

2000 Update: Frontier Counties in the United States

Many Americans assume that the frontier exists only as a part of America's past, but this is not the case. Based on figures from the 2000 US Census, the Frontier Education Center determined that around nine million people live in frontier counties. There are a total of 812 frontier counties located in 38 states. Although the percentage of people who live in frontier is small, only about 3% of the US population, the area on which they live is large. Frontier counties comprise about 56% of the land area and contain 49% of the water area in the United States, a total of 2,125,413 square miles.

Definition of Frontier

In 1997, the Frontier Education Center convened a group of frontier providers and policy experts to develop a consensus definition of "frontier." Early on, it became clear that defining frontier solely by population was not an adequate approach. For example, in some large counties, the presence of a city in one corner, skews population density and overshadows the existence of many large frontier areas. At the same time, small counties that are clustered close together may have low population densities, but exist within very metropolitan areas. Furthermore, a key component to frontier life is distance. Areas with population density as high as 20 people per square mile [1] could be considered frontier if the community were located at a great distance or travel time from the closest significant service center or market. The Frontier Education Center adopted a consensus definition of frontier which is based on a matrix that includes population density and distance in miles and travel time in minutes from a market-service area. This consensus definition has been formally adopted by both the National Rural Health Association and The Western Governors Association.

The Center believes that States and communities should be involved in frontier designation. Local involvement is necessary because local people are best placed to understand actual conditions of the areas in their state. The Frontier Education Center put the consensus definition of frontier into practice by developing a list of counties based on the matrix and in consultation with State Offices of Rural Health. By consulting with local experts, a list of frontier counties that more accurately reflects the conditions in each county is developed. This process is unique in that it has followed a "bottom-up" approach which acknowledges the diversity among frontier counties.

Following the development of the consensus definition, the Frontier Education Center began compiling a list of Frontier Counties using data from the 1990 decennial census. As the release of 2000 data has become available, the Frontier Education Center has been in the process of updating the consensus list of frontier counties. Once again, we have achieved 100% response rate from the State Offices of Rural Health.[2]

Number of Frontier Counties

Over 800 of the country's 3190 counties have been designated as frontier by the Frontier Education Center in consultation with State Offices of Rural Health. The 38 states where these counties are located stretch across every region of the country, although the number of frontier counties in each state varies widely. For

example, New Hampshire has only one frontier county while Texas has 131. Table One below identifies states with "few," "some," or "many" frontier counties.

Table One: Number of Frontier Counties By State

| Few (1-5) | Some (6-25) | Many (26-131) |
|----------------|-------------|---------------|
| Alabama | Alaska | Colorado |
| Florida | Arkansas | Idaho |
| Illinois | Arizona | Kansas |
| Kentucky | California | Minnesota |
| Louisiana | Georgia | Montana |
| Maine | Missouri | Nebraska |
| Michigan | Mississippi | North Dakota |
| North Carolina | Nevada | New Mexico |
| New Hampshire | Oregon | Oklahoma |
| New York | Utah | South Dakota |
| Pennsylvania | Washington | Texas |
| Vermont | Wisconsin | |
| Tennessee | Wyoming | |
| Virginia | | |
| West Virginia | | |

Since county size and population varies significantly among states, just looking at the number of frontier counties within a state has serious limitations. An important consideration, however, is that the existence of a county government may help to administer services to frontier populations. States with a high number of frontier counties have more administrative units. For example Texas has 131 county governments in its frontier areas to serve the 1,131,334 people living there. In contrast Arizona has only 13 frontier county governments to provide for a similar number of people, 1,059,626. As demonstrated in the following section, both states have large areas in frontier.

