Chapter 4

Age and Sex

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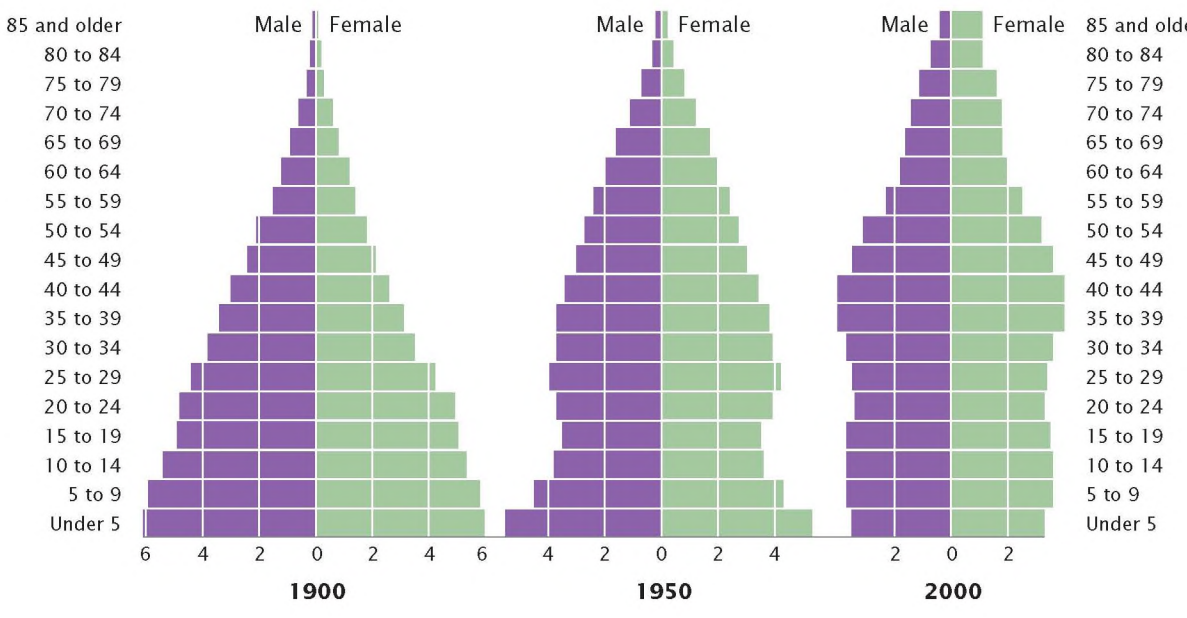
Age and sex composition provides a glimpse of a country's demographic history—reflecting past trends in births, deaths, and migration—as well as a view toward its demographic future. The age and sex structure of the U.S. population affects many of the characteristics described in other chapters of this atlas. For example, knowing that many Great Plains counties have high median ages and relatively few young people in their populations provides insight into the patterns of population decline seen in some maps in Chapter 2. In some cases, maps and graphics have been disaggregated by age or sex to make the impact of these demographic characteristics more apparent.

Changes in Age and Sex Structure

The age and sex structure of the U.S. population changed during the twentieth century, as shown by the population pyramids in Figure 4-1. Each of the bars in the population pyramids represents the percentage of the total population in that age-sex group. The distribution of the population by age and sex in 1900 exhibited the classic pyramid shape, wider at the bottom and narrower at the top. This broad-based shape characterizes a young, relatively high-fertility population. In 1900, children under 5 years old accounted for 12 percent of the U.S. population, while people aged 65 and older accounted for less than 5 percent.

The low fertility of the Great Depression years is evidenced by the "pinch" in the age structure in the 1950 pyramid, as people born during the 1930s were 10 to 19 years old. By 1950, the onset of the post World War II Baby Boom had altered the bottom of the pyramid, as 11 percent of the population was under age 5, giving the second age-sex pyramid a large base of very young people.

Figure 4-1.
Percent Distribution of Population by Age and Sex, 1900, 1950, and 2000



The more rectangular shape of the lower half of the Census 2000 age-sex pyramid shows the aging of the U.S. population in the second half of the twentieth century, due primarily to low fertility following the Baby Boom. A pinch in the pyramid for the 20-to-29 age group resulted from the relatively low number of births during the 1970s. The Baby Boom bulge appears in the 2000 pyramid in the 35-to-54-year age range. Another feature of the 2000 age-sex pyramid is the less cone-like shape at the top of the pyramid compared with the 1900 and 1950 pyramids. The larger proportions of the population in older age groups in 2000 resulted in part from sustained low fertility rates and partly from relatively larger declines in mortality at older ages than at younger ages.

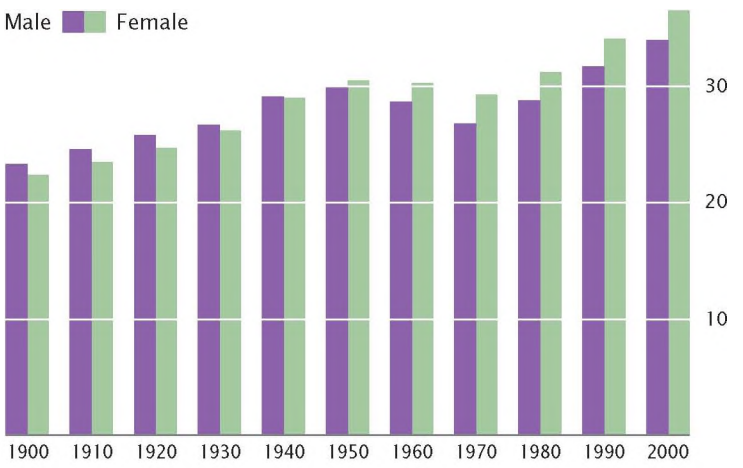
Trends in Median Age

Another way of summarizing the overall age structure of a population is with its median age—the age at which half the population is older and half is younger. The median age of the population in 1900 was 22.9 years. The median age rose in 8 of the next 10 decades, reaching a record high of 35.3 years in 2000 (Figure 4-2). The only two decades of the twentieth century when the median age did not increase

were 1950–1960 and 1960–1970, when the large number of births during the Baby Boom (1946–1964) resulted in a decline in median age from 30.2 years in 1950 to 28.1 years in 1970.

At the state level, the median age in 2000 was lowest in Utah (27.1 years), Texas (32.3), Alaska (32.4), and Idaho (33.2). The median age was highest in West Virginia (38.9), Florida (38.7), Maine (38.6), and Pennsylvania (38.0). States with lower median ages in 2000 were generally located in the West and the South (map 04-01).

Figure 4-2.
Median Age by Sex, 1900 to 2000



Along with the overall rise in median age between 1950 and 2000, the county-level maps of median age in this chapter show distinct geographic patterns. In 2000, the highest median ages occurred in counties in the upper Great Plains and the interior Northeast, and also in Florida, coastal areas of the Pacific Northwest, and northern portions of Michigan, Wisconsin, and Minnesota.

The large proportion of those aged 65 and older in Florida in 2000 was, in part, the product of a well-established pattern of retiree migration to that state. Relatively few members (8.9 percent) of this group were born in Florida. In contrast, many of the counties in the Northeast and Midwest with older populations reflected what is known as "aging in place." In those areas, the high percentage aged 65 and older was often a result of older people remaining while younger people migrated elsewhere. Whether the pattern is due to the inmigration of retirees or the outmigration of young adults, the result is counties with large proportions of people 65 and older.

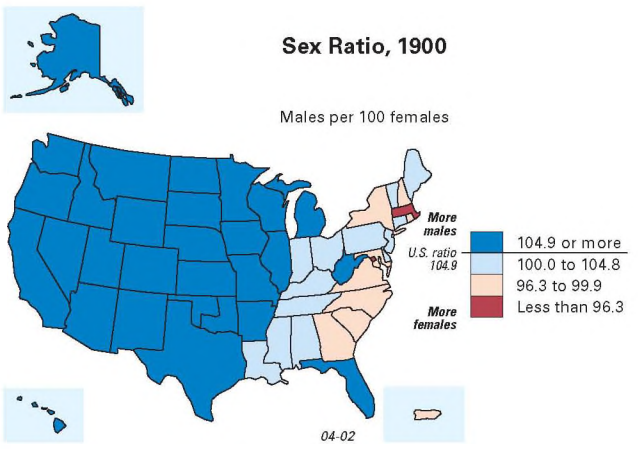
Changes in Sex Ratios, 1900 to 2000

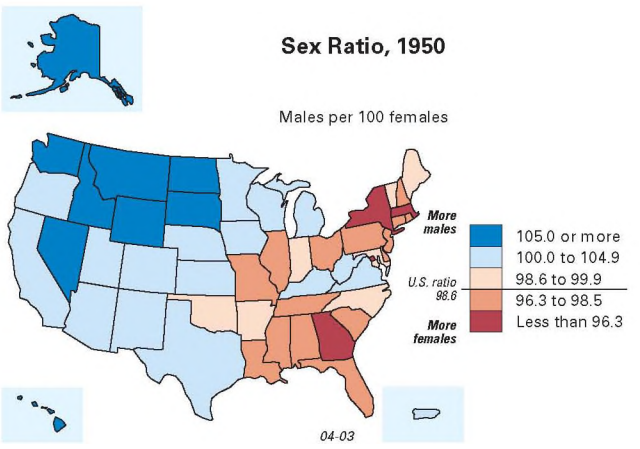
While the overall sex ratio—the number of males per 100 females—in the United States declined during the twentieth century, a sustained East-West dichotomy is evident in maps 04-02 through 04-04. In 1900, the sex ratios in most western states were higher than the U.S. figure of 104.9, and lower sex ratios were found in states along the Atlantic coast. By 1950, only Alaska and Hawaii had a sex ratio above 105, and Massachusetts had the lowest sex ratio among the 48 states (93.8). In 2000, the sex ratio for the United States was 96.3, and most states in the eastern half of the country had a sex ratio below that figure.

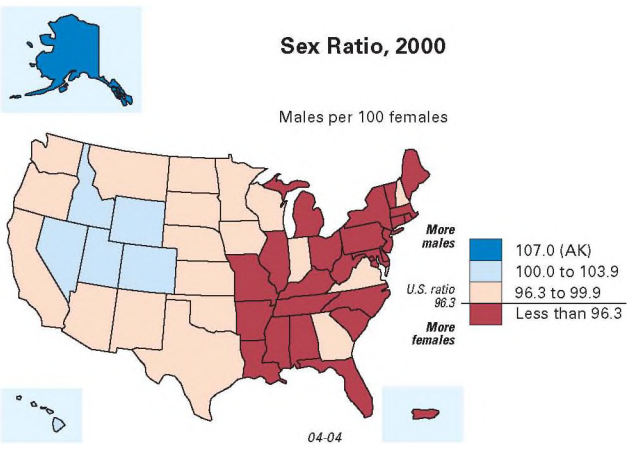
Growth of the Male and Female Populations

Between 1990 and 2000, the male population grew slightly faster (13.9 percent) than the female population (12.5 percent). In 1990, females outnumbered males by 6.2 million, a difference that dropped to 5.3 million in 2000. This decline resulted in the sex ratio (males per 100 females) increasing from 95.1 in 1990 to 96.3 in 2000.

Despite this increase, the sex ratio in the United States decreased during most of the twentieth century. After a peak of 106.2 in 1910, the sex ratio declined to a low of 94.5 in 1980. This long decline resulted







mainly from the relatively larger reduction in female mortality rates during the period. The sex ratio then increased between 1980 and 1990, as male death rates declined faster than female death rates and as more male immigrants than female immigrants entered the country.

This Chapter's Maps

The maps in this chapter illustrate the age and sex composition of the U.S. population both historically and in 2000. They also show the geographic distribution of the young and old populations by race and Hispanic origin. Historical maps in the chapter highlight the aging of the U.S. population and the gradual disappearance of high sex ratios in western states.

Map 04-07 shows patterns of median age by county in 2000. Counties with a high median age are found in Appalachia, much of Florida, the midsection of the country, and the northern Rockies. Counties with a low median age are seen in Utah and Alaska. Throughout the country, some individual counties have a markedly lower median age than neighboring counties, due in some cases to the presence of a large university or military base.

The ratios of people under 18 and people 65 and older to the population aged 18 to 64 are shown in maps 04-08 through 04-10. Many counties in Utah and Alaska have high youth dependency ratios, meaning that they have larger-than-average numbers of young people compared with the sizes of their 18-to-64 populations. On the other hand, some counties in the Great Plains and Florida have relatively high older population dependency ratios. Taken together, the total dependency ratio shows the relationship between the number of people younger than age 18 or 65 and older to those aged 18 to 64. A handful of counties have ratios of 100 or more, while central Colorado has a number of counties with a total dependency ratio below 40.

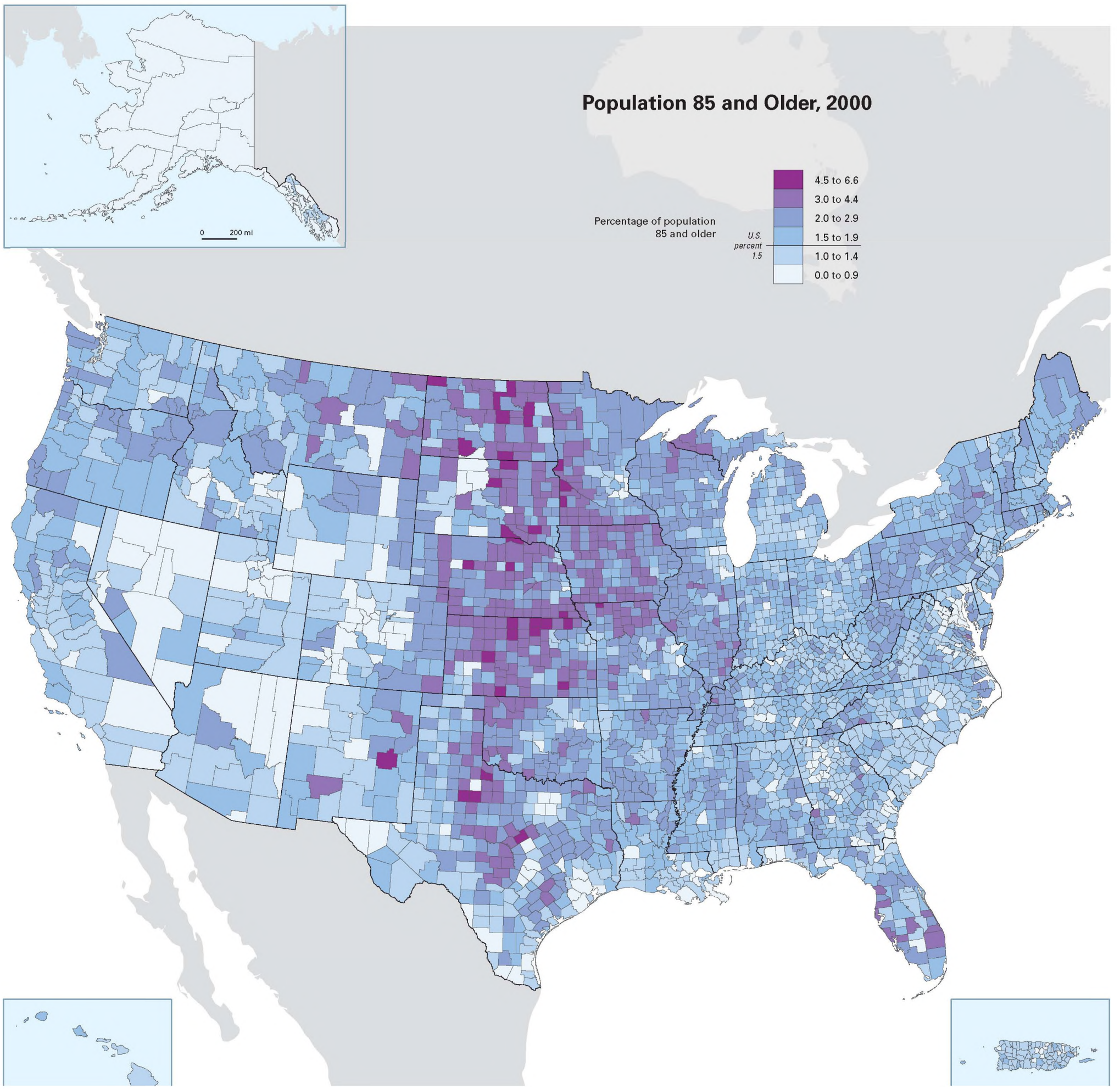
The percentage of the population under age 18 varied by race and Hispanic origin in 2000. The Two or More Races population and the Hispanic population had the highest percentages under 18 in 2000, at 41.9 percent and 35 percent, respectively. For the United States as a whole, 25.7 percent was under age 18. The county-level variations in these percentages are seen in maps 04-11 through 04-13.

