.0 | 10 | 30.3 | 3 | 9.1 | 2 | 6.1 |
| North Dakota | 53 | 28 | 52.8 | 3 | 5.7 | 1 | 1.9 | 2 | 3.8 | 11 | 20.8 | 4 | 7.5 |
| Oklahoma | 77 | 19 | 24.7 | 4 | 5.2 | 4 | 5.2 | 13 | 16.9 | 7 | 9.1 | 16 | 20.8 |
| South Dakota | 66 | 49 | 74.2 | 1 | 1.5 | 11 | 16.7 | 6 | 9.1 | 6 | 9.1 | 1 | 1.5 |
| Texas | 254 | 65 | 25.6 | 30 | 11.8 | 0 | 0.0 | 19 | 7.5 | 24 | 9.4 | 47 | 18.5 |
| Wyoming | 23 | 0 | 0.0 | 8 | 34.8 | 0 | 0.0 | 9 | 39.1 | 1 | 4.3 | 2 | 8.7 |
| TOTAL | 1,009 | 390 | 38.7 | 64 | 6.3 | 50 | 5.0 | 85 | 8.4 | 123 | 12.2 | 154 | 15.3 |

## Economic Types:

Farming-Dependent: Farming contributed a weighted annual average of 20 percent or more labor and proprietor income over the three years from 1987 to 1989. Mining-Dependent: Mining contributed a weighted annual average of 15 percent or more labor and proprietor income over the three years from 1987 to 1989.
Manufacturing-Dependent: Manufacturing contributed a weighted annual average of 30 percent or more labor and proprietor income over the three years from 1987 to 1989.
Government-Dependent: Government activities contributed a weighted annual average of 25 percent or more labor and proprietor income over the three years from 1987 to 1989.
Services-Dependent: Service activities contributed a weighted annual average of 50 percent or more labor and proprietor income over the three years from 1987 to 1989.
Non-specialized: Counties not classified as a specialized economic type over the three years from 1987 to 1989.

Table 3. Distribution of Counties in the Great Plains by Policy Type: 1989
Note: Policy Type was determined using the 1989 Revised County Typology codes provided by the USDA, ERS. For purposes of this report, the Great Plains is defined as all counties in Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Data reflect the actual number and percent of counties.

| States in the Great Plains | County Policy Type |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> Counties | Retirement Destination |  | Federal Lands |  | Commuting |  | Persistent Poverty |  | Transfers Dependent |  |
|  |  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Colorado | 63 | 10 | 15.9 | 33 | 52.4 | 6 | 9.5 | 7 | 11.1 | 10 | 15.9 |
| Iowa | 99 | 0 | 0.0 | 0 | 0.0 | 7 | 7.1 | 0 | 0.0 | 0 | 0.0 |
| Kansas | 105 | 0 | 0.0 | 0 | 0.0 | 9 | 8.6 | 0 | 0.0 | 2 | 1.9 |
| Minnesota | 87 | 1 | 1.1 | 2 | 2.3 | 4 | 4.6 | 2 | 2.3 | 10 | 11.5 |
| Montana | 56 | 3 | 5.4 | 23 | 41.1 | 1 | 1.8 | 3 | 5.4 | 4 | 7.1 |
| Nebraska | 93 | 0 | 0.0 | 0 | 0.0 | 3 | 3.2 | 2 | 2.2 | 1 | 1.1 |
| New Mexico | 33 | 4 | 12.1 | 12 | 36.4 | 3 | 9.1 | 13 | 39.4 | 7 | 21.2 |
| North Dakota | 53 | 0 | 0.0 | 1 | 1.9 | 0 | 0.0 | 7 | 13.2 | 7 | 13.2 |
| Oklahoma | 77 | 1 | 1.3 | 0 | 0.0 | 5 | 6.5 | 20 | 26.0 | 28 | 36.4 |
| South Dakota | 66 | 0 | 0.0 | 2 | 3.0 | 2 | 3.0 | 17 | 25.8 | 5 | 7.6 |
| Texas | 254 | 27 | 10.6 | 1 | 0.4 | 25 | 9.8 | 72 | 28.3 | 26 | 10.2 |
| Wyoming | 23 | 0 | 0.0 | 12 | 52.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,009 | 46 | 4.6 | 86 | 8.5 | 65 | 6.4 | 143 | 14.2 | 100 | 9.9 |

## Policy Types:

Retirement Destination: The population ages 60 years and older in 1990 increased by 15 percent or more from 1980-90 through in-movement of people.
Federal Lands: Federally-owned lands made up 30 percent or more of a county's land area in the year 1987.
Commuting: Workers ages 16 years and older commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990 .
Persistent Poverty: Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of four years, 1960, 1970, 1980, and 1990.
Transfers Dependent: Income from transfer payments (Federal, state, and local) contributed a weighted annual average of 25 percent or more total personal income over the three years from 1987 to 1989.