Distribution of Land in Frontier

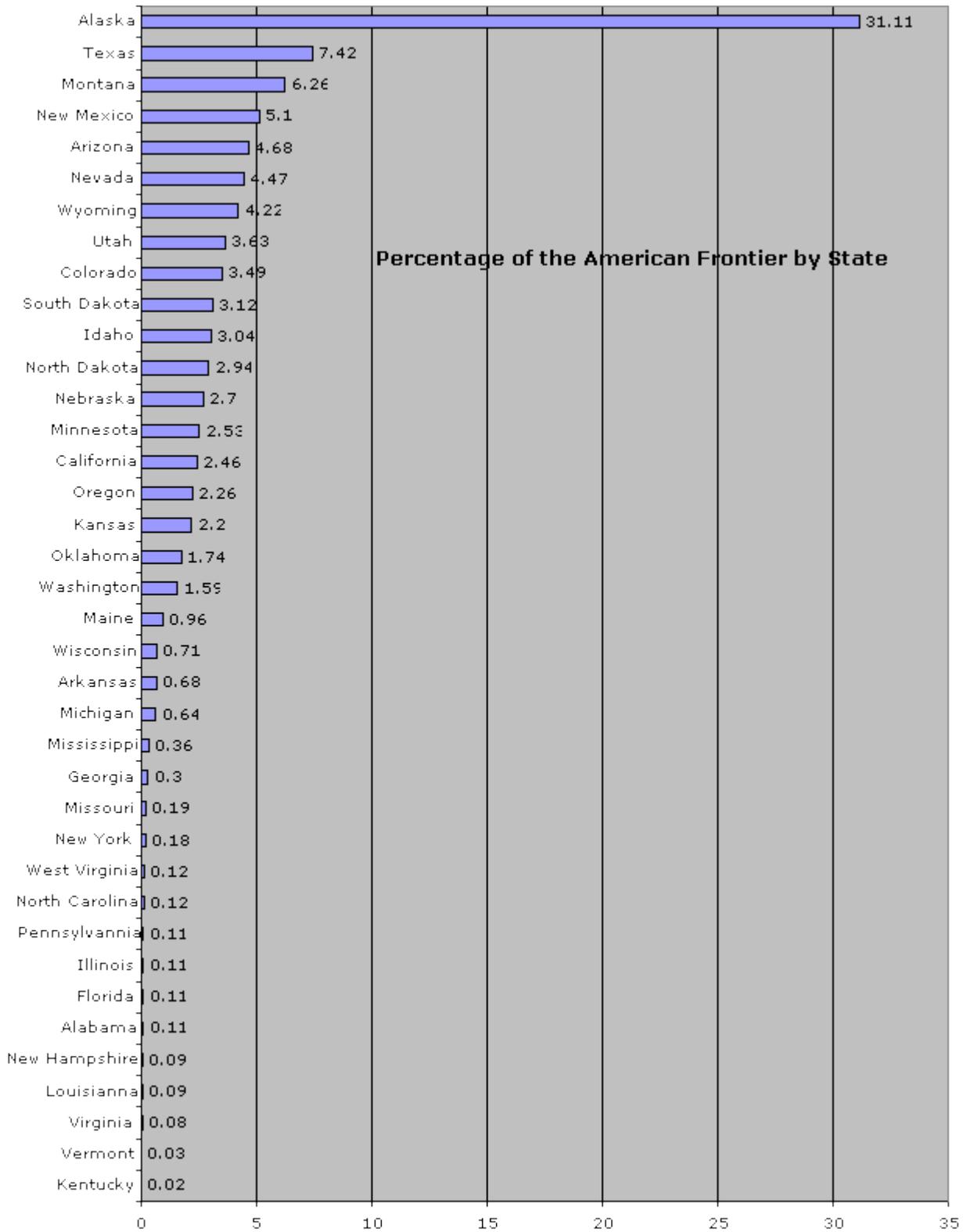
Over 56% of all the land in the United States is in the frontier. These lands comprise some of our most significant national treasures including farm land, natural resources, national parks, and military installations. These areas are crucial to the economy, culture and security of the United States.

Most frontier land is located in Alaska, the Great Plains and the West. Table Two below ranks the top states with the largest areas in frontier. These 19 states account for about 95% of the land designated as frontier.

Table Two: Frontier Lands in Top-Ranking States

| State | Area in Frontier | % of Frontier Lands |
|--------------|------------------|---------------------|
| Alaska | 661,306 sq. mi. | 31.11 |
| Texas | 157,786 | 7.42 |
| Montana | 133,133 | 6.26 |
| New Mexico | 108,395 | 5.10 |
| Arizona | 99,399 | 4.68 |
| Nevada | 95,025 | 4.47 |
| Wyoming | 89,750 | 4.22 |
| Utah | 77,053 | 3.63 |
| Colorado | 74,101 | 3.49 |
| South Dakota | 66,233 | 3.12 |
| Idaho | 64,573 | 3.04 |
| North Dakota | 62,427 | 2.94 |
| Nebraska | 57,438 | 2.70 |
| Minnesota | 53,700 | 2.53 |
| California | 52,371 | 2.46 |
| Oregon | 48,089 | 2.26 |
| Kansas | 46,786 | 2.20 |
| Oklahoma | 36,889 | 1.74 |
| Washington | 33,832 | 1.59 |