The percentage of the population 65 and older also varied by race and Hispanic origin in 2000, with the highest percentage found in the non-Hispanic White population (15 percent), followed by the Black population (8.1 percent). For the United States as a whole, 12.4 percent of the population in 2000 was 65 and older, and the county-level percentages exhibited a strong geographic concentration (map 04-14). Counties with 20 percent or more of their population aged 65 and older are located in the country's midsection and across much of Florida. The geographic patterns of the older, non-Hispanic White population are similar to those of the entire older population, with high percentages of the non-Hispanic White population aged 65 and older in counties in Florida, the Great Plains, and parts of the desert southwest (map 04-15). The counties with higher percentages of Blacks who were 65 and older in 2000 were located in the South, the Great Plains, and the Ohio River Valley (map 04-16).

A series of tract-level maps displays the percentage of the population under age 5 for the country's largest metropolitan areas (maps 04-17 through 04-26). For the United States as a whole, 6.8 percent of the population in 2000 was under age 5. While the tract-level patterns varied among metropolitan areas, one pattern was common across all of the metropolitan areas: suburban tracts with high percentages under age 5 were almost always located in rapidly growing areas with high percentages of new housing and young families.

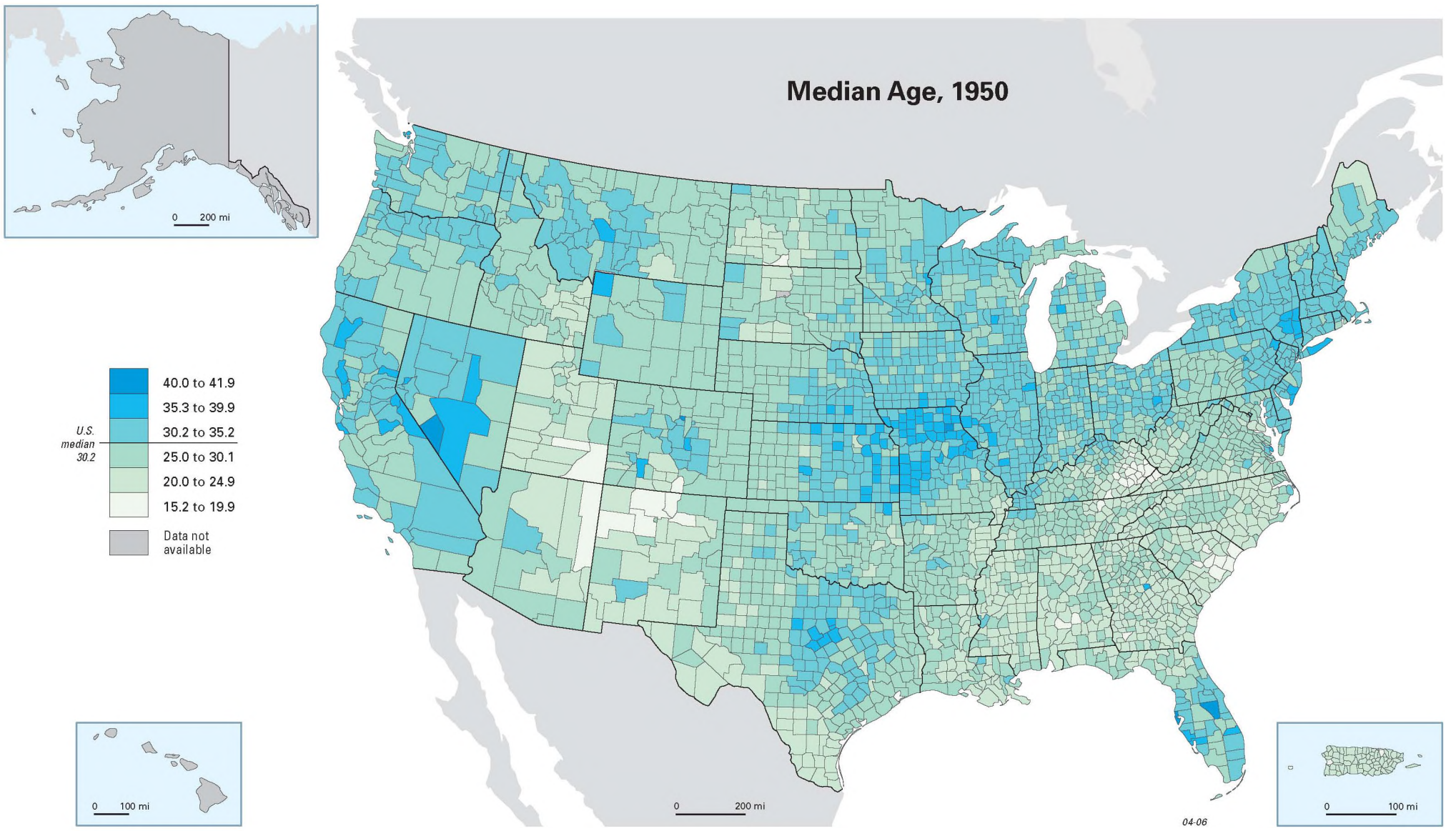
Some of the chapter's map patterns may be unexpected. For instance, in the map showing the percentages of the total population that were aged 85 and older in 2000 (map 04-05), no Arizona or Nevada county fell within the two highest percentage ranges, although these areas are generally perceived to be popular destinations for retirees. The maps in the chapter on migration show that Arizona and Nevada are indeed magnets for retirees, and at the same time they are also destinations for younger migrants. In 2000, the median ages for Arizona (34.2) and Nevada (35.0) were both below the U.S. median of 35.3 years.

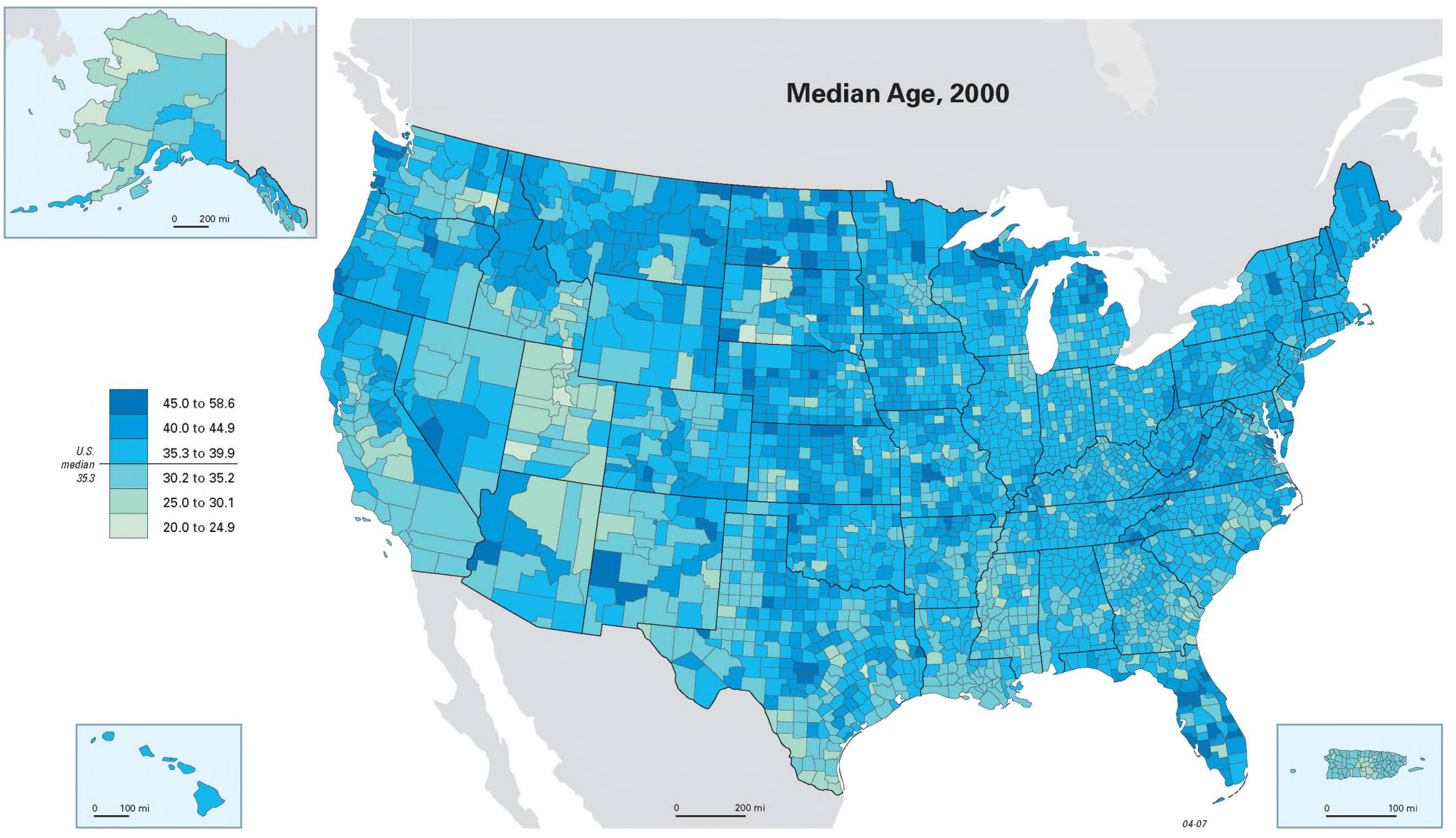
Population 85 and Older, 2000

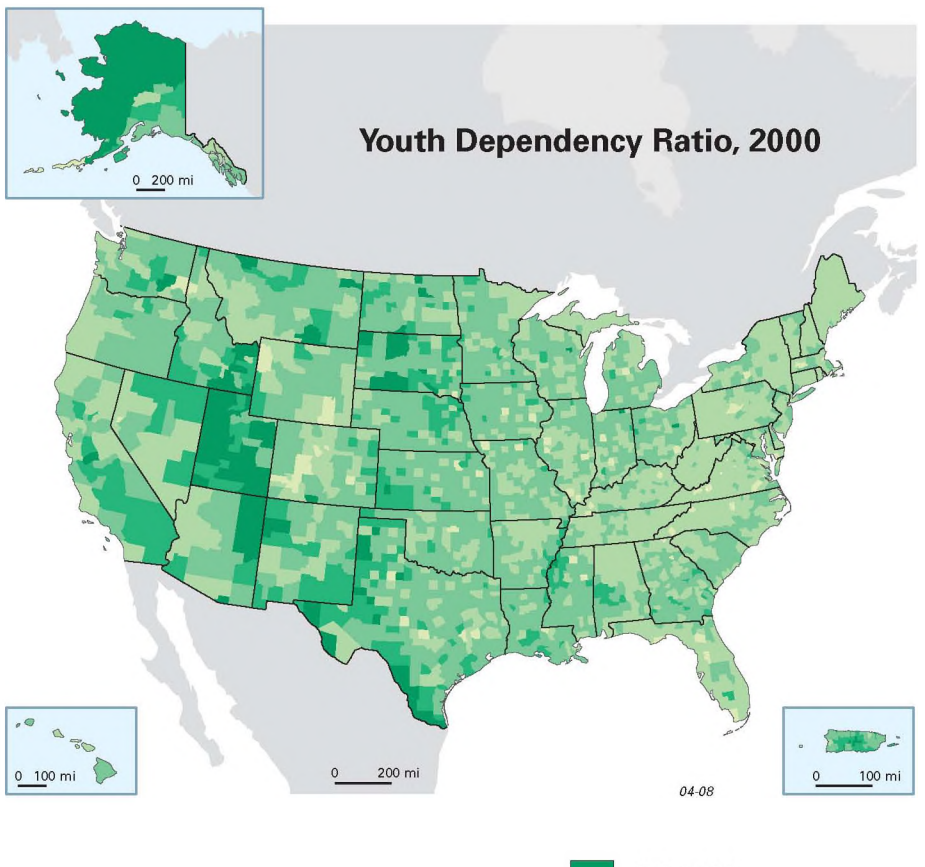


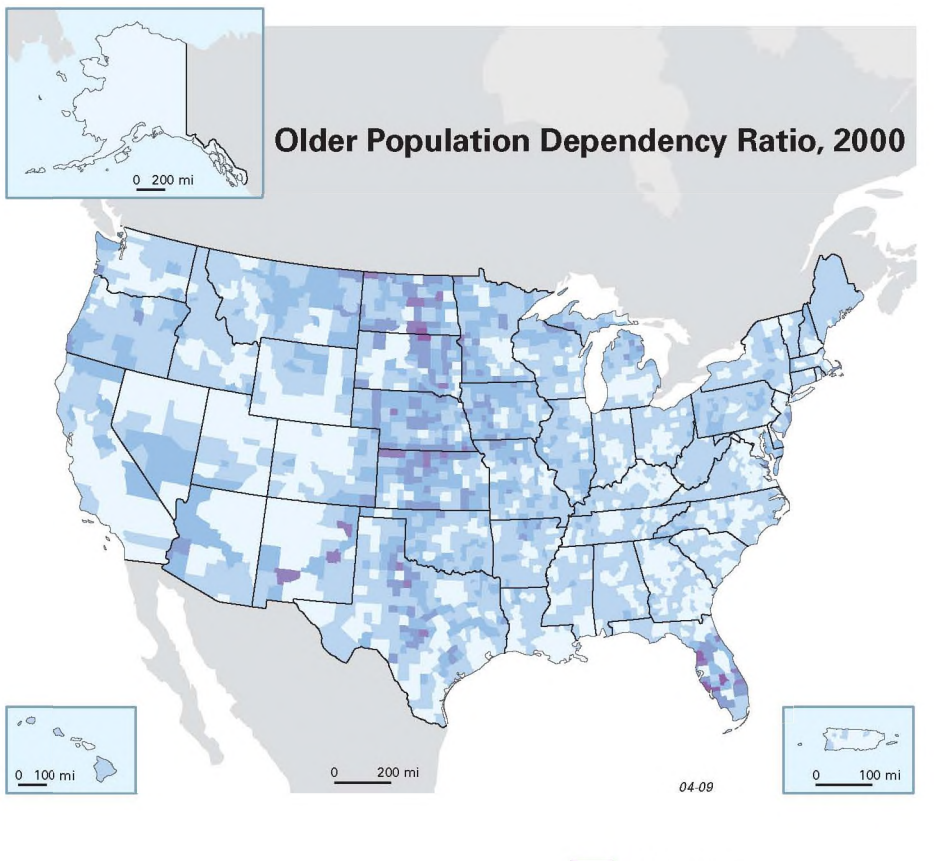
In 2000, 1.5 percent of the U.S. population was 85 and older. The darkest-shaded counties in the map above had 4.5 percent or more of their population in this age group. These counties stretch through the country's midsection from central Texas through Kansas, Nebraska, South Dakota, and North Dakota. They are generally thinly populated and rural. The population in many of these counties declined in recent decades, in part due to the outmigration of younger people. Numerous other counties in the Great Plains are in the second- and third-highest categories. Some Florida counties also had relatively high percentages of their populations 85 and older, partly reflecting the large number of retirees who moved to the state.