## Population in the Great Plains

Population Variation. Population change within the Great Plains varies dramatically by location and level of geography. For example, all 12 states within the region grew between 1990 and 2000. However, at a county level the picture is much different. Approximately half of the counties grew during that time period. A similar disparity in growth exists by county type. Nearly all metropolitan counties in the region gained population during the past decade while only one-third of the rural counties sustained growth. Thus, it is important to understand the geographic context when developing policy.

## Highlights

Figure 2. The Great Plains population, as a whole, grew between 1990 and 2000 by 6.7 million people or $17 \%$. However, $85 \%$ of that growth is attributed to metropolitan counties which account for $69 \%$ of the entire Great Plains population. In contrast, the 358 rural counties in the region, which account for only $4 \%$ of the population base, grew by only $5 \%$ or 82,721 people.
More than $56 \%$ of the counties in the U.S. that declined during the past decade were located in the Great Plains. Of the 1,009 counties in the region, $38 \%$ lost population during the past decade.

Figure 3. Nearly one in five counties in the region has continuously lost population since 1950.

Table 4-6. Population loss in the region is almost exclusively rural. Nearly $40 \%$ of the rural counties in the region have continuously lost population since 1950. Of the 358 rural counties, $87 \%$ had their peak population prior to 1950. In contrast, $62 \%$ of the region's metropolitan counties have continuously gained population since 1950 .

Figure 2. Percent Change in Total Population for the U.S. by County: 1990 to 2000
Source: U.S. Census Bureau, 1990 and 2000 Decennial Census

Percent Change in Population: 1990-2000Decrease: -20.0\% or greater
Decrease: $-19.9 \%$ to $0.0 \%$
Increase: $0.0 \%$ to $19.9 \%$
Increase: $20.0 \%$ to $49.9 \%$
Increase: $50.0 \%$ or greater
—— Research area for the Great Plains Depopulation Symposium in October 2001

Figure 3. Population Growth Patterns in the Great Plains States by County: 1950 to 2000
Source: U.S. Census Bureau, Decennial Census


## Table 4. Growth Patterns in the Great Plains by Metropolitan and Non-Metropolitan Status: 1950 to 2000

Note: Metropolitan Status was determined using the 1993 Beale Codes provided by the USDA, ERS. For purposes of this report, the Great Plains is defined as all counties in Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Data reflect the actual number and percent of counties.

Source: U.S. Census Bureau, Decennial Censuses

| Growth Patterns from 1950 to 2000 | Total <br> Counties | Metropolitan Counties |  | Non-Metropolitan Counties |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Total |  | Urban population 20,000 or more |  | Urban population 2,500 to $\mathbf{1 9 , 9 9 9}$ |  | Rural population less than 2,500 |  |
|  |  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Continuous Growth | 150 | 88 | 62.0 | 62 | 7.2 | 21 | 31.8 | 36 | 8.1 | 5 | 1.4 |
| Mixed Growth | 666 | 54 | 38.0 | 612 | 70.6 | 45 | 68.2 | 357 | 80.6 | 210 | 58.7 |
| Continuous Decline | 193 | 0 | 0.0 | 193 | 22.3 | 0 | 0.0 | 50 | 11.3 | 143 | 39.9 |
| TOTAL | 1,009 | 142 | 100.0 | 867 | 100.0 | 66 | 100.0 | 443 | 100.0 | 358 | 100.0 |

