Small Area Income and Poverty Estimates (SAIPE):

2009 Highlights

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U.S. Census Bureau
Housing and Household Economic Statistics (HHES)
Small Area Estimates Branch (SAEB)

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Small Area Income and Poverty Estimates (SAIPE): 2009 Highlights

Introduction

This document presents 2009 data from the Small Area Income and Poverty Estimates (SAIPE) program of the U.S. Census Bureau. The SAIPE program produces poverty estimates for the total population and median household income estimates annually for all counties and states. SAIPE data also produces single-year poverty estimates for the school-age population (age 5-17) for all school districts in the U.S.

The main objective of the SAIPE program is to provide timely, reliable estimates of income and poverty statistics for the administration of federal programs and the allocation of federal funds to local jurisdictions. Some state and local programs also use SAIPE income and poverty estimates to distribute funds and manage programs.

Due to the comprehensive geographic coverage and one-year focus, SAIPE data can be used to analyze geographic variation in poverty and income, as well as changes over time. The purpose of this document is to highlight several key aspects of such analysis.

Highlights

- County-level median household income ranged from $18,860 to $114,200 with a middle value of $41,061.[1] [2]
- The 2009 data showed that 1,084 counties had a school-age poverty rate significantly above and 866 significantly below the national poverty rate of 18.2 percent.
- Based on all age poverty, 453 counties or 14.4 percent of all counties had a statistically significant increase in poverty between 2007 and 2009.[3] Thirty-eight counties had a decrease in poverty between the two years.
- In 2009, there were 52.3 million school-age children in 13,619 school districts. Thirty-nine percent of all school-age children resided in districts whose total poverty rates were greater than 20 percent.

Small Area Income and Poverty Estimates (SAIPE) Program

The SAIPE estimates improve upon survey estimates by borrowing strength from administrative records, postcensal population estimates, and decennial census data. Modeling techniques allow SAIPE to annually publish single-year estimates for all school districts and counties. The SAIPE estimates are broadly consistent with the direct survey estimates, but with help of other timely information, the SAIPE estimates are more precise than the one-year survey estimates for most counties and school districts. One-year estimates are not available from the ACS for most of these areas. Nonetheless, SAIPE estimates are subject to several types of uncertainty. Further information on SAIPE methodology is available at: http://www.census.gov/did/www/saipe/methods/index.html.

A related program to SAIPE is the Small Area Health Insurance Estimates (SAHIE) program, which produces estimates of health insurance coverage for all counties and states. Information about the SAHIE program is available at: http://www.census.gov/did/www/sahie/index.html.

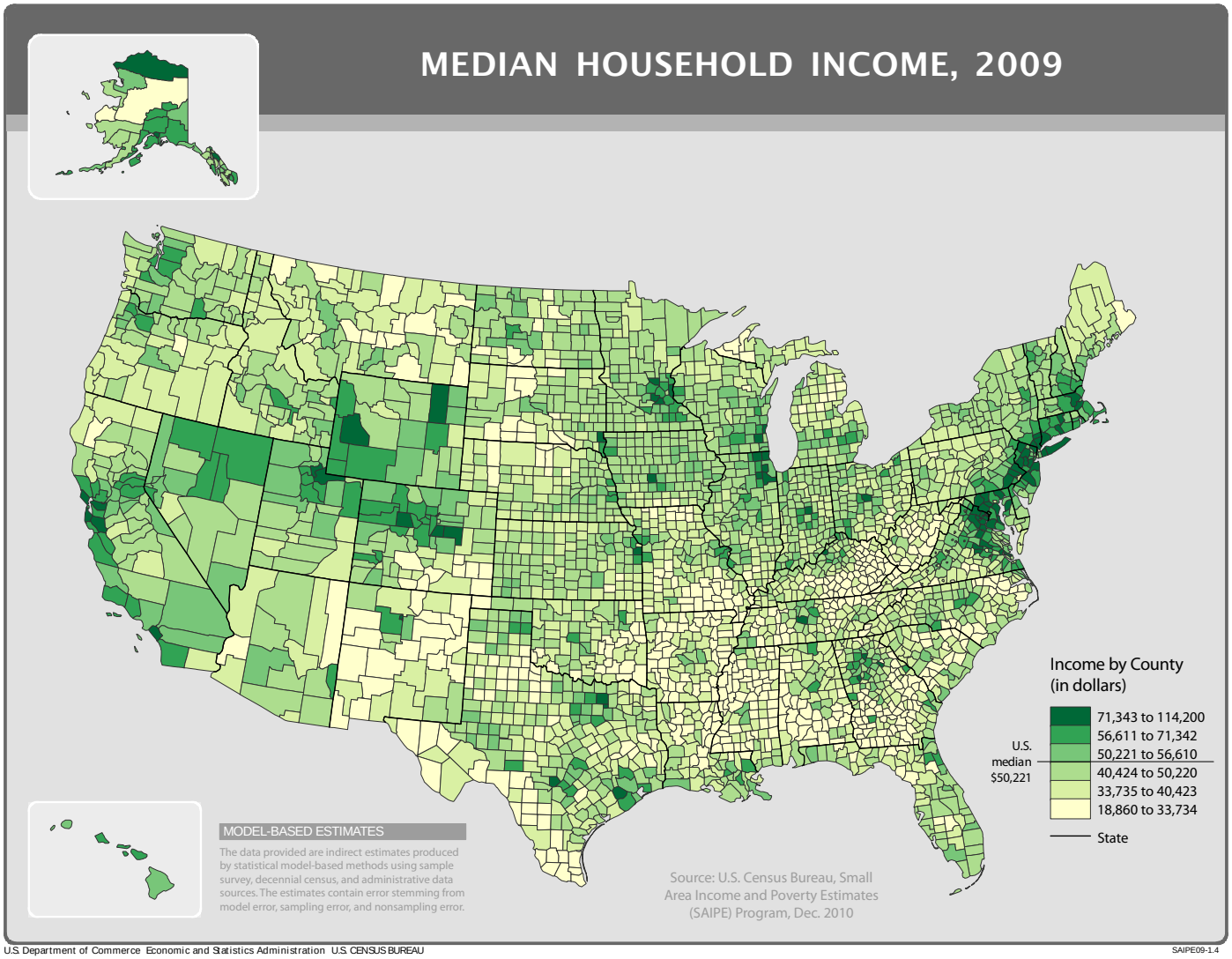
[1] All data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant, unless specifically noted. All direct comparisons cited in the text have been statistically tested at the 90% significance level.
[2] $40,061 is the middle value among the distribution of counties, not the U.S. median. The legend in Figure 1 shows the U.S. median ($50,221) which is the true median household income for the nation.
[3] 2007 was chosen in this time series because it was the year before the most recent recession. The National Bureau of Economic Research (NBER) is the official source for recession timing with the most recent recession beginning in December 2007 and ending in June 2009.

County-Level Median Household Income

The 2009 SAIPE data provide estimates for nearly all counties in the U.S (3,142 counties).[4] The median household income estimates ranged from $18,860 to $114,200. Half the counties had a median household income of more than $41,061 and half of the counties had a median household income less than $41,061.

Figure 1 is a county-level map highlighting the range of median household income throughout the U.S.[5] Counties with estimates within the highest range marked on the map ($71,343 to $114,200) were

Figure 1.



[4] Kalawao County, Hawaii was omitted from the estimates due to a lack of children ages 5 to 17.

[5] Geographic distribution of economic concepts, like income and poverty, were limited by the geographic unit of analysis. All maps and distributional charts in this document use legal entities, such as counties and school districts, which display a wide range of total population, population density, and other demographic characteristics. Thus, caution is advised when interpreting the results.

Metropolitan and Micropolitan Statistical Areas

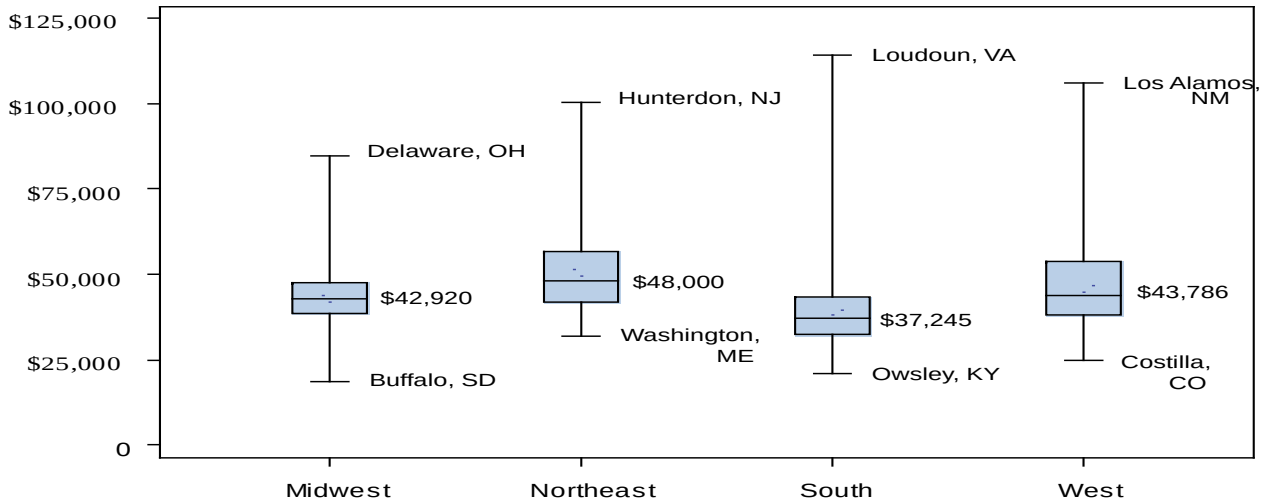
Metropolitan and micropolitan statistical areas are geographical entities defined by the U.S. Office of Management and Budget (OMB) for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. They are the result of the application of published OMB standards to Census Bureau data. A metropolitan area contains a population of 50,000 or more, and a micropolitan area contains a population of at least 10,000 (but less than 50,000). Each metropolitan and micropolitan area consists of one or more counties and includes the counties containing the urban core area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

Appendix 2 is a map depicting metropolitan and micropolitan are status by county. Information about metropolitan and micropolitan areas, which are also known as "Core Based Statistical Areas", is available at: http://www.census.gov/population/www/metroareas/metroarea.html.

concentrated mostly in the Northeast region as well as in Wyoming, Colorado, and the California coastline. Counties with estimates within the lowest range marked on the map ($18,860 to $33,734) were mostly located in the South as well as Missouri, New Mexico, Arizona, and Montana.

Highlighting the range of income throughout the U.S., Figure 2 displays some of the highest and lowest county estimates by region.[6] The box and whisker graph shows the range with the box representing the 25th quartile, the 50th quartile (or median value), and the 75th quartile. The lines extending from the box represent the minimum and maximum values. Looking at the range of median household income throughout the regions, ordered alphabetically, the Midwest had a middle estimate of $42,920, the Northeast a middle value of $48,000, the South a middle value of $37,245, and the West a middle estimate of $43,780.

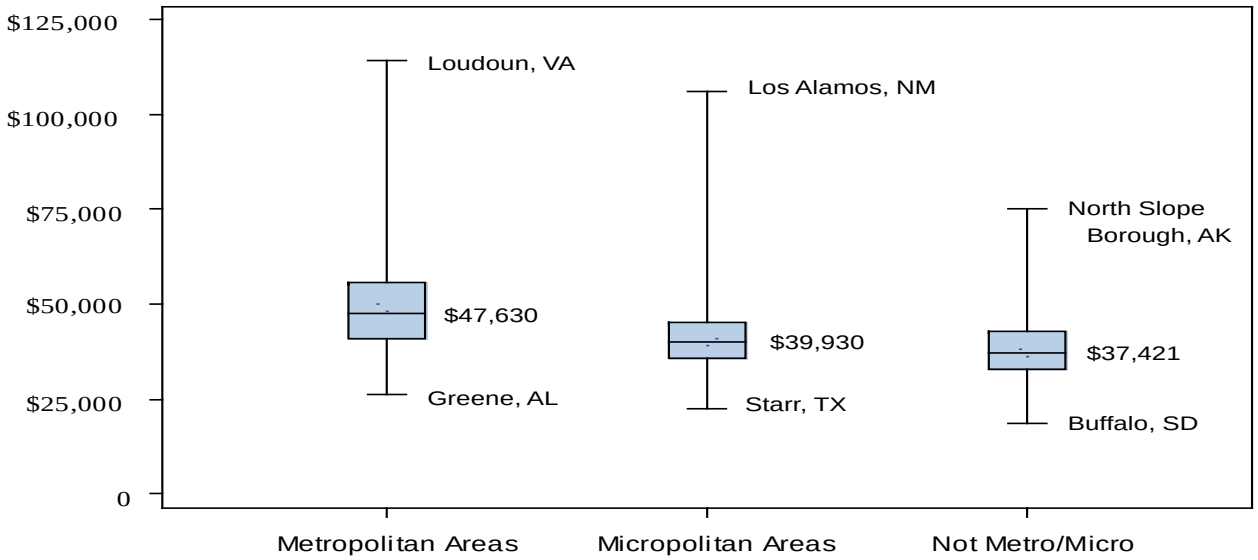
Figure 2. **Range and Middle Value of County-Level Median Household Income by Region: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as minimum and maximum may have several other counties that are statistically indistinguishable. The box and whisker plot shows the distribution of median household income by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th to 75th percentile). The line inside the box indicates the location of 50th percentile (middle value).
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

[6] Census regions are defined as Midwest, Northeast, South, and West. For a map of the regions, see Appendix 1.

Figure 3. **Range and Middle Value of County-Level Median Household Income by Place of Residence: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as maximum and minimum may have several other counties that are statistically indistinguishable. The box and whisker plot shows the distribution of median household income by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th to 75th percentile). The line inside the box indicates the location of 50th percentile (middle value). A metropolitan area's core urban area have a population of 50,000 or more, micropolitan area have a population between 10,000 and 49,999, and 'Not Metro/Micro' areas have a population of less than 10,000.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

It is also possible to view median household income by place of residence, as shown in Figure 3.[7] The estimates for median household incomes in metropolitan area counties ranged from $26,131 to $114,200, with a midpoint of $47,630. The estimates for median household incomes in micropolitan area counties ranged from $22,418 to $106,148, with a midpoint of $39,930. The median household incomes in the non-metropolitan areas ranged from $18,860 to $75,057, with a midpoint of $37,421.