A complete distribution of all lands designated as frontier is represented in Chart One on the following page. Some states with relatively small areas designated as frontier still have significant frontier populations. For example, in the middle of the chart, Maine, Wisconsin and Arkansas each have less than 1% of lands designated as frontier located in their states.^[3] Yet, they have significant frontier populations. Maine and Arkansas each have over 200,000 people in frontier, constituting 16% and 14% respectively of their entire state populations. Wisconsin has over 187,000 people in frontier, 3.5% of its population. Also noteworthy is Mississippi which has only 7,749 square miles of frontier land, but over 100,000 people representing over 6% of their state population. Other southern states with small land allocations in frontier are Alabama and Georgia. While the distribution of land is a significant factor affecting the frontier status of a state, attention must be paid to population which is discussed in the following section.



The Distribution of Population in Frontier

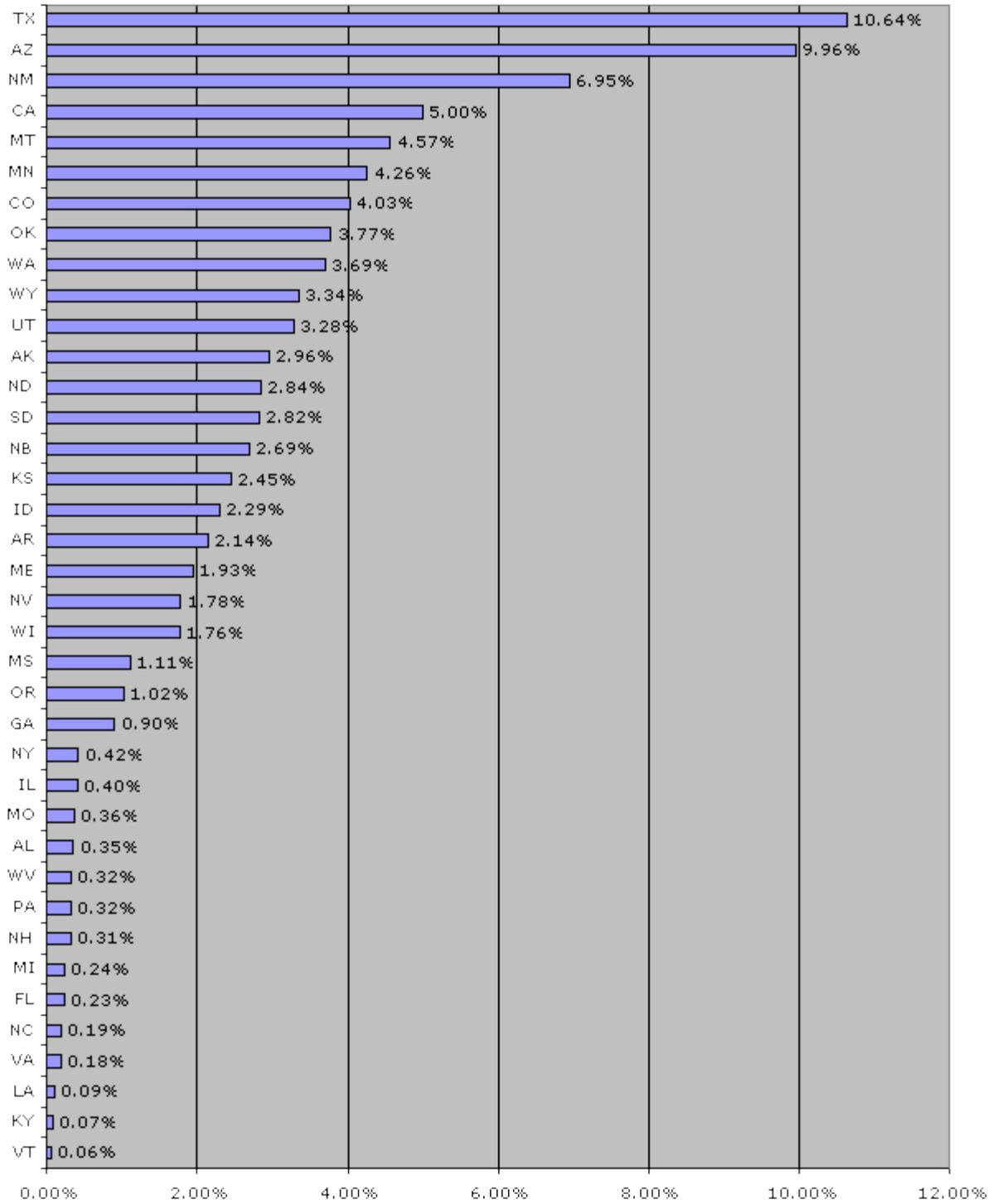
Over nine million Americans currently live in counties designated as frontier. Over 10% of these people live in Texas. While Alaska is the top-ranked frontier state based on area, with 31% of frontier land, Texas is the top-ranked frontier state in terms of population, with Arizona a close second. However, there is significant overlap among states that are top-ranked on measures of area and population. Six states are ranked in the top ten on both measures. These are Texas, Montana, New Mexico, Arizona, Wyoming and Colorado. Table Three below compares states that are ranked in the top ten on measures of population and density.