Table 5. Peak Population Periods in the Great Plains by Metropolitan and Non-Metropolitan Status
Note: Metropolitan Status was determined using the 1993 Beale Codes provided by the USDA, ERS. For purposes of this report, the Great Plains is defined as all counties in Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Data reflect the actual number and percent of counties.
Source: U.S. Census Bureau, Decennial Censuses

| Peak Population Period | Total Counties | Metropolitan Counties |  | Non-Metropolitan Counties |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Total |  | Urban population 20,000 or more |  | Urban population 2,500 to $\mathbf{1 9 , 9 9 9}$ |  | Rural population less than$2,500$ |  |
|  |  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Before 1950 | 553 | 4 | 2.8 | 549 | 63.3 | 7 | 10.6 | 232 | 52.4 | 310 | 86.6 |
| 1950-1960 | 52 | 3 | 2.1 | 49 | 5.7 | 6 | 9.1 | 38 | 8.6 | 5 | 1.4 |
| 1960-1970 | 14 | 2 | 1.4 | 12 | 1.4 | 3 | 4.5 | 7 | 1.6 | 2 | 0.6 |
| 1970-1980 | 48 | 5 | 3.5 | 43 | 5.0 | 11 | 16.7 | 28 | 6.3 | 4 | 1.1 |
| 1980-1990 | 10 | 1 | 0.7 | 9 | 1.0 | 2 | 3.0 | 6 | 1.4 | 1 | 0.3 |
| 1990-2000 | 332 | 127 | 89.4 | 205 | 23.6 | 37 | 56.1 | 132 | 29.8 | 36 | 10.1 |
| TOTAL | 1,009 | 142 | 100.0 | 867 | 100.0 | 66 | 100.0 | 443 | 100.0 | 358 | 100.0 |

## Table 6. Population in the Great Plains by Metropolitan and Non-Metropolitan Status, 1950 to 2000

Note: Metropolitan Status was determined using the 1993 Beale Codes provided by the USDA, ERS. For purposes of this report, the Great Plains is defined as all counties in Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming.
Source: U.S. Census Bureau, Decennial Censuses

| Year | Total Counties |  | Metropolitan Counties |  | Non-Metropolitan Counties |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Tota |  | Urban pop 20,000 or | $\begin{aligned} & \text { ation } \\ & \text { core } \end{aligned}$ | Urban popula to $\mathbf{1 9 , 9}$ | $\text { on } 2,500$ | Rural popul than 2, | on less <br> 0 |
|  | Number | Percent |  |  | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Population: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | 22,937,101 | 100.0 | 11,519,486 | 50.2 | 11,417,615 | 49.8 | 2,181,363 | 9.5 | 6,885,014 | 30.0 | 2,351,238 | 10.3 |
| 1960 | 26,690,557 | 100.0 | 15,401,303 | 57.7 | 11,289,254 | 42.3 | 2,502,613 | 9.4 | 6,691,865 | 25.1 | 2,094,776 | 7.8 |
| 1970 | 29,647,276 | 100.0 | 18,627,554 | 62.8 | 11,019,722 | 37.2 | 2,629,331 | 8.9 | 6,519,961 | 22.0 | 1,870,430 | 6.3 |
| 1980 | 34,970,287 | 100.0 | 22,839,309 | 65.3 | 12,130,978 | 34.7 | 2,983,069 | 8.5 | 7,254,571 | 20.7 | 1,893,338 | 5.4 |
| 1990 | 38,736,776 | 100.0 | 26,698,025 | 68.9 | 12,038,751 | 31.1 | 3,044,336 | 7.9 | 7,226,040 | 18.7 | 1,768,375 | 4.6 |
| 2000 | 45,461,286 | 100.0 | 32,429,884 | 71.3 | 13,031,402 | 28.7 | 3,305,226 | 7.3 | 7,875,080 | 17.3 | 1,851,096 | 4.1 |
| Change: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 to 1960 | 3,753,456 | 16.4 | 3,881,817 | 33.7 | -128,361 | -1.1 | 321,250 | 14.7 | -193,149 | -2.8 | -256,462 | -10.9 |
| 1960 to 1970 | 2,956,719 | 11.1 | 3,226,251 | 20.9 | -269,532 | -2.4 | 126,718 | 5.1 | -171,904 | -2.6 | -224,346 | -10.7 |
| 1970 to 1980 | 5,323,011 | 18.0 | 4,211,755 | 22.6 | 1,111,256 | 10.1 | 353,738 | 13.5 | 734,610 | 11.3 | 22,908 | 1.2 |
| 1980 to 1990 | 3,766,489 | 10.8 | 3,858,716 | 16.9 | -92,227 | -0.8 | 61,267 | 2.1 | -28,531 | -0.4 | -124,963 | -6.6 |
| 1990 to 2000 | 6,724,510 | 17.4 | 5,731,859 | 21.5 | 992,651 | 8.2 | 260,890 | 8.6 | 649,040 | 9.0 | 82,721 | 4.7 |
| 1950 to 2000 | 22,524,185 | 98.2 | 20,910,398 | 181.5 | 1,613,787 | 14.1 | 1,123,863 | 51.5 | 990,066 | 14.4 | -500,142 | -21.3 |

## Components of Change in the Great Plains

Components of Change. Population change is a function of three major processes; births, deaths, and migration. An area is viewed as naturally growing (referred to as natural increase) if the number of birth exceeds the number of deaths. Similarly, an area can grow if the number of people moving in exceeds the number of people moving out (measured by net migration). The combination of these events will determine population change.