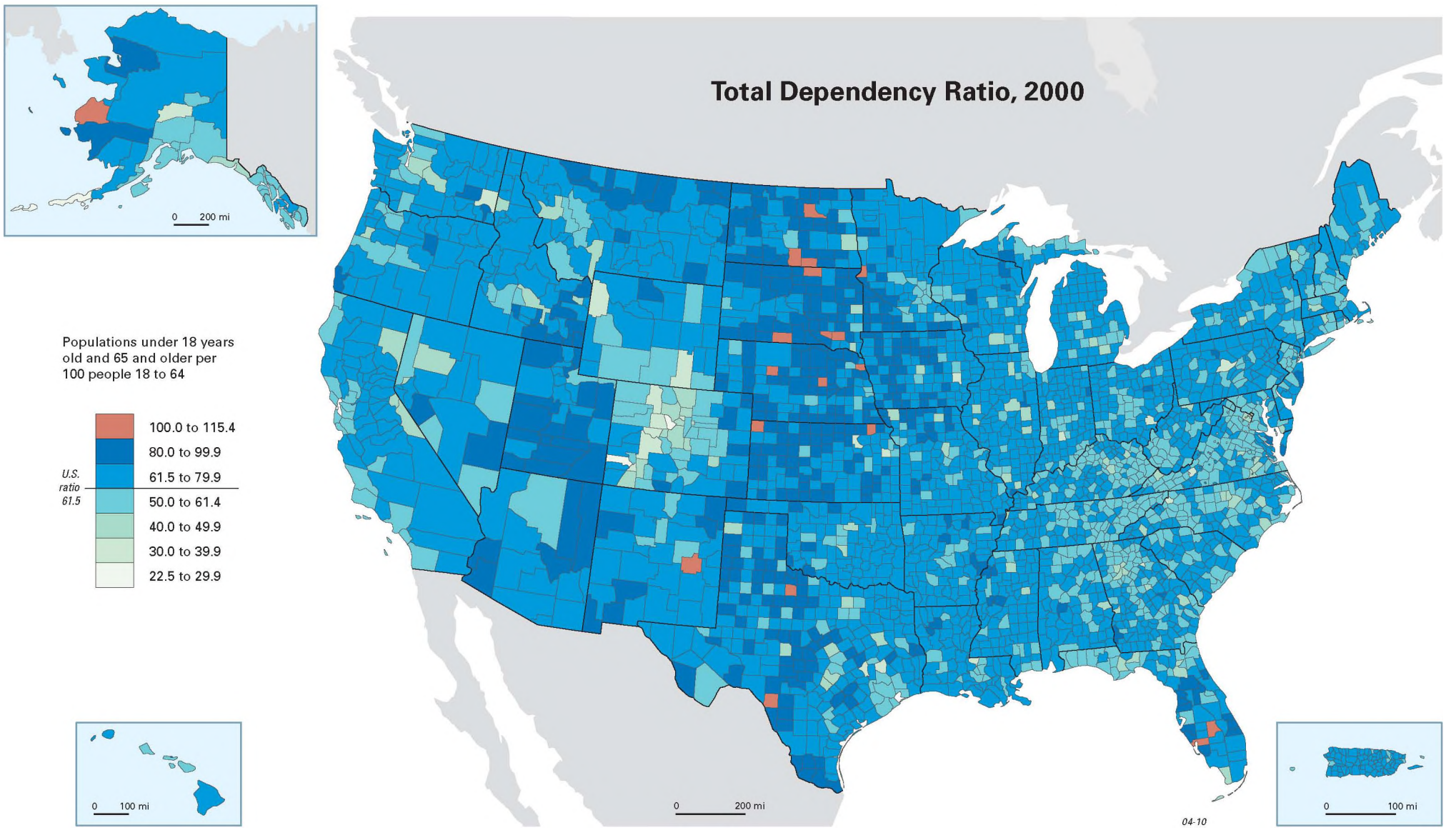
Many metropolitan-area counties have low percentages of population aged 85 and older. Indeed, visible within the area of darker-shaded counties in the middle of the country are lighter-shaded counties in metropolitan areas such as Dallas-Fort Worth and Minneapolis-St. Paul. Many counties in interior western states also have generally low percentages 85 and older.

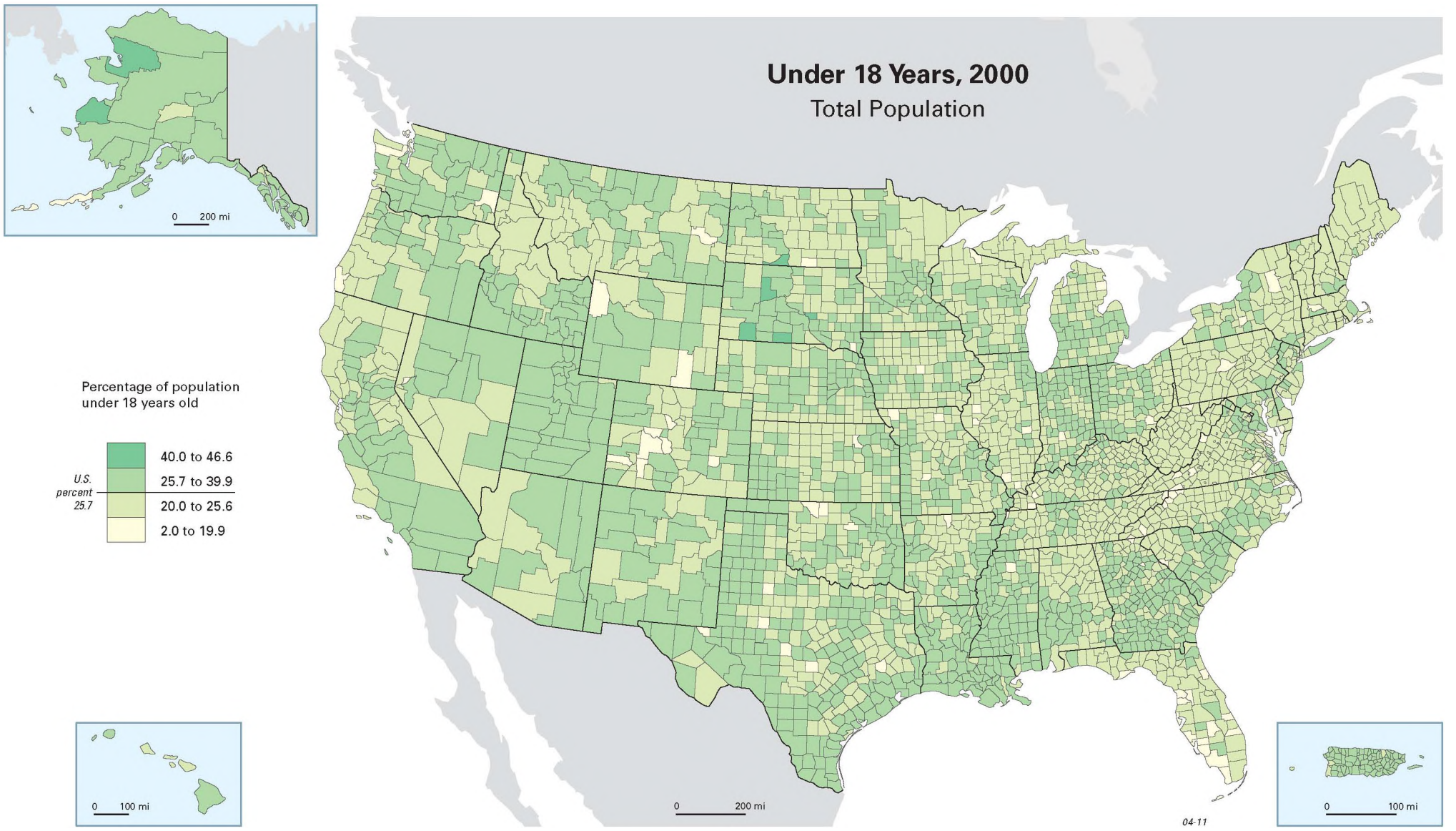

Median Age, 1950
0 200 mi
U.S. median 30.2
40.0 to 41.9
35.3 to 39.9
30.2 to 35.2
25.0 to 30.1
20.0 to 24.9
15.2 to 19.9
Data not available
0 100 mi
0 200 mi
0 100 mi
04-06

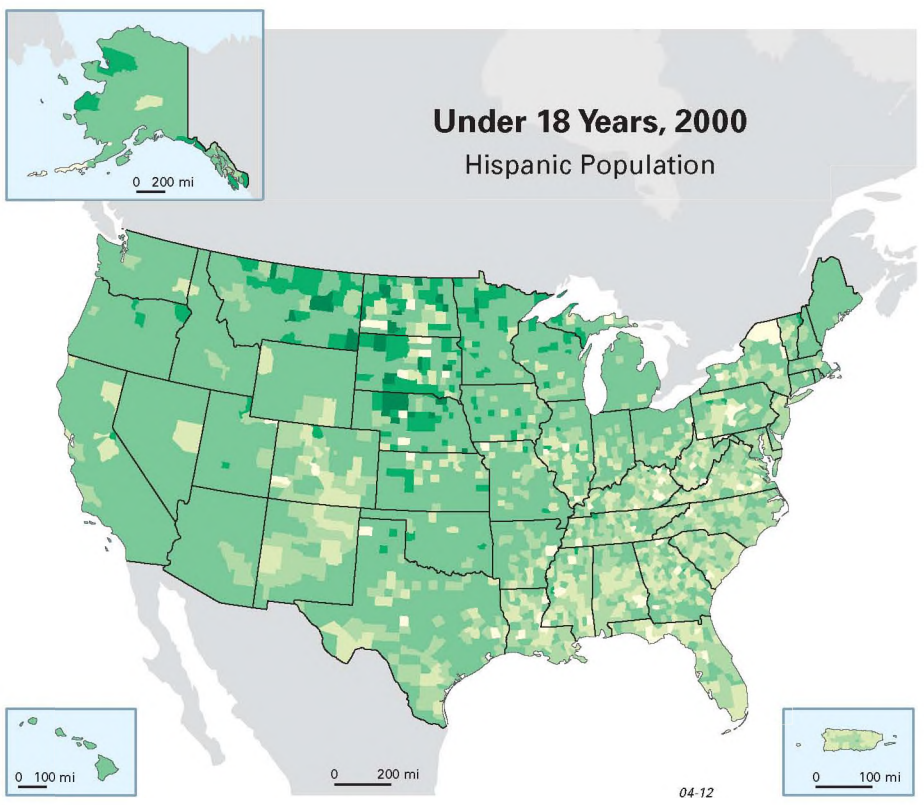

Median Age, 2000
0 200 mi
U.S. median 35.3
45.0 to 58.6
40.0 to 44.9
35.3 to 39.9
30.2 to 35.2
25.0 to 30.1
20.0 to 24.9
0 100 mi
0 200 mi
0 100 mi
04-07

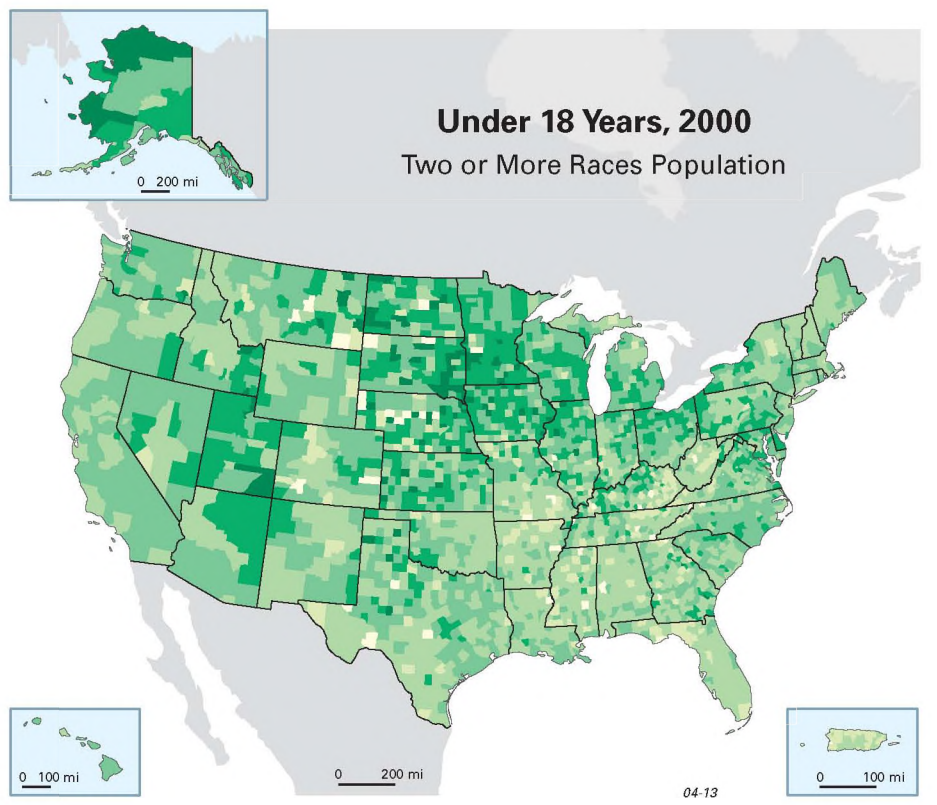

Youth Dependency Ratio, 2000
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-08
Population under 18 years old per 100 people 18 to 64
U.S. ratio 41.5
60.0 to 96.2
50.0 to 59.9
41.5 to 49.9
30.0 to 41.4
20.0 to 29.9
3.1 to 19.9


Older Population Dependency Ratio, 2000
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-09
Population 65 and older per 100 people 18 to 64
U.S. ratio 20.1
60.0 to 73.7
50.0 to 59.9
40.0 to 49.9
30.0 to 39.9
20.1 to 29.9
2.6 to 20.0


Total Dependency Ratio, 2000
0 200 mi
Populations under 18 years old and 65 and older per 100 people 18 to 64
U.S. ratio 61.5
100.0 to 115.4
80.0 to 99.9
61.5 to 79.9
50.0 to 61.4
40.0 to 49.9
30.0 to 39.9
22.5 to 29.9
0 100 mi
0 200 mi
0 100 mi
04-10







