

**THE APPALACHIAN REGION:
A DATA OVERVIEW FROM THE
2017-2021 AMERICAN COMMUNITY SURVEY
Chartbook**

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FOREWORD

The data contained in this Chartbook describe how residents in the Appalachian Region were faring before and during the initial 22 months of the COVID-19 pandemic that began in March 2020. As such, these numbers do not measure the social and economic impact of the outbreak beyond 2020 and 2021. As data from the pandemic and post-pandemic period are released in the coming years, these figures can serve as a point of comparison that ultimately can enable data users to better measure the pandemic's effect on Appalachia's social and economic dynamics.

Most of the data come from the 2017-2021 American Community Survey. While the types of demographic and housing data included in Chapters 1 through 4 were also collected in the 2010 and 2020 decennial censuses, the types of social and economic data included in Chapters 5 through 12 were not. This is because unlike previous censuses—which consisted of a “short form” of basic demographic and housing questions and a “long form” (used for a sample of households) that also asked detailed questions about social, economic, and housing characteristics—the 2010 and 2020 censuses only had a short form.

The decennial long form has been replaced by the American Community Survey (ACS), a nationwide study collected continuously every year in every county in the United States. The ACS is designed to provide communities with reliable and timely demographic, social, economic, and housing data each year. However, the annual sample size of the ACS is much smaller than the sample size of the decennial census long form; therefore, data from five years must be combined to provide reliable estimates for geographic areas with fewer than 20,000 people. Since many counties in the Appalachian Region have fewer than 20,000 residents, we must use the 2017-2021 ACS data to have comparable statistics for all 423 counties in the Region.

The ACS five-year estimates for 2017-2021 represent concepts that are fundamentally different from those associated with data from the decennial census. While the main function of the census is to provide *counts* of people for congressional apportionment and legislative redistricting, the primary purpose of the ACS is to measure the changing *characteristics* of the U.S. population. Moreover, while the decennial census provides a “snapshot” of the U.S. population once every 10 years, the ACS has been described as a “moving video image” that is continually updated. Finally, while the census provides “point in time” estimates designed to approximate an area's characteristics on a specific date, the ACS provides “period” estimates that represent data collected over a period of time. The five-year estimates in this Chartbook, therefore, are data collected over the five-year (or 60-month) period from January 2017 through December 2021. These ACS estimates are *not* averages of monthly or annual values, but rather an *aggregation* of data collected over the five-year period.

For areas with consistent population characteristics throughout the calendar year, ACS period estimates might not differ much from those that would result from a point-in-time survey like the decennial census. However, ACS period estimates might be noticeably different from point-in-time estimates for areas with seasonal populations or those that experience a natural disaster such as a hurricane. For example, a resort community in the upper Midwest might be dominated by locals in the winter months and by temporary workers and tourists in the summer months, with a corresponding decrease in employment rates during the winter and increase in these rates during the summer. In such a community, the ACS period estimate of the percent of persons in the labor force, which is based on data across the entire calendar year, would likely be higher than a decennial census point-in-time estimate from April 1.

And with two non-overlapping five-year periods (2017-2021 and 2012-2016), we can study trends in the data. However, the Census Bureau recommends caution in some instances, due to the changes in question wording and the coding of responses—such as changes in some of the age categories reported in the questions for health insurance coverage. And in some years, the ACS has added or removed certain questions. For example, the ACS added questions on computer and Internet access in 2013. As a result, 2012-2016 data for these items are not available to measure trends. And for the 2017-2021 ACS, the Census Bureau refined its methodology to minimize the effect of nonresponse bias on the data collected in 2020 due to the COVID-19 pandemic. More information about comparing the 2012-2016 and 2017-2021 ACS data is available on the Web page, ["Comparing 2012-2016 ACS 5-year and 2017-2021 ACS 5-year"](#), through the Census Bureau's website.

While ACS five-year data are needed to provide reliable estimates for areas with small populations, they can make it difficult to track trends in these areas. The 2017-2021 ACS data illustrate this problem, as they are for a time period that covers two distinct periods of economic activity: the three years and two months prior to the outbreak of the COVID-19 pandemic in the United States (January 2017 through February 2020), and the first year and 10

months after the pandemic hit (March 2020 through December 2021). Since the 2017-2021 ACS pools data from both periods, it will smooth out the extreme variations in the social and economic measures that would be evident in annual data from this five-year period.

The data in Chapters 1 through 3 come not from the ACS, but instead from the postcensal population estimates from the Census Bureau's Population Division. Every year, the Census Bureau produces July 1 estimates for years following the most recent decennial census, using current data on births, deaths, and migration. These estimates, which the Census Bureau revises and updates every year, are available for every U.S. county by age, sex, race, and Hispanic origin. And not only are the Population Estimates data more timely than the five-year ACS estimates, they also are considered the official population estimates for the geographic areas shown in this Chartbook. In fact, the data from the Population Estimates Program serve as the control totals for the ACS estimates. We should note that as a result of the delayed availability of 2020 Census data (due to the pandemic and use of new disclosure avoidance methods), the Census Bureau's Vintage 2021 estimates are derived from a "blended" April 1, 2020 estimates base. This "blended base" is based on the 2010 Census and controlled to elements from various data sources, including the 2020 Census. More information on the Vintage 2021 estimates is available on the Web page, ["Methodology Updates for the Vintage 2021 Estimates"](#) through the Census Bureau's website.

This year's Chartbook includes two appendices. Appendix A uses selected demographic and socioeconomic measures to provide an overview comparing rural Appalachia (defined here as nonmetropolitan counties not adjacent to any metropolitan area) to rural areas outside the Appalachian Region. (It also includes a map showing the location of these rural counties.) Appendix B contains two reference maps—one of the five Appalachian subregions, and one of the five rural-urban county types. Both the subregions and county types are referenced throughout the report.

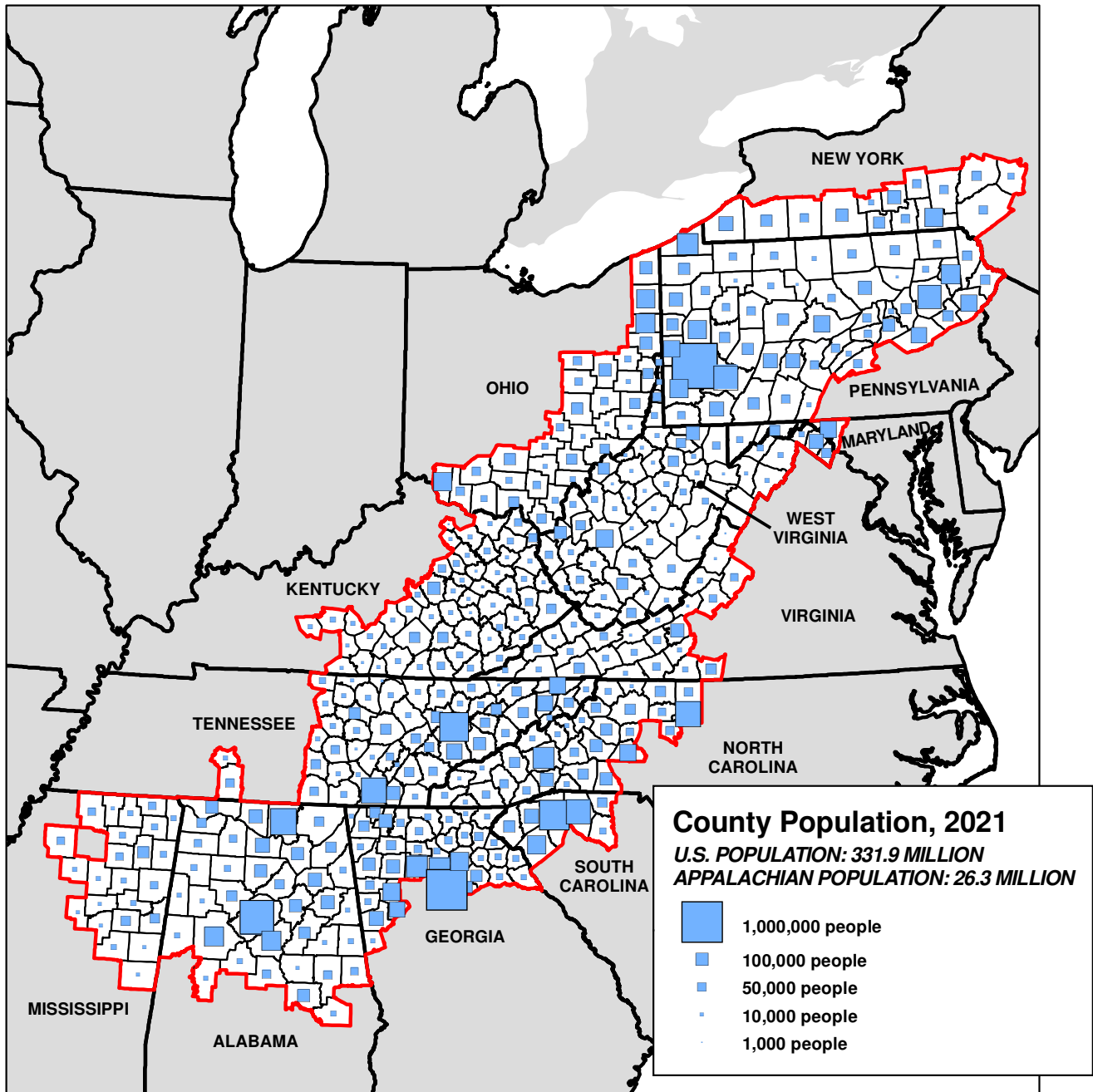
CHAPTER 1: POPULATION BASICS

Table 1.1: Population, Land Area, and Population Density in the Appalachian Region, July 1, 2021