In the Great Plains, most of the population change is due to net migration. However, decades of out-migration of young adults have dramatically altered the age structure within the region and greatly increased the number of counties with natural decline. This poses serious ramifications for future population change in the region.

## Highlights

Figure 4. The number of naturally declining counties (i.e., those with more deaths than births) has dramatically increased in the Great Plains, nearly tripling since 1980. Between 1980 and 1999, 223 or $22 \%$ of the region's 1,009 counties naturally declined; $58 \%$ of these counties were rural.

Figure 5. Most of the population loss in the Great Plains can be attributed to out-migration. Half of the counties in the region had net outmigration between 1990 and 1999. Fewer than one in four metropolitan counties had net out-migration during this time period while nearly two-thirds of the rural counties sustained net out-migration.

Figure 4. Natural Change for the Great Plains States by County: 1980 to 1999
Source: U.S. Census Bureau, Population Estimates Branch

Natural change for the period of 1980 to 1999 is equal to the total births occurring during that period minus the total deaths occurring during that same time period.

The Great Plains states shown are those identified as the research area for the
Great Plains Depopulation Symposium in October 2001

Natural Change: 1980-1999Decrease
Increase: 0 to 299
Increase: 300-1,199
Increase: 1,200 to 3,699
Increase: 3,700 or greater

Figure 5. Net Migration for the Great Plains States by County: 1990 to 1999
Source: U.S. Census Bureau, Population Estimates Branch

The Great Plains states shown are those identified as the research area for the Great Plains Depopulation Symposium in October 2001

Net Migration: 1990 to 1999
$\square$ Decrease: - 500 or greater
Decrease: -499 to -150
Decrease: -149 to 0
Increase: 0 to 1,999
Increase: 2,000 or greater

## Age Distribution in the Great Plains

Shifting Age Distributions. The age distribution of a population has important consequences for the viability of an area. In addition, the age profile of an area provides context for understanding both current and future needs. Two important trends occurring within the Great Plains are dramatically altering the region's age structure. First, selective out migration of young adults largely from rural areas has significantly reduced the number and proportion of youth, especially in non-metropolitan areas. Second, the proportion of elderly in the region has increased markedly. This is largely a result of the proportional losses among the youth population. Once again, these changes are much more pronounced in the rural areas of the region.

## Highlights

Figure 6. Between 1990 and 2000, $40 \%$ of the counties in the U.S. had losses in their youth population (i.e., ages 0-17); $43 \%$ of these counties were in the Great Plains. Ironically, the actual number of youth increased during this time period, even in the Great Plains. This contradiction is due to the fact that the largest youth population is in metropolitan counties, which have been growing. More than 1.6 million youth were added to the Great Plains between 1990 and 2000; $95 \%$ of the gain in youth were in metropolitan counties. The youth population grew by $20 \%$ in the metropolitan counties of the region. In contrast, the rural counties in the region lost nearly 8,000 youth or $2 \%$ during this time period.

Figure 7. The proportion of elderly (i.e., ages 65 and older) in the Great Plains increased dramatically between 1990 and 2000. In $46 \%$ of the 1,009 counties in the region, the proportion of elderly exceeds $17 \%$. The Great Plains account for $56 \%$ of all counties in the U.S. whose elderly exceeds $17 \%$. The proportion of elderly in the U.S. in 2000 was only $12.4 \%$.

Figure 8. In contrast, the actual number of elderly declined in $42 \%$ of the counties in the Great Plains. Again, the contradiction rests in the disparities between metropolitan and non-metropolitan counties. The metropolitan counties in the region gained 556,582 elderly in the last decade while the rural counties lost 547 elderly.