Percentage of Hispanic population under 18 years old

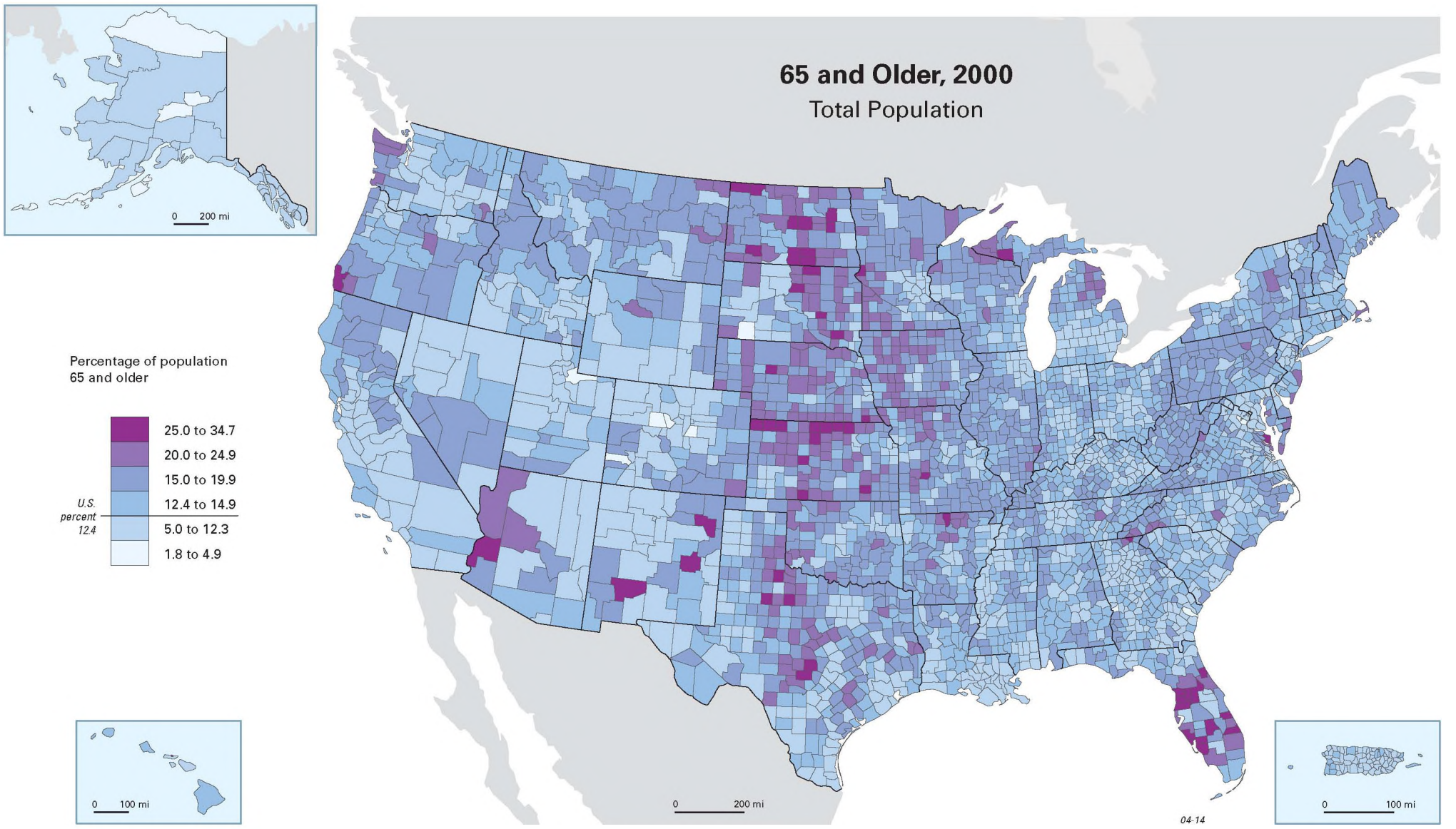
U.S. percent 35.0

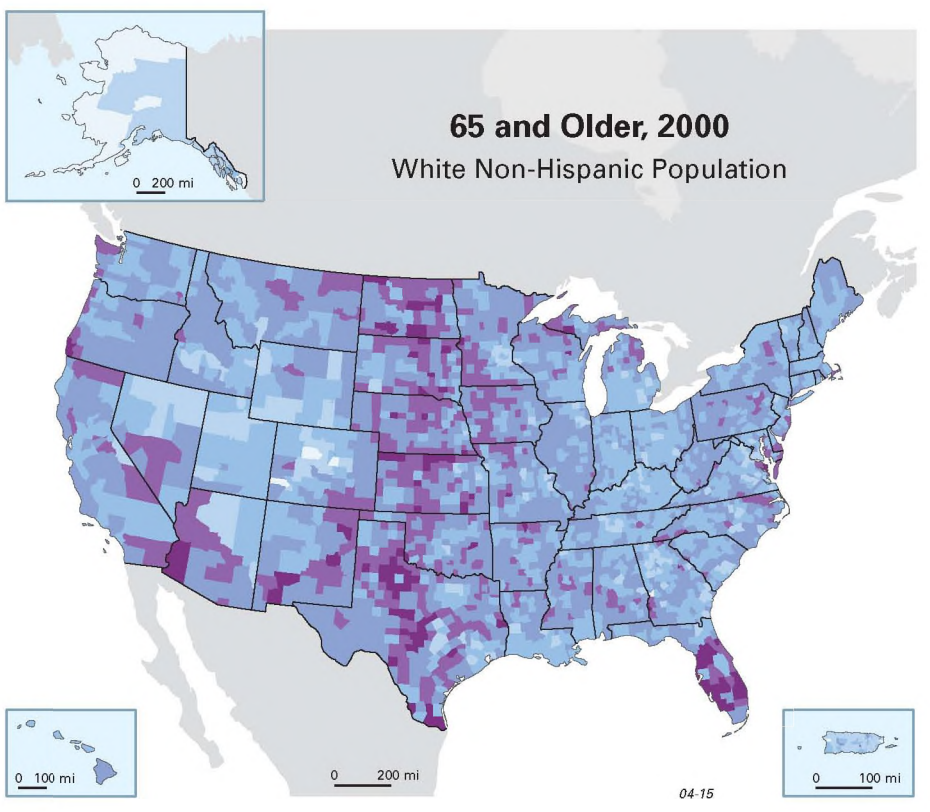
- 60.0 or more
- 50.0 to 59.9
- 35.0 to 49.9
- 30.0 to 34.9
- 20.0 to 29.9
- Less than 20.0

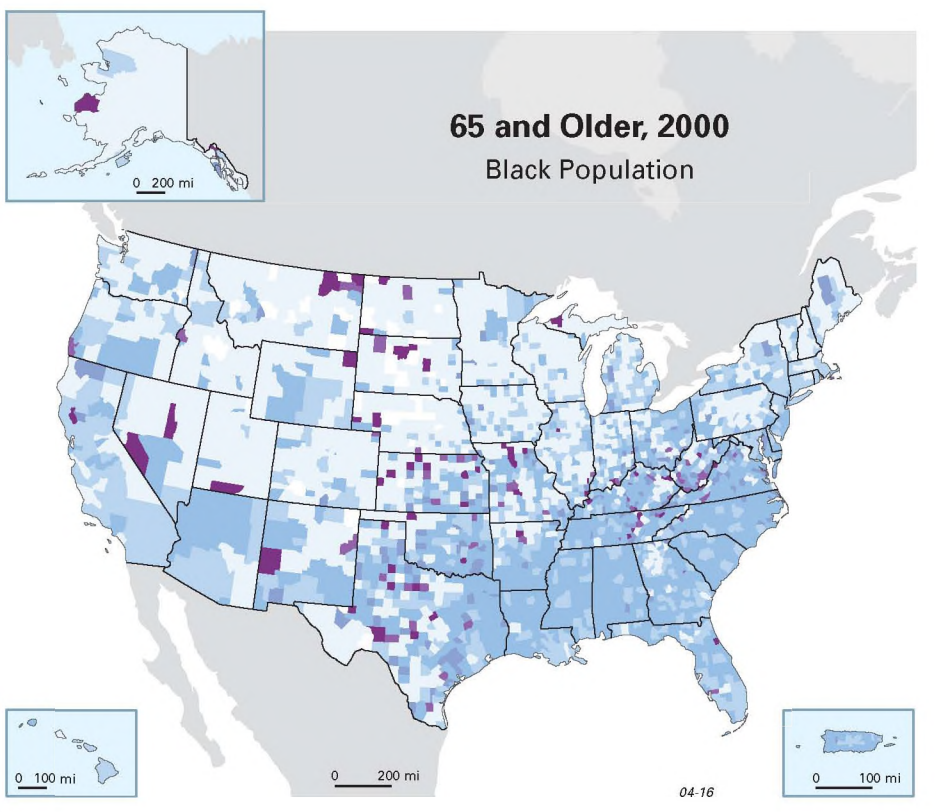
Percentage of Two or More Races population under 18 years old

U.S. percent 41.9

- 60.0 or more
- 50.0 to 59.9
- 41.9 to 49.9
- 30.0 to 41.8
- 20.0 to 29.9
- Less than 20.0
- No Two or More Races population


65 and Older, 2000
Total Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
Percentage of population 65 and older
25.0 to 34.7
20.0 to 24.9
15.0 to 19.9
12.4 to 14.9
U.S. percent 12.4
5.0 to 12.3
1.8 to 4.9
04-14


65 and Older, 2000
White Non-Hispanic Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
Percentage of non-Hispanic White population 65 and older
25.0 or more
20.0 to 24.9
15.0 to 19.9
10.0 to 14.9
U.S. percent 15.0
5.0 to 9.9
Less than 5.0
04-15


65 and Older, 2000
Black Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
Percentage of Black population 65 and older
25.0 or more
20.0 to 24.9
15.0 to 19.9
8.1 to 14.9
U.S. percent 8.1
5.0 to 8.0
Less than 5.0
No Black population
04-16