Population, Land Area, and Density	Population, July 1, 2021	Change Since July 1, 2010		Land Area (Square Miles)	Population per Square Mile of Land Area, July 1, 2021
		Number	Percent		
United States	331,893,745	+ 22,566,602	+ 7.3	3,533,038	93.9
Appalachian Region	26,289,466	+ 744,897	+ 2.9	205,840	127.7
Subregions					
Northern Appalachia	8,050,226	- 201,647	- 2.4	56,396	142.7
North Central Appalachia	2,490,303	- 67,471	- 2.6	29,923	83.2
Central Appalachia	1,855,209	- 64,606	- 3.4	29,773	62.3
South Central Appalachia	5,243,331	+ 268,307	+ 5.4	35,866	146.2
Southern Appalachia	8,650,397	+ 810,314	+ 10.3	53,883	160.5
County Types					
Large Metros (pop. 1 million +)	6,312,684	+ 458,851	+ 7.8	18,817	335.5
Small Metros (pop. <1 million)	11,269,895	+ 443,792	+ 4.1	55,213	204.1
Nonmetro, Adjacent to Large Metros	2,308,850	- 5,029	- 0.2	25,847	89.3
Nonmetro, Adjacent to Small Metros	3,931,782	- 63,239	- 1.6	58,598	67.1
Rural (nonmetro, not adj. to a metro)	2,466,255	- 89,478	- 3.5	47,364	52.1
Alabama	5,039,877	+ 254,363	+ 5.3	50,647	99.5
Appalachian Alabama	3,248,852	+ 181,223	+ 5.9	25,763	126.1
Non-Appalachian Alabama	1,791,025	+ 73,140	+ 4.3	24,884	72.0
Georgia	10,799,566	+ 1,087,357	+ 11.2	57,717	187.1
Appalachian Georgia	3,421,148	+ 480,337	+ 16.3	11,380	300.6
Non-Appalachian Georgia	7,378,418	+ 607,020	+ 9.0	46,337	159.2
Kentucky	4,509,394	+ 160,930	+ 3.7	39,492	114.2
Appalachian Kentucky	1,164,198	- 21,555	- 1.8	18,230	63.9
Non-Appalachian Kentucky	3,345,196	+ 182,485	+ 5.8	21,261	157.3
Maryland	6,165,129	+ 376,345	+ 6.5	9,711	634.9
Appalachian Maryland	251,368	- 1,471	- 0.6	1,529	164.4
Non-Appalachian Maryland	5,913,761	+ 377,816	+ 6.8	8,182	722.8
Mississippi	2,949,965	- 20,650	- 0.7	46,924	62.9
Appalachian Mississippi	609,291	- 19,659	- 3.1	12,401	49.1
Non-Appalachian Mississippi	2,340,674	- 991	+ 0.0	34,523	67.8
New York	19,835,913	+ 435,957	+ 2.2	47,124	420.9
Appalachian New York	1,018,678	- 47,188	- 4.4	11,682	87.2
Non-Appalachian New York	18,817,235	+ 483,145	+ 2.6	35,442	530.9
North Carolina	10,551,162	+ 976,576	+ 10.2	48,623	217.0
Appalachian North Carolina	2,036,231	+ 83,823	+ 4.3	12,752	159.7
Non-Appalachian North Carolina	8,514,931	+ 892,753	+ 11.7	35,871	237.4
Ohio	11,780,017	+ 240,568	+ 2.1	40,859	288.3
Appalachian Ohio	1,978,242	- 63,812	- 3.1	15,978	123.8
Non-Appalachian Ohio	9,801,775	+ 304,380	+ 3.2	24,881	393.9
Pennsylvania	12,964,056	+ 252,650	+ 2.0	44,742	289.8
Appalachian Pennsylvania	5,683,546	- 109,169	- 1.9	36,443	156.0
Non-Appalachian Pennsylvania	7,280,510	+ 361,819	+ 5.2	8,299	877.3
South Carolina	5,190,705	+ 554,859	+ 12.0	30,064	172.7
Appalachian South Carolina	1,371,106	+ 168,413	+ 14.0	4,338	316.1
Non-Appalachian South Carolina	3,819,599	+ 386,446	+ 11.3	25,726	148.5
Tennessee	6,975,218	+ 619,700	+ 9.8	41,232	169.2
Appalachian Tennessee	2,991,772	+ 203,409	+ 7.3	20,123	148.7
Non-Appalachian Tennessee	3,983,446	+ 416,291	+ 11.7	21,110	188.7
Virginia	8,642,274	+ 618,270	+ 7.7	39,482	218.9
Appalachian Virginia	732,075	- 38,148	- 5.0	11,180	65.5
Non-Appalachian Virginia	7,910,199	+ 656,418	+ 9.0	28,302	279.5
West Virginia (entire state)	1,782,959	- 71,306	- 3.8	24,041	74.2

Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.

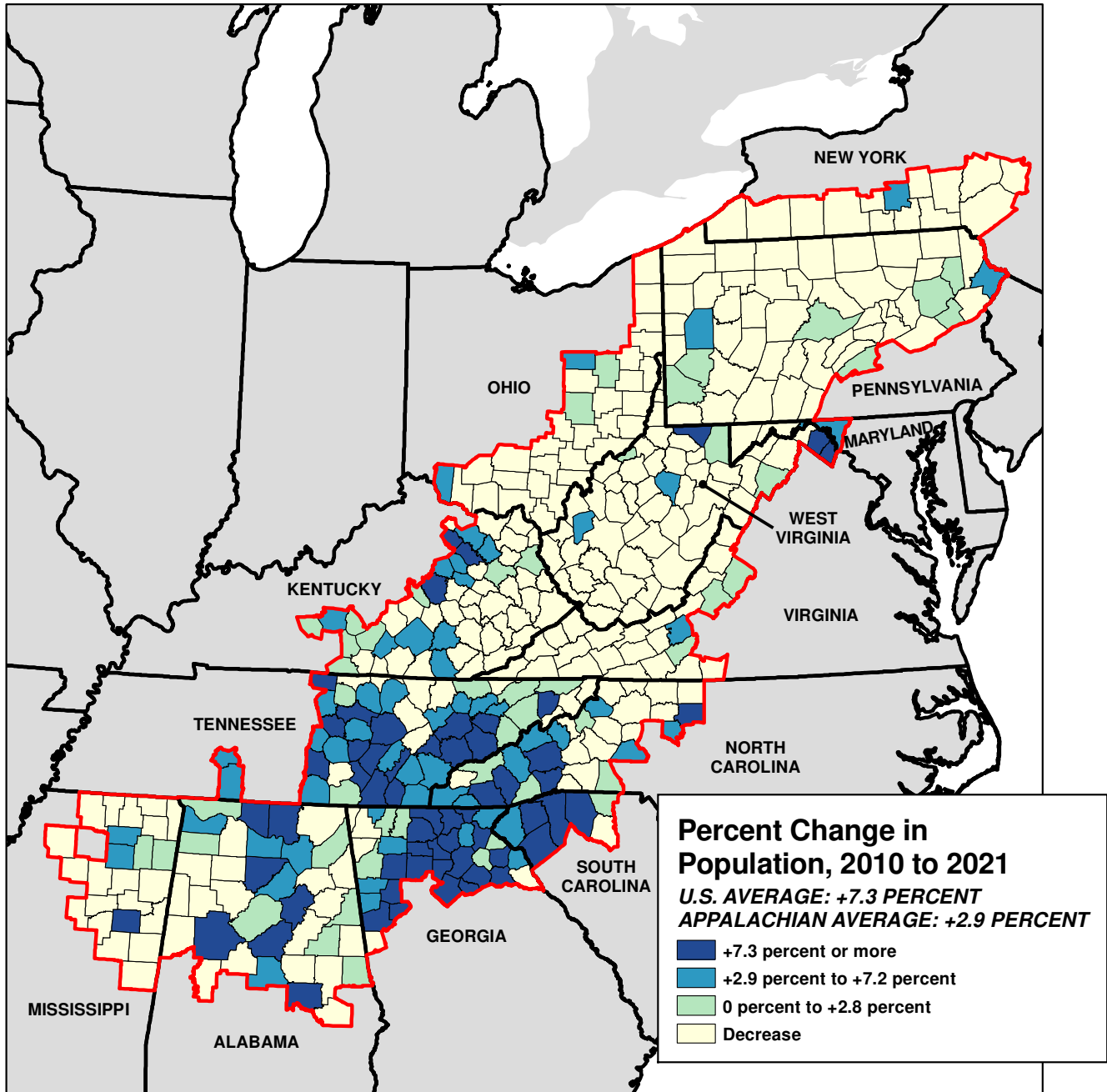
Figure 1.1: Population Distribution in the Appalachian Region, July 1, 2021



Map Title: Population Distribution in the Appalachian Region, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

Of the 331.9 million persons in the United States as of July 1, 2021, 26.3 million lived in the Appalachian Region—nearly 745,000 more than on July 1, 2010. Yet the population of the Region’s 423 counties varied greatly. On one hand, two-thirds of the counties had populations of fewer than 50,000 people, and 129 counties had fewer than 20,000 residents. On the other hand, pockets of the Appalachian population lived in large and mid-sized metropolitan areas, including Pittsburgh, Birmingham, and the Atlanta suburbs. Allegheny County, Pennsylvania (where Pittsburgh is located) had more than 1.2 million residents in 2021.