Figure 6. Percent Change in Total Population Ages 0 to 17 Years for the U.S. by County: 1990 to 2000
Source: U.S. Census Bureau, 1990 and 2000 Decennial Census


Figure 7. Persons 65 Years and Older as a Percent of Total Population in the U.S. by County: 2000
Source: U.S. Census Bureau, 2000 Decennial Census


Figure 8. Percent Change in Total Population Ages 65 Years and Older for the U.S. by County: 1990 to 2000
Source: U.S. Census Bureau, 1990 and 2000 Decennial Census


## Hispanic Population in the Great Plains

Hispanic Movement. There has been a shifting pattern of movement among Hispanics within the Great Plains. Some of the change can be attributed to restructuring of agricultural employment. Metropolitan resettlement is another factor. Regardless of the cause, significant concentrations of Hispanics are appearing in the central and northern parts of the region.

## Highlights

Figure 9. A significant increase in the Hispanic population occurred in the central and northern states of the Great Plains. Hispanics now represent nearly $20 \%$ of the Great Plains population, nearly doubling since 1980. More than $82 \%$ of Hispanics live in metropolitan counties within the region. The large proportion of Hispanics in the region is due mainly to the fact that Texas represents $46 \%$ of the Great Plains population and $75 \%$ of the region's Hispanic population.

Figure 9. Percent Change in Total Population of Hispanic Origin for the U.S. by County: 1990 to 2000
Source: U.S. Census Bureau, 1990 and 2000 Decennial Census

Percent Change in Total Persons of Hispanic Origin: 1990-2000Decrease Increase: 0\% to 49\% Increase: $50 \%$ to $199 \%$ Increase: 200\% to 399\%
Increase: $400 \%$ or greater
_— Research area for the Great Plains Depopulation Symposium in October 2001

## Living Arrangements in the Great Plains

Shifting Household Composition and Living Arrangements. The composition of households in the region is important to monitor because it provides insight into possible changes in service needs for the area. Two trends which deserve attention are a) changing family composition and b) shifts in the proportion of individuals living alone. Changes in family composition can be detected by looking at the proportion of family households relative to non-family households. Typically, family households greatly outnumber non-family households. Shifts in this pattern can have important consequences for many institutions including schools, churches, and health providers. Similarly, changes in proportion of individuals living alone may translate into greater demand on institutions, especially health and social services. This is especially true for isolated rural areas of the region.

Household: A household includes all persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied as separate living quarters. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements.

Family Household: A family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption. All persons in a household who are related to the householder are regarded as members of his or her family.

Non-Family Household: A non-family household consists of a group of unrelated persons or one person living alone.

## Highlights

Figure 10. There has been a dramatic shift in household composition within the Great Plains. During the past two decades, the proportion of family households has declined from $73.3 \%$ in 1980 to $68.7 \%$ in 2000. In contrast, the number of non-family households in the region has doubled and they account for nearly 1 of every 3 households.

Figure 11. The number of persons living alone in the region nearly doubled in the past two decades. More than 4.3 million households in the Great Plains are individuals living by themselves; this is an increase of 1.5 million since 1980. More than 1 in 3 of these households are single elderly. In the rural counties this single elderly proportion is nearly $50 \%$.

Figure 10. Percent Change in Family Households for the Great Plains States by County: 1980 to 2000
Source: U.S. Census Bureau, 1980 and 2000 Census

The Great Plains states shown are those identified as the research area for the Great Plains Depopulation Symposium in October 2001


Percent Change in Family Households: 1980 to 2000
$\square$ Decrease: $-15.0 \%$ or greater Decrease: $-14.9 \%$ to $-10.0 \%$ Decrease: $-9.99 \%$ to $0 \%$ Increase: $0 \%$ to $24.9 \%$
Increase: $25.0 \%$ or greater

Figure 11. Persons 65 Years and Older Living Alone as a Percent of Total Elderly Households for the U.S. by County: 2000 Source: U.S. Census Bureau, 2000 Decennial Census


## Economic Conditions in the Great Plains

Youth Poverty. Many of the important economic indicators from the 2000 Census are not yet available. These are scheduled to be released starting in the spring of 2002. As a result, one must rely on estimates for a snapshot of the economic health of the region's smaller areas. Perhaps the most telling indicator is youth poverty. The future of any area lies in its youth and the ability to cultivate human capital.

## Highlights

Figure 12. The highest concentrations of impoverished youth, both in the Great Plains region and the U.S. in general, tend to be in the south and among Native American reservation areas.

Figure 12. Percent of Children Ages 0 to 17 Below Poverty in the U.S. by County, 1997
Source: U.S. Census Bureau, Small Area Estimates Branch.

—— Research area for the Great Plains Depopulation Symposium in October 2001