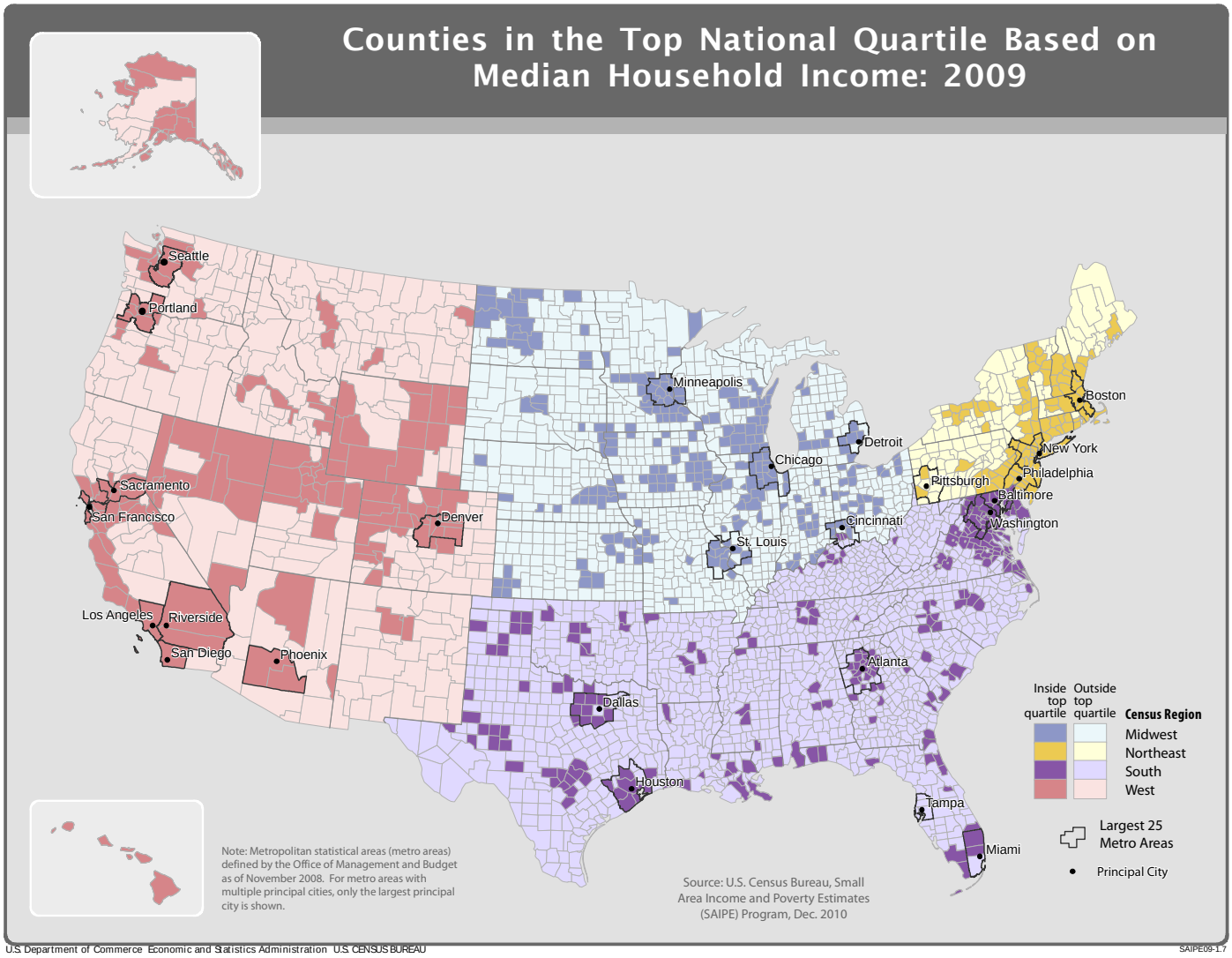
National Top Quartile

Figure 4 presents the 786 counties above the 75th percentile (top quartile) by county median household income. The top quartile had median household income of more than $47,901. Sixty-nine percent of the counties (544 counties) in the national top quartile were located in metropolitan areas. This was also where the population was most concentrated: 164,579,370 of the 172,401,571 people (95.5 percent) living in counties in the top national quartile lived in metropolitan areas.[8]

Median household incomes in 185 of the 234 counties (79.1 percent) in the country's 25 largest metropolitan areas were above the national 75th percentile. In eight of the 25 largest Metropolitan areas (Phoenix, Arizona; Los Angeles, California; Riverside-San Bernadino, California; Sacramento, California; San Francisco, California; Minneapolis-St. Paul, Minnesota; Portland-Vancouver, Oregon; Seattle, Washington) all counties that comprised the metropolitan areas were in the national top quartile.

[7] For place of residence, we use metropolitan and micropolitan statistical areas for county-level data. Metropolitan and micropolitan area status is described in the text box on page 6 and is shown by map in Appendix 2.
[8] Many of the other counties in the top quartile were located around smaller metropolitan and micropolitan areas.

Figure 4.



County-Level Poverty

County-level poverty rates for all ages in the U.S. ranged from 3.1 percent to 62.0 percent in 2009.[9] Figure 5 indicates how poverty rates varied among counties throughout the U.S. Counties with estimates within the highest range marked on the map (33.6 percent to 62.0 percent) were concentrated mostly in the South, predominately in Louisiana, Mississippi, Arkansas, Kentucky, and South Texas; and Eastern Arizona and New Mexico in the West. Conversely, counties with estimates within the lowest range marked on the map (3.1 percent to 10.7 percent) were mostly located in the Northeast, Midwest, and portions of the West.

Figures 6 and 7 show the distribution of county poverty rates by region and place of residence. Among the median estimates for county-level poverty rates in the four regions, the Midwest was 13.0 percent, the Northeast was 11.9 percent, the South was 18.7 percent, and the West was 14.6 percent (Figure 6). Among

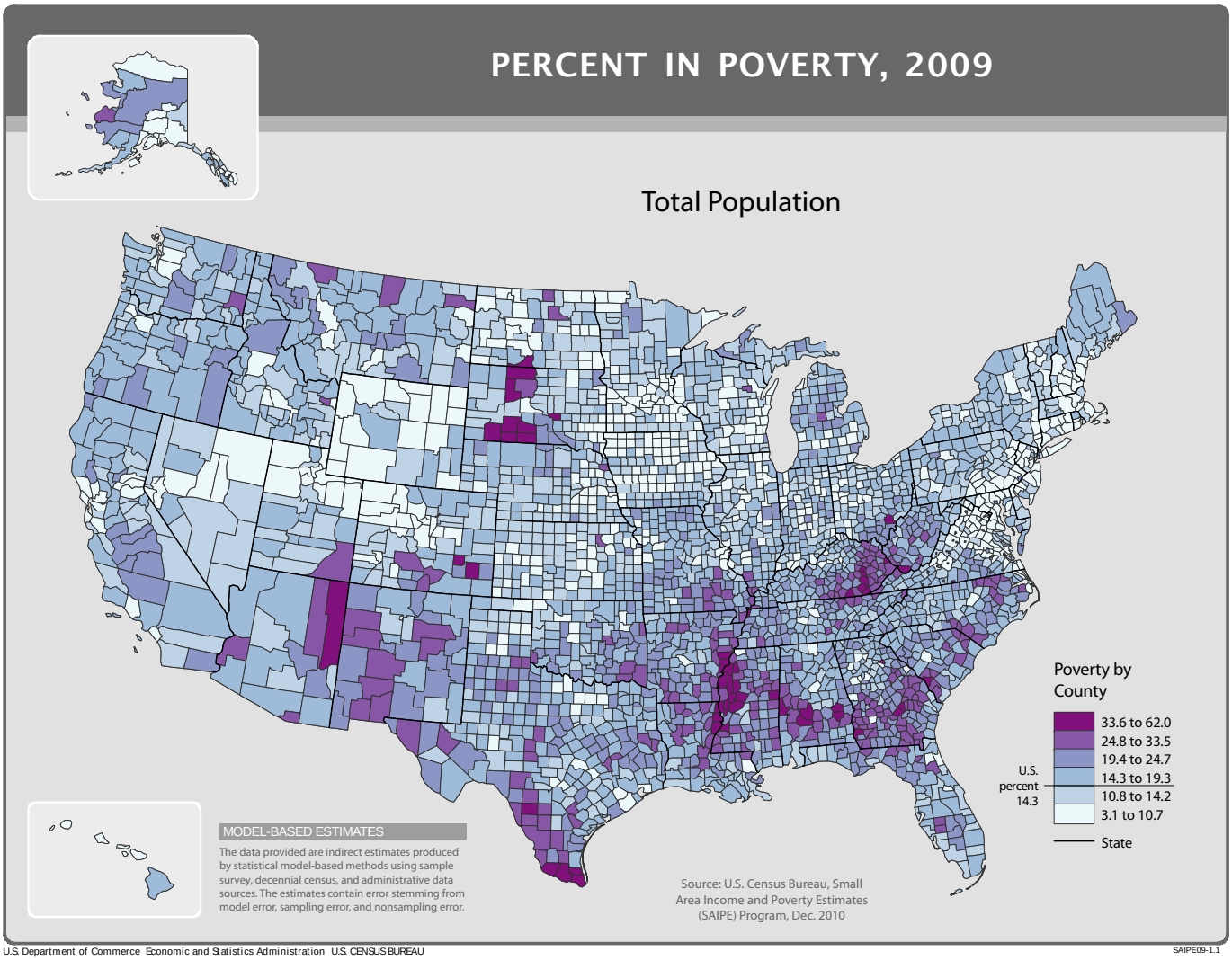
[9] Information on poverty, including how it is defined, is located in the text box on page 10.

place of residence, counties in metropolitan areas had a median estimated poverty rate of 13.7 percent, 16.4 percent in micropolitan areas, and 16.5 percent in counties that were neither metropolitan nor micropolitan areas (Figure 7).

Concentration of Poverty

In addition to the percent of people in poverty, it is possible to analyze the concentration of poverty at the county-level. Figure 8 depicts SAIPE poverty data for all ages by region and place of residence. According to this figure, nationally, the majority of people (66.9 percent) reside in counties with a poverty rate between 10 and 20 percent, while 21.5 percent of people reside in counties with a poverty rate below 10 percent. The other 11.5 percent of people reside in counties with a poverty rate of 20 percent or higher.

Figure 5.



How Poverty is Measured

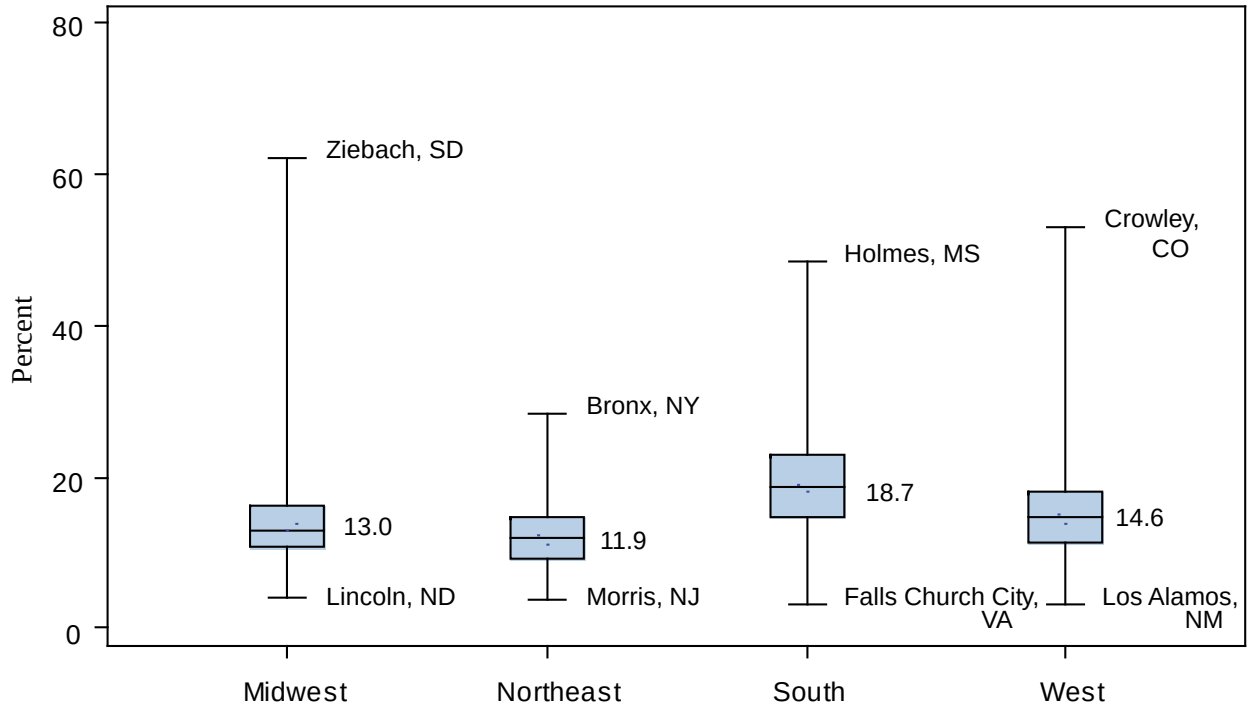
Poverty status is determined by comparing annual income to a set of dollar values called thresholds that vary by family size, number of children, and age of householder. If a family's before tax money income is less than the dollar value of their thresholds, then that family and every individual in it are considered to be in poverty. For people not living in families, poverty status is determined by comparing the individual's income to his or her threshold.

The poverty thresholds are updated annually to allow for changes in the cost of living using the Consumer Price Index (CPI-U). They do not vary geographically.

Our dependent variable is the estimates of poverty from the American Community Survey (ACS), which is a continuous survey with people responding throughout the year. Since income is reported for the previous 12 months, the appropriate poverty threshold for each family is determined by multiplying the base-year poverty threshold (1982) by the average of monthly CPI values for the 12 months preceding the survey.

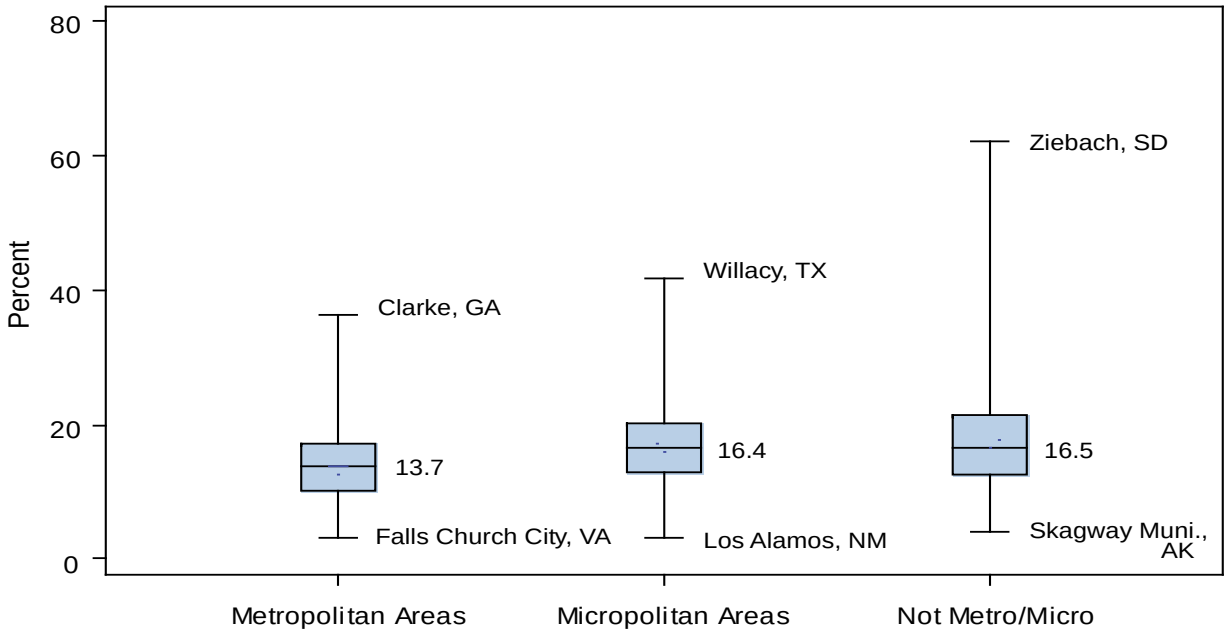
For more information, see "How Poverty is Calculated in the American Community Survey" at: http://www.census.gov/hhes/www/poverty/about/overview/measure.html.

Figure 6. **Range and Median Value County-Level Poverty Rates for All Ages by Region: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as minimum and maximum may have several other counties that are statistically indistinguishable. The box and whisker plot shows the distribution of poverty by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th to 75th percentile). The line inside the box indicates the location of 50th percentile (median value).
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 7. **Range and Median Value of County-Level Poverty Rates for All Ages by Place of Residence: 2009**



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Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

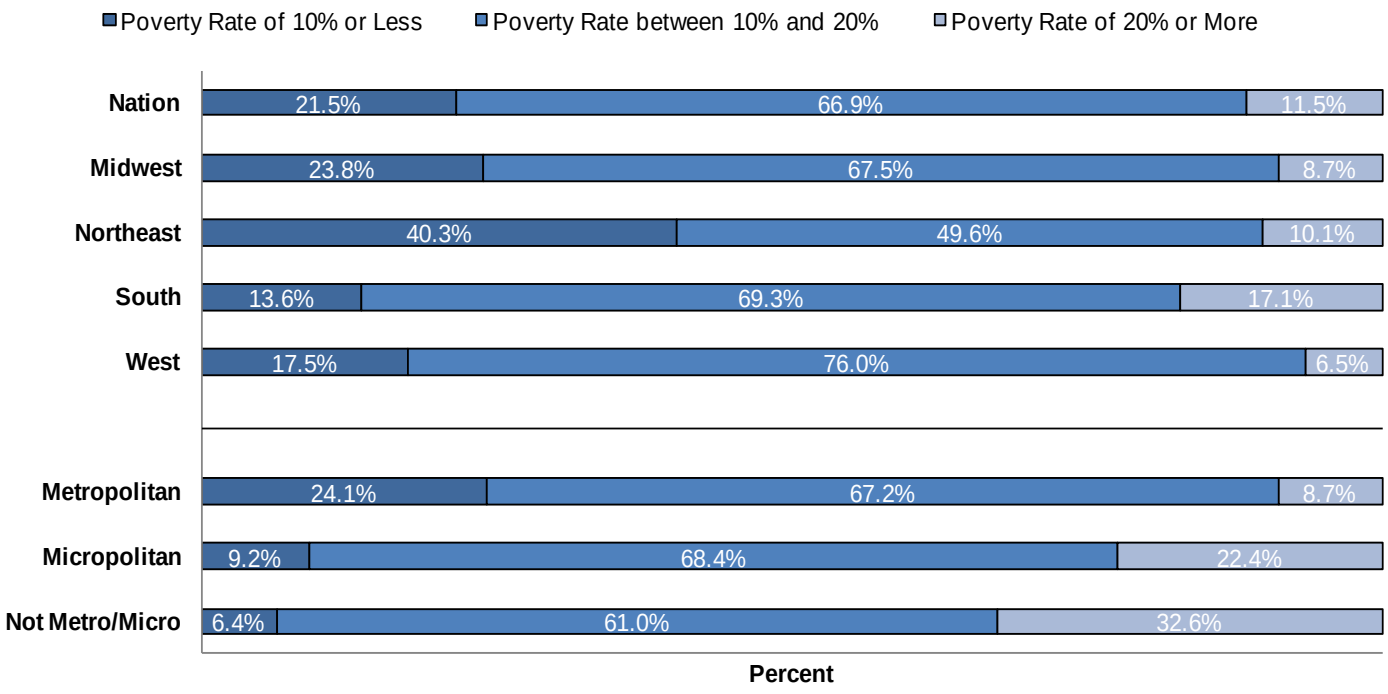
Across the regions, this figure shows considerable variations in counties with a poverty rate of 20 percent or higher comprising 8.7 percent of the population in the Midwest, 10.1 percent in the Northeast, 17.1 percent in the South, and 6.5 percent in the West. The proportion of people living in counties with a poverty rate of 10 percent or lower included 23.8 percent of the population in the Midwest region, 40.3 percent in the Northeast, 13.6 in the South, and 17.5 percent in the West.