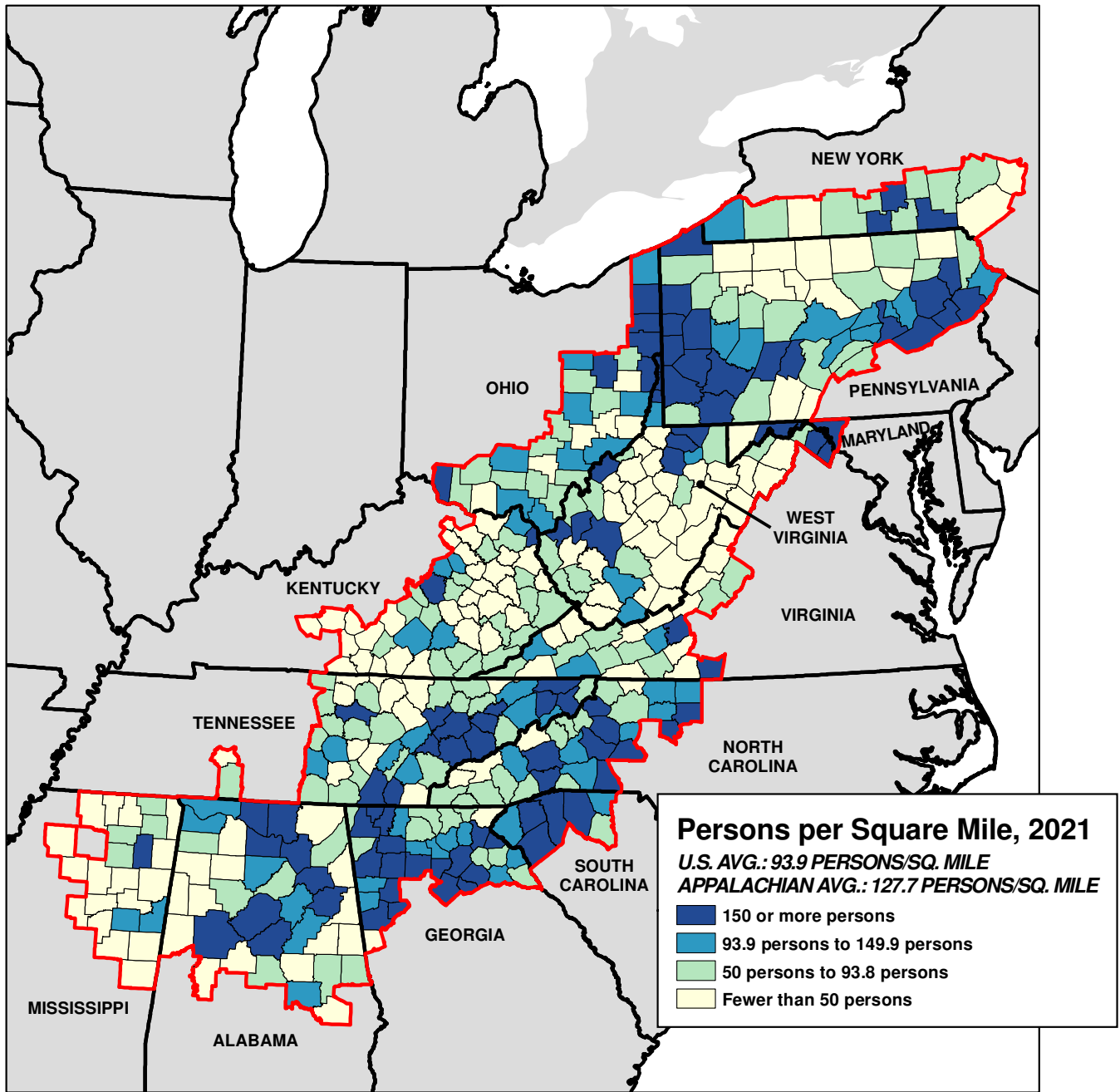
Figure 1.2: Population Change in the Appalachian Region, July 1, 2010 to July 1, 2021



Map Title: Population Change in the Appalachian Region, July 1, 2010 to July 1, 2021
 Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.

While the Appalachian Region’s population grew by 2.9 percent between 2010 and 2021, this growth was less than half the national average of 7.3 percent. Demographic change in this decade has been even slower in much of Appalachia—in fact, the Appalachian sections of eight states (including all of West Virginia) have lost population since mid-2010. Those eight states had 206 of the 255 Appalachian counties that lost residents since 2010. On the other hand, at 10.3 percent, population growth in Southern Appalachia exceeded the national average. Of the 60 counties where population grew at or above the national rate, 53 were in the five Southern states (Alabama, Georgia, the Carolinas, and Tennessee) whose Appalachian sections gained population. Population growth was particularly high in the Appalachian parts of Georgia and South Carolina, with increases of 16.3 percent and 14 percent, respectively. Many Southern Appalachian counties that house four-year colleges and universities—such as Greenville County, South Carolina (Furman University); Tuscaloosa County, Alabama (University of Alabama); and Buncombe County, North Carolina (University of North Carolina Asheville)—also experienced rapid growth since 2010.

Figure 1.3: Population per Square Mile of Land Area in the Appalachian Region, July 1, 2021



Map Title: Population per Square Mile of Land Area in the Appalachian Region, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

While Appalachia’s population density was noticeably greater than the United States as a whole in 2021, less than two-fifths of the Region’s counties had population concentrations at or above the national average. Most of the high-density counties were in metropolitan areas, both large (Pittsburgh, suburban Atlanta) and small (Knoxville, Tennessee; Winston-Salem, North Carolina; Chattanooga, Tennessee; Greenville, South Carolina).

BASIC POPULATION TRENDS

- Appalachia had a population of 26.3 million in 2021—nearly 745,000 more residents than it had in mid-2010 (see Table 1.1). However, compared with the United States growth rate of 7.3 percent, growth in the Region has been slow at just under 3 percent.
- Most of Appalachia, in fact, has lost population since 2010. West Virginia and the Appalachian portions of seven other states had fewer residents in 2021 than they did 11 years earlier. In five of those states— Mississippi, New York, Ohio, Virginia, and West Virginia—the population loss was at least 3 percent. Appalachian counties outside metropolitan areas also lost people between 2010 and 2021—indeed, 182 of the 269 counties classified in one of the three nonmetropolitan county types suffered population declines. And as a group, the most rural Appalachian counties lost 3.5 percent of their 2010 population. In many counties, post-2010 population losses have continued longstanding demographic trends going back several decades.
- In contrast to the other three subregions, South Central and Southern Appalachia added residents between 2010 and 2021. Population growth in Southern Appalachia, in fact, was 10.3 percent—a full three percentage points above the national rate. The five states whose Appalachian sections have grown since 2010 were all in the South—Alabama, Georgia, North Carolina, South Carolina, and Tennessee. Georgia’s and South Carolina’s Appalachian sections have grown especially rapidly since 2010, with increases at or above 14 percent in each case.
- Several possible factors account for the rapid growth in some parts of Appalachia. For example, slightly more than half of the 60 counties where post-2010 growth exceeded the national average have been classified as “retirement destination” counties by the Economic Research Service (ERS) of the U.S. Department of Agriculture. Many high-growth areas also benefit from being part of a major research university, such as the University of Alabama in Huntsville (UAH) and Alabama A&M, both in Madison County, Alabama; or Furman University in Greenville County, South Carolina. Yet the most impactful single factor may well be a diversified economy. Of the 60 rapid-growth Appalachian counties, 37 are part of metropolitan areas, and 28 (including 22 of the 37 in metros) have been classified as “nonspecialized” by ERS—meaning that they weren’t dependent on a single economic sector.