Table Three: Comparison of Top Ten Frontier States by Population and Area

| Largest Frontier Population | Largest Frontier Area |
|-----------------------------|-----------------------|
| 1. Texas | 1. Alaska |
| 2. Arizona | 2. Texas |
| 3. New Mexico | 3. Montana |
| 4. Minnesota | 4. New Mexico |
| 5. California | 5. Arizona |
| 6. Montana | 6. Nevada |
| 7. Colorado | 7. Wyoming |
| 8. Oklahoma | 8. Utah |
| 9. Washington | 9. Colorado |
| 10. Wyoming | 10. South Dakota |

Frontier land is more highly concentrated than frontier population. For example in terms of area, the top ten states account for 73% of all frontier land. Whereas, in terms of population, the top ten states account for only 66% of all frontier population. Table Two on page three above, which accounts for 95% of all frontier land lists 19 top-ranked states. In order to account for 95% of frontier population, the list would include each of the states listed in Table Two (although not in an identical ranking), plus the next four ranked states, Arkansas, Maine, Wisconsin and Mississippi. A complete distribution of frontier population is represented below in Chart Two.

Percentage of Frontier Population by State



When looking at population, it is also important to consider the percentage of a state's population that lives in areas designated as frontier. If we look at the data this way, Wyoming is the top-ranked frontier state with almost 74% of its population living in frontier. Six other states have very high percentages, over one-third, of their populations living in frontier areas: Montana, Alaska, North Dakota, South Dakota, New Mexico and Arizona. Ranking frontier states this way results in the inclusion of an Eastern state, Maine, in the top ten. These data are summarized in Table Four below.

Table Four: States with more than 10% of their population in frontier

| State | % population in frontier | # of people in frontier |
|--------------|--------------------------|-------------------------|
| Wyoming | 73.9 | 355,642 |
| Montana | 54.1 | 485,966 |
| Alaska | 52.3 | 314,735 |
| North Dakota | 47.6 | 302,106 |
| South Dakota | 42.1 | 299,493 |
| New Mexico | 42 | 738,946 |
| Arizona | 20.6 | 1,059,626 |
| Idaho | 19.4 | 243,664 |
| Nebraska | 16.7 | 286,530 |
| Maine | 16 | 205,469 |
| Arkansas | 14 | 227,849 |
| Oklahoma | 12.2 | 401,481 |
| Colorado | 11 | 428,169 |

The problem with organizing the data this way is that very large and highly populated states, like Texas which rank very high on the other measures fall completely out of the picture. Although Texas has over one million people living in frontier, this represents only 5.5% of the entire state population. Similarly, California's 532,085 frontier residents account for only 2% of the state's population and Utah's 348,974 only 1.3%.

[1] The national average for population density is almost 80 people per square mile. There are 135 counties with population densities over 1000, with New York County topping the list at 66,940 people per square mile.

[2] For a complete list of frontier counties, please visit our website at www.frontierus.org.

[3] The land area designated frontier in Maine is 20,300 square miles; in Wisconsin, 15,150; in Arkansas, 14,514.

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