Figure 8 also displays the distribution of people in poverty by place of residence. In counties with a poverty rate of 20 percent of more, 8.7 percent of people reside within counties in metropolitan areas, while 22.4 percent reside in micropolitan areas, and 32.6 percent reside in counties that are neither metropolitan nor micropolitan. In metropolitan areas, about a quarter of the population (24.1 percent) live in counties with a poverty rate of 10 percent or less with 9.2 percent in micropolitan areas and 6.4 percent in counties that are neither metropolitan nor micropolitan areas.

Share of People in Poverty

Table 1 shows the numbers and percentages of counties, total population, and people in poverty by region and place of residence. Among the regions, 33.6 percent of the counties were located in the Midwest, 6.9 percent in the Northeast, 45.3 percent in the South, and 14.2 percent in the West. By place of residence, 35.0 percent of the counties were located in metropolitan areas, 21.8 percent in micropolitan areas, and 43.2 percent in counties that were neither metropolitan nor micropolitan.

Figure 8. **Distribution of Populations by County All-Age Poverty Rate by Region and Place of Residence: 2009**



Note: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

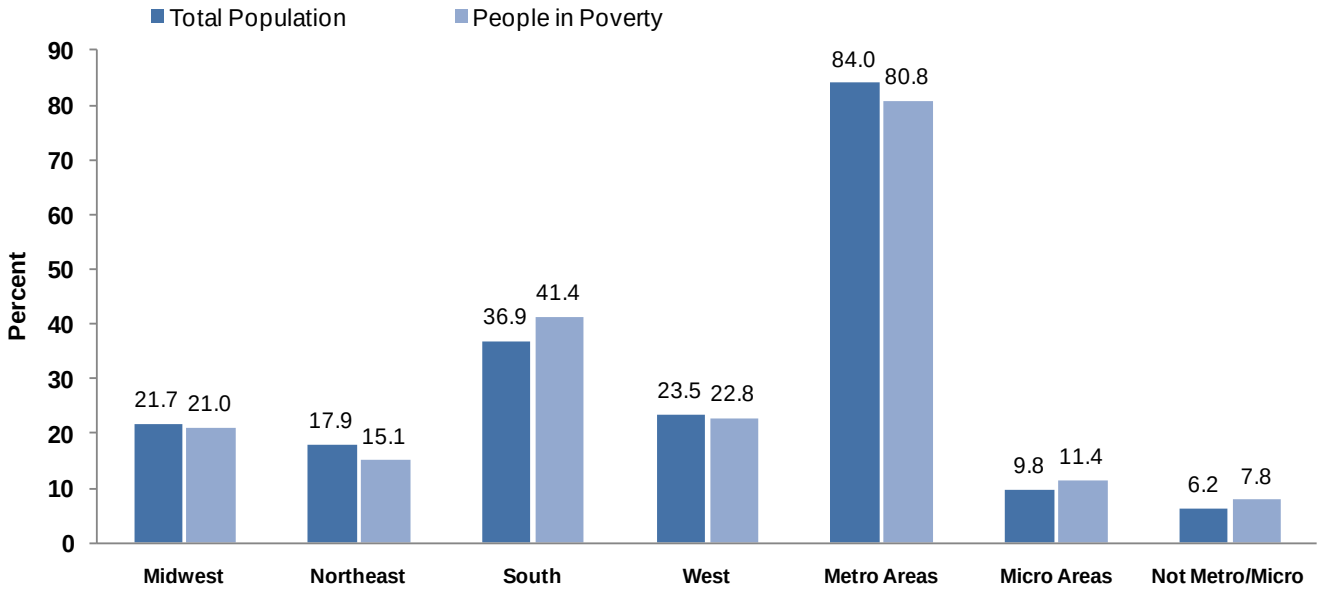
Table 1. **County Summary, by Region and Place of Residence: 2009**

Category	Counties	Total Population	Persons in Poverty	Counties	Total Population	Persons in Poverty
	Number			*Share of Total*		
Total Counties	3,142	299,026,555	42,868,163	100.0%	100.0%	100.0%
Midwest	1,055	64,991,534	9,021,307	33.6%	21.7%	21.0%
Northeast	217	53,311,888	6,176,549	6.9%	17.9%	15.1%
South	1,423	110,240,525	17,613,898	45.3%	36.9%	41.1%
West	447	70,126,017	9,768,928	14.2%	23.5%	22.8%
Metropolitan Areas	1,100	251,245,136	34,633,688	35.0%	84.0%	80.8%
Micropolitan Areas	686	29,290,786	4,894,252	21.8%	9.8%	11.4%
Not in Metro or Micro Areas	1,356	18,490,557	3,340,208	43.2%	6.2%	7.8%

Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. The poverty universe is a subset of the total population. Specifically, poverty status excludes children younger than 15 who are not related to the householder, people living in institutional group homes, and those living in college dormitories or military barracks. Estimates are rounded and do not add to 100 percent.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates

In total population, the Midwest contained 21.7 percent of the population, 17.9 percent in the Northeast, 36.9 percent in the South, and 23.5 percent in the West. Among place of residence, 84.0 percent of the population were located in metropolitan areas, 9.8 percent in micropolitan areas, and 6.2 percent in counties that were neither in metropolitan nor micropolitan areas. Figure 9 shows a comparative picture of total population and people in poverty. This figure highlights how the number of counties by region and place of residence varies as do the populations.

Figure 9. **Percentage of Total Population and Poverty Population by Region and Place of Residence: 2009**



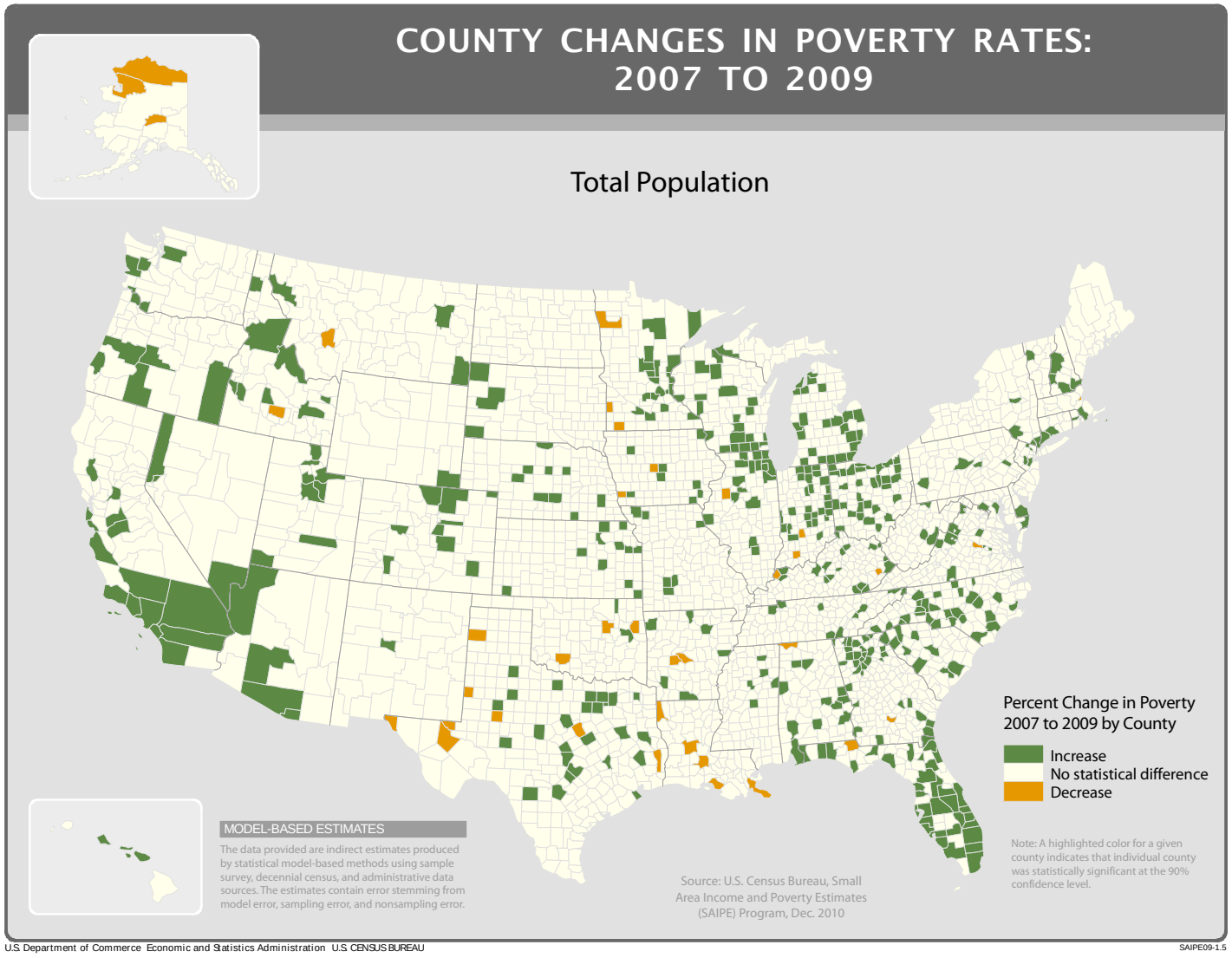
Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant.
The 'total population' in this figure refers those people in the poverty universe . The poverty universe excludes children younger than 15 who are not related to the householder, people living in institutional group quarters, and those living in college dormitories or military barracks.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates

Change in Poverty Rates

Recently developed methodology has allowed the analysis and statistical testing of SAIPE county trends at the 90 percent significance level.[10] Figure 10 shows the county-level change in poverty rates for the total population for the period between 2007, the year before the most recent recession, and 2009. Of the 3,142 counties in the U.S., 491 counties, or 15.6 percent, had a statistically significant difference between the two years. Of the counties with statistically significant changes, 453 counties had an increase in poverty rate. Areas with clusters of significant increases in poverty include Florida, Southern California, Arizona and many of the states surrounding the Great Lakes. In contrast, only 38 of the counties with significant change, or 7.7 percent, had a decrease in poverty rate between 2007 and 2009.

[10] A methodology for counties has been developed for use in analyzing trends in poverty over time. These methods cannot be applied directly to published estimates since changes to survey coverage, geographic definitions, and SAIPE methodology create breaks in the published time series. For more information, see the SAIPE methodology page at: http://www.census.gov/did/www/saipe/methods/index.html. Additionally, there is a published paper available on the comparisons methodology: Basel, Wesley, Sam Hawala, and David Powers. "Serial Comparisons in Small Domain Models: A Residual-Based Approach," 2010. *JSM Proceedings, Section on Government Statistics.* Alexandria, VA: American Statistical Association. The paper is located at: http://www.census.gov/did/www/saipe/publications/files/BaselHawalaPowers2010asa.pdf.

Figure 10.

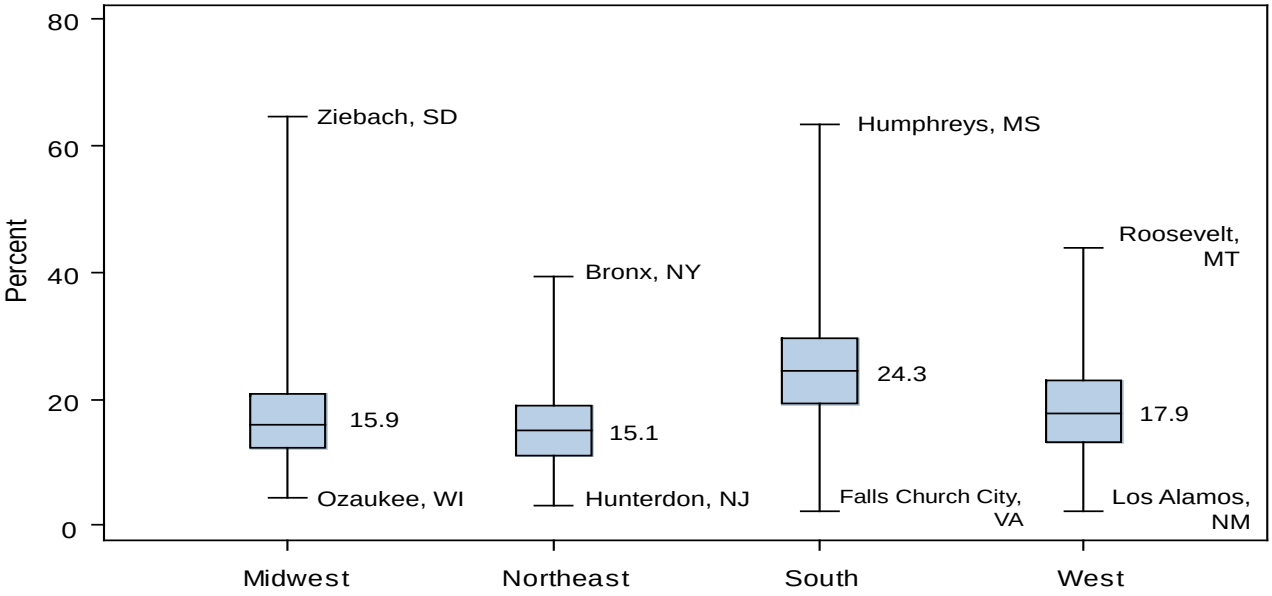


County-Level Poverty of School-Age Children

The population of children ages 5 to 17 is referred to as "school-age children". One-year estimates of poverty for school-age children in families for all counties are available through SAIPE.

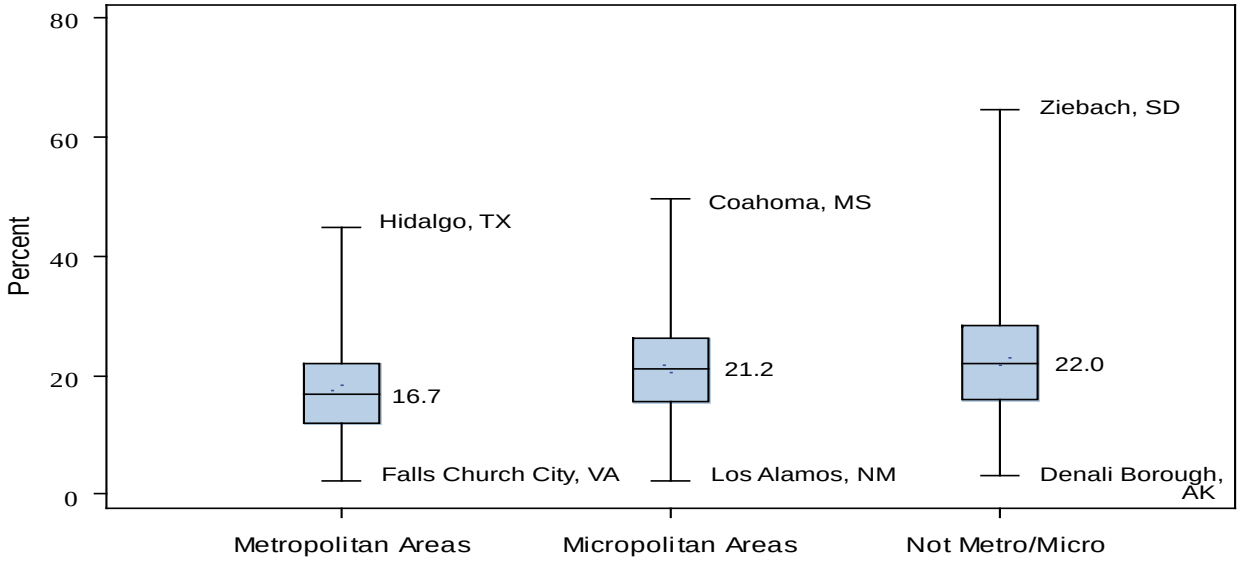
Figure 11 shows the distribution of poverty of school-age children by region. The Midwest region had a median poverty rate of 15.9 percent, 15.1 percent in the Northeast, 24.3 percent in the South, and 17.9 percent in the West. In terms of place of residence (Figure 12), the median poverty rate for metropolitan areas was 16.7 percent, 21.2 percent in micropolitan areas, and 22.0 percent in areas that are neither metropolitan nor micropolitan.