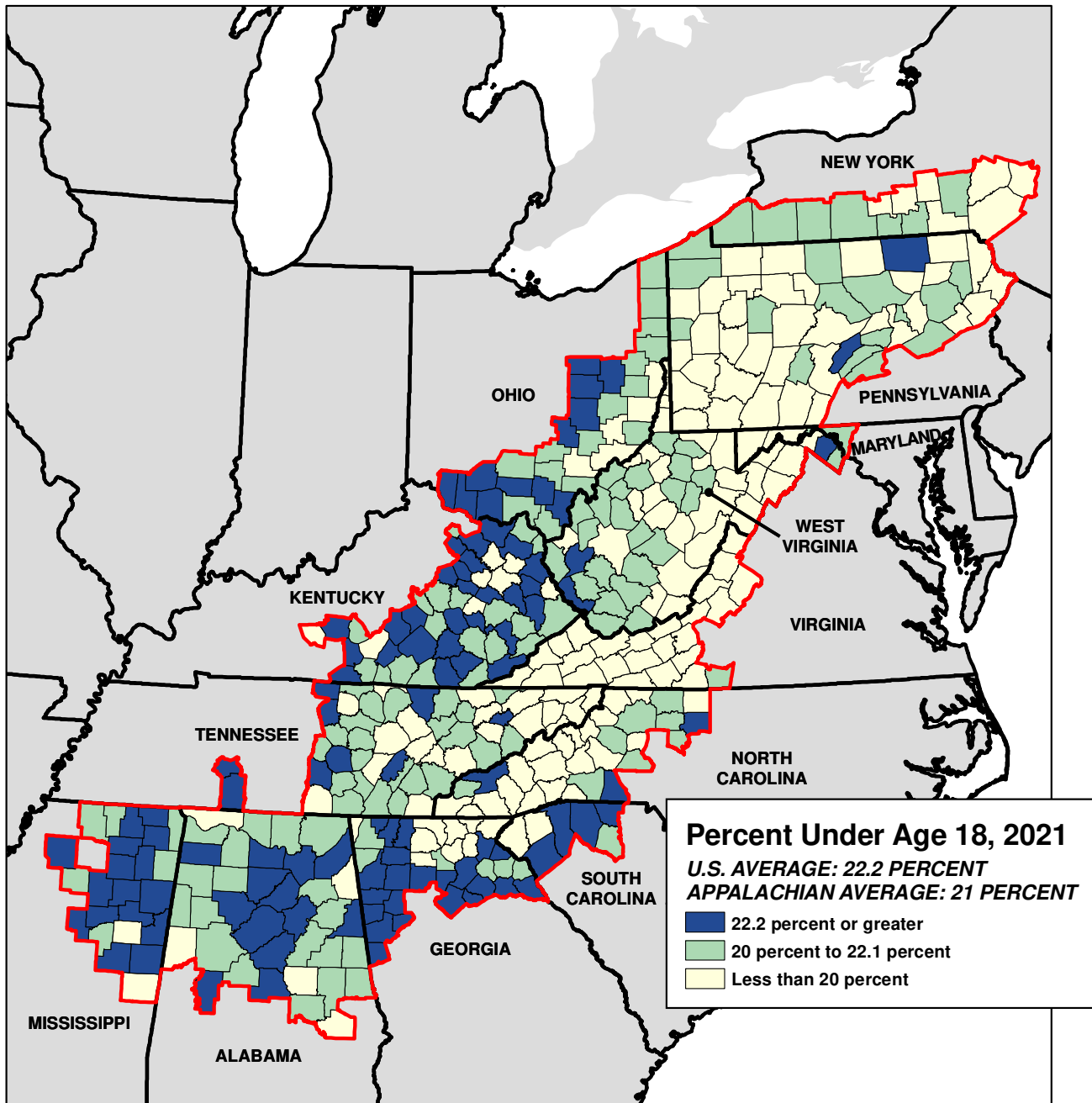
CHAPTER 2: AGE

Table 2.1: Population in the Appalachian Region by Age Group, July 1, 2021

Population by Age Group	Total Population, July 1, 2021	Percent of Population				Median Age (Years)
		Under Age 18	Ages 18-24	Ages 25-64	Ages 65 and over	
United States	331,893,745	22.2	9.1	51.9	16.8	38.8
Appalachian Region	26,289,466	21.0	9.0	50.9	19.1	41.3
Subregions						
Northern Appalachia	8,050,226	19.6	9.2	50.5	20.7	42.7
North Central Appalachia	2,490,303	20.6	8.9	50.6	19.9	42.1
Central Appalachia	1,855,209	21.4	8.2	50.9	19.5	42.2
South Central Appalachia	5,243,331	19.9	9.1	50.6	20.5	42.6
Southern Appalachia	8,650,397	23.1	9.1	51.5	16.3	39.0
County Types						
Large Metros (pop. 1 million +)	6,312,684	22.1	8.3	52.5	17.0	40.0
Small Metros (pop. <1 million)	11,269,895	20.6	9.6	50.8	19.0	41.0
Nonmetro, Adjacent to Large Metros	2,308,850	21.2	9.1	50.1	19.7	41.9
Nonmetro, Adjacent to Small Metros	3,931,782	20.4	8.3	50.0	21.3	43.7
Rural (nonmetro, not adj. to a metro)	2,466,255	20.9	9.2	49.6	20.4	42.3
Alabama	5,039,877	22.3	9.1	51.0	17.6	39.6
Appalachian Alabama	3,248,852	22.1	8.9	51.5	17.5	39.7
Non-Appalachian Alabama	1,791,025	22.5	9.3	50.3	17.9	39.3
Georgia	10,799,566	23.4	9.5	52.5	14.7	37.5
Appalachian Georgia	3,421,148	24.3	8.9	52.2	14.6	38.3
Non-Appalachian Georgia	7,378,418	23.0	9.8	52.5	14.7	37.1
Kentucky	4,509,394	22.5	9.2	51.2	17.1	39.2
Appalachian Kentucky	1,164,198	22.1	8.7	50.8	18.4	41.1
Non-Appalachian Kentucky	3,345,196	22.7	9.4	51.3	16.6	38.6
Maryland	6,165,129	22.1	8.6	53.0	16.3	39.3
Appalachian Maryland	251,368	20.1	9.0	51.8	19.1	41.5
Non-Appalachian Maryland	5,913,761	22.2	8.5	53.1	16.2	39.3
Mississippi	2,949,965	23.5	9.4	50.4	16.8	38.4
Appalachian Mississippi	609,291	23.0	10.2	49.3	17.5	38.5
Non-Appalachian Mississippi	2,340,674	23.6	9.2	50.6	16.6	38.3
New York	19,835,913	20.7	8.8	52.9	17.5	39.7
Appalachian New York	1,018,678	19.2	12.4	48.2	20.2	41.3
Non-Appalachian New York	18,817,235	20.8	8.6	53.2	17.4	39.7
North Carolina	10,551,162	21.8	9.4	51.8	17.0	39.3
Appalachian North Carolina	2,036,231	19.6	8.6	50.5	21.2	43.5
Non-Appalachian North Carolina	8,514,931	22.3	9.6	52.1	16.0	38.3
Ohio	11,780,017	22.1	8.9	51.1	17.8	39.6
Appalachian Ohio	1,978,242	21.5	8.4	50.2	19.9	42.0
Non-Appalachian Ohio	9,801,775	22.2	9.0	51.3	17.4	39.1
Pennsylvania	12,964,056	20.6	8.7	51.6	19.0	40.9
Appalachian Pennsylvania	5,683,546	19.3	8.8	51.0	20.9	43.0
Non-Appalachian Pennsylvania	7,280,510	21.7	8.7	52.1	17.5	39.4
South Carolina	5,190,705	21.5	8.9	50.9	18.6	40.2
Appalachian South Carolina	1,371,106	22.3	9.3	51.0	17.4	39.1
Non-Appalachian South Carolina	3,819,599	21.2	8.8	50.9	19.1	40.6
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Appalachian Virginia	732,075	18.1	10.9	49.2	21.8	43.8
Non-Appalachian Virginia	7,910,199	22.1	9.1	53.0	15.8	38.5
West Virginia (entire state)	1,782,959	20.1	8.6	50.5	20.7	42.8

Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

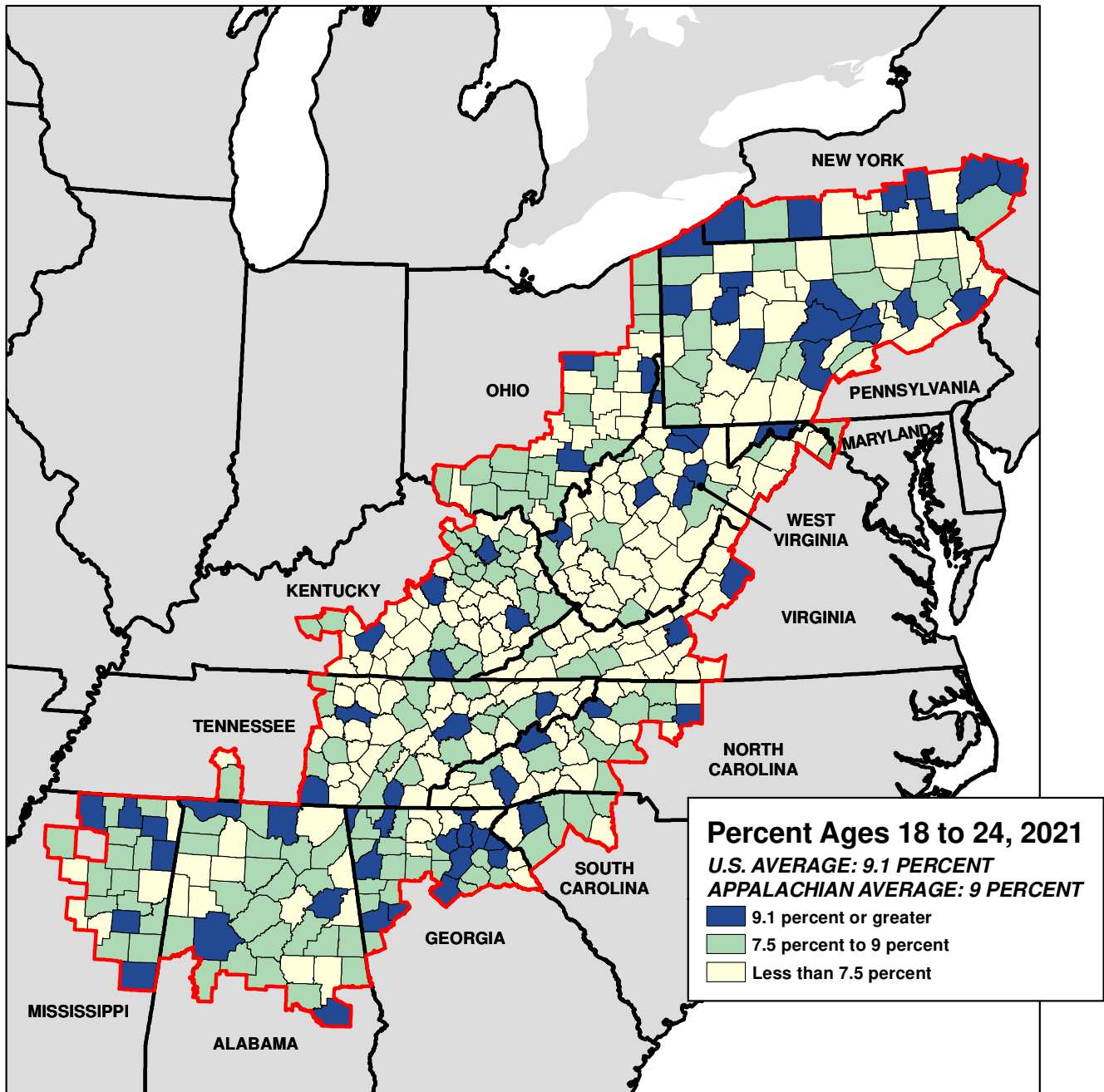
Figure 2.1: Percent of Population in the Appalachian Region Under Age 18, July 1, 2021



Map Title: Percent of Population in the Appalachian Region Under Age 18, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

As of mid-2021, the share of children and youth under age 18 in the Appalachian population was slightly below the national average of 22.2 percent. In 167 of the Region's 423 counties, the share was less than 20 percent. Most of these counties were outside metropolitan areas, with concentrations in Pennsylvania, West Virginia, Virginia, North Carolina, and Tennessee. Yet in another 111 Appalachian counties, the share of children under age 18 matched or exceeded the national average. Half of these counties were in Southern Appalachia, with concentrations in Alabama, Georgia, Kentucky, and Mississippi. Among the states, the Appalachian portions of Georgia, Mississippi, and South Carolina were the only three in the Region where the under-18 percentage was equal to or greater than that of the nation as a whole.

