



Human Geography

Creating a Choropleth Map

Name: _____
Section: _____
Score: ____/5

Directions: Make a Choropleth map using the blank map below and the attached table of "State residence in 2000 by State of Birth." Once completed making the map answer the questions at the bottom of this paper. Instructions for making a choropleth map and how to read them are located on the back of this paper as well.

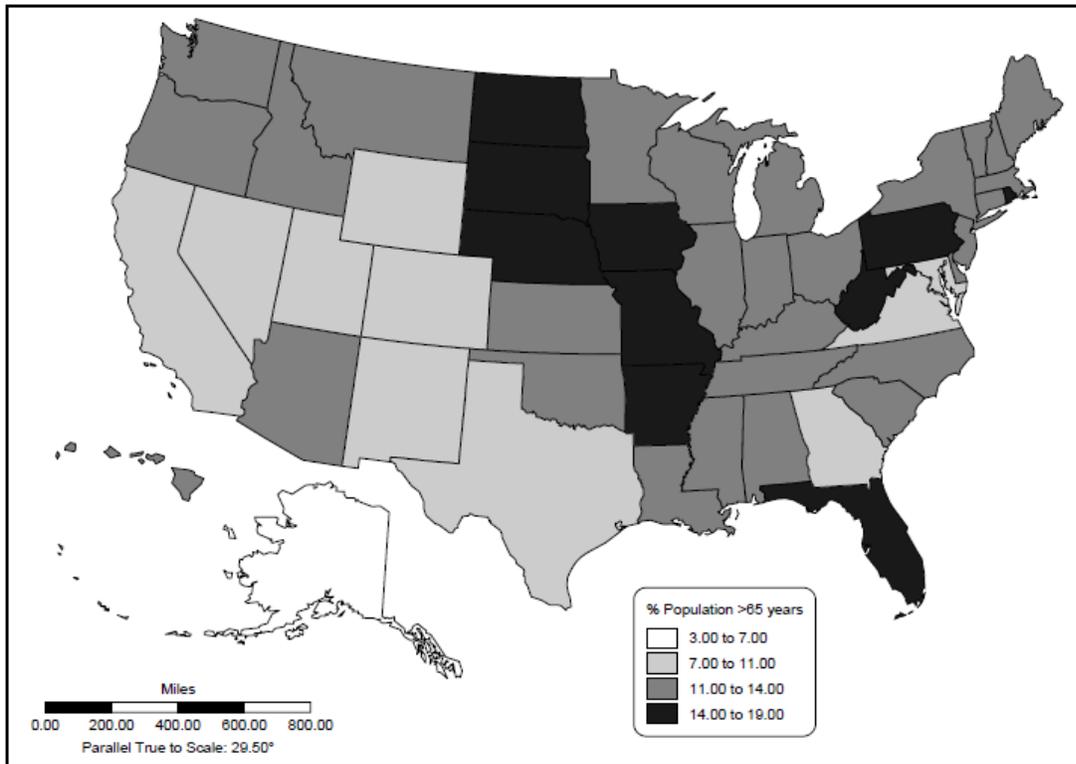


Choropleth Map Questions

1. Make sure you have a key on you map explaining what the colors mean. How did you decide to set your key?
2. Which state has the highest percent of natives living in the state? The lowest? (Natives: people who were originally born there)
3. Which state has the lowest percent of natives to the United States? How could you display these percentages (of people living in the state that are born in the US) on a choropleth map.

How to read a Choropleth Map

A **choropleth map** (sometimes referred to as an area-value map) reveals patterns within data by showing the distribution of the chosen phenomenon within the selected area. For example, a choropleth map might show variations in the percent of population above 65 years by state within the United States (see below).



In order to construct a choropleth map, data is aggregated or generalized into classes or categories that are represented on the map by grades of color or shading. The greater the density of color or shading, the greater the density or value represented. For example, states with the greatest percent of total population above 65 years are shaded in the darkest tone; those with the lowest percent above 65 years are shaded in the lightest tone. From the map above, we can quickly see that ten states have more than 14% of their total population in this age group. While such generalization may mask detail, it allows quick observation of patterns and variation, and provides a basis for posing analytical questions.