Figure 11. **Range of School-Age County-Level Poverty Rates by Region: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as minimum and maximum may have several other counties that are statistically indistinguishable. The school-age poverty rate refers to children ages 5 to 17 in families. The box and whisker plot shows the distribution of poverty by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th to 75th percentile). The line inside the box indicates the location of 50th percentile (median value).
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 12. **Range of School-Age County-Level Poverty Rates by Place of Residence: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as minimum and maximum may have several other counties that are statistically indistinguishable. The school-age poverty rate refers to children ages 5 to 17 in families. The box and whisker plot shows the distribution of poverty by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th to 75th percentile). The line inside the box indicates the location of 50th percentile (median value). A metropolitan area's core urban area has a population of 50,000 or more, while a micropolitan area has a core urban area with a population between 10,000 and 49,999. 'Not Metro/Micro' areas have core urban areas with a population of less than 10,000.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Poverty Comparisons by School-Age Population

Figure 13 shows the variation of poverty rates for the school-age population with respect to the national average rate. In this map, the blue shade identifies counties with poverty rates for school-age children higher than the national average (18.2 percent), while the orange shaded area identifies those counties with school-age child poverty rates below the national average. Overall, there were 1,950 counties with rates that were statistically significant with 1,084 counties above and 866 counties below the national poverty rate.

Large concentration of counties with poverty rates significantly above the national average for school-age children were observed in the South including Louisiana, Alabama, Mississippi, Arkansas, West Virginia, Kentucky, Georgia, South Carolina, Florida, and Texas. In the West region, Arizona, New Mexico, and Oregon had poverty rates higher than the national average. Large numbers of counties in the Northeast and Midwest regions as well as Nevada, Utah, Colorado and Wyoming in the West had poverty rates for school-age children lower than the national average.

Figure 13.

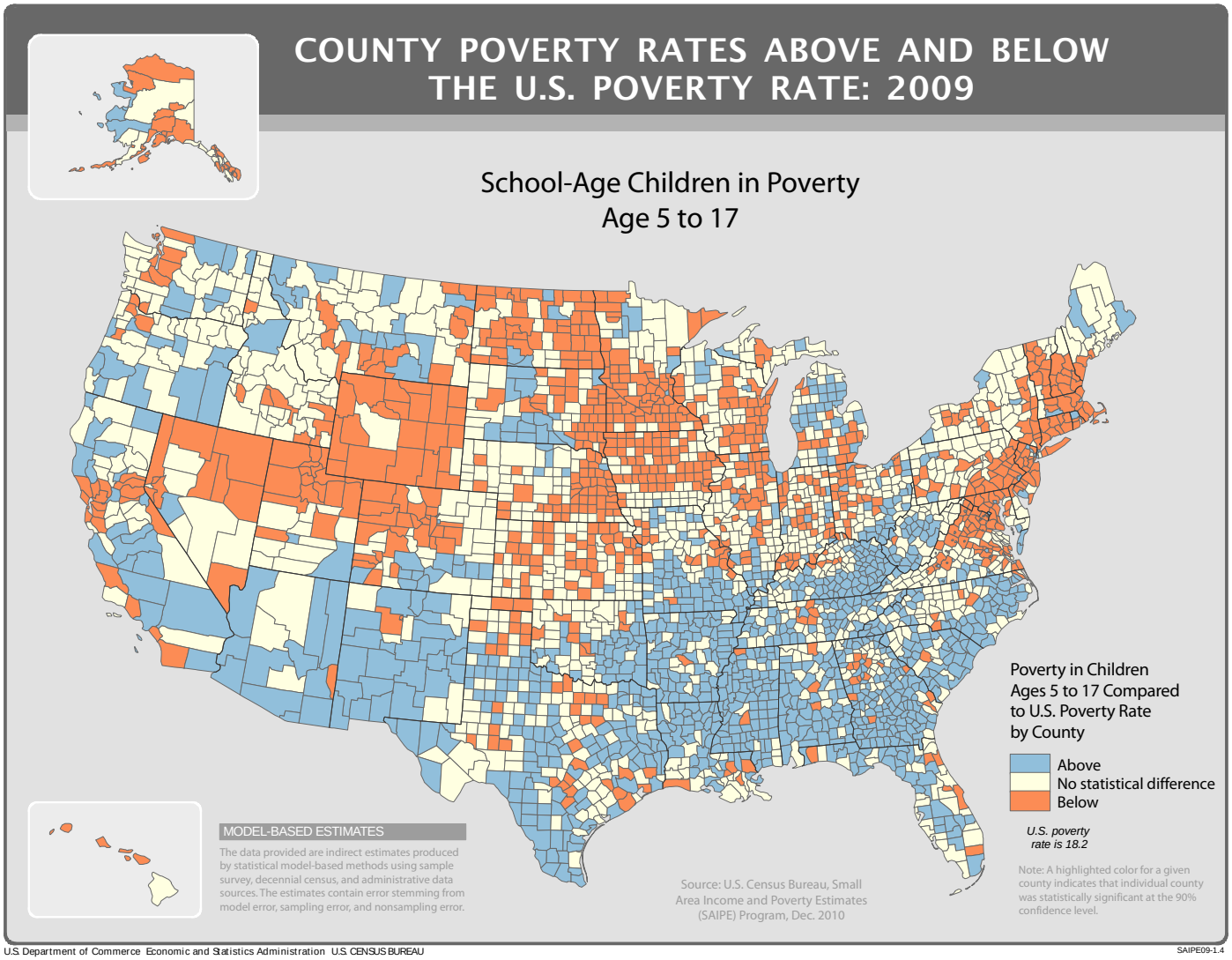
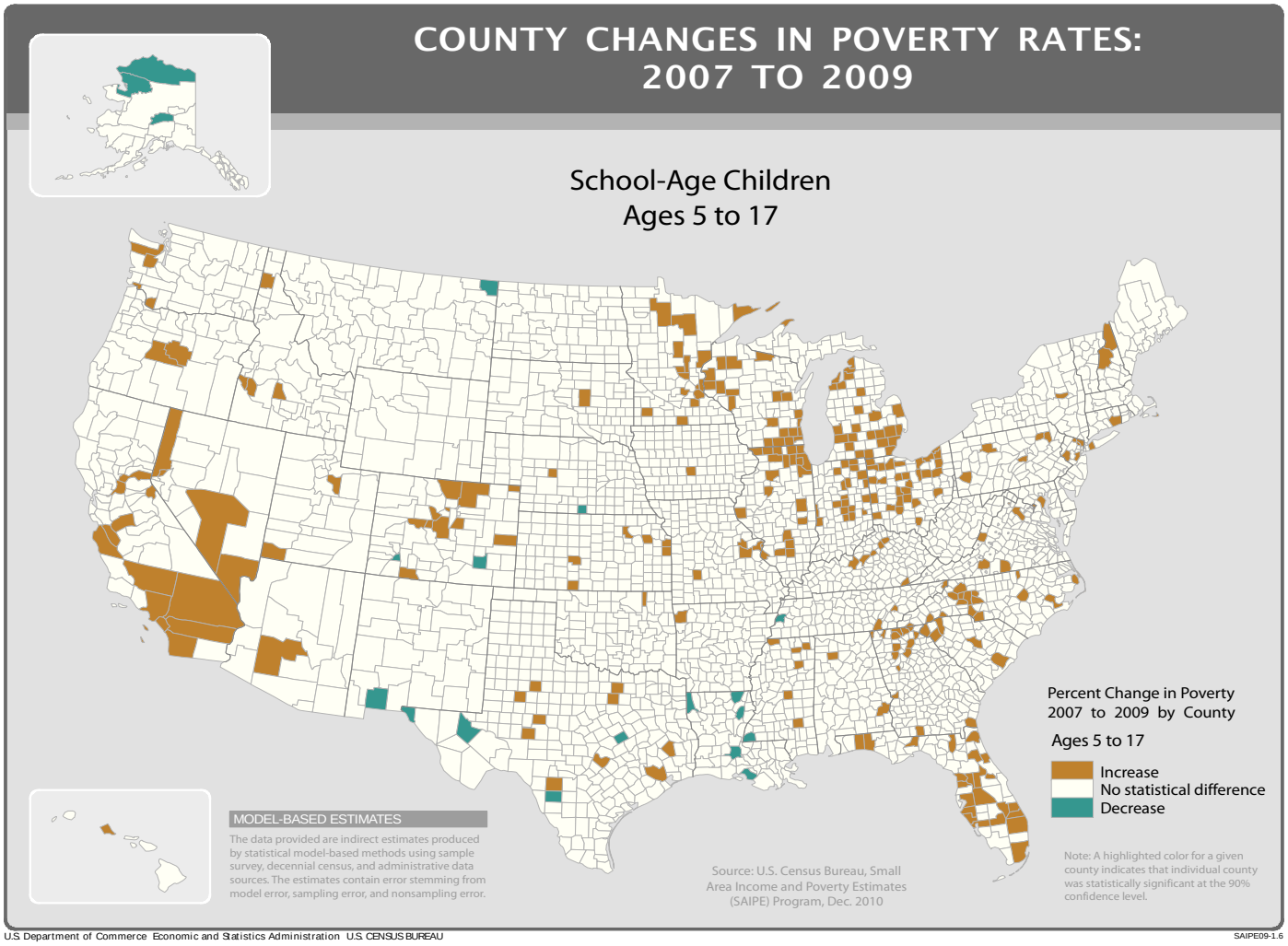


Figure 14.



Viewing the change in county poverty rates from 2007 to 2009 for school-age population highlights the areas where poverty increased or decreased between the two-year period (Figure 14). Ten percent (10.2 percent or 319 counties) had a statistically significant change between 2007 and 2009. Of those counties with a statistically significant change, 295 counties (93.9 percent) had an increase in poverty during the time span. Areas with an increase in poverty were clustered around Southern California and Southern Nevada, Florida, and parts of Northern Illinois, Minnesota, Wisconsin, Ohio, Iowa and Michigan.

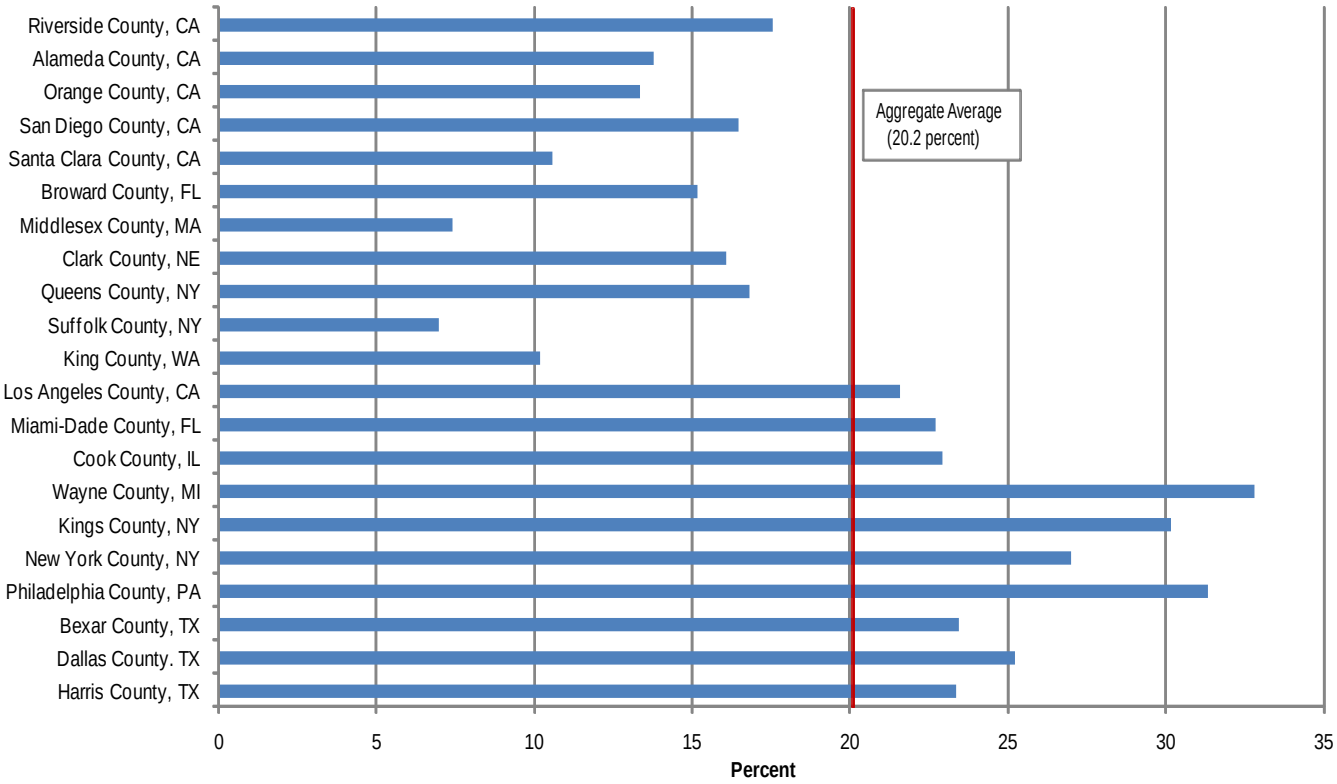
Based on population size of the counties, this document makes comparative analysis of poverty rates of the 25 largest and 25 smallest counties in the nation using an aggregate poverty rate.[11] Figure 15 shows poverty rates for the 25 largest counties that had a statistically significant difference from the aggregate poverty rate of the 25 largest counties (20.2 percent, +/- 0.3).[12] Twenty-one of the 25 counties had a statistically significant difference from the aggregate average, with 11 counties below and 10 counties above the aggregate poverty

[11] The aggregate poverty rate is based on the aggregate average of the 25 largest or smallest counties by the weighted proportionately to their indirect population. Each of the individual counties has been tested against the aggregate for statistical significance at the 90 percent confidence level.
[12] The school-age aggregate poverty rate for the largest 25 counties is statistically different than the national poverty rate (18.2 percent).

rate. Poverty rates for these counties ranged from 7.0 percent in Suffolk County, New York, to 32.8 percent for Wayne County, Michigan.

Conversely, among the smallest counties, Figure 16 displays poverty rates for those counties that had a statistically significant difference from the aggregate of the 25 smallest counties (20.0 percent, +/- 1.8).[13] Poverty rates for these counties ranged from 11.4 percent in Borden County, Texas to 30.1 percent for Keya Paha County, Nebraska.[14] Nine counties had poverty rates that were significantly different from the aggregate poverty rate of the 25 smallest counties. Of these counties, 6 counties, San Juan County, Colorado, Hooker County, Nebraska, Billings County, North Dakota, Slope County, North Dakota, Borden County, Texas, and Kent County, TX, had a poverty rate below the aggregate average.