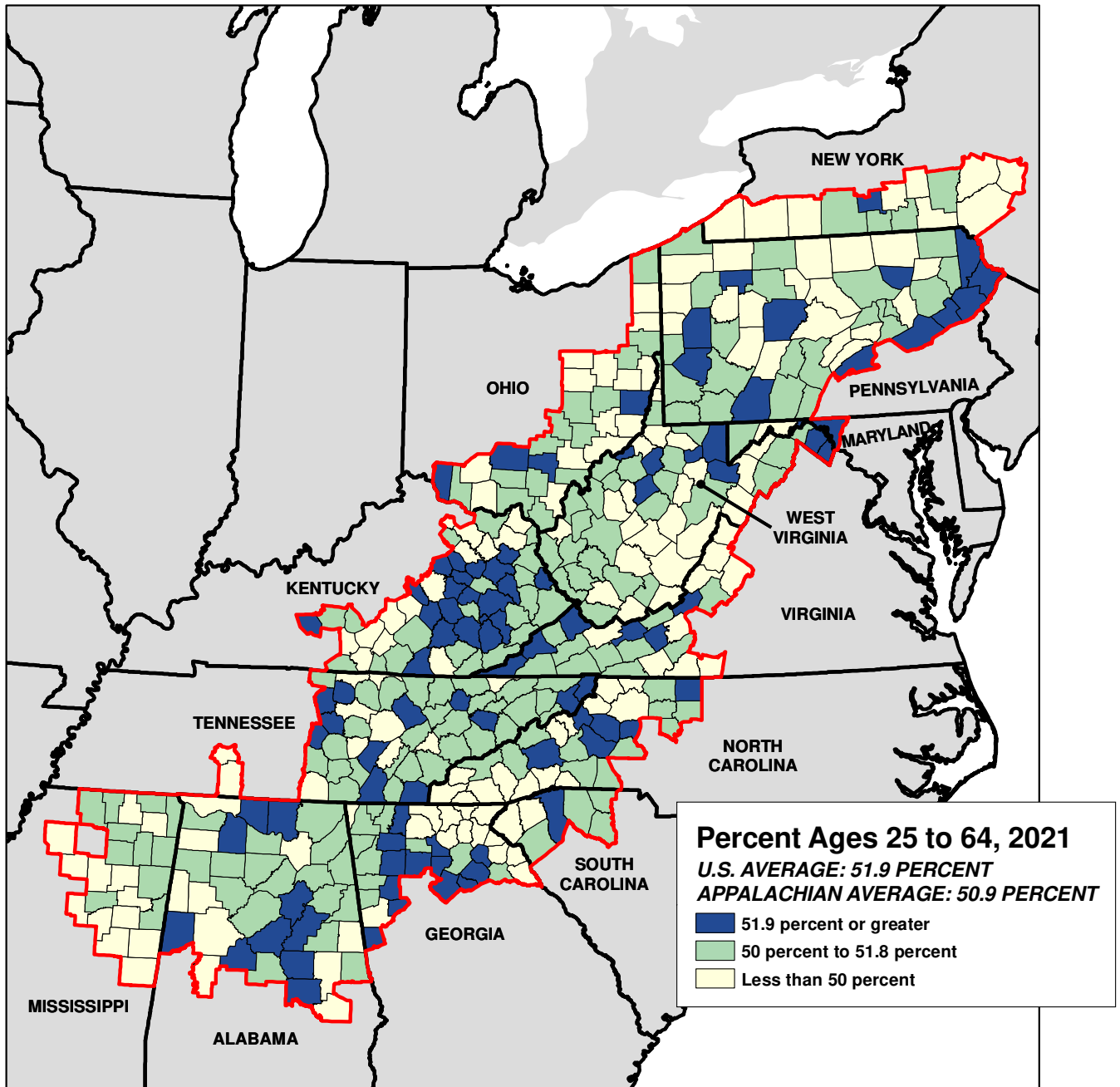
Figure 2.2: Percent of Population in the Appalachian Region Ages 18 to 24, July 1, 2021



Map Title: Percent of Population in the Appalachian Region Ages 18 to 24, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

Although the share of young adults (ages 18 to 24) in Appalachia roughly equaled the national average in 2021, there were great variations within the Region. For example, persons in this age group made up at least 15 percent of the population in 19 counties. All but one of these counties are home to colleges and universities such as Appalachian State University (Watauga County, North Carolina); West Virginia University (Monongalia County, West Virginia); and Morehead State University (Rowan County, Kentucky). In contrast, 18-to-24-year-olds made up less than 7.5 percent of the population in 209 Appalachian counties. Of the counties in this latter group, 148 were outside metropolitan areas and 60 were in the most rural counties—both of which suggest a possible lack of opportunities in these communities for youth making the transition to adulthood. However, among the county types, the lowest shares in this age group (8.3 percent) were found in large metropolitan areas and in nonmetropolitan areas that were adjacent to small metros.

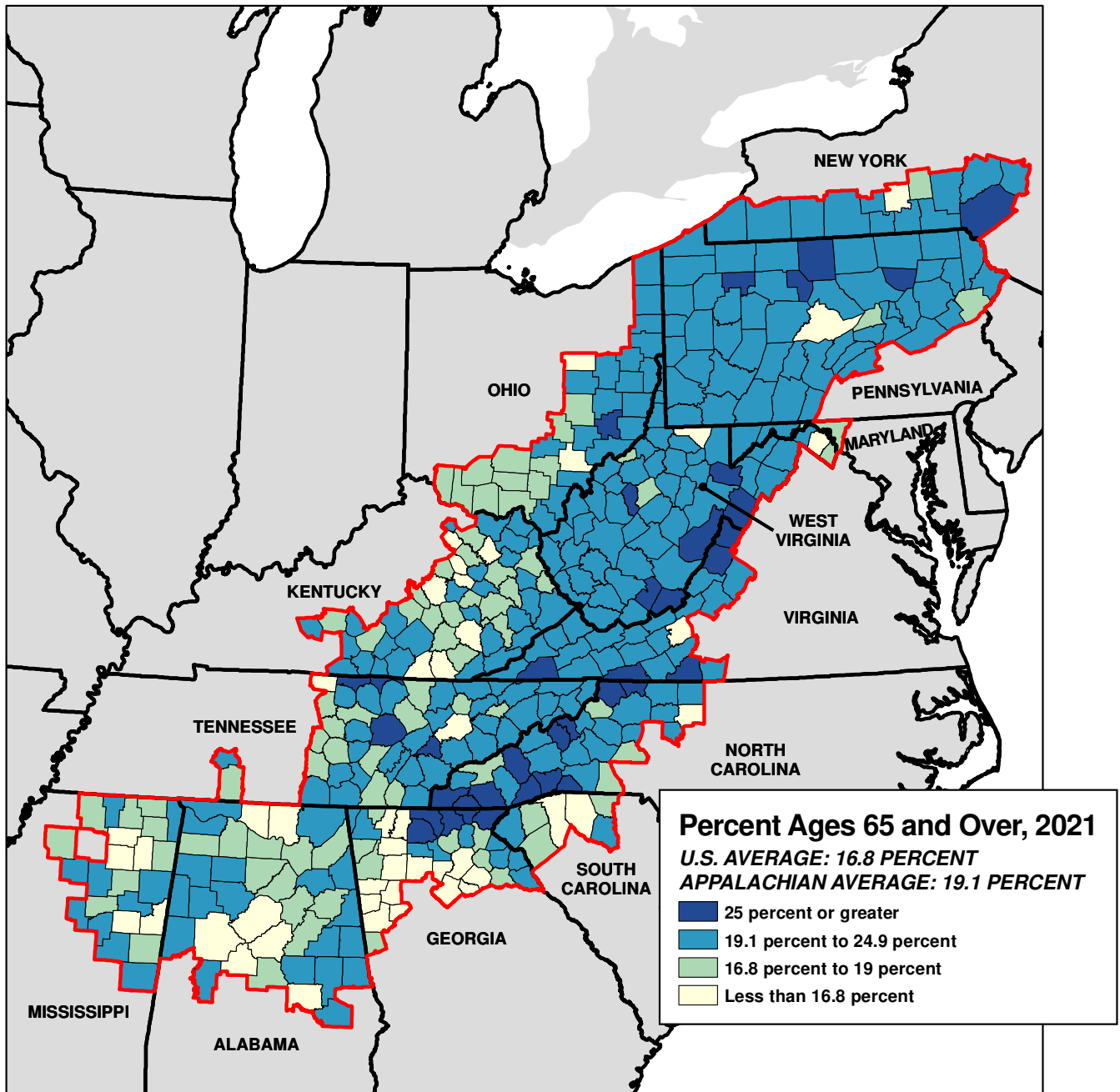
Figure 2.3: Percent of Population in the Appalachian Region Ages 25 to 64, July 1, 2021



Map Title: Percent of Population in the Appalachian Region Ages 25 to 64, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

In both the United States and Appalachia, adults in the prime working ages (ages 25 to 64) made up a slight majority of all residents in 2021. And in 94 of the 423 Appalachian counties, the percentage of persons in this age group matched or exceeded the national average. But there were 152 counties in the Region (124 of which were outside metropolitan areas) where 25-to-64-year-olds made up less than half of the population. Many of these counties—such as Tompkins County, New York, home to both Cornell University and Ithaca College—house colleges and universities (and thus had a high share of their populations in the 18-to-24 age range).