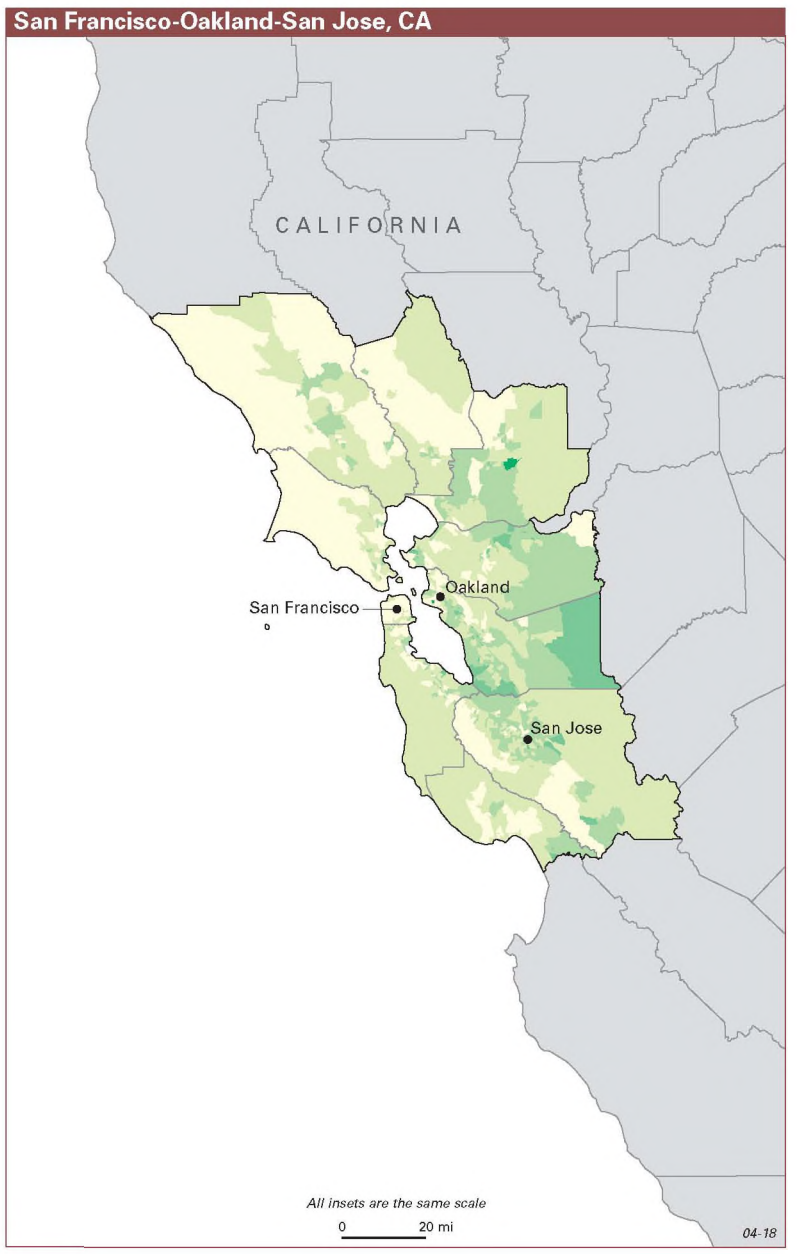
Under 5 Years, 2000

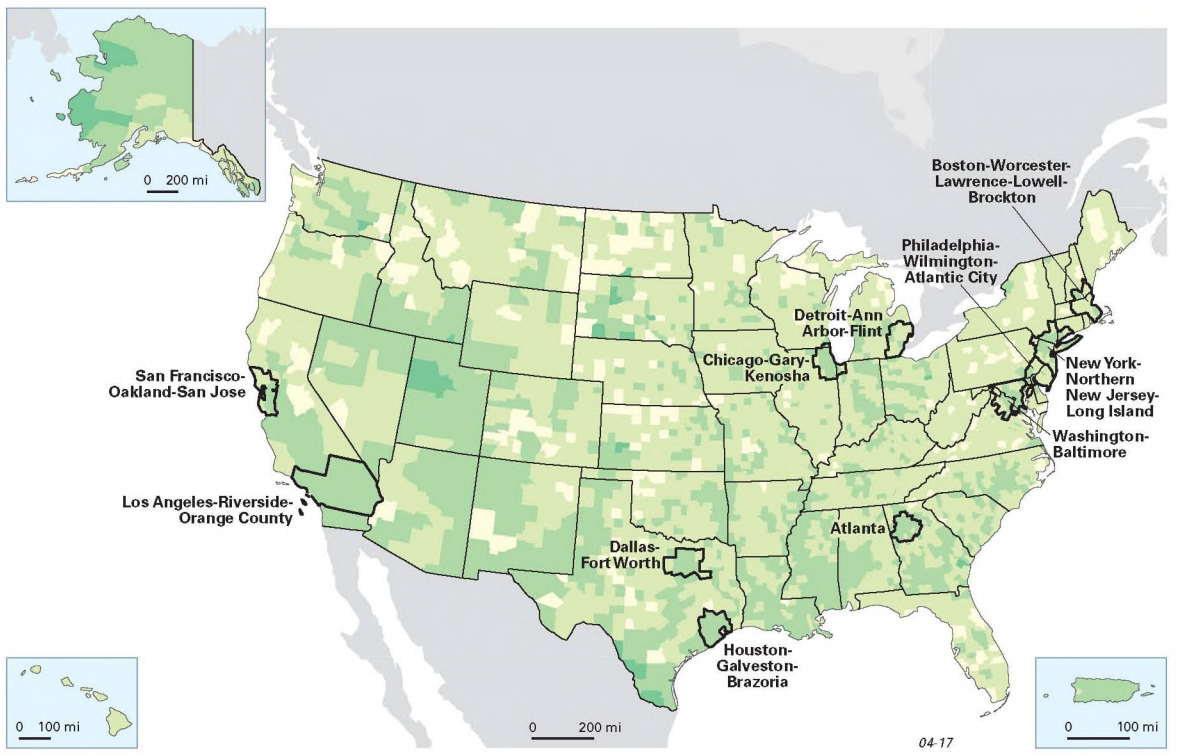
Largest Metropolitan Areas

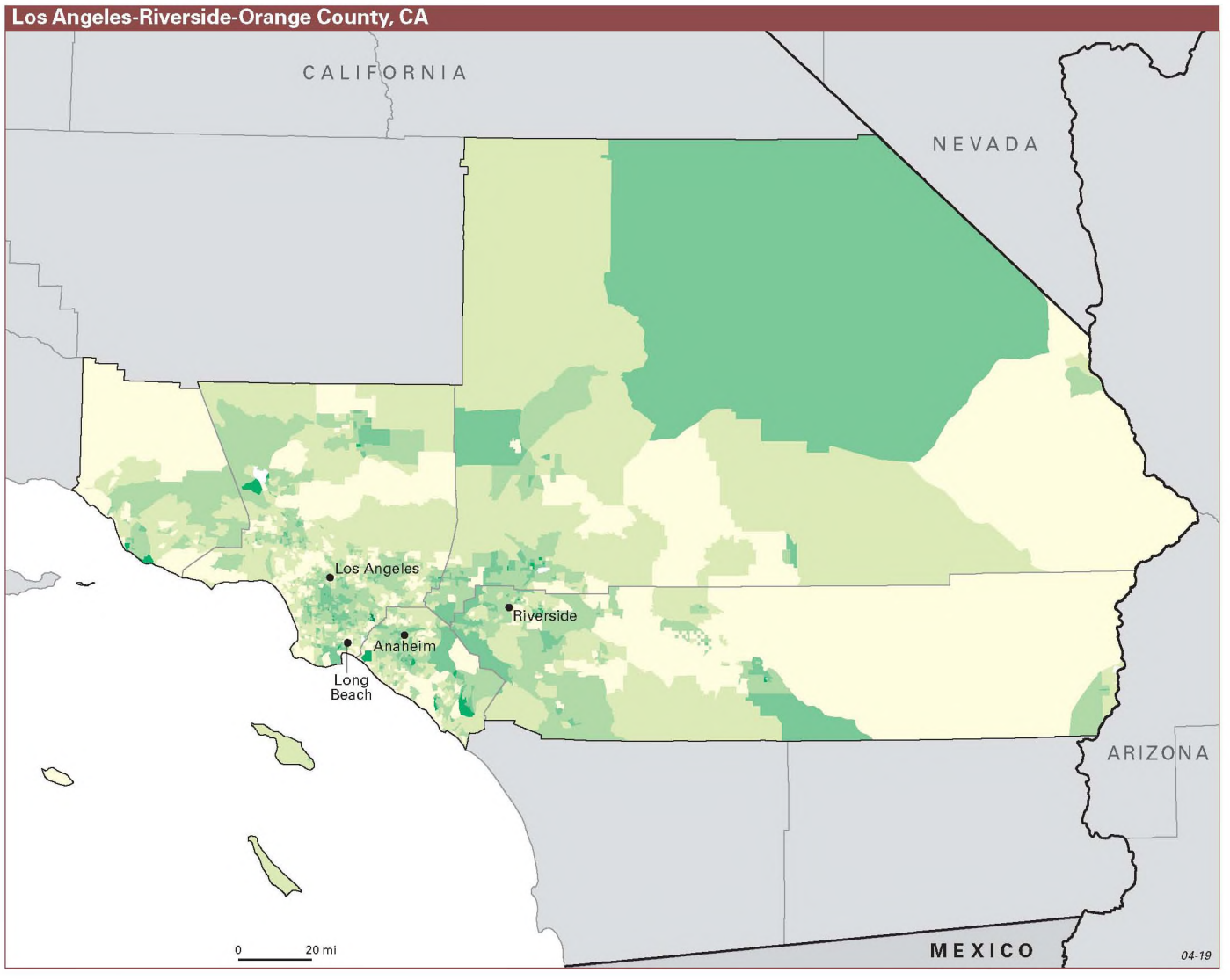
Percentage of population under 5 years old; U.S. map by county, metropolitan area maps by census tract

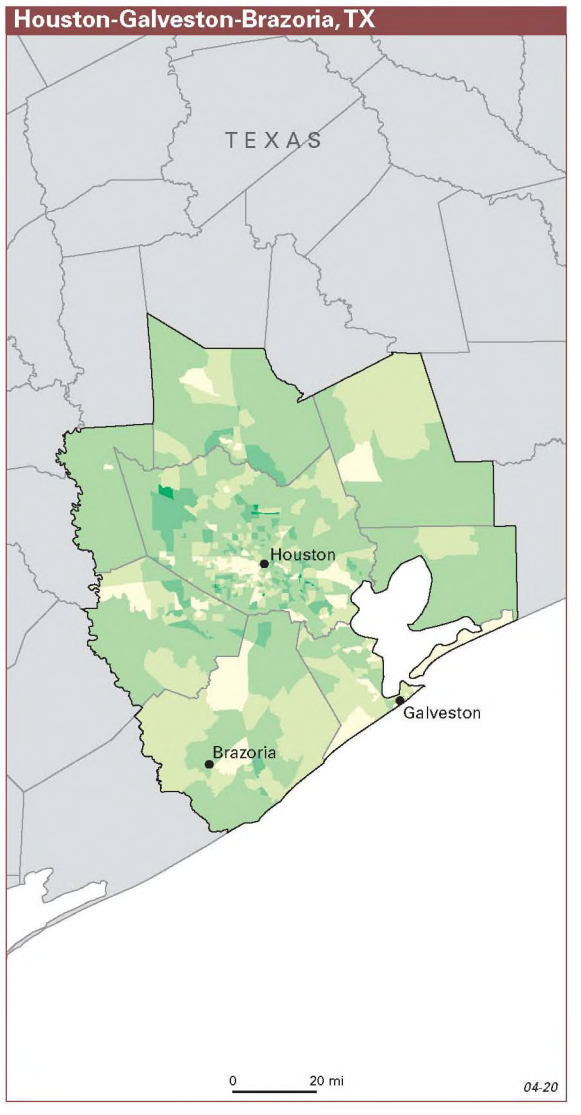
U.S. percent 6.8

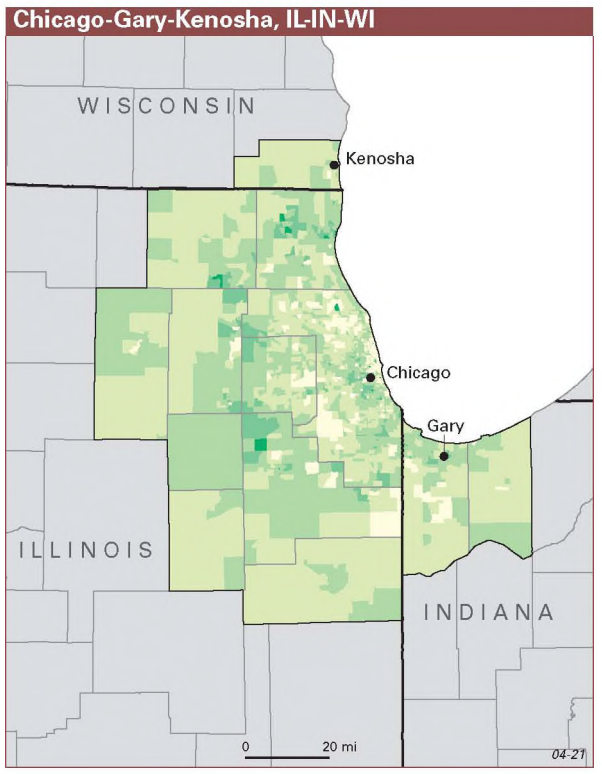
- 20.0 to 31.5
- 13.0 to 19.9
- 10.0 to 12.9
- 6.8 to 9.9
- 5.0 to 6.7
- 0.0 to 4.9
- No population







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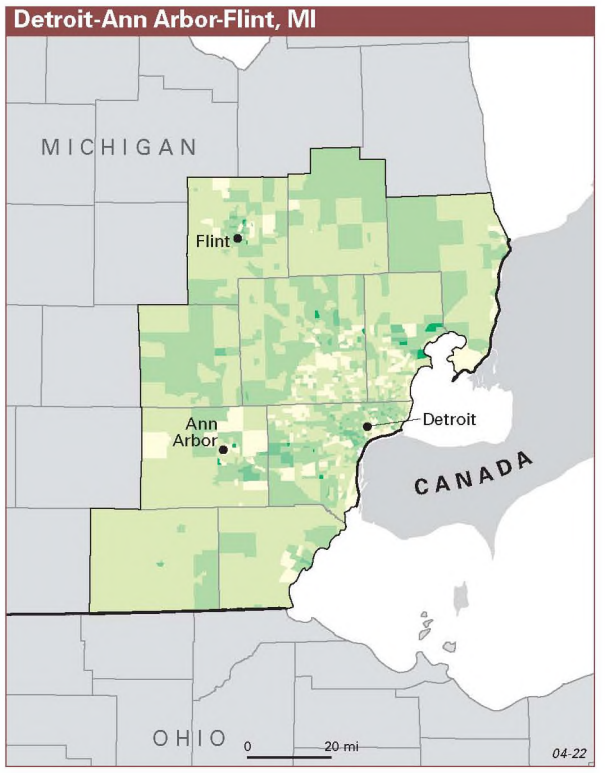
Kenosha
Chicago
Gary
ILLINOIS
INDIANA
0
20 mi
04-21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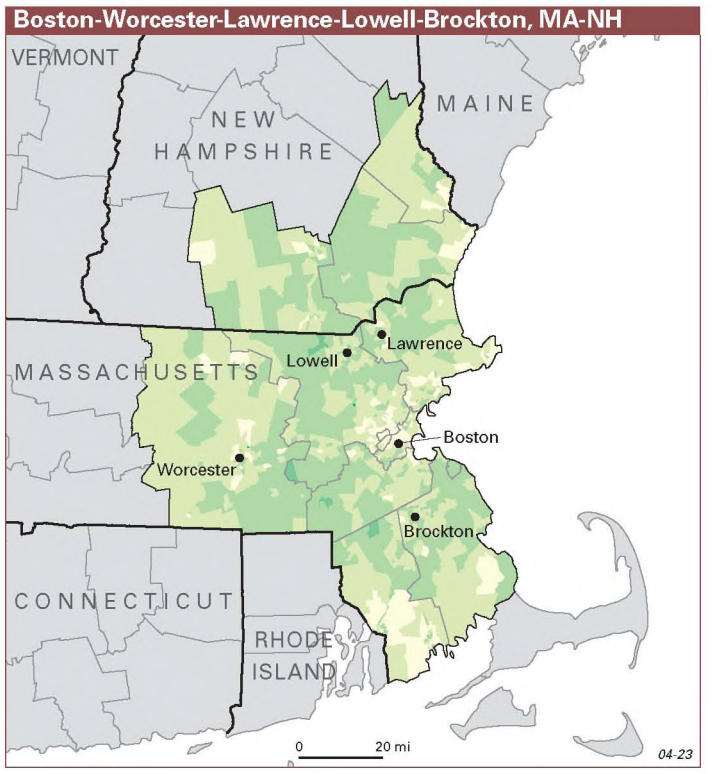
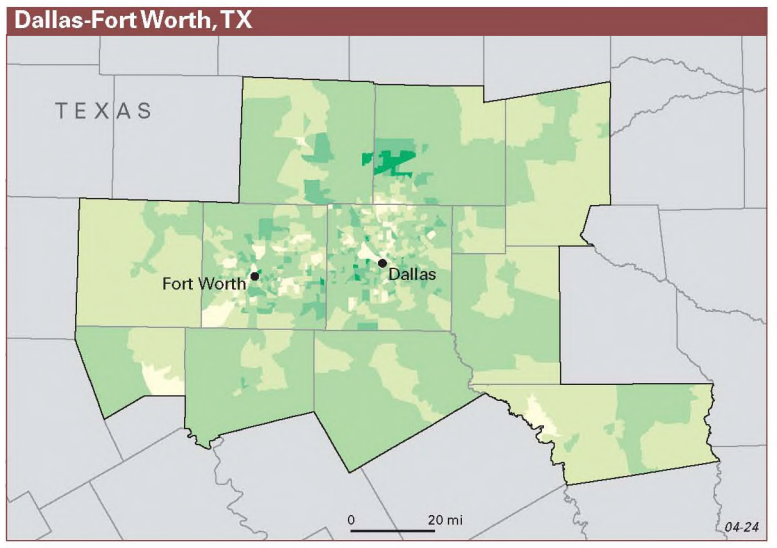
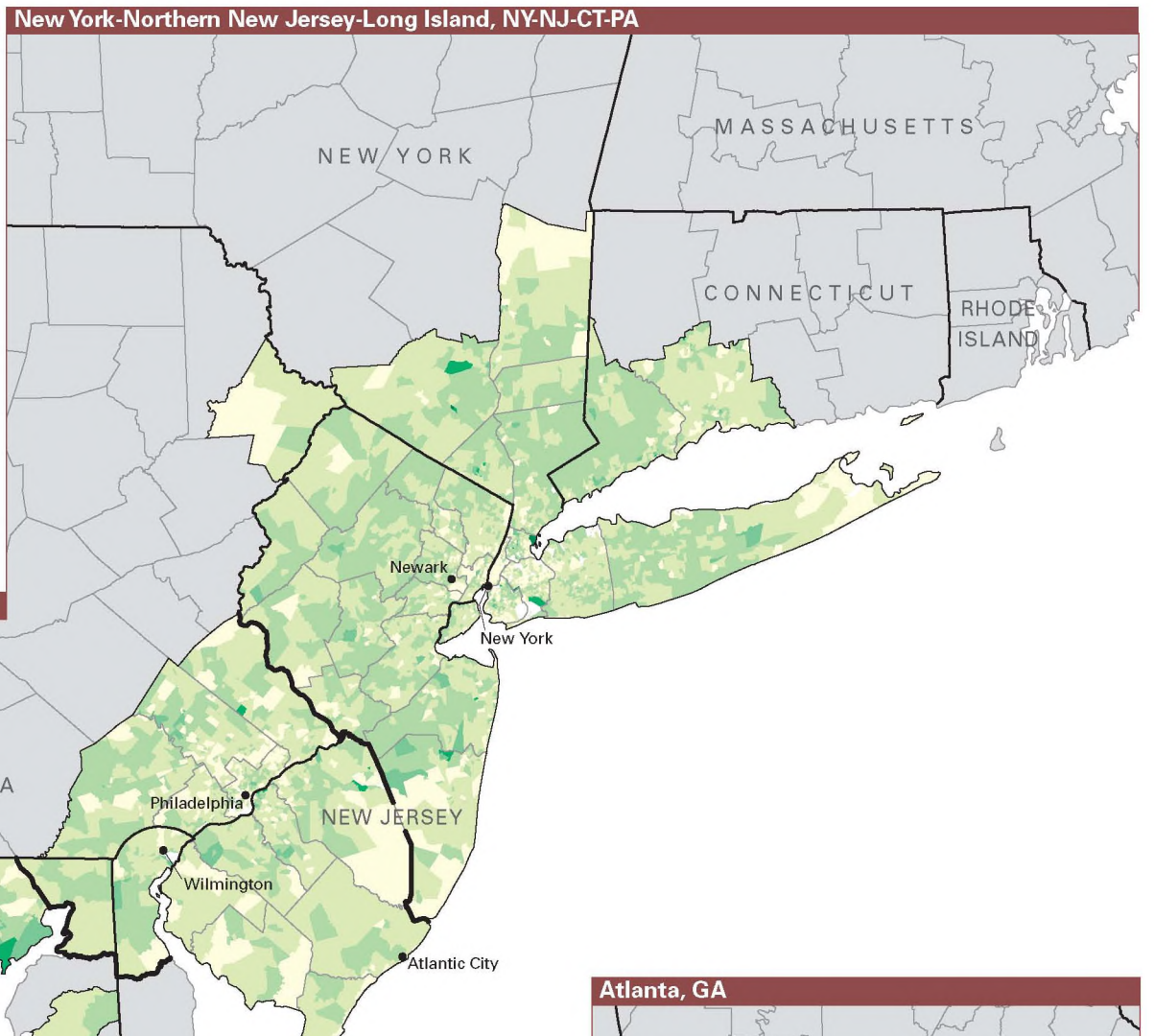
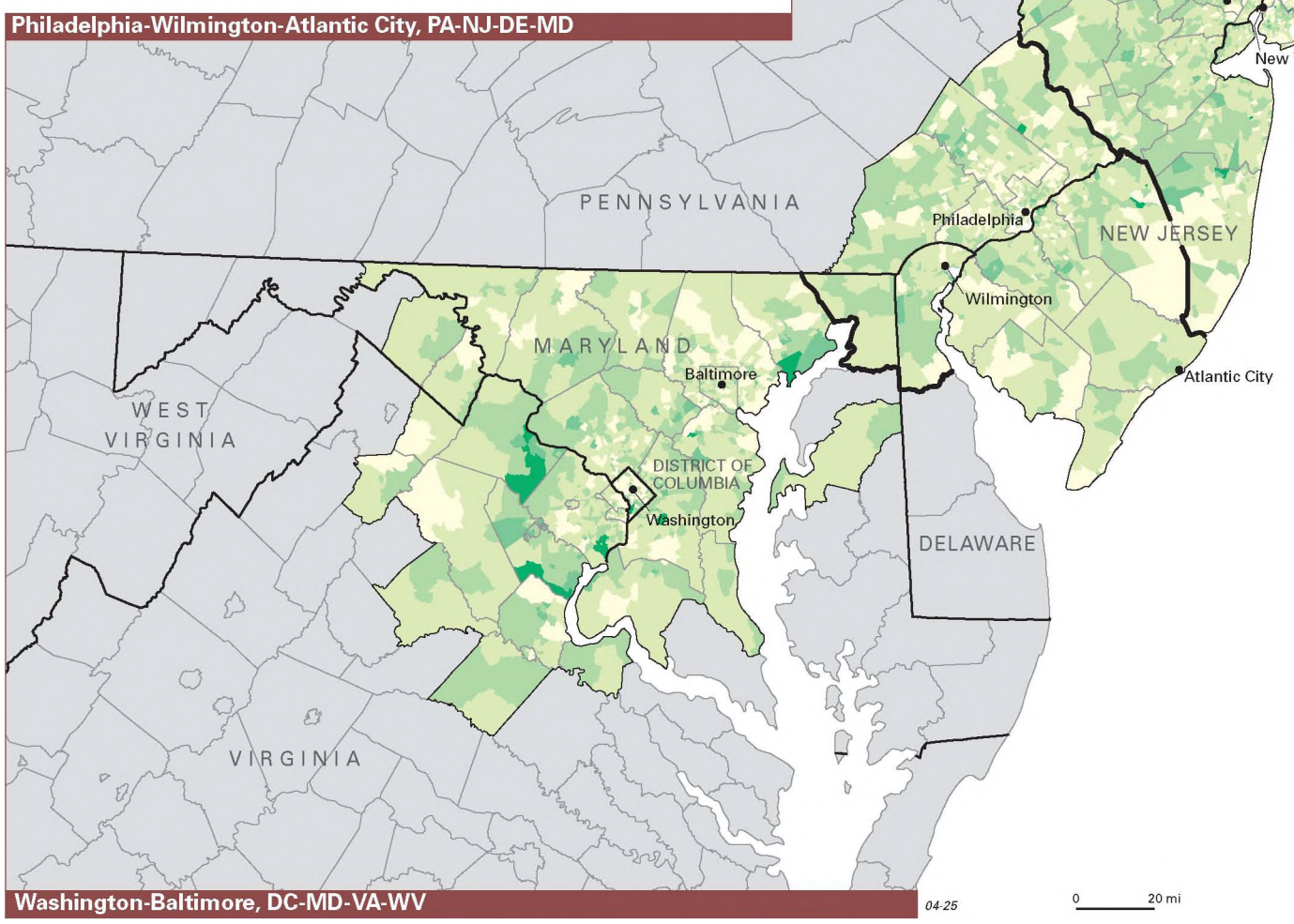
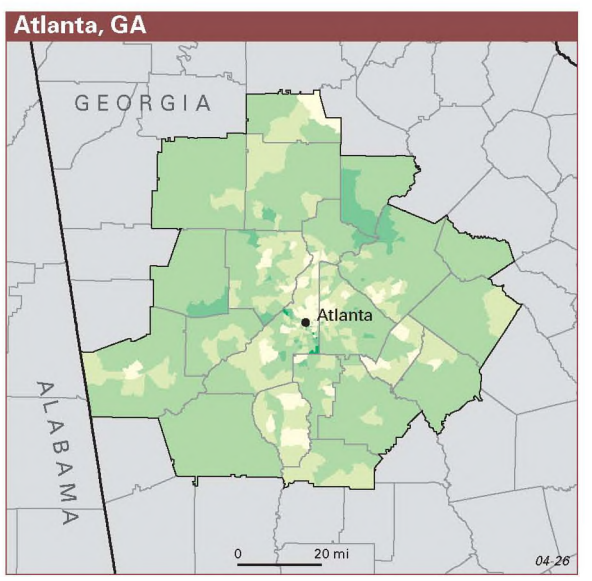
MICHIGAN
Flint
Ann Arbor
Detroit
CANADA
OHIO
0
20 mi
04-22