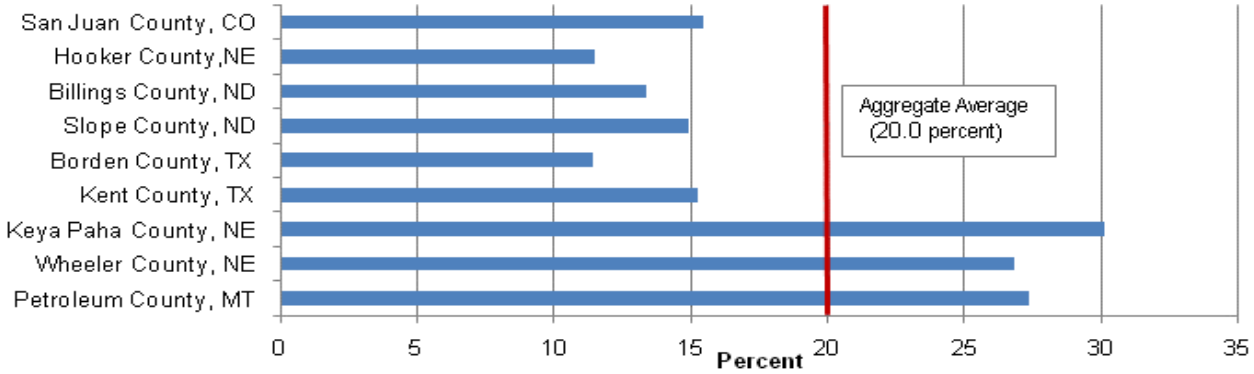
Figure 15. **Counties Above and Below the School-Age Aggregate Poverty Rate for the 25 Largest Counties by Population: 2009**



Notes: Aggregate Average is based on the aggregate poverty rates of the 25 largest counties by population. The 21 counties above have a statistically significant difference than the aggregate average. Each of the individual counties have been tested against the aggregate for statistical significance at the 90 percent confidence interval. Only the counties listed above have a poverty rate statistically significant from the aggregate poverty rate. The counties that are not statistically significant from the aggregate poverty rate include: San Bernadino County, CA; Sacramento County, CA; Maricopa County, AZ; and Tarrant County, TX.
School-age population refers to children ages 5 to 17 in families.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates

[13] For the smaller counties, fewer counties are different from the aggregate average due to higher uncertainty in their estimated poverty rates.
[14] There is no statistical difference between the school-age aggregate poverty rate for the smallest 25 counties and the national poverty rate (18.2 percent).

Figure 16. **Counties Above and Below the School-Age Aggregate Poverty Rate for the 25 Smallest Counties by Population: 2009**



Notes: Aggregate Average is based on the aggregate poverty rates of the 25 smallest counties by population. The 9 counties above have a statistically significant difference than the aggregate average. Each of the individual counties have been tested against the aggregate for statistical significance at the 90 percent confidence interval. Only the counties listed above have a poverty rate statistically significant from the aggregate poverty rate. The counties that are not statistically significant from the aggregate poverty rate include: Yakutat Borough, AK; Hinsdale County, CO; Treasure County, MT; Arthur County, NE; Banner County, NE; Blaine County, NE; Grant County, NE; Logan County, NE; Loup County, NE; McPherson County, NE; Thomas County, NE; Esmeralda County, NV; Harding County, NM; Kenedy County, TX; King County, TX; and McMullen County, TX. Loving County, TX and Kalawao, HI were omitted.
School-age population refers to children ages 5 to 17 in families.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates

School District Poverty

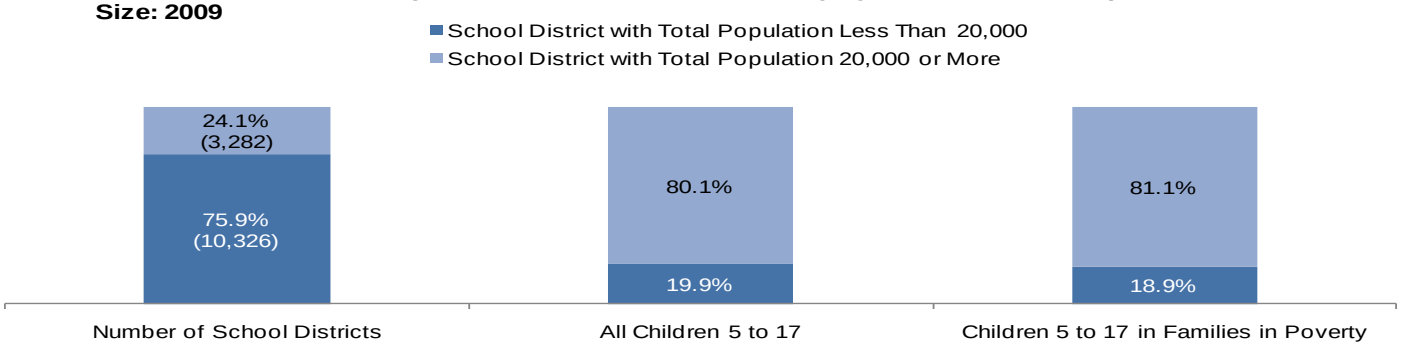
The 2009 SAIPE data contain estimates for all school districts in the Title I universe (13,619 school districts).[15] [16] Figure 17 shows the number of school districts by population size (with school district populations less than 20,000 and populations with 20,000 or more). According to this figure, school-age children, as well as school-age children in families in poverty, tend to be concentrated in school districts with a total population size of 20,000 or more.[17] [18] In 2009, an estimated 24.1 percent of school districts have a total population size of 20,000 or more. These school districts house an estimated 80.1 percent of all school-age children in the nation and an estimated 81.1 percent of school-age children in poverty.

Variation in School District Poverty

Figure 18 shows the distribution of school-age children in poverty by school district.[19] This map provides a high-level look at the variation in poverty throughout the school districts in the U.S. (Figure 18).[20] The white area shows the school districts with the lowest poverty (0 to 8.9 percent) and the dark blue highlights the areas with the highest poverty (41.0 to 100 percent). Both high and low poverty school districts are scattered throughout the nation, with some areas of concentration. The highest range of poverty marked on the map includes school districts in Arizona, South Dakota, and Montana in the West region; and in the South, in South Texas, Alabama, Louisiana, and Mississippi. Many of the states in the Northeast and Midwest regions, as well as Wyoming in the West, were observed in the lowest range of poverty.

[15] When interpreting the maps and other compilations of school district SAIPE estimates, additional sources of uncertainty exist, as compared to county-level estimates. For further information see http://www.census.gov/did/www/saipe/methods/schooldistrictuncertainty.html.
[16] The Title I universe is the set of U.S. school districts for which Title I of the No Child Left Behind Act of 2001 pertains. There are 13,619 such school districts as of January 1, 2010.
[17] Supplemental information for school district administrators is available in Appendix 3.
[18] The term 'children in families' denotes children who are related to the household by birth, marriage or adoption. Foster children are not included in families.
[19] The term "children ages 5 to 17" refers to an estimate of the number of children who live within the geographic boundaries of the school district and who are in the appropriate grade ranges. It is not a measure of school district enrollment.
[20] More detailed school district maps by state are available at: http://www.census.gov/did/www/saipe/data/schools/maps/maps2009.html.

Figure 17. **Distribution of Numbers of School Districts, Number of School-Age Children, and Number of School-Age Children in Families in Poverty by School District Population Size: 2009**



Notes: There are 13,608 Title I eligible school districts used in this graph. (Eleven school districts were removed for having zero population.) Of that total, 3,282 school districts have populations more than 20,000 and 10,326 school districts have populations of 20,000 or less. The terms 'in families' or 'related' refers to children ages 5 to 17 related by birth, marriage, or adoption to the householder of the housing unit in which they reside; foster children, other unrelated individuals, and residents of group quarters are not 'related children'.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 18.

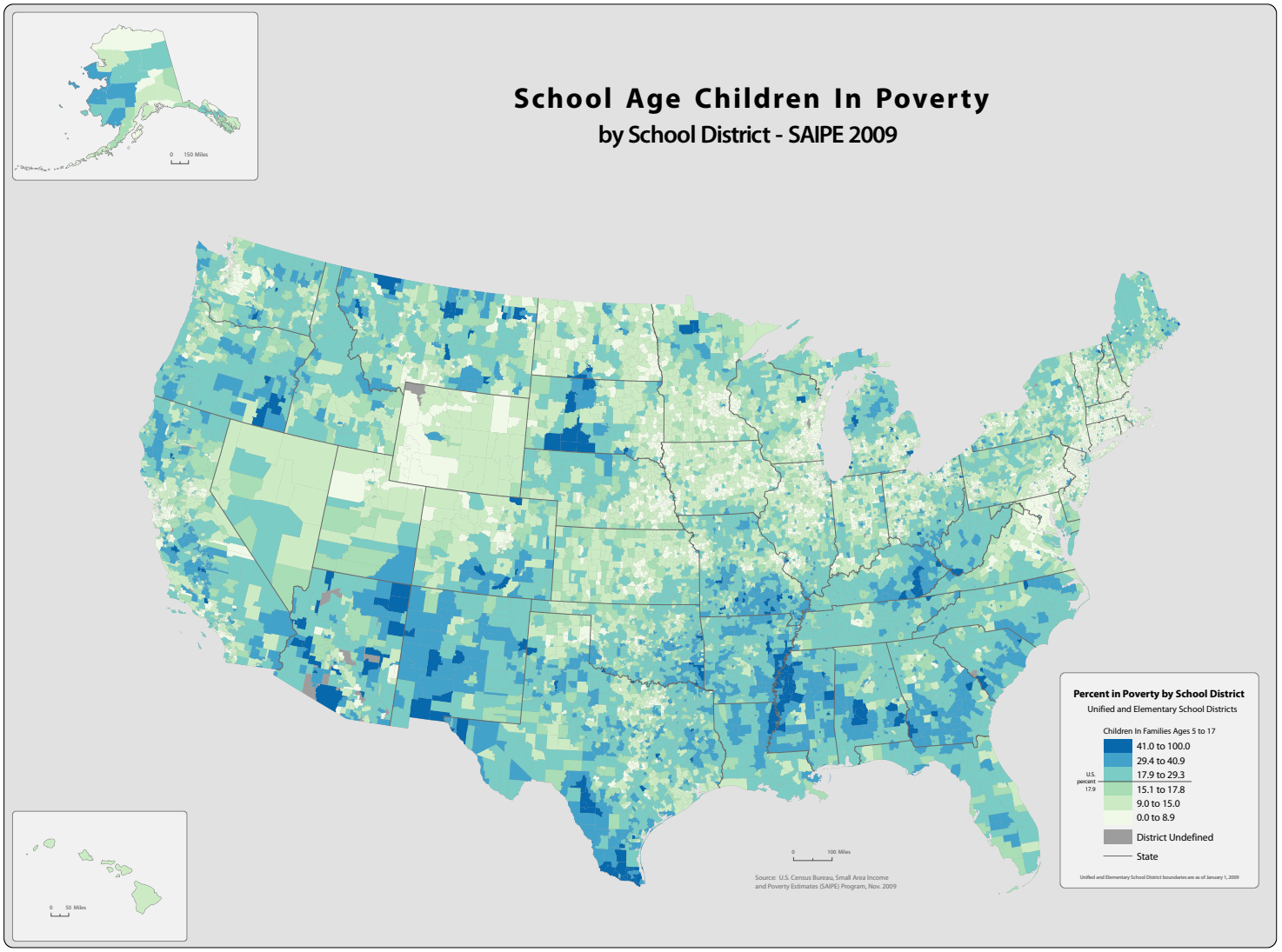
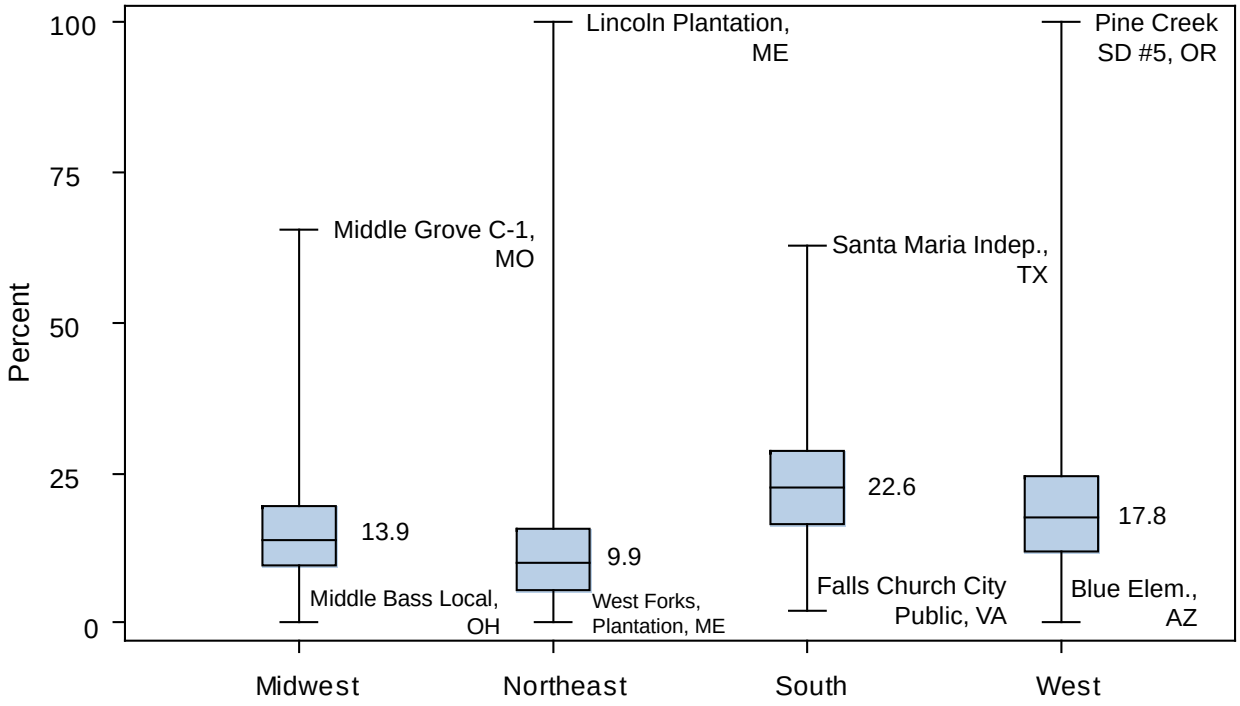


Figure 19 displays the highest and lowest poverty rate estimates for the school-aged population at the school district level. Among the regions, the Midwest had a median poverty rate for school districts of 13.9 percent, 9.9 percent in the Northeast, 22.6 percent in the South, and 17.8 percent in the West.