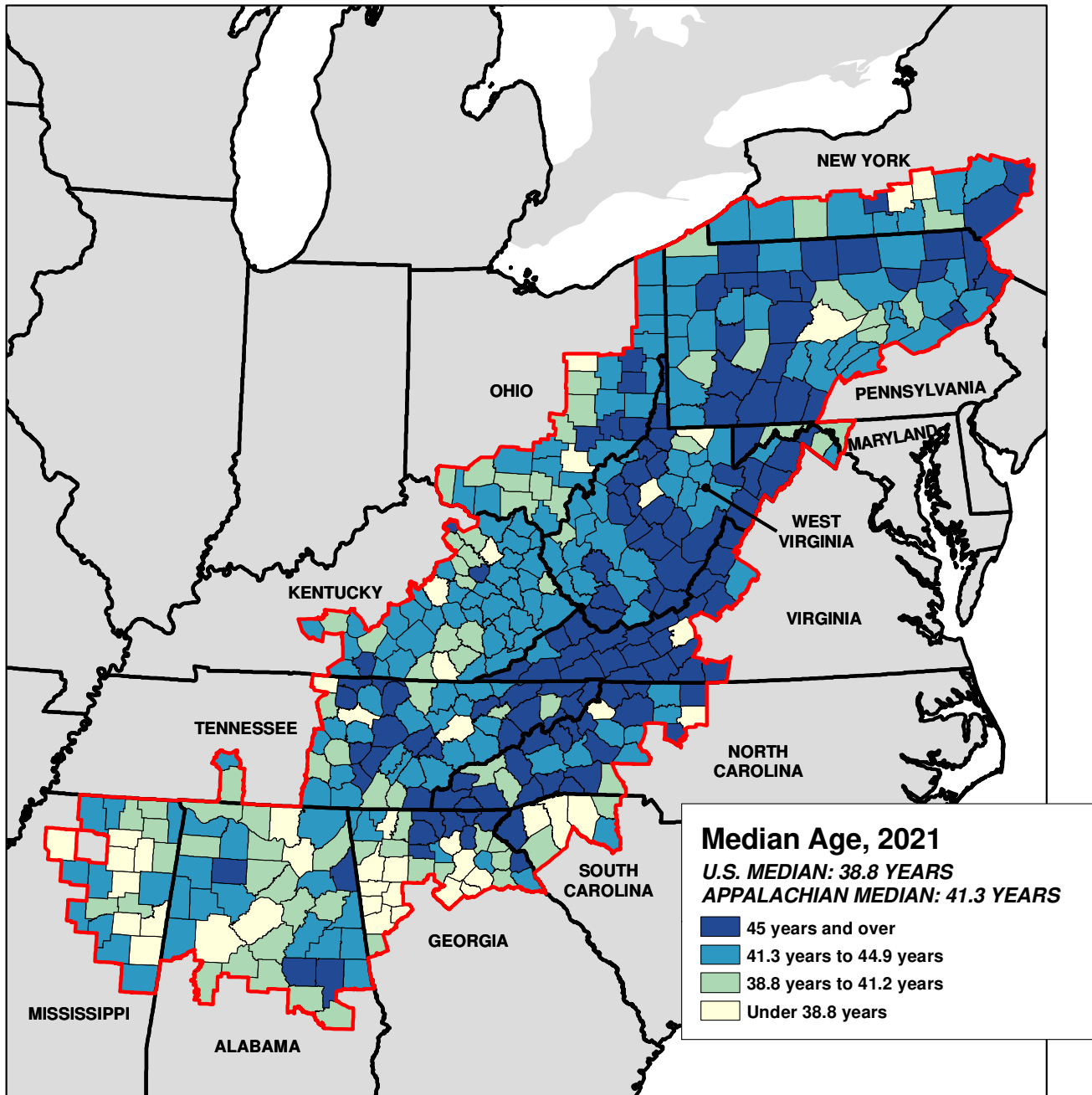
Figure 2.4: Percent of Population in the Appalachian Region Ages 65 and Over, July 1, 2021



Map Title: Percent of Population in the Appalachian Region Ages 65 and Over, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

The share of residents ages 65 and over in the Appalachian Region exceeded the national average by more than two percentage points in 2021. Moreover, the percentage of persons in this age group matched or exceeded the U.S. share in 376 of the 423 Appalachian counties—and was at least 19.1 percent in 291 of them. In fact, there were 37 counties in the Region where older persons made up 25 percent or more of the population, and all but four of these were outside metropolitan areas. In contrast, most of the 47 Appalachian counties with older population shares below the national average were either in metro areas or home to colleges and universities. Southern Appalachia was the only subregion where the share of older persons was below the national average of 16.8 percent. As more of the large baby boom cohorts move into this age group, the share of residents ages 65 and over will continue to increase over the coming years in both Appalachia and the nation.

Figure 2.5: Median Age of Persons in the Appalachian Region, July 1, 2021



Map Title: Median Age of Persons in the Appalachian Region, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

At 41.3 years, the median age of the Appalachian population was 2.5 years older than that of the United States as of mid-2021. Indeed, the median age of the population (the point at which half the population is older and half is younger) matched or exceeded the regional median in nearly three-fourths of Appalachia’s counties. And in 133 counties—94 of which were outside metro areas—the median age was at least 45 years. Of the 44 counties with populations whose median age was younger than the national median, 28 were in Southern Appalachia—the only subregion where the overall age structure roughly resembled that of the nation (Appalachian Georgia alone had 13 of these counties while Appalachian Mississippi had another eight.) As the U.S. and Appalachian populations grow older, median age will almost certainly continue to rise in most of the Region’s counties—with the possible exception of counties where a college or university is a major presence (such as Oktibbeha County, Mississippi, home of Mississippi State University).

Table 2.2: Percentage Point Change in the Share of the Population in the Appalachian Region, by Age Group, July 1, 2010 to July 1, 2021

Population by Age Group	Percentage Point Change in Share of Population				Change in Median Age (Years)
	Under Age 18	Ages 18-24	Ages 25-64	Ages 65 and over	
United States	- 1.8	- 0.8	- 1.1	+ 3.7	+ 1.6
Appalachian Region	- 1.4	- 0.7	- 1.9	+ 3.9	+ 1.4
Subregions					
Northern Appalachia	- 1.3	- 0.9	- 1.8	+ 3.9	+ 1.0
North Central Appalachia	- 1.1	- 0.6	- 2.7	+ 4.4	+ 1.6
Central Appalachia	- 0.8	- 0.5	- 3.1	+ 4.4	+ 1.8
South Central Appalachia	- 1.6	- 0.6	- 2.0	+ 4.2	+ 1.8
Southern Appalachia	- 1.8	- 0.4	- 1.5	+ 3.6	+ 1.8
County Types					
Large Metros (pop. 1 million +)	- 1.7	- 0.5	- 1.6	+ 3.7	+ 1.4
Small Metros (pop. <1 million)	- 1.3	- 0.8	- 1.7	+ 3.8	+ 1.4
Nonmetro, Adjacent to Large Metros	- 1.3	- 0.7	- 1.9	+ 4.1	+ 1.7
Nonmetro, Adjacent to Small Metros	- 1.3	- 0.5	- 2.5	+ 4.3	+ 1.9
Rural (nonmetro, not adj. to a metro)	- 1.2	- 0.6	- 2.6	+ 4.5	+ 1.9
Alabama	- 1.3	- 0.9	- 1.5	+ 3.8	+ 1.7
Appalachian Alabama	- 1.3	- 0.9	- 1.5	+ 3.7	+ 1.5
Non-Appalachian Alabama	- 1.6	- 1.2	- 1.4	+ 4.1	+ 2.1
Georgia	- 2.2	- 0.5	- 1.1	+ 4.0	+ 2.1
Appalachian Georgia	- 2.8	+ 0.3	- 1.5	+ 4.0	+ 2.3
Non-Appalachian Georgia	- 2.0	- 0.9	- 1.1	+ 3.9	+ 2.0
Kentucky	- 1.0	- 0.4	- 2.3	+ 3.8	+ 1.1
Appalachian Kentucky	- 0.6	- 0.5	- 2.9	+ 4.0	+ 1.6
Non-Appalachian Kentucky	- 1.2	- 0.3	- 2.2	+ 3.6	+ 1.2
Maryland	- 1.3	- 1.1	- 1.7	+ 4.0	+ 1.3
Appalachian Maryland	- 1.2	- 0.7	- 1.5	+ 3.3	+ 1.1
Non-Appalachian Maryland	- 1.3	- 1.2	- 1.6	+ 4.1	+ 1.5
Mississippi	- 1.9	- 0.9	- 1.1	+ 3.9	+ 2.4
Appalachian Mississippi	- 1.6	- 0.6	- 1.2	+ 3.4	+ 1.5
Non-Appalachian Mississippi	- 2.0	- 1.0	- 1.1	+ 4.1	+ 2.6
New York	- 1.6	- 1.4	- 1.1	+ 3.9	+ 1.7
Appalachian New York	- 1.8	- 0.4	- 2.4	+ 4.6	+ 1.2
Non-Appalachian New York	- 1.5	- 1.5	- 1.0	+ 4.0	+ 1.9
North Carolina	- 2.0	- 0.6	- 1.4	+ 4.0	+ 1.9
Appalachian North Carolina	- 2.2	- 0.4	- 2.1	+ 4.6	+ 2.3
Non-Appalachian North Carolina	- 2.1	- 0.6	- 1.3	+ 3.9	+ 1.9
Ohio	- 1.5	- 0.7	- 1.7	+ 3.7	+ 0.8
Appalachian Ohio	- 1.4	- 0.6	- 2.2	+ 4.3	+ 1.4
Non-Appalachian Ohio	- 1.5	- 0.7	- 1.5	+ 3.6	+ 0.8
Pennsylvania	- 1.3	- 1.2	- 1.1	+ 3.6	+ 0.7
Appalachian Pennsylvania	- 1.2	- 1.2	- 1.5	+ 3.9	+ 1.0
Non-Appalachian Pennsylvania	- 1.4	- 1.2	- 0.7	+ 3.4	+ 0.8
South Carolina	- 1.8	- 1.4	- 1.8	+ 4.9	+ 2.3
Appalachian South Carolina	- 1.3	- 0.9	- 1.3	+ 3.5	+ 1.0
Non-Appalachian South Carolina	- 2.0	- 1.5	- 1.9	+ 5.4	+ 2.9
Tennessee	- 1.4	- 0.8	- 1.3	+ 3.5	+ 1.0
Appalachian Tennessee	- 1.3	- 0.5	- 1.9	+ 3.7	+ 1.4
Non-Appalachian Tennessee	- 1.5	- 0.8	- 1.0	+ 3.3	+ 1.2
Virginia	- 1.3	- 0.7	- 1.9	+ 4.0	+ 1.3
Appalachian Virginia	- 1.4	- 0.8	- 2.8	+ 5.0	+ 2.5
Non-Appalachian Virginia	- 1.4	- 0.7	- 1.9	+ 4.0	+ 1.5
West Virginia (entire state)	- 0.8	- 0.5	- 3.4	+ 4.6	+ 1.5

Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.