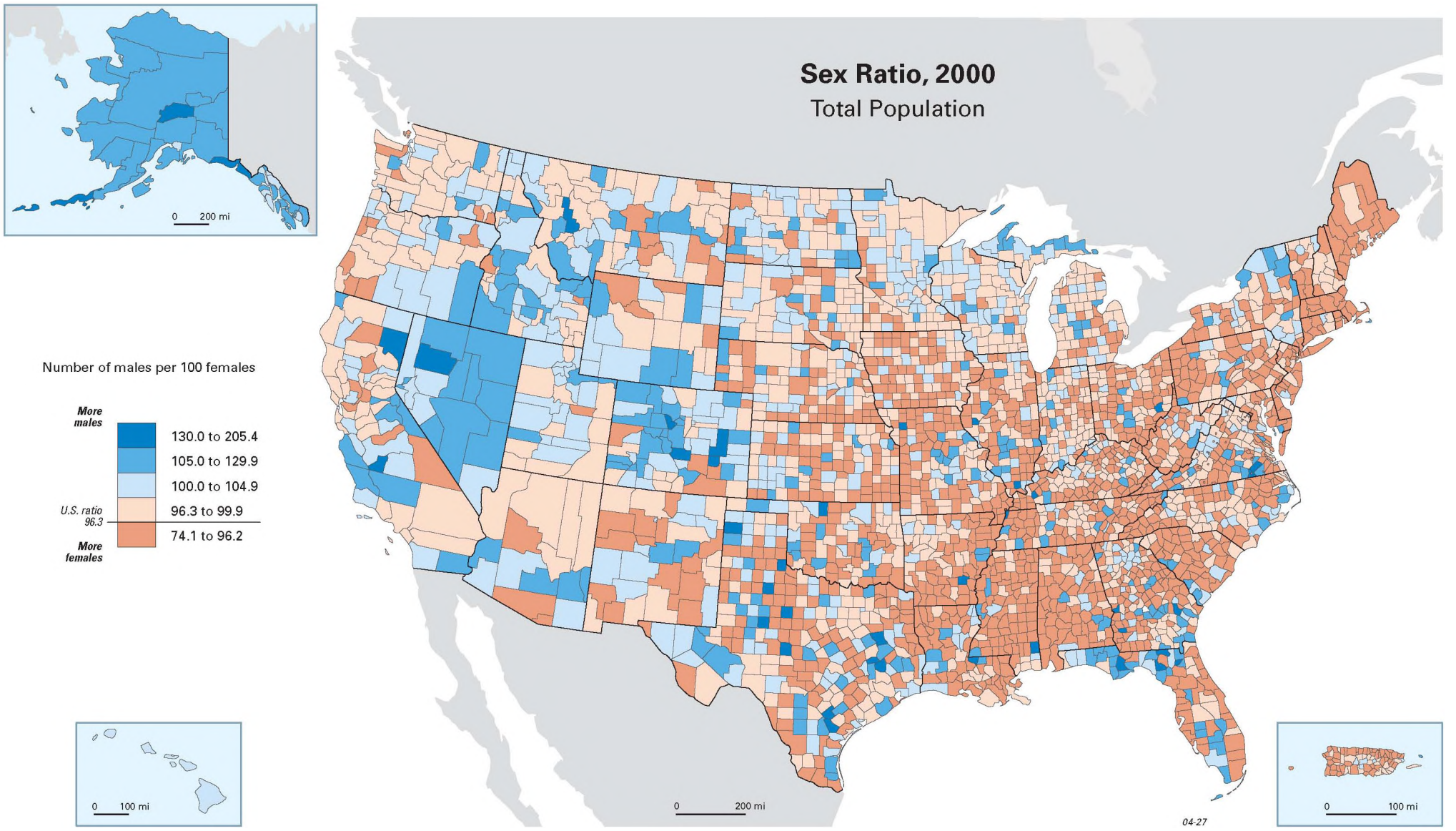

Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH
VERMONT
NEW HAMPSHIRE
MAINE
MASSACHUSETTS
Lawrence
Lowell
Boston
Worcester
Brockton
CONNECTICUT
RHODE ISLAND
0
20 mi
04-23

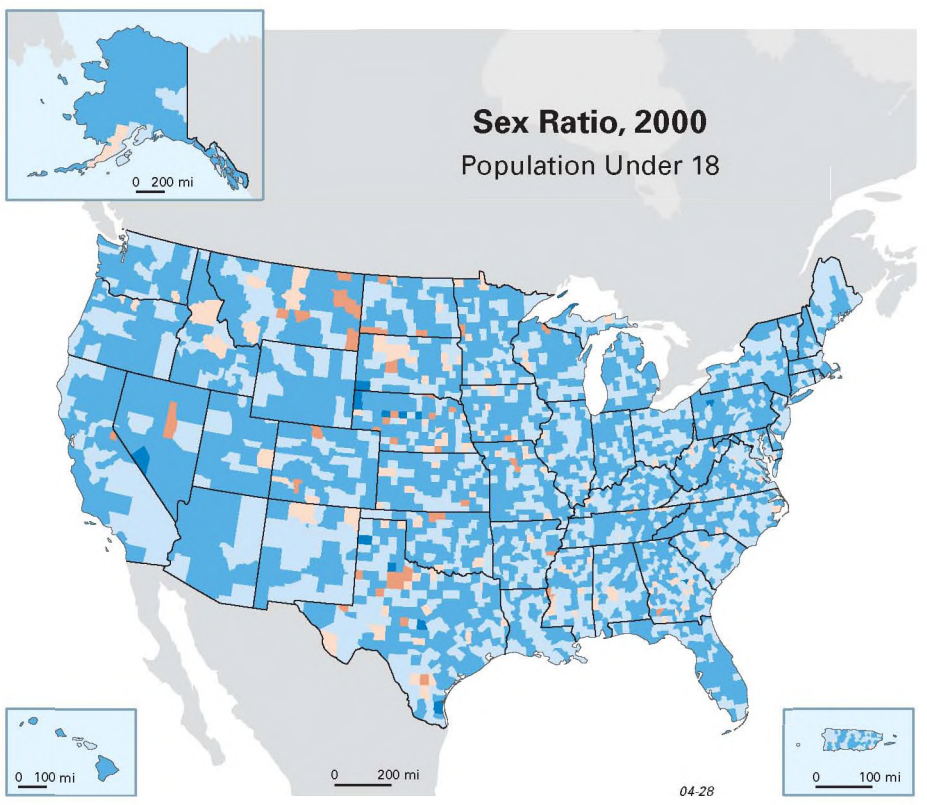

Dallas-Fort Worth, TX
TEXAS
Fort Worth
Dallas
0
20 mi
04-24

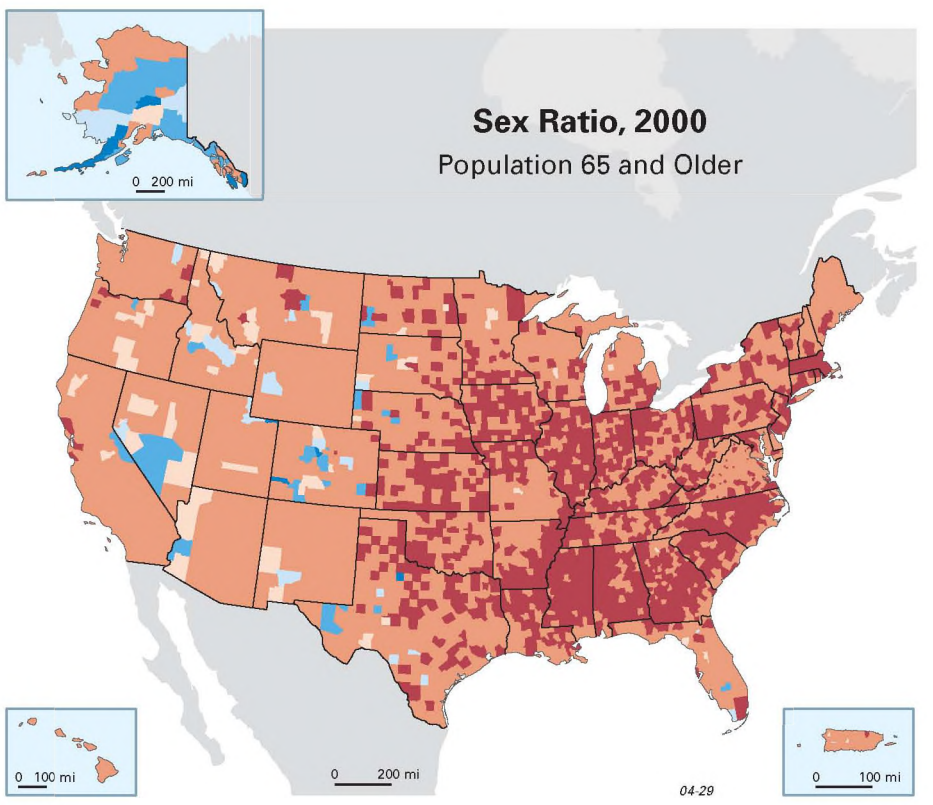

New York-Northern New Jersey-Long Island, NY-NJ-CT-PA
NEW YORK
MASSACHUSETTS
CONNECTICUT
RHODE ISLAND
Newark
New York
Philadelphia
NEW JERSEY
Wilmington
Atlantic City