School districts are often smaller entities than counties and can be within a metropolitan area, but still composed of entirely rural blocks. For this reason, it is more useful to analyze place of residence as a geographical type (urban, rural, or mixed urban and rural), rather than metropolitan or micropolitan.[21] Figures 20 to 23 present school-age poverty rates by geographical type and region. Figure 20 shows that the Midwest region has similar median poverty rates for all three geographical types – urban (13.4 percent), rural

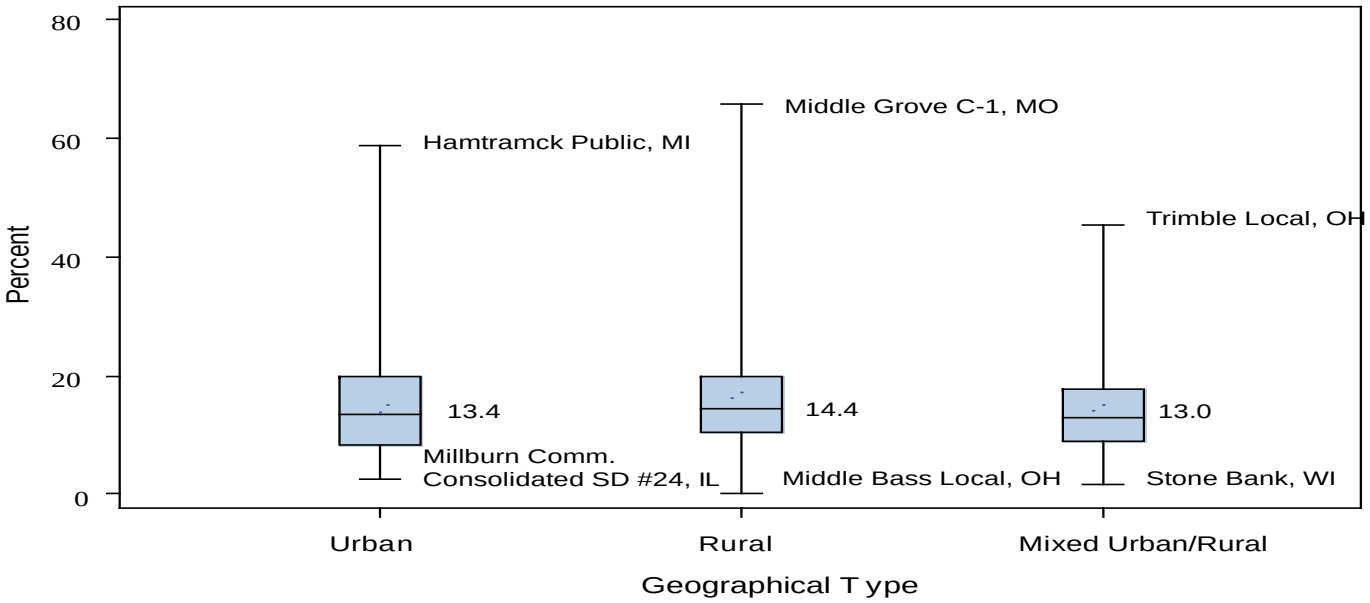
Figure 19. **Range of School-Age School District-Level Poverty Rates by Region for: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, school districts identified as minimum and maximum may have numerous other school districts that are statistically indistinguishable. The school-age poverty rate is refers to children ages 5 to 17 in families. The rural percentage of the geographic area is calculated as the percentage of Census 2000 total population within blocks designated as rural by their Census 2000 population density. The categories used in this report are: 'Urban' - a school district with less than 34 percent of the population in rural blocks; 'Mixed Urban and Rural' - a school district with 34 to 66 percent of the population in rural blocks; and 'Rural': a school district with 67 percent or more of the population in rural blocks.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

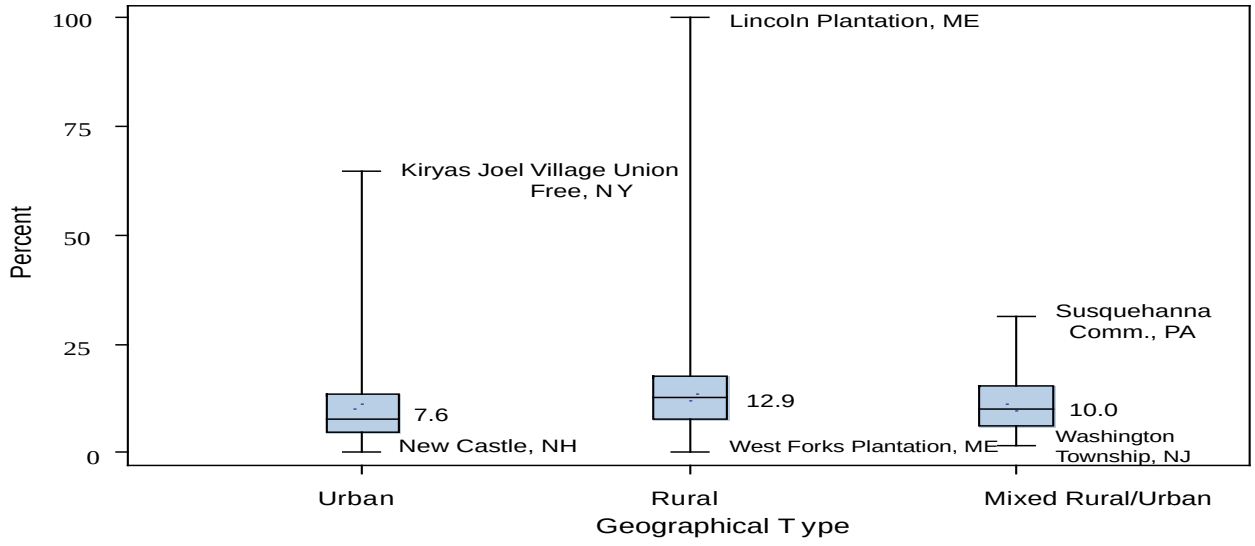
[21] The rural percentage of any geographic area is calculated as the percentage of Census 2000 total population within blocks designated as rural by their Census 2000 population density. The categories used in this report are: 'Urban' - a school district with less than 34 percent of the population in rural blocks; 'Mixed Urban and Rural' – a school district with 34 to 66 percent of the population in rural blocks; and 'Rural' – a school district with 67 percent of more of the population in rural blocks.

Figure 20. **Range of School-Age School District Poverty Rates by Geographical Type for the Midwest Region: 2009**



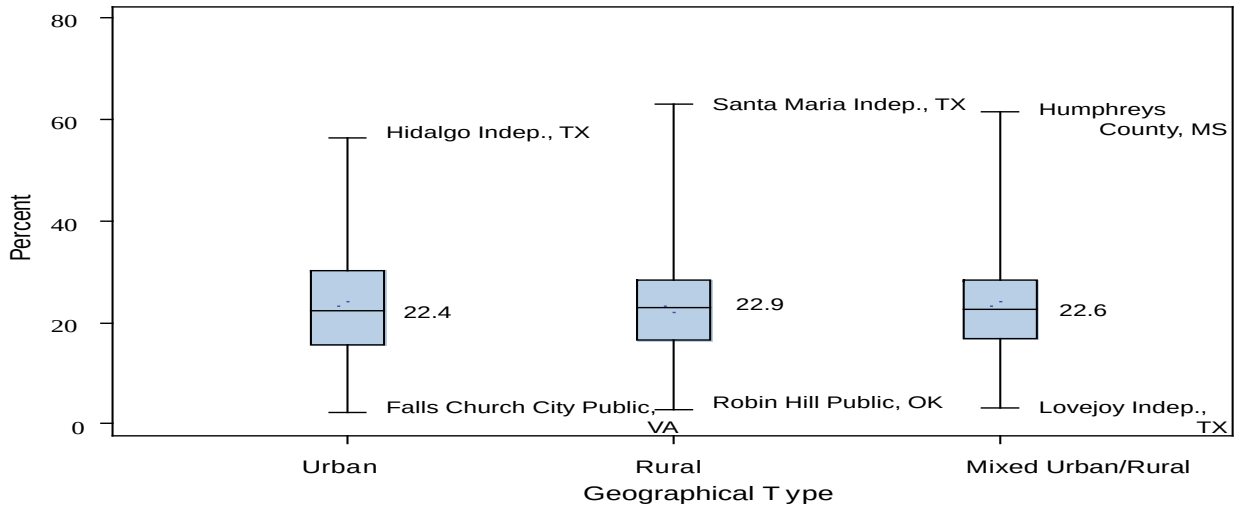
Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, school districts identified as minimum and maximum may have numerous other school districts that are statistically indistinguishable. The school-age poverty rate is refers to children ages 5 to 17 in families. The rural percentage of the geographic area is calculated as the percentage of Census 2000 total population within blocks designated as rural by their Census 2000 population density. The categories used in this report are: 'Urban' - a school district with less than 34 percent of the population in rural blocks; 'Mixed Urban and Rural' - a school district with 34 to 66 percent of the population in rural blocks; and 'Rural': a school district with 67 percent or more of the population in rural blocks.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 21. **Range of School-Age School District Poverty Rates by Geographical Type for the Northeast Region: 2009**



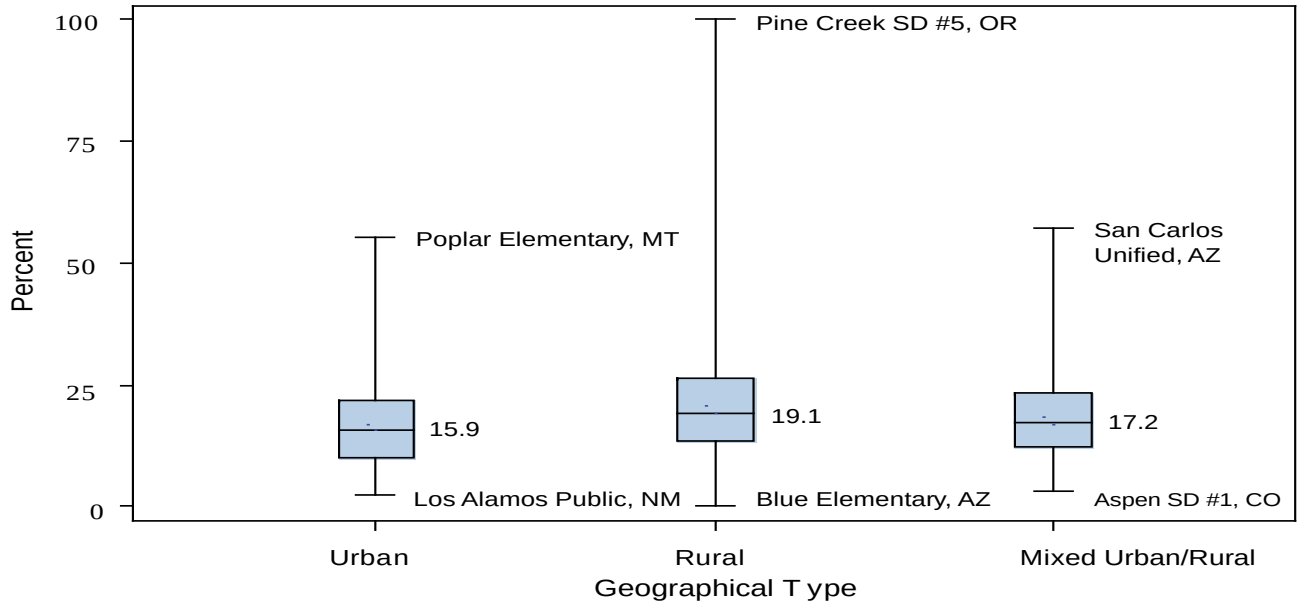
Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, school districts identified as minimum and maximum may have numerous other school districts that are statistically indistinguishable. The school-age poverty rate is refers to children ages 5 to 17 in families. The rural percentage of the geographic area is calculated as the percentage of Census 2000 total population within blocks designated as rural by their Census 2000 population density. The categories used in this report are: 'Urban' - a school district with less than 34 percent of the population in rural blocks; 'Mixed Urban and Rural' - a school district with 34 to 66 percent of the population in rural blocks; and 'Rural': a school district with 67 percent or more of the population in rural blocks.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 22. **Range of School-Age School District Poverty Rates by Geographical Type for the South Region: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, school districts identified as minimum and maximum may have numerous other school districts that are statistically indistinguishable. The school-age poverty rate is refers to children ages 5 to 17 in families. The rural percentage of the geographic area is calculated as the percentage of Census 2000 total population within blocks designated as rural by their Census 2000 population density. The categories used in this report are: 'Urban' - a school district with less than 34 percent of the population in rural blocks; 'Mixed Urban and Rural' - a school district with 34 to 66 percent of the population in rural blocks; and 'Rural': a school district with 67 percent or more of the population in rural blocks.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 23. **Range of School-Age School District Poverty Rates by Geographical Type for the West Region: 2009**



Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, school districts identified as minimum and maximum may have numerous other school districts that are statistically indistinguishable. The school-age population refers to children ages 5 to 17 in families. The rural percentage of the geographic area is calculated as the percentage of Census 2000 total population within blocks designated as rural by their Census 2000 population density. The categories used in this report are: 'Urban' - a school district with less than 34 percent of the population in rural blocks; 'Mixed Urban and Rural' - a school district with 34 to 66 percent of the population in rural blocks; and 'Rural': a school district with 67 percent or more of the population in rural blocks.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

(14.4 percent) and mixed urban and rural (13.0 percent). The Northeast region shows more variation among the geographical types with a large variation in the range of school district poverty in rural areas (Figure 21). Similar to the Midwest region, the South region has similar median poverty rates for urban (22.4 percent), rural (22.9 percent) and mixed urban and rural (22.6 percent). The South region also has similar variation in range for each of the three geographical types (Figure 22). The West region (Figure 23) has large variation in the range of poverty for rural areas and smaller variation in the range for both urban and mixed urban and rural.

Distribution of School District Poverty

Table 2 shows the distribution of school-age children by level of poverty rate of the school district. There were 53.2 million school-age children in 13,608 school districts.[22] Of these, 37.0 percent of school-age children reside in school districts with poverty estimates between 10 and 20 percent.[23] An estimated 24.0 percent of school-age children reside in districts with poverty below 10 percent, and 39.0 percent of school-age children reside in districts with poverty greater than 20 percent.

Viewing the SAIPE poverty data separately by state suggests a wide range of variation in distribution of school-age population by poverty rate (Figure 24). The distribution shows that in some states large proportion of the school-age children reside in districts with poverty rates less than 10 percent, while in some states, a significant proportion of the school-age children reside in districts with poverty rates greater than 20 percent. Most states have a pattern somewhere in between, exhibiting a mix of poverty rate categories.

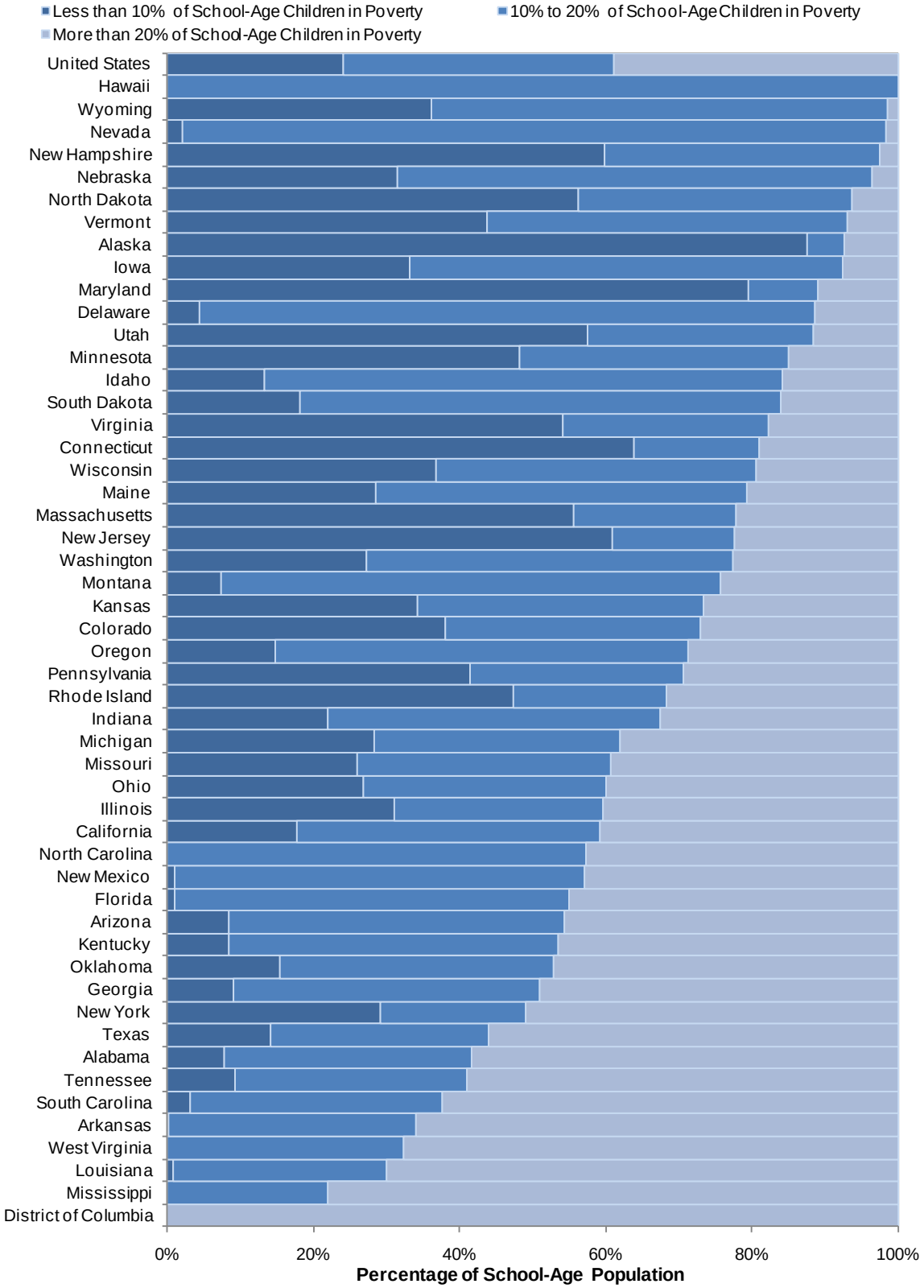
[22] Eleven counties were omitted for having zero population for children ages 5 to 17.
[23] Poverty rates for school districts are computed as the number of children ages 5 to 17 in families in poverty divided by the number of children ages 5 to 17. Thus, the estimate is not a true rate because children not in families are included in the denominator but not the numerator.