Constructing a Choropleth Map

The first step in constructing a choropleth map is determining the range of data. Examine the data to be mapped. Determine the highest and lowest values for the data. Subtract these two numbers in order to calculate the range of the data. Then divide the range by the number of mapping categories you plan to use (3, 4, or 5 categories is recommended, depending on the size of the range). Note: After dividing, it may be necessary to adjust the limits of the categories to avoid fractions.

Assign a color or shade to each category. Keep in mind that colors or shades should be scaled from darkest to lightest, from highest to lowest values. Complete the Key on the map you are using. Then sort the data according to categories. Follow the Key to shade each area according to the data values being mapped. Title the map and include a data source note and cartographers mark in the lower margin.

State Residence in 2000 by State of Birth

State of residence in 2000	Total population	Total born in the United States	Born in state of current residence	
			Number	Percent
United States	281,421,906	246,786,466	168,729,388	60.0
Alabama	4,447,100	4,328,395	3,262,053	73.4
Alaska	626,932	579,549	238,613	38.1
Arizona	5,130,632	4,418,767	1,779,492	34.7
Arkansas	2,673,400	2,585,866	1,707,529	63.9
California	33,871,648	24,633,720	17,019,097	50.2
Colorado	4,301,261	3,875,900	1,766,731	41.1
Connecticut	3,405,565	2,922,076	1,940,576	57.0
Delaware	783,600	726,794	378,840	48.3
District of Columbia	572,059	491,363	224,352	39.2
Florida	15,982,378	12,890,489	5,231,906	32.7
Georgia	8,186,453	7,519,654	4,735,652	57.8
Hawaii	1,211,537	968,947	689,056	56.9
Idaho	1,293,953	1,219,118	610,929	47.2
Illinois	12,419,293	10,768,063	8,335,553	67.1
Indiana	6,080,485	5,861,618	4,215,694	69.3
Iowa	2,926,324	2,823,872	2,188,424	74.8
Kansas	2,688,418	2,532,564	1,600,274	59.5
Kentucky	4,041,769	3,940,549	2,980,272	73.7
Louisiana	4,468,976	4,327,681	3,546,980	79.4
Maine	1,274,923	1,226,444	857,515	67.3
Maryland	5,296,486	4,718,233	2,610,963	49.3
Massachusetts	6,349,097	5,432,764	4,196,702	66.1
Michigan	9,938,444	9,357,816	7,490,125	75.4
Minnesota	4,919,479	4,632,962	3,451,522	70.2
Mississippi	2,844,658	2,791,115	2,113,883	74.3
Missouri	5,595,211	5,412,743	3,792,261	67.8
Montana	902,195	878,931	505,966	56.1
Nebraska	1,711,263	1,626,363	1,147,815	67.1
Nevada	1,998,257	1,655,486	425,626	21.3
New Hampshire	1,235,786	1,170,140	534,558	43.3
New Jersey	8,414,350	6,738,114	4,490,524	53.4
New Mexico	1,819,046	1,650,808	937,212	51.5
New York	18,976,457	14,589,263	12,384,940	65.3
North Carolina	8,049,313	7,548,433	5,073,066	63.0
North Dakota	642,200	625,998	465,667	72.5
Ohio	11,353,140	10,940,441	8,485,725	74.7
Oklahoma	3,450,654	3,290,431	2,158,827	62.6
Oregon	3,421,399	3,101,672	1,549,044	45.3
Pennsylvania	12,281,054	11,620,495	9,544,251	77.7
Rhode Island	1,048,319	910,056	643,912	61.4
South Carolina	4,012,012	3,862,472	2,568,954	64.0
South Dakota	754,844	737,555	513,867	68.1
Tennessee	5,689,283	5,493,226	3,679,056	64.7
Texas	20,851,820	17,727,394	12,970,203	62.2
Utah	2,233,169	2,054,627	1,405,177	62.9
Vermont	608,827	580,923	330,528	54.3
Virginia	7,078,515	6,402,682	3,676,255	51.9
Washington	5,894,121	5,195,697	2,781,457	47.2
West Virginia	1,808,344	1,782,125	1,342,589	74.2
Wisconsin	5,363,675	5,137,296	3,939,488	73.4
Wyoming	493,782	478,776	209,687	42.5

Source: U.S. Census Bureau, Census 2000, special tabulation. Table based from "State Residence in 2000 by State of Birth: 2000" <http://www.census.gov/population/cen2000/phc-t38/phc-t38.xls> Internet Release Date: January 31, 2005