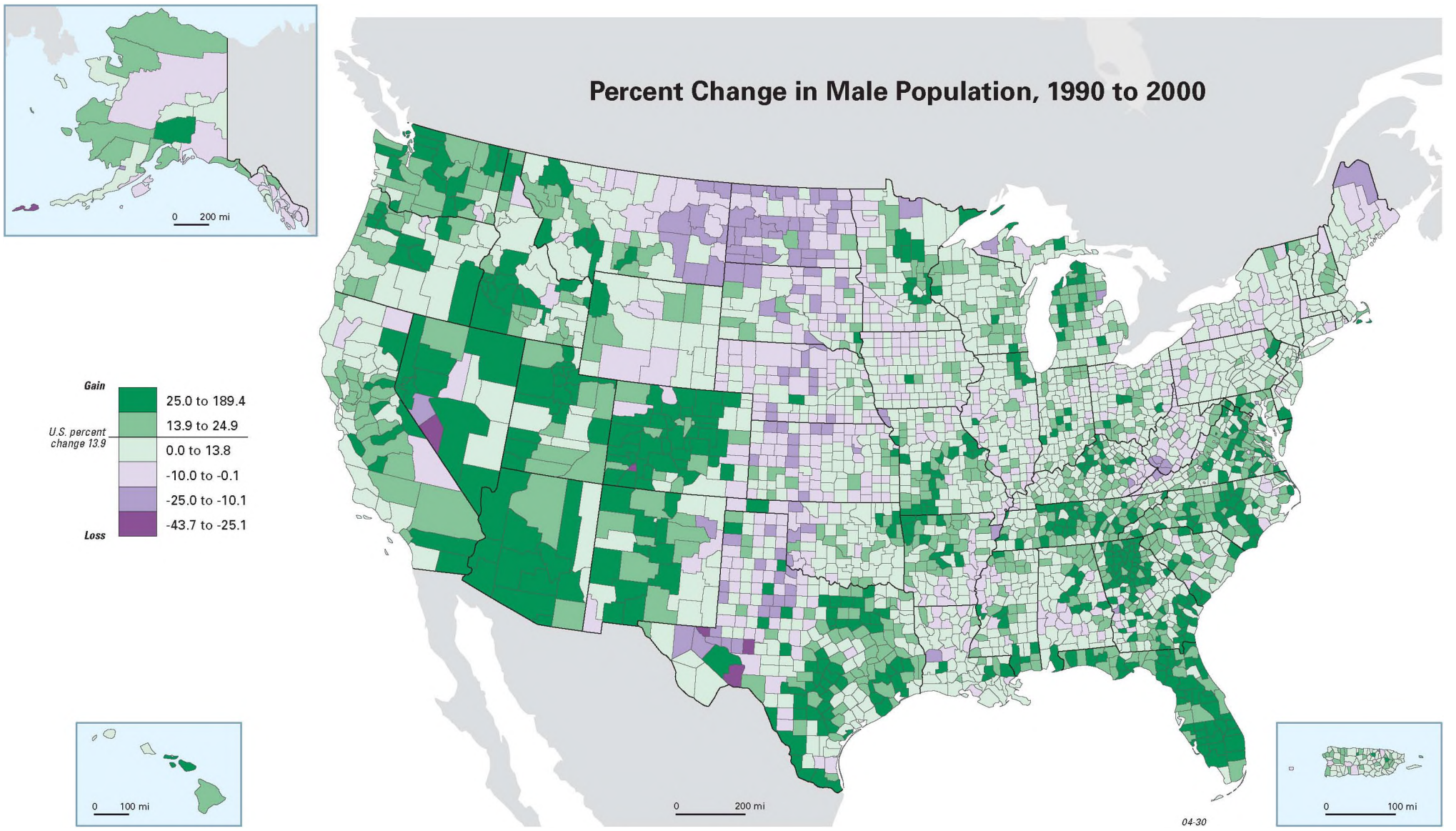

Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD
PENNSYLVANIA
MARYLAND
Baltimore
WEST VIRGINIA
DISTRICT OF COLUMBIA
Washington
DELAWARE
VIRGINIA
Washington-Baltimore, DC-MD-VA-WV
04-25
0
20 mi

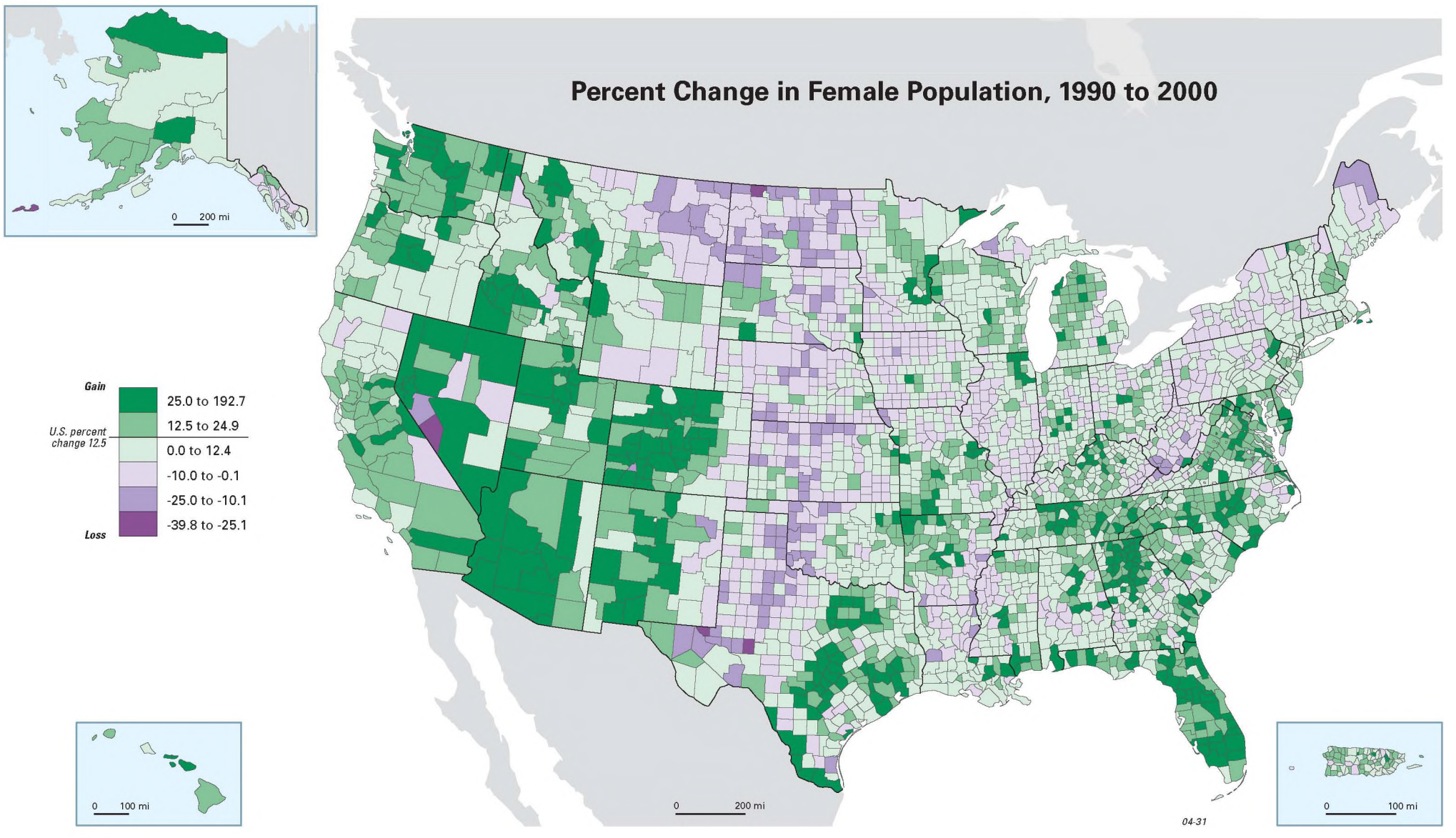

Atlanta, GA
GEORGIA
Atlanta
ALABAMA
0
20 mi
04-26

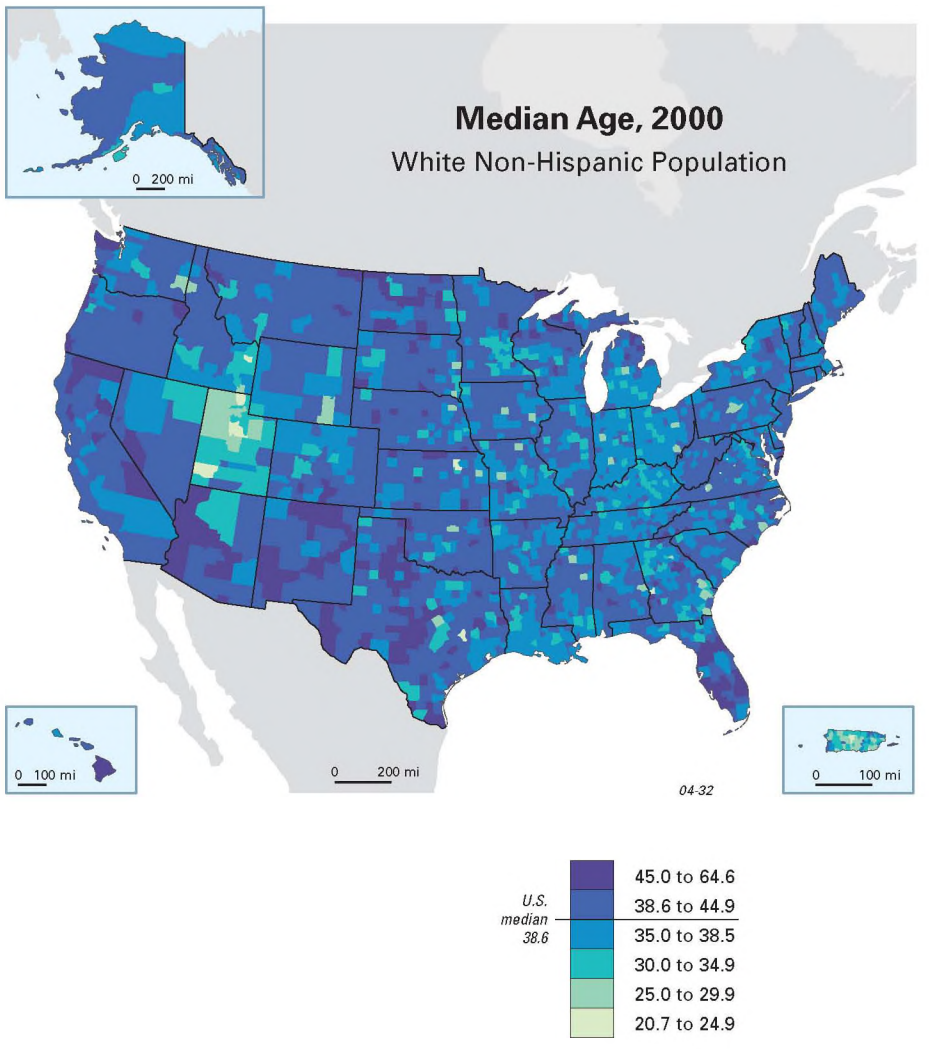

Sex Ratio, 2000
Total Population
0 200 mi
Number of males per 100 females
More males
130.0 to 205.4
105.0 to 129.9
100.0 to 104.9
U.S. ratio 96.3
96.3 to 99.9
74.1 to 96.2
More females
0 100 mi
0 200 mi
0 100 mi
04-27

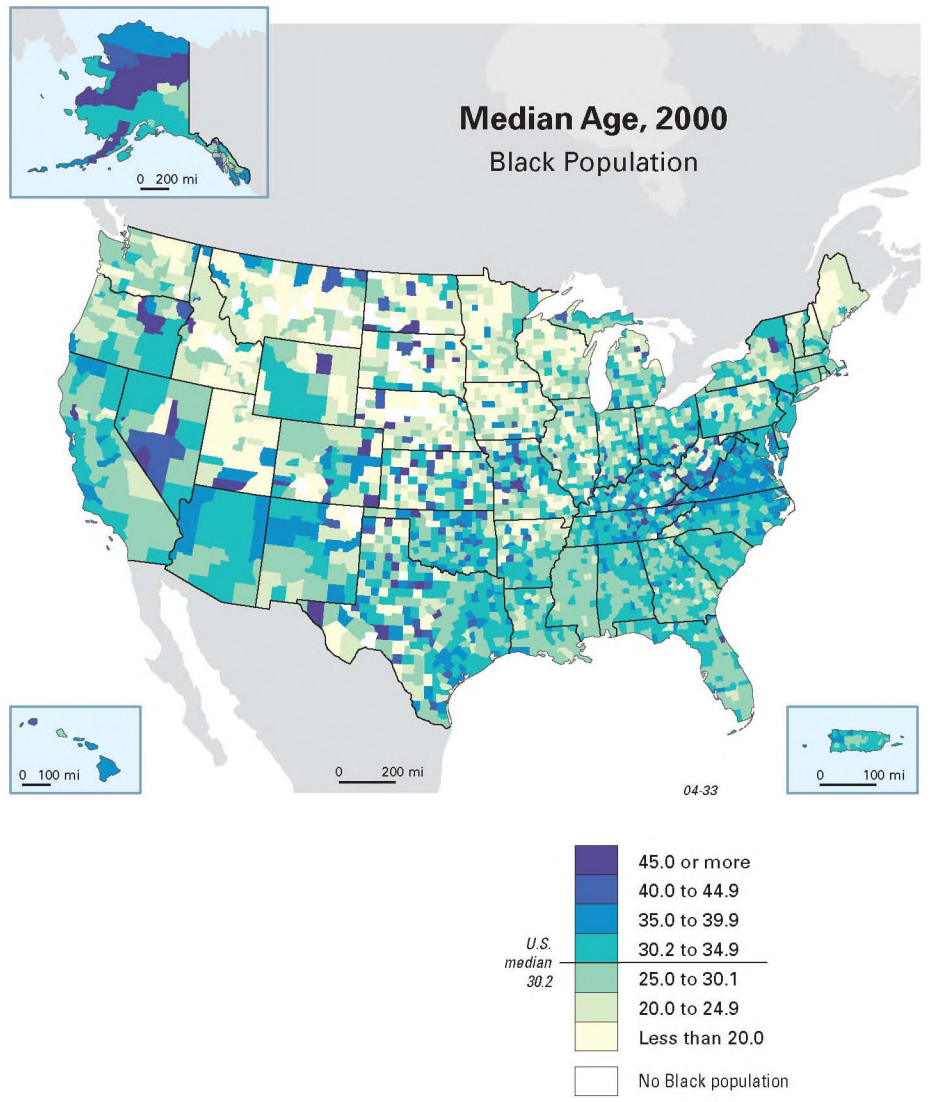

Sex Ratio, 2000
Population Under 18
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-28
Number of males under 18 years old per 100 females under 18
More males
130.0 to 173.5
105.2 to 129.9
U.S. ratio 105.2
100.0 to 105.1
95.0 to 99.9
79.0 to 94.9
More females

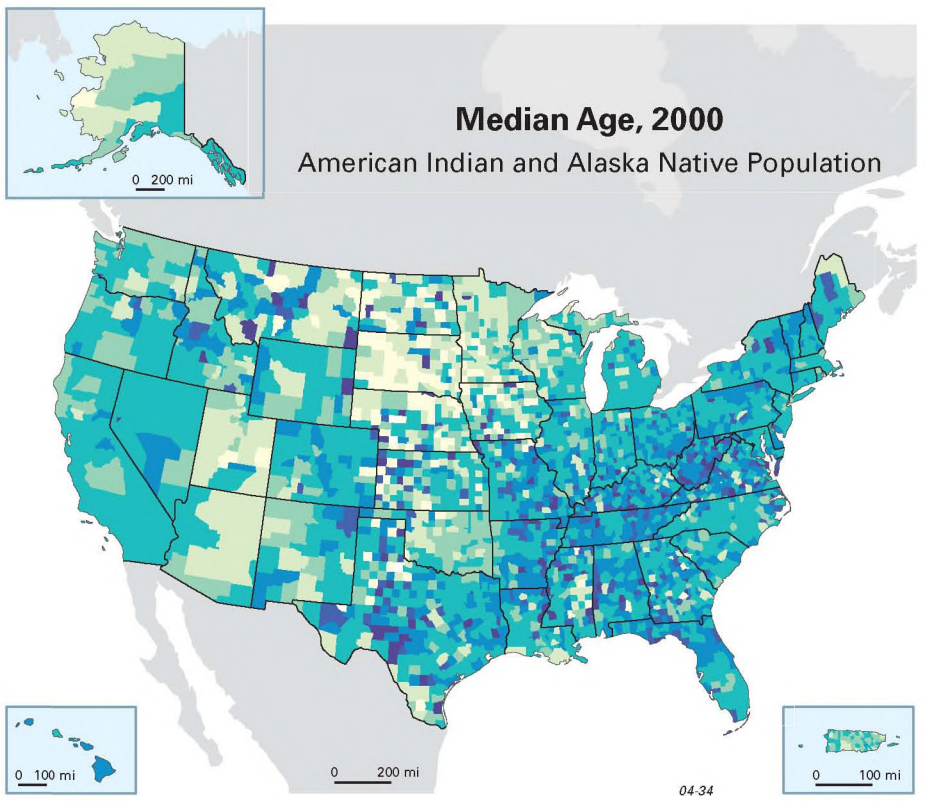

Sex Ratio, 2000
Population 65 and Older
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-29
Number of males 65 and older per 100 females 65 and older
More males
130.0 to 208.3
105.0 to 129.9
100.0 to 104.9
95.0 to 99.9
U.S. ratio 70.0
70.0 to 94.9
49.9 to 69.9
More females