Table 2. **Percent of School-Age Population by School District Poverty Rate by State: 2009**

Name	Number of Districts	School-Age Population	Less than or equal to 10 percent poverty rate	10 percent to 20 percent poverty rate	More than 20 percent poverty rate
United States	13,608	53,243,725	24.0	37.0	39.0
Alabama	134	813,654	7.8	33.7	58.5
Alaska	53	129,083	87.6	5.0	7.5
Arizona	217	1,210,765	8.4	45.8	45.8
Arkansas	251	505,183	0.1	34.0	65.9
California	965	6,681,745	17.6	41.6	40.8
Colorado	178	863,282	38.0	34.9	27.2
Connecticut	166	597,515	63.7	17.2	19.1
Delaware	16	147,267	4.4	84.3	11.4
District of Columbia	1	76,892	0.0	0.0	100.0
Florida	67	2,891,768	1.1	53.7	45.2
Georgia	183	1,832,577	9.1	41.9	49.0
Hawaii	1	201,374	0.0	100.0	0.0
Idaho	115	294,254	13.2	71.0	15.8
Illinois	868	2,283,425	31.0	28.5	40.5
Indiana	292	1,143,520	21.9	45.4	32.6
Iowa	363	509,158	33.2	59.0	7.7
Kansas	293	499,566	34.3	39.0	26.7
Kentucky	176	726,300	8.4	45.0	46.5
Louisiana	69	803,948	0.7	29.3	70.0
Maine	242	200,414	28.4	50.9	20.6
Maryland	24	971,329	79.5	9.6	10.9
Massachusetts	304	1,047,151	55.5	22.3	22.2
Michigan	552	1,733,810	28.4	33.5	38.2
Minnesota	337	896,822	48.3	36.7	15.1
Mississippi	149	545,239	0.0	22.0	78.0
Missouri	521	1,027,809	26.0	34.6	39.4
Montana	425	157,390	7.4	68.2	24.4
Nebraska	253	316,924	31.4	64.9	3.7
Nevada	17	477,463	2.1	96.3	1.6
New Hampshire	178	214,381	59.9	37.7	2.5
New Jersey	561	1,490,566	60.9	16.7	22.4
New Mexico	89	358,250	0.9	56.2	42.8
New York	684	3,199,474	29.2	19.8	51.1
North Carolina	118	1,613,130	0.0	57.2	42.8
North Dakota	184	100,570	56.2	37.3	6.4
Ohio	614	1,974,799	26.7	33.2	40.1
Oklahoma	532	646,988	15.4	37.4	47.2
Oregon	197	624,902	14.6	56.5	28.8
Pennsylvania	500	2,028,319	41.5	29.0	29.5
Rhode Island	36	166,686	47.4	20.8	31.8
South Carolina	87	769,717	3.2	34.5	62.3
South Dakota	156	139,976	18.1	65.8	16.1
Tennessee	136	1,067,687	9.3	31.6	59.1
Texas	1,032	4,822,456	14.2	29.6	56.2
Utah	41	595,101	57.4	31.0	11.6
Vermont	270	93,801	43.8	49.2	7.0
Virginia	138	1,314,039	54.1	28.1	17.7
Washington	295	1,118,975	27.3	50.0	22.7
West Virginia	55	280,473	0.0	32.3	67.7
Wisconsin	425	946,179	36.7	43.8	19.4
Wyoming	48	91,629	36.0	62.4	1.6

Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. The estimates shown are conceptually different from the SAIPE state estimates because some undefined geographic areas are not included in these estimates. The poverty ratio is computed as the number of children ages 5 to 17 in families in poverty divided by the number of children ages 5 to 17. School-age population does not include Kalawao County, Hawaii.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

Figure 24. **State School-Age Population by School District Poverty Rate: 2009**



Notes: The percentages shown are estimates containing uncertainty. Apparent differences may not be statistically significant.
Poverty percent is computed as the number ages 5 to 17 in families in poverty divided by the number ages 5 to 17.
Source: U.S. Census Bureau, 2009 Small Area Income and Poverty Estimates.

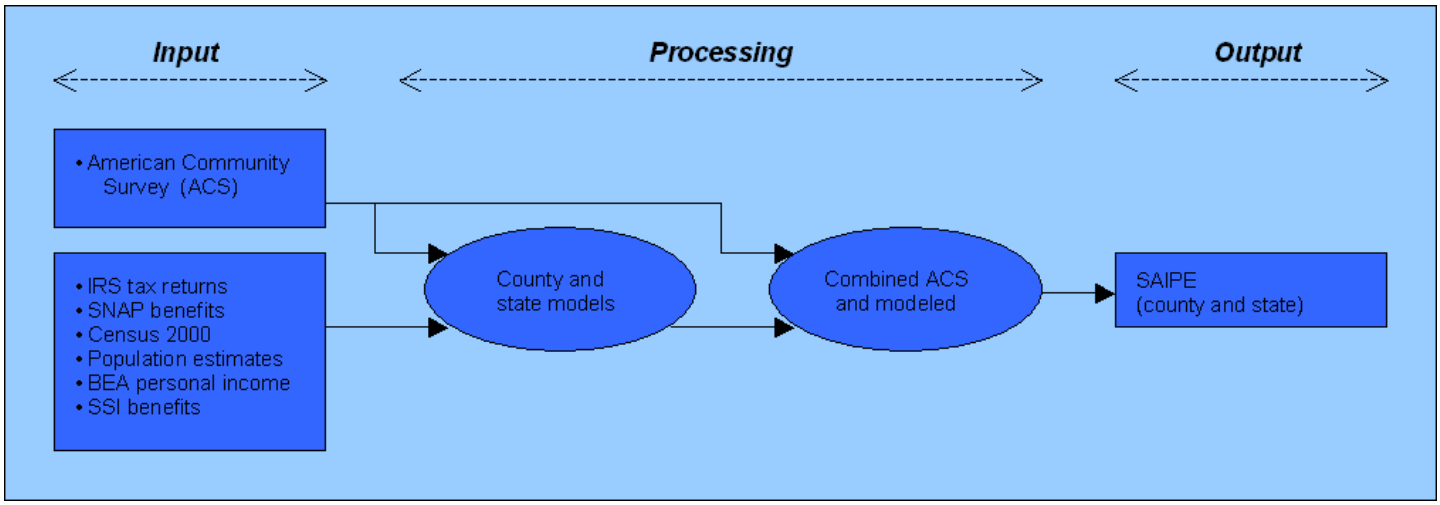
Source Information

Overview of SAIPE Methodology

The SAIPE program models poverty, as measured by the American Community Survey (ACS), at the county and state levels. Synthetic-share methods are used to estimate poverty at the school district level. The poverty estimates for the different geographic levels are controlled to sum to the corresponding higher levels (i.e., the counties are controlled to sum to their respective states, and the states are controlled to sum to the ACS estimate for the nation).

For county and state estimates (Figure 25), the ACS estimates are modeled using the various income and poverty variations. The models estimate trend relations between the ACS estimates and the combination of tax poverty, tax non-filers, SNAP participation, Census 2000 poverty (from census long-form) and other data. The resulting model predictions are averaged with the ACS estimates, on the basis of relative precision, in order to produce the SAIPE county and state estimates. The county and state models are run sequentially.

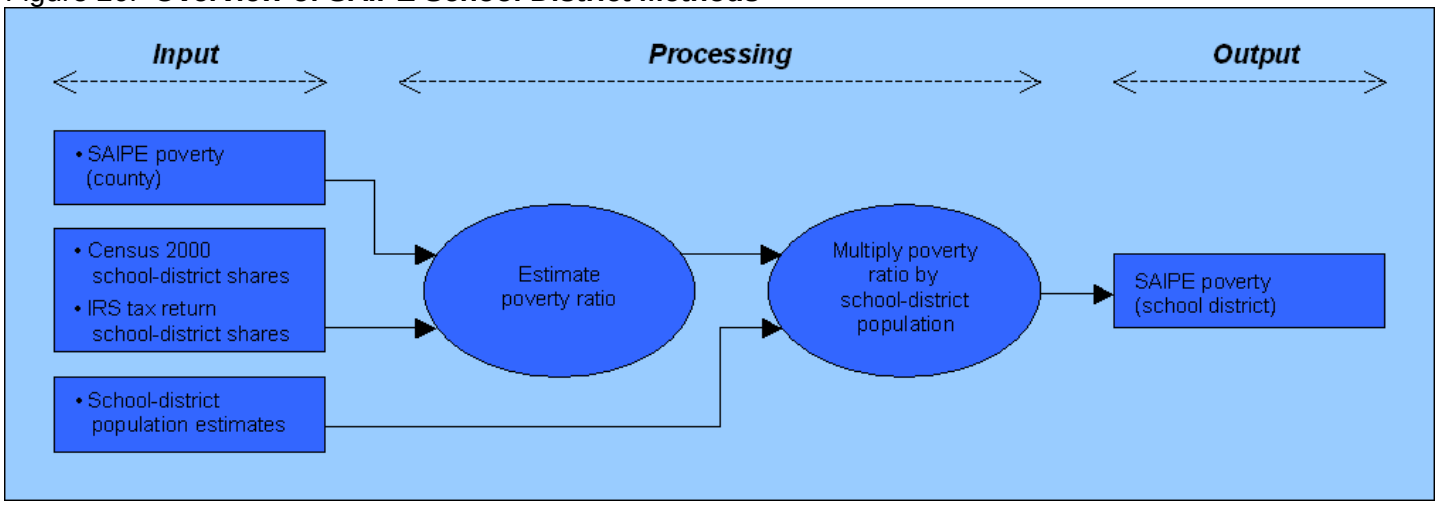
Figure 25. **Overview of SAIPE State and County Methods**



For school districts (Figure 26), within-county shares of poverty and population are computed from Census 2000 long-form data and the latest available IRS data. School district population estimates are produced by the Census Bureau's Population Division and are provided to SAIPE. The within-county Census 2000 and IRS shares are applied to the county poverty and population estimates in order to obtain estimated district poverty ratio. These poverty ratios are then applied to the school district population estimates in order to produce the SAIPE school district poverty estimates.[24]

[24] The income and poverty concepts measured by SAIPE are by definition the same as those measured by the ACS. These concepts, including the poverty thresholds applied, are described in detail at: http://www.census.gov/hhes/www/poverty/methods/definitions.html . For additional information on the SAIPE methodology including model details, see the SAIPE program's web site at: http://www.census.gov/did/www/saipe/methods/index.html.

Figure 26. **Overview of SAIPE School District Methods**



SAIPE Input Data

The 2009 SAIPE estimates incorporate information from several survey and administrative data sources.[25] These sources include the following:

- Income and poverty direct estimates from the American Community Survey (ACS).
- Income and poverty direct estimates from the Census 2000 sample data (commonly referred to as the long-form).
- Data summarized from federal individual income tax returns, stripped of any identifying information.
- Numbers of Supplemental Nutrition Assistance Program (SNAP) benefits recipients from the Food and Nutrition Service (FNS). SNAP is formerly known as the Food Stamp Program.
- Aggregated personal income estimates from the Bureau of Economic Analysis (BEA).
- Supplemental Security Income (SSI) recipients from the Social Security Administration (SSA)
- Postcensal population estimates by age and group quarters status from the Population Estimates Program. These are further adjusted to provide approximate denominators for poverty rates.

Use of ACS Data

The SAIPE estimates are based on data from the American Community Survey (ACS). The ACS is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data every year. ACS 1-year estimates are published annually for areas with population size 65,000 or larger; ACS 3-year estimates are published annually for areas with population size 20,000 or larger; and ACS 5-year estimates will soon be published annually for all counties and school districts, as well as for other small geographic areas (e.g., census tracts).[26]

[25] Information about each of these input data sources is available on the SAIPE program's web site at: http://www.census.gov/did/www/saipe/data/model/info/index.html.
[26] Documentation for the ACS is available online at: http://www.census.gov/acs/www/index.html.

Other Census Bureau Income and Poverty Data Sources

SAIPE is one of several sources of income and poverty data available from the Census Bureau. Other sources include: Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC); American Community Survey (ACS); Survey of Income and Program Participation (SIPP); and Census 2000 long-form. Each of these sources differs from the others in some ways, such as the length and detail of its questionnaire, the number of households included (sample size), and the methodology used to collect and process the data. It is important to understand that different surveys and methods, which are designed to meet different needs, produce different results.

Because of its detailed questionnaire, the CPS ASEC is the source of timely official national estimates of poverty levels and rates and of widely used estimates of household income and individual earnings, as well as the distribution of that income. The CPS ASEC provides a consistent historical time series beginning in 1959 at the national level and can also be used to look at state-level trends and differences (through multi-year averages) beginning in 1980.

Since 2006, the ACS releases annual subnational estimates of income and poverty for all places, counties, and metropolitan statistical areas with a population of at least 65,000 as well as for states and for the nation. The sample size of the ACS is about three million addresses per year, making this survey exceptionally useful for subnational analyses. Three-year ACS estimates were made available starting in 2008 for areas and subpopulations as small as 20,000. Five-year ACS estimates will be available for census tracts/block groups and for small subgroups of the population starting in 2010.

The SIPP is most useful for understanding the dynamics of income and poverty (changes in income and poverty rates for the same households over three or four years) and for examining the nature and frequency of poverty spells. The SIPP also permits researchers to look at monthly or quarterly changes in income and poverty.

The Decennial Census long-form estimates offer the best measure of change between 1990 and 2000 for subnational areas and for subpopulations. Since the ACS replaces the long-form, the 2010 Census will not provide income and poverty estimates. When released in 2010, ACS 5-year estimates will provide data at the census tract level which will be comparable to earlier decennial census estimates.

Further descriptions of these data sources, including guidance on which sources to use for which purposes, are included on the Census Bureau's Poverty web site, at http://www.census.gov/hhes/www/poverty/about/datasources/index.html.

The SAIPE program uses the 1-year ACS estimates (including unpublished estimates) in its model-fitting for counties and states. The SAIPE estimates are typically released slightly later than the 1-year ACS estimates because their models use the latest release of 1-year ACS data.

The ACS contribution to the SAIPE estimates for individual counties is often substantial, particularly for counties with population size 65,000 or larger. For the largest counties in the U.S, the ACS often contributes over 90 percent of the SAIPE estimate. The SAIPE estimates for such counties are likely very similar to the ACS direct estimates and their variances. For states, the benefits of modeling vary by state. For states with large populations, the SAIPE estimates and their variances tend to be very close to the corresponding ACS direct estimates and variances. For states with small populations, the SAIPE estimates tend to have lower variances than the ACS direct estimates, and may be different from the ACS direct estimates.

Of the 3,143 counties, there are 792 counties with population size 65,000 or more as of August 2010 (Appendix 4). These are the counties for which 1-year ACS estimates are available. Similarly, of the 13,619 school districts in 2009, there are 942 school districts with population size 65,000 or more, and these are the school districts for which 1-year ACS estimates are available. For the other 2,351 counties and 12,677 school districts, ACS provides 3-year or 5-year estimates. SAIPE, in contrast, provides income and poverty estimates each year for all school districts and counties based on a single year of ACS data and other related data.

Even with the very large national sample of the ACS, the ACS sample in individual geographic areas with small population size is typically small (with resulting high variance) for a single year of data collection. As a result, 1-year ACS estimates are not published for all small geographic areas. The construction of multi-year estimates from ACS data, or the construction of model-based estimates by SAIPE, are two different approaches that produce estimates with lower variances than those of the 1-year direct ACS estimates. Each approach has relative advantages and limitations, and either can be appropriate depending on the situation and the interests of the data user.[27]

SAIPE Models

The county and state models both follow the general form suggested by Fay and Herriot (1979). The county models fit logarithmic (log) poverty levels and log median household income to log-level predictors, while the state models fit linear poverty ratios and linear median household income to linear-ratio and linear-level predictors. The regression models are postulated for the true, unobserved poverty ratios and median household income. They are fitted to the direct ACS estimates allowing for the sampling errors in the data. The sampling error variances are estimated directly using successive difference replication (Fay and Train, 1995) and are assumed known during the model estimation. The county and state models are run sequentially.

County model estimation is run via an iterated weighted least-squares algorithm, with iterations between estimates of the model error variance and estimates of the regression coefficients. The observation weights are the inverse of the log total error variance (i.e., the sum of the sampling and model variances). Single-year ACS estimates for all counties, both published and unpublished, are used in the model fitting. For some counties with small samples, the estimate of the number in poverty is zero by random chance. Since the log of zero is undefined, logs cannot be taken of these estimates, and such counties are excluded from the model fitting. After model estimation, empirical Bayes techniques combine the regression predictions and the direct survey estimates on the basis of their relative precision to produce "shrinkage" estimates.

State estimation is run using a Bayesian approach. The model error variance for each age-group (or median household income) is estimated as its posterior mean in the course of fitting the models to the ACS direct poverty ratio estimates. The Bayesian approach averages the shrinkage estimates computed over a plausible range of values of the model error variance, weighting the results for each of these values according to the posterior (conditional on the data) probability distribution of the model error variance developed from the Bayesian calculations. The estimation uses prior distributions which are uniformly distributed (often called "noninformative" or "flat" priors) for all model parameters.

At the school district level, the latest available IRS within-county shares of poverty and population are combined with the corresponding Census 2000 within-county shares in order to obtain updated estimates of the within-county distributions of poverty and population. The IRS shares receive more or less influence depending on the number of tax returns that can be allocated within the larger county areas. The combined within-county shares of poverty and population are then multiplied by the corresponding county values in order to create preliminary school district poverty and population totals. The ratio of the preliminary poverty total to the preliminary population total is computed. These poverty ratios are then applied to the latest Census Bureau school district population estimates in order to obtain the SAIPE school district poverty estimates. The school district poverty estimates are then "control-rounded" in order to produce whole numbers while preserving the school district sums at the county level.[28]

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[27] Explicit guidance on when to use SAIPE estimates, ACS direct estimates, or other data sources is available at: http://www.census.gov/hhes/www/poverty/about/datasources/description.html.
[28] Further documentation is also available online at: http://www.census.gov/did/www/saipe/methods/index.html.

References

Fay, Robert E., III, and Roger A. Herriot. "Estimates of Income for Small Places: An Application of James-Stein Procedures to Census Data." Journal of the American Statistical Association. Vol. 74, No. 366 (Jun., 1979), pp. 269-277.

Fay, Robert E., III, and George F. Train. "Aspects of Survey and Model-Based Postcensal Estimation of Income and Poverty Characteristics for States and Counties." 1995 Proceedings from the American Statistical Association. Available on the World Wide Web, <http://www.census.gov/did/www/saipe/publications/files/FayTrain95.pdf>

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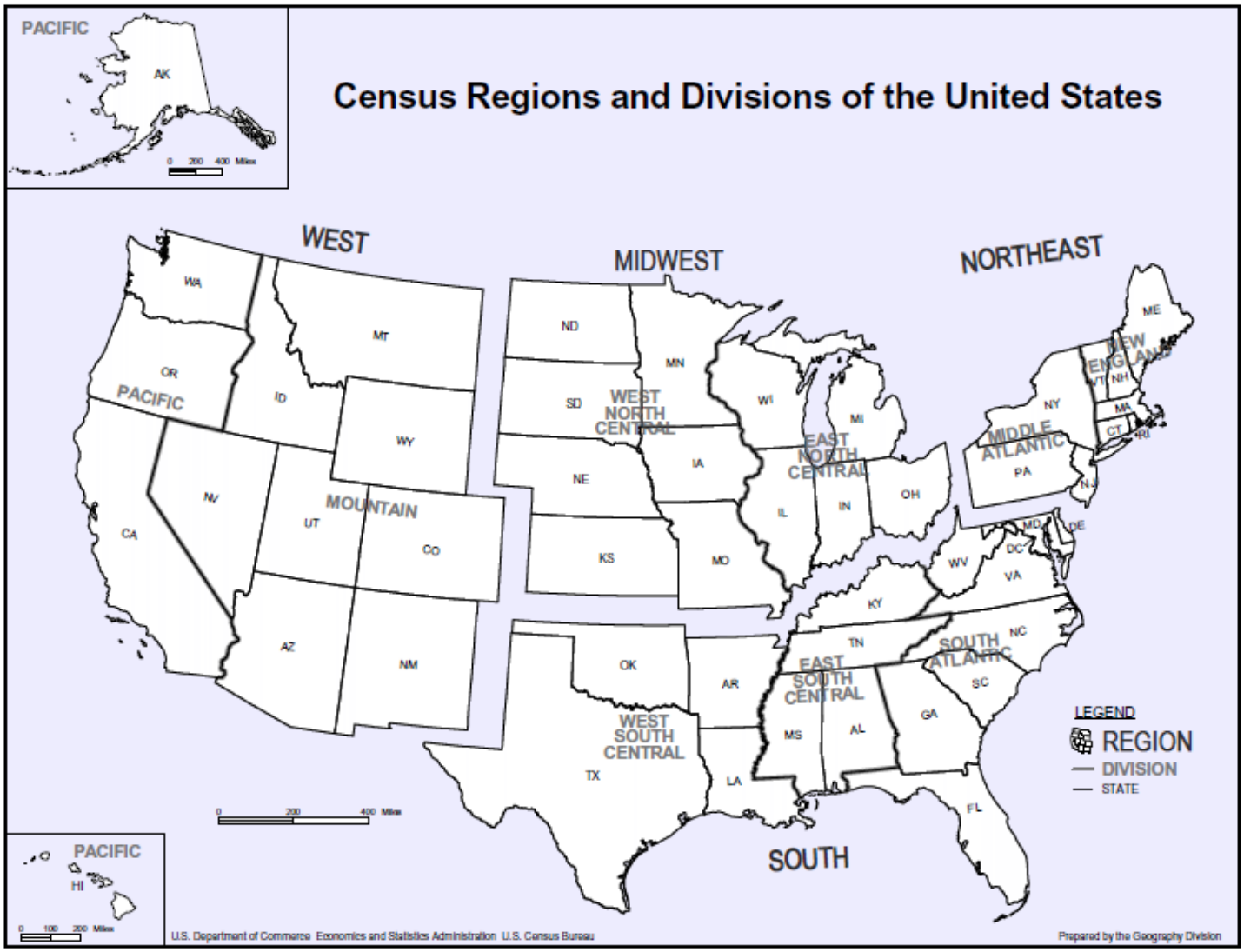
Contact

For questions related to the contents of this document, including the SAIPE program's estimates and methodology, contact the Small Area Estimates Branch at: (301) 763-3193 or hhes.saipe@census.gov.

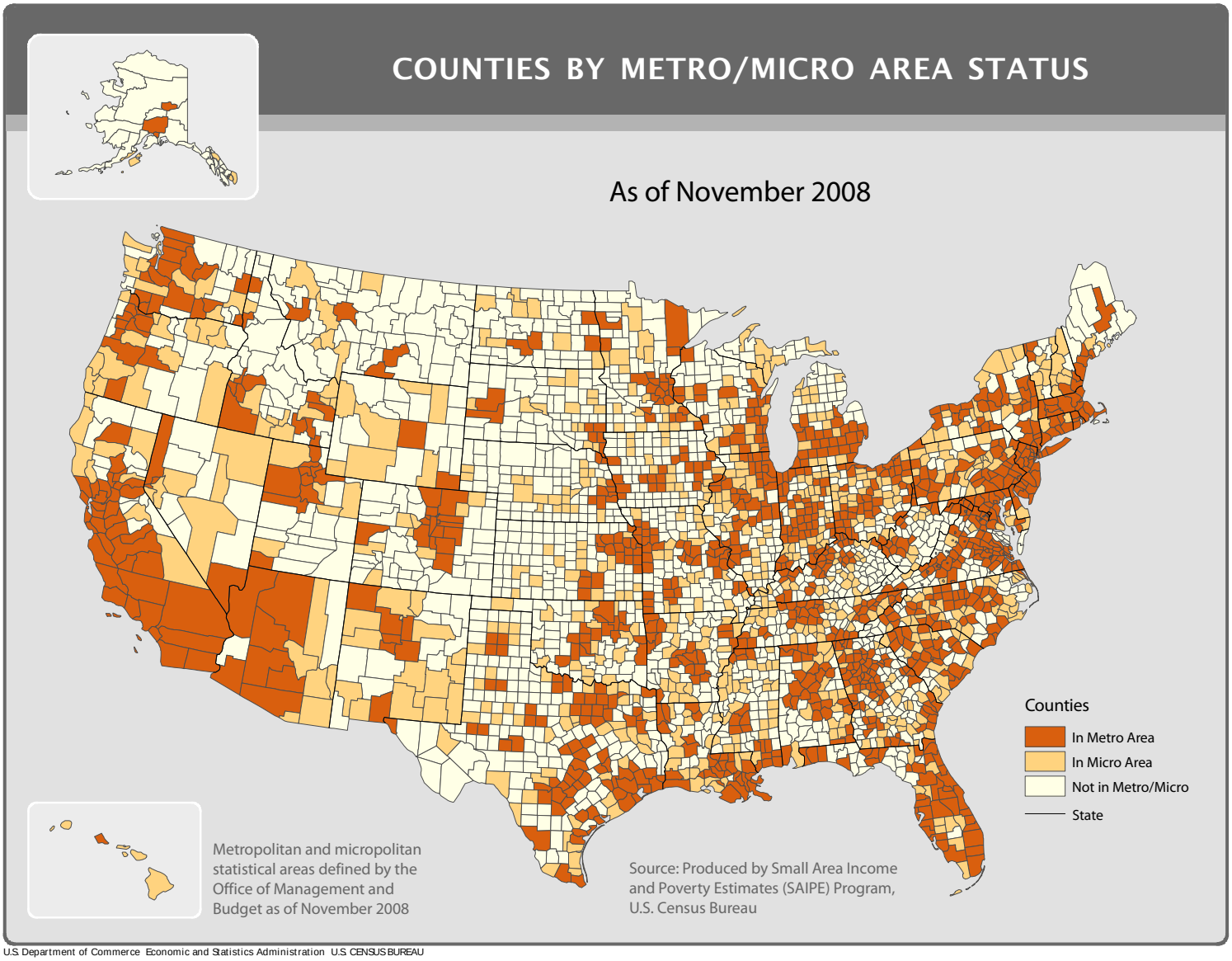
For questions related to income and poverty definitions, the American Community Survey, or other Census Bureau surveys, contact the Demographic Call Center Staff at 1-800-923-8282 (toll free) or visit ask.census.gov for further information.

Appendix

Appendix 1:



Appendix 2.


COUNTIES BY METRO/MICRO AREA STATUS
As of November 2008
Counties
In Metro Area
In Micro Area
Not in Metro/Micro
State
Metropolitan and micropolitan statistical areas defined by the Office of Management and Budget as of November 2008
Source: Produced by Small Area Income and Poverty Estimates (SAIPE) Program, U.S. Census Bureau
U.S. Department of Commerce Economic and Statistics Administration U.S. CENSUS BUREAU

Appendix 3. **Supplemental Information for School Districts**

School District Grade Relevance and Boundary Updates

Grade relevance refers to the grades serves by school districts in a particular geographic area. For example, one district may provide secondary education for grades 9 to 12, while another district in the same geographic area may provide elementary education for grades Kindergarten through 8. These two districts thus occupy the same territory and can be said to have overlapping boundaries. In the SAIPE program's computations, each child is assigned to a specific grade and counted among either the secondary or elementary school-age population in that area. This is done based on the child's age in the decennial census and the updated grade spans of the secondary and elementary districts. In the above example of 9-12 and K-8 grade ranges, the relevant children ages 5 to 17 in the secondary district are the subset of child ages 14 to 17, and the relevant children ages 5 to 17 in the elementary district are the subset of children ages 5 to 13.

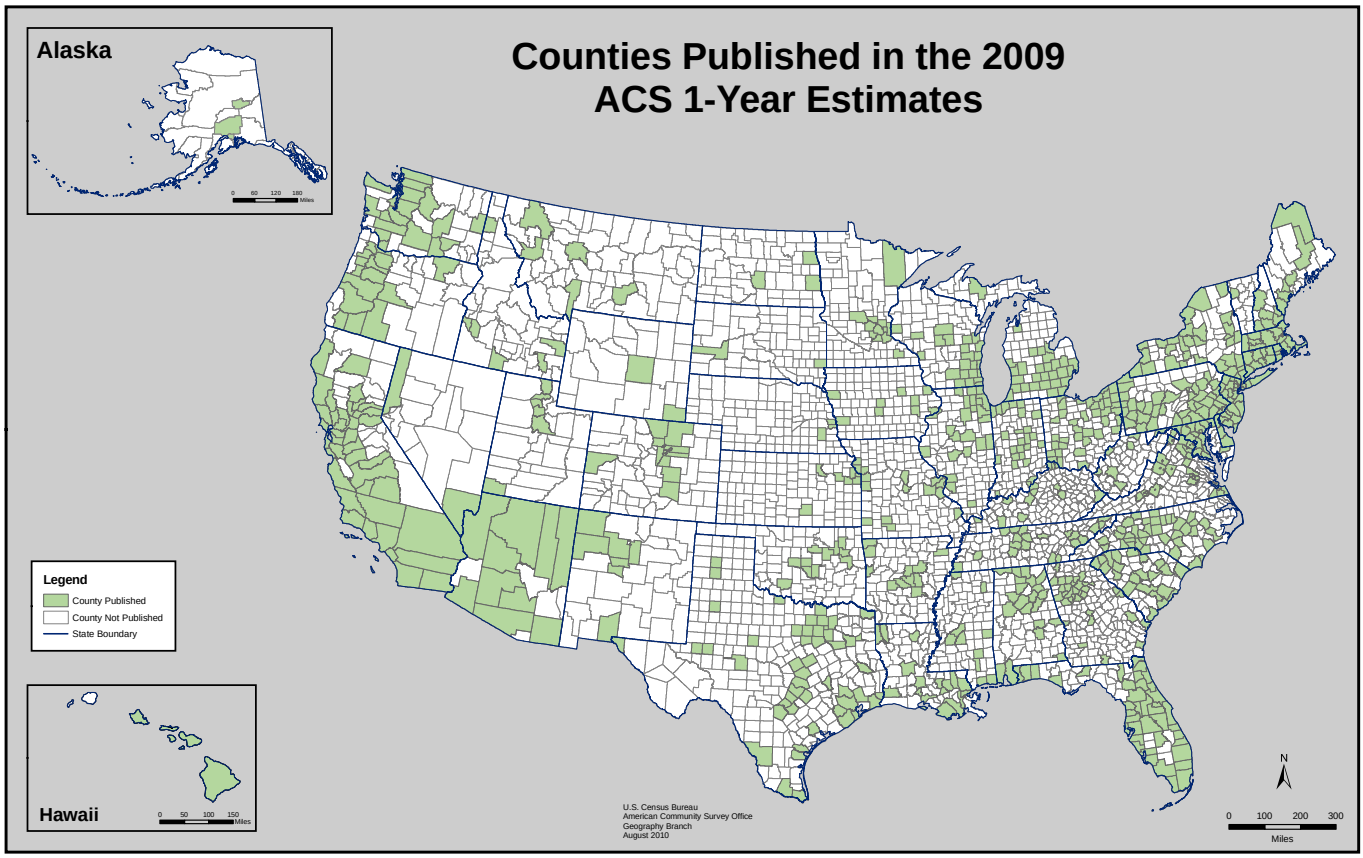
Grade spans and boundaries of school districts are updated through the Census Bureau's school district boundary review, known as the School District Review Program (SDRP). Specifically, the SDRP identifies new districts and districts no longer in existence, collects boundary changes to existing school districts, and collects other administrative information, such as the grade range for which each district is financially responsible. Further information is available at: http://www.census.gov/geo/www/schdist/sch_dist.html.

Comparing SAIPE Estimates to Means-Tested Government Programs

Many government programs use the poverty guidelines to establish income eligibility for benefit programs that are above the official poverty thresholds used by SAIPE. The 2009 poverty threshold for a family of four was $25,211 (100%). The poverty guidelines, a simplified version of the poverty thresholds, are issued each year by the Department of Health and Human Services (HHS).[29] For example, income eligibility for the Supplemental Nutrition Assistance Program (SNAP) is generally income less than 130% of the poverty guideline. The Free and Reduced-Price Lunch (FRPL) program uses the same 130% of the poverty guideline for free lunch and 185% of the poverty guidelines for reduced price lunch. A family of four would need an annual income lower than $28,665 to be eligible for SNAP or free lunch and the same family would need an annual income lower than $40,793 to be eligible for reduced price lunch.[30]

[29] For more information about poverty guidelines including how they differ from poverty thresholds used by the U.S. Census Bureau, see http://aspe.hhs.gov/poverty/10poverty.shtml.
[30] Poverty guidelines are higher for Alaska and Hawaii.

Appendix 4.


Counties Published in the 2009
ACS 1-Year Estimates
Alaska
Hawaii
Legend
County Published
County Not Published
State Boundary
U.S. Census Bureau
American Community Survey Office
Geography Branch
August 2010
N
0 100 200 300
Miles