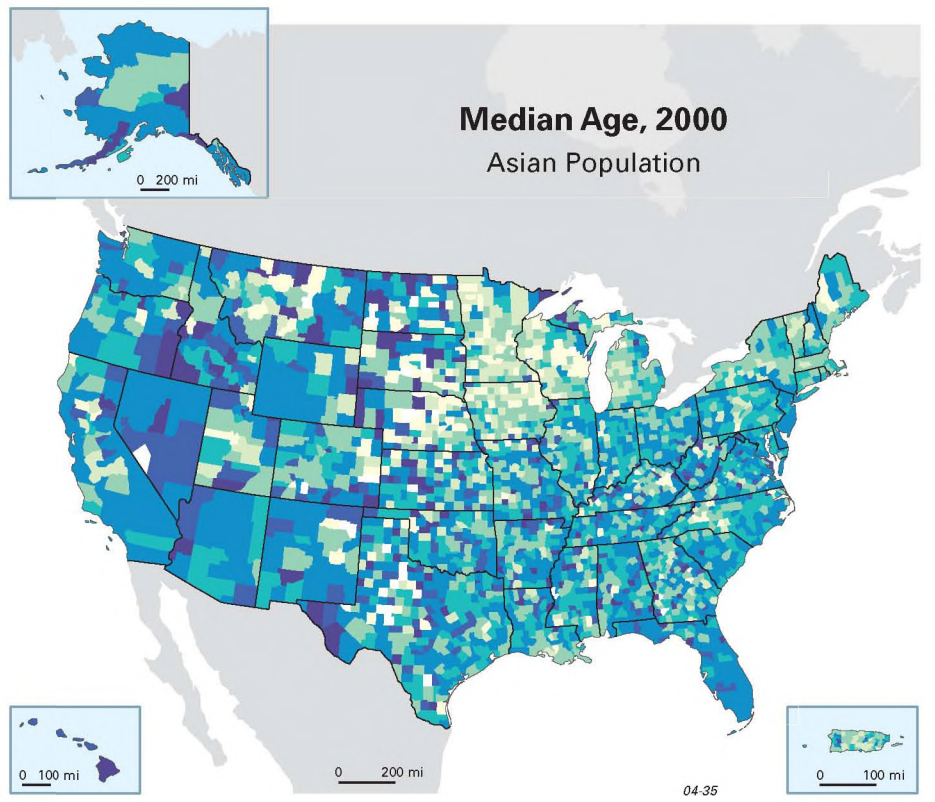

Percent Change in Male Population, 1990 to 2000
Gain
25.0 to 189.4
13.9 to 24.9
U.S. percent change 13.9
0.0 to 13.8
-10.0 to -0.1
-25.0 to -10.1
-43.7 to -25.1
Loss
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-30

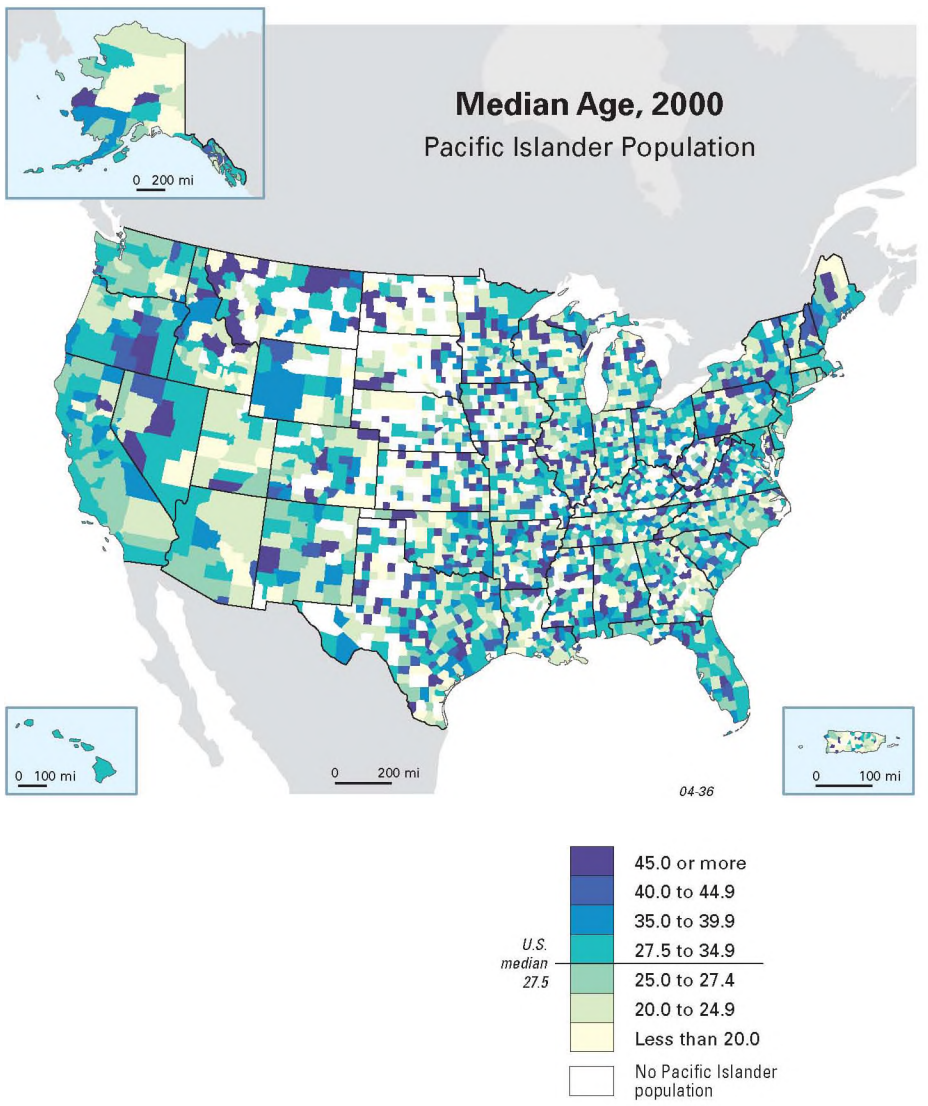

Percent Change in Female Population, 1990 to 2000
Gain
25.0 to 192.7
12.5 to 24.9
U.S. percent change 12.5
0.0 to 12.4
-10.0 to -0.1
-25.0 to -10.1
-39.8 to -25.1
Loss
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-31

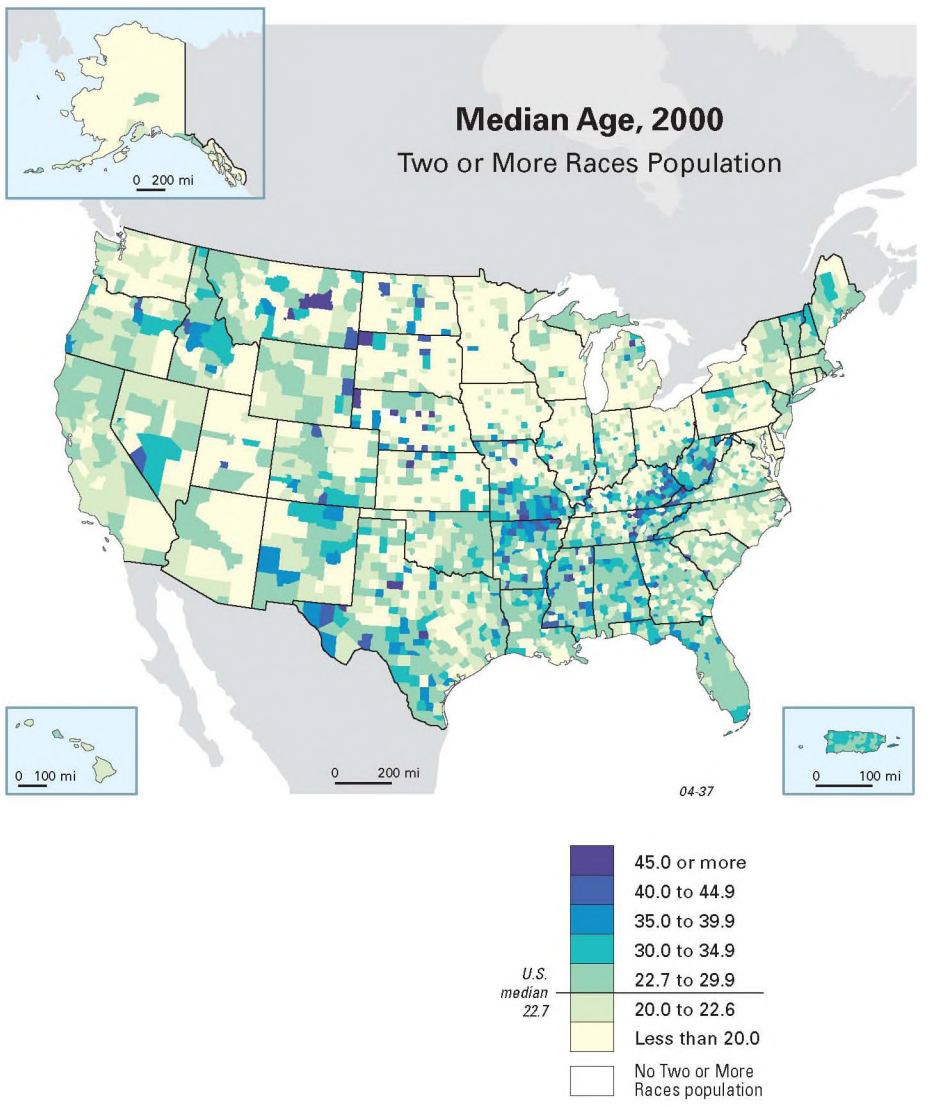

Median Age, 2000
White Non-Hispanic Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-32
U.S. median 38.6
45.0 to 64.6
38.6 to 44.9
35.0 to 38.5
30.0 to 34.9
25.0 to 29.9
20.7 to 24.9

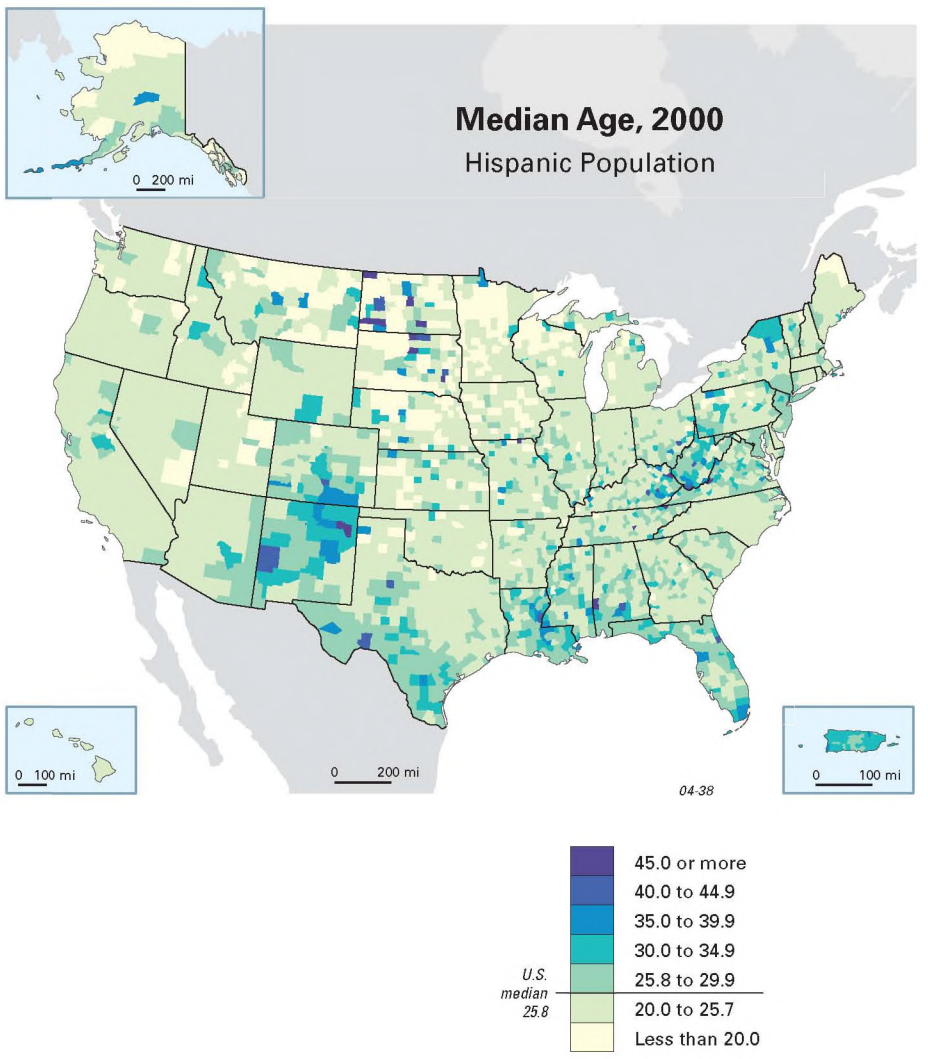

Median Age, 2000
Black Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-33
U.S. median 30.2
45.0 or more
40.0 to 44.9
35.0 to 39.9
30.2 to 34.9
25.0 to 30.1
20.0 to 24.9
Less than 20.0
No Black population


Median Age, 2000
American Indian and Alaska Native Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-34
U.S. median 28.0
45.0 or more
40.0 to 44.9
35.0 to 39.9
28.0 to 34.9
25.0 to 27.9
20.0 to 24.9
Less than 20.0
No AIAN population


Median Age, 2000
Asian Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-35
U.S. median 32.7
45.0 or more
40.0 to 44.9
32.7 to 39.9
30.0 to 32.6
25.0 to 29.9
20.0 to 24.9
Less than 20.0
No Asian population


Median Age, 2000
Pacific Islander Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-36
45.0 or more
40.0 to 44.9
35.0 to 39.9
27.5 to 34.9
U.S. median 27.5
25.0 to 27.4
20.0 to 24.9
Less than 20.0
No Pacific Islander population


Median Age, 2000
Two or More Races Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-37
45.0 or more
40.0 to 44.9
35.0 to 39.9
30.0 to 34.9
22.7 to 29.9
U.S. median 22.7
20.0 to 22.6
Less than 20.0
No Two or More Races population


Median Age, 2000
Hispanic Population
0 200 mi
0 100 mi
0 200 mi
0 100 mi
04-38
45.0 or more
40.0 to 44.9
35.0 to 39.9
30.0 to 34.9
25.8 to 29.9
U.S. median 25.8
20.0 to 25.7
Less than 20.0