TRENDS IN AGE

- Like the United States as a whole, Appalachia’s population became older between 2010 and 2021 (see Table 2.2). The Appalachian population has been aging at about the same pace as the national population over this period: The median age of the Region’s population (the point at which half the population is older and half is younger) rose by 1.4 years to 41.3 years over the 11-year period while the United States median rose by 1.6 years.
- Some parts of the Appalachian Region are aging faster than others. For example, the median age rose by at least two years in the Appalachian sections of Georgia, North Carolina, and Virginia. Yet while the median age in 2021 was about 44 years in Appalachian North Carolina and Virginia, it was just 38.3 years in Georgia—still slightly below the U.S. median of 38.8 years (see Table 2.1). Meanwhile, the median age in Appalachian counties outside metropolitan areas rose slightly faster than in the Region’s metropolitan counties. Excluding Northern and North Central Appalachia and counties in metro areas, the median age increased slightly faster than the national average among all other subregions and county types. While the median age increased at or slightly less than the national average in the Appalachian portions of Alabama, Kentucky, Maryland, Mississippi, New York, Ohio, Pennsylvania, South Carolina, and Tennessee, the rate of increase in Appalachian Georgia, North Carolina, and Virginia was more pronounced and rapid than the national average.
- In both the United States and Appalachia, the aging of the population has come largely at the expense of younger age groups. For example, the share of Appalachia’s population under age 18 is 1.4 percentage points lower in mid-2021 than it was in mid-2010, and the share ages 25 to 64 is 1.9 points lower. The decline in the share of residents ages 25 to 64 has occurred as older members of the baby boom cohorts moved into the “65 and over” age category. Between 2010 and 2021, the share of residents in the oldest age group increased by nearly four percentage points in the Region—and by almost that amount nationally. The largest increases for the oldest age group were in North Central and Central Appalachia (4.4 points) and in the most rural counties (4.5 points).
- While much of Appalachia is “aging in place” (particularly with the aging of the baby boom cohorts), the migration of some older residents to retirement destinations is a factor behind the aging of some parts of the Region. For example, one quarter of Appalachian counties where the median age is at least 45 years—such as Towns County, Georgia; Sullivan County, Pennsylvania; Clay County, North Carolina; and Cherokee County, North Carolina—have been designated as “retirement” counties by the Economic Research Service of the U.S. Department of Agriculture.

CHAPTER 3: RACE AND HISPANIC ORIGIN

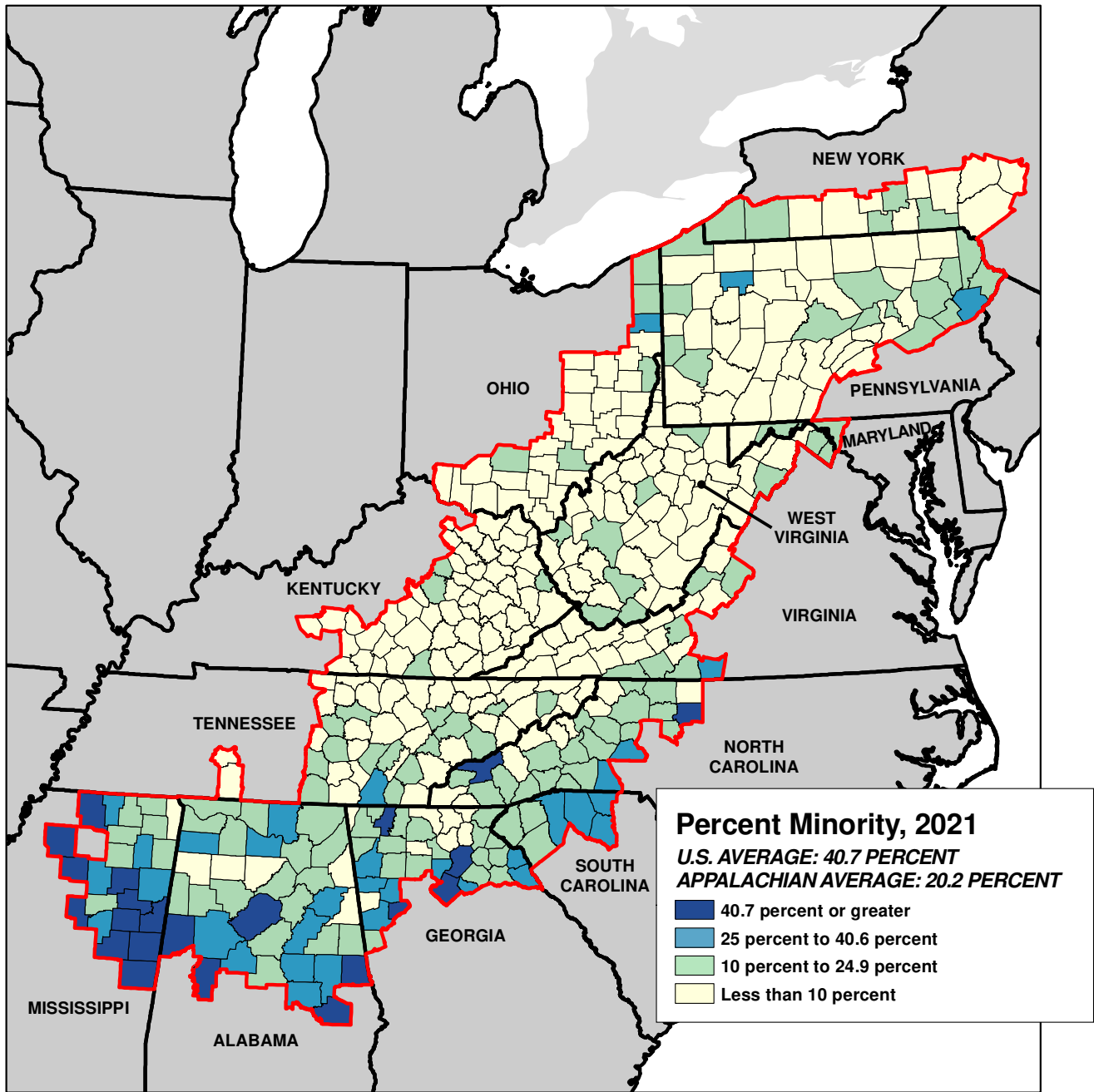
Table 3.1: Population in the Appalachian Region by Race and Hispanic Origin, July 1, 2021

Population by Race and Hispanic Origin	Total Population, July 1, 2021	Percent of Population				
		White Alone, Not Hispanic	Minority			
			Total	Black Alone, Not Hispanic	Hispanic or Latino	Other, Not Hispanic
United States	331,893,745	59.3	40.7	12.6	18.9	9.2
Appalachian Region	26,289,466	79.8	20.2	10.2	5.8	4.2
Subregions						
Northern Appalachia	8,050,226	86.4	13.6	5.7	4.0	3.9
North Central Appalachia	2,490,303	91.9	8.1	3.2	1.8	3.1
Central Appalachia	1,855,209	94.0	6.0	2.0	1.9	2.1
South Central Appalachia	5,243,331	82.7	17.3	7.4	6.1	3.8
Southern Appalachia	8,650,397	65.4	34.6	19.8	9.3	5.5
County Types						
Large Metros (pop. 1 million +)	6,312,684	69.4	30.6	16.7	7.3	6.6
Small Metros (pop. <1 million)	11,269,895	79.6	20.4	9.8	6.6	4.0
Nonmetro, Adjacent to Large Metros	2,308,850	86.6	13.4	6.1	4.4	3.0
Nonmetro, Adjacent to Small Metros	3,931,782	88.5	11.5	4.6	4.2	2.7
Rural (nonmetro, not adj. to a metro)	2,466,255	87.5	12.5	7.8	2.5	2.2
Alabama	5,039,877	64.9	35.1	26.5	4.8	3.8
Appalachian Alabama	3,248,852	68.5	31.5	22.6	5.3	3.6
Non-Appalachian Alabama	1,791,025	58.3	41.7	33.7	3.8	4.3
Georgia	10,799,566	51.0	49.0	32.0	10.2	6.8
Appalachian Georgia	3,421,148	60.6	39.4	16.2	14.9	8.3
Non-Appalachian Georgia	7,378,418	46.6	53.4	39.3	8.0	6.1
Kentucky	4,509,394	83.5	16.5	8.4	4.2	4.0
Appalachian Kentucky	1,164,198	94.1	5.9	1.9	1.9	2.1
Non-Appalachian Kentucky	3,345,196	79.8	20.2	10.6	4.9	4.6
Maryland	6,165,129	49.0	51.0	30.2	11.1	9.7
Appalachian Maryland	251,368	80.9	19.1	10.1	4.7	4.3
Non-Appalachian Maryland	5,913,761	47.6	52.4	31.1	11.4	9.9
Mississippi	2,949,965	56.0	44.0	37.6	3.5	2.9
Appalachian Mississippi	609,291	62.7	37.3	32.0	3.0	2.3
Non-Appalachian Mississippi	2,340,674	54.3	45.7	39.0	3.6	3.1
New York	19,835,913	54.7	45.3	14.4	19.5	11.3
Appalachian New York	1,018,678	87.6	12.4	3.0	4.1	5.3
Non-Appalachian New York	18,817,235	53.0	47.0	15.0	20.3	11.7
North Carolina	10,551,162	61.9	38.1	21.3	10.2	6.6
Appalachian North Carolina	2,036,231	77.9	22.1	9.5	8.4	4.2
Non-Appalachian North Carolina	8,514,931	58.0	42.0	24.1	10.6	7.2
Ohio	11,780,017	77.7	22.3	12.8	4.3	5.2
Appalachian Ohio	1,978,242	90.3	9.7	4.4	2.5	2.9
Non-Appalachian Ohio	9,801,775	75.1	24.9	14.5	4.7	5.7
Pennsylvania	12,964,056	74.8	25.2	10.9	8.4	5.9
Appalachian Pennsylvania	5,683,546	86.2	13.8	5.9	4.1	3.8
Non-Appalachian Pennsylvania	7,280,510	66.0	34.0	14.9	11.7	7.5
South Carolina	5,190,705	63.4	36.6	26.1	6.4	4.2
Appalachian South Carolina	1,371,106	71.4	28.6	16.8	7.5	4.3
Non-Appalachian South Carolina	3,819,599	60.5	39.5	29.4	5.9	4.2
Tennessee	6,975,218	73.1	26.9	16.6	6.1	4.2
Appalachian Tennessee	2,991,772	86.4	13.6	5.5	4.7	3.4
Non-Appalachian Tennessee	3,983,446	63.0	37.0	25.0	7.1	4.9
Virginia	8,642,274	60.3	39.7	19.2	10.2	10.3
Appalachian Virginia	732,075	88.3	11.7	5.7	2.8	3.2
Non-Appalachian Virginia	7,910,199	57.7	42.3	20.4	10.9	10.9
West Virginia (entire state)	1,782,959	91.5	8.5	3.6	1.9	3.0

Note: "Other" includes these racial groups: (a) American Indian and Alaska Native alone; (b) Asian alone; (c) Native Hawaiian and Other Pacific Islander alone; and (d) Two or more races.

Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

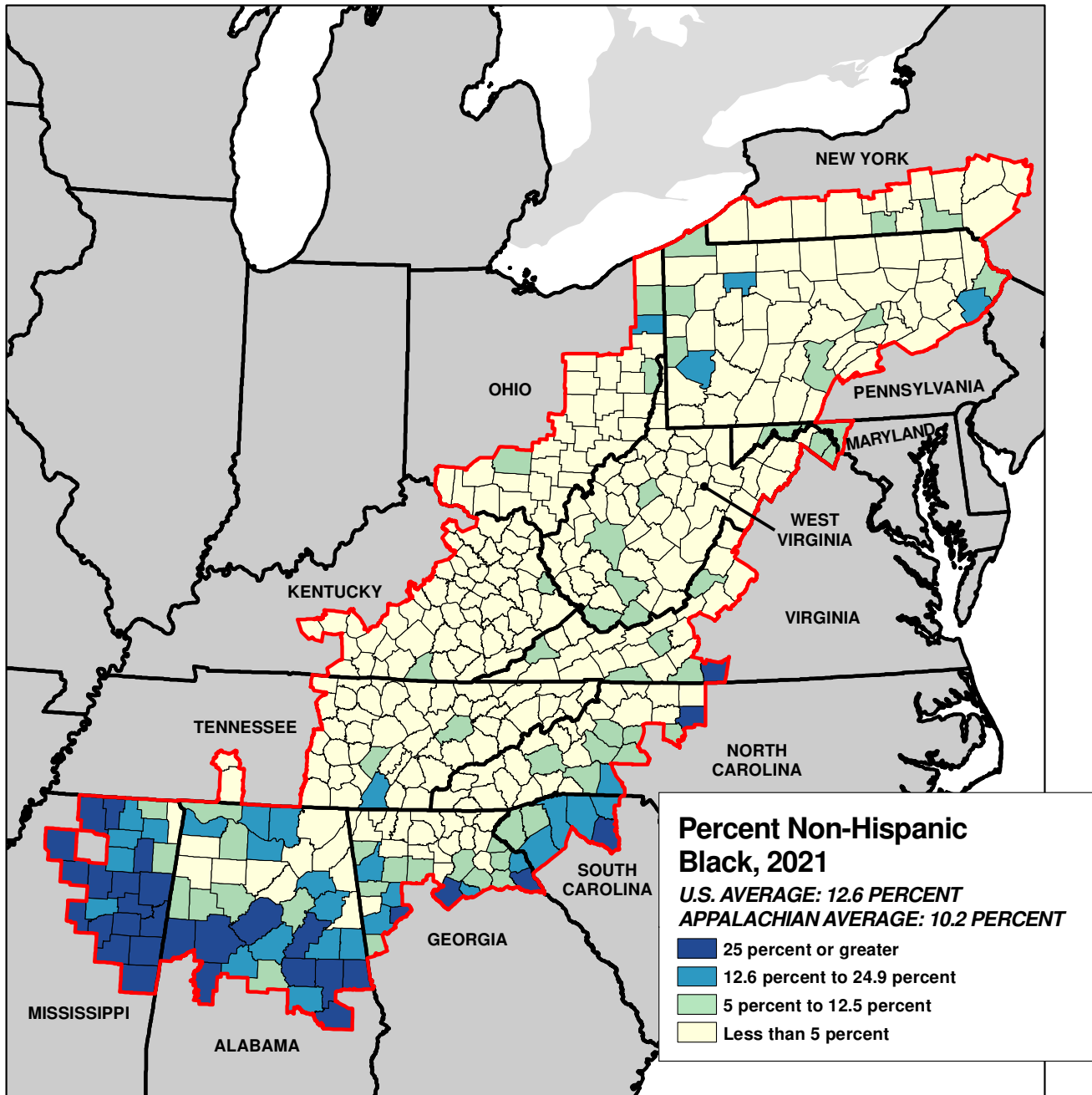
Figure 3.1: Percent of Population in the Appalachian Region That Is Minority, July 1, 2021



Map Title: Percent of Population in the Appalachian Region That Is Minority, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

The Appalachian Region is significantly less racially and ethnically diverse than the United States as a whole, with a minority population share that is just under half of the national share. In fact, most parts of the Region have remained even further below the national average in their minority populations, with shares of less than 20 percent in all subregions other than Southern Appalachia. In almost three-fifths of Appalachian counties, minorities (defined as anyone who identifies with a racial or ethnic group *other than* “White alone, not Hispanic”) made up less than 10 percent of the population in mid-2021. There were just 22 counties—all but two in Southern Appalachia and half in Mississippi alone—where minorities’ share of the population matched or exceeded the national average of 40.7 percent.

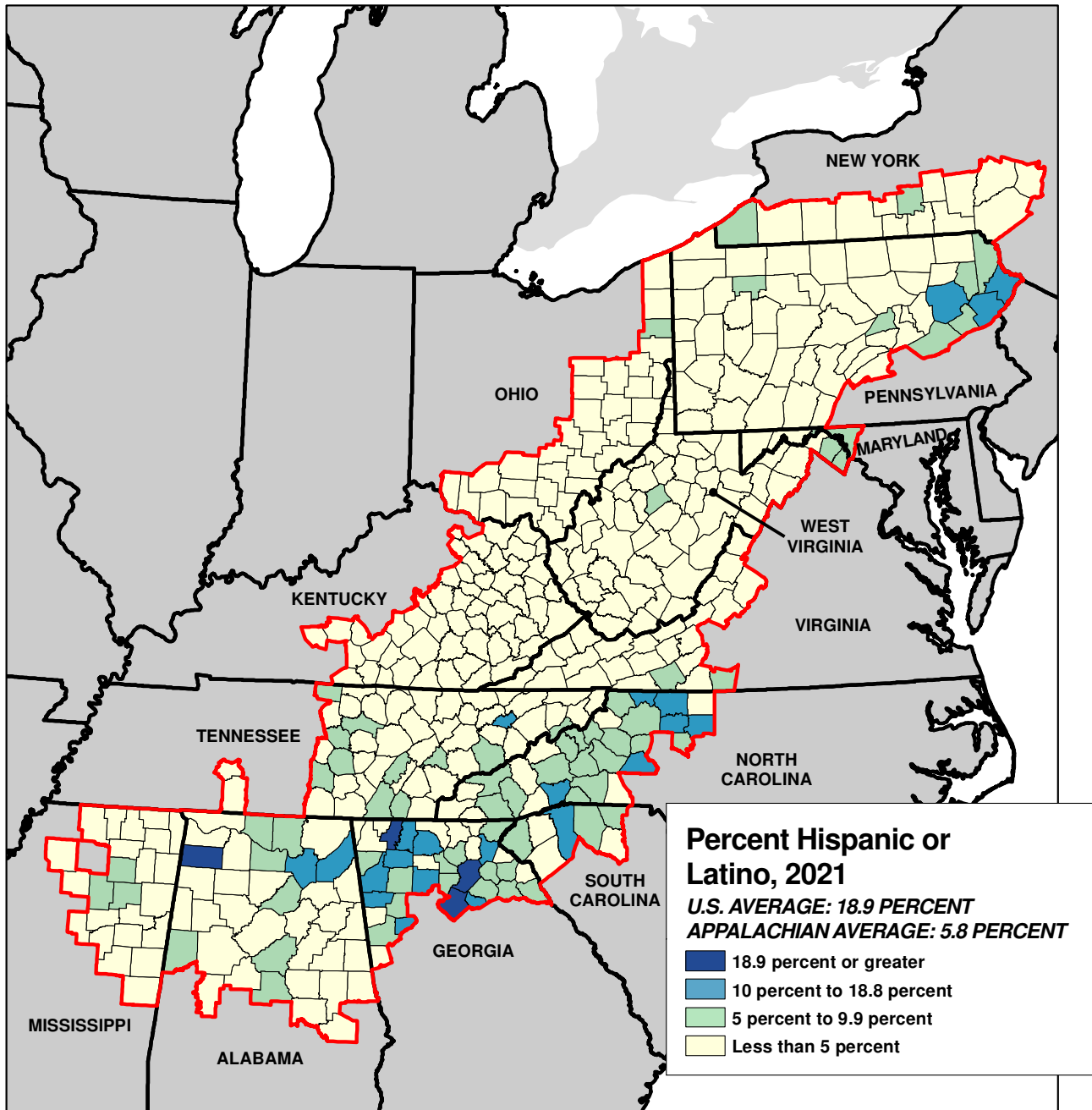
Figure 3.2: Percent of Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2021



Map Title: Percent of Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

While non-Hispanic African Americans have remained the largest single minority group in Appalachia as of 2021, their share of the Region’s total population was still lower than in the United States as a whole. Within the Region, the largest proportions were in Southern Appalachia—the only subregion where Blacks’ share of the population exceeded the national average. Southern Appalachia also had 54 of the Region’s 62 counties where the Black share of the population matched or surpassed that of the nation—as well as 29 of the 31 where at least one in four residents were African American. At the other end of the spectrum, persons who were “Black alone, not Hispanic” accounted for less than 5 percent of the residents in nearly three-fourths of Appalachian counties.

Figure 3.3: Percent of Population in the Appalachian Region That Is Hispanic or Latino, July 1, 2021



Map Title: Percent of Population in the Appalachian Region That Is Hispanic or Latino, July 1, 2021
 Data Source: U.S. Census Bureau, Vintage 2021 Population Estimates.

Although Hispanics are now the largest minority group in the United States, they made up only one in 18 residents in the Appalachian Region in 2021. The county patterns reflect this fact, as Hispanics were at least 5 percent of the population in just 94 of Appalachia’s 423 counties, 77 of which were in Southern and South Central Appalachia. Moreover, those two subregions had 23 of the 26 counties where Latinos made up at least 10 percent of the population. Just four Appalachian counties (Gwinnett, Hall, and Whitfield Counties in Georgia and Franklin County in Alabama) had Latino population shares that matched or exceeded the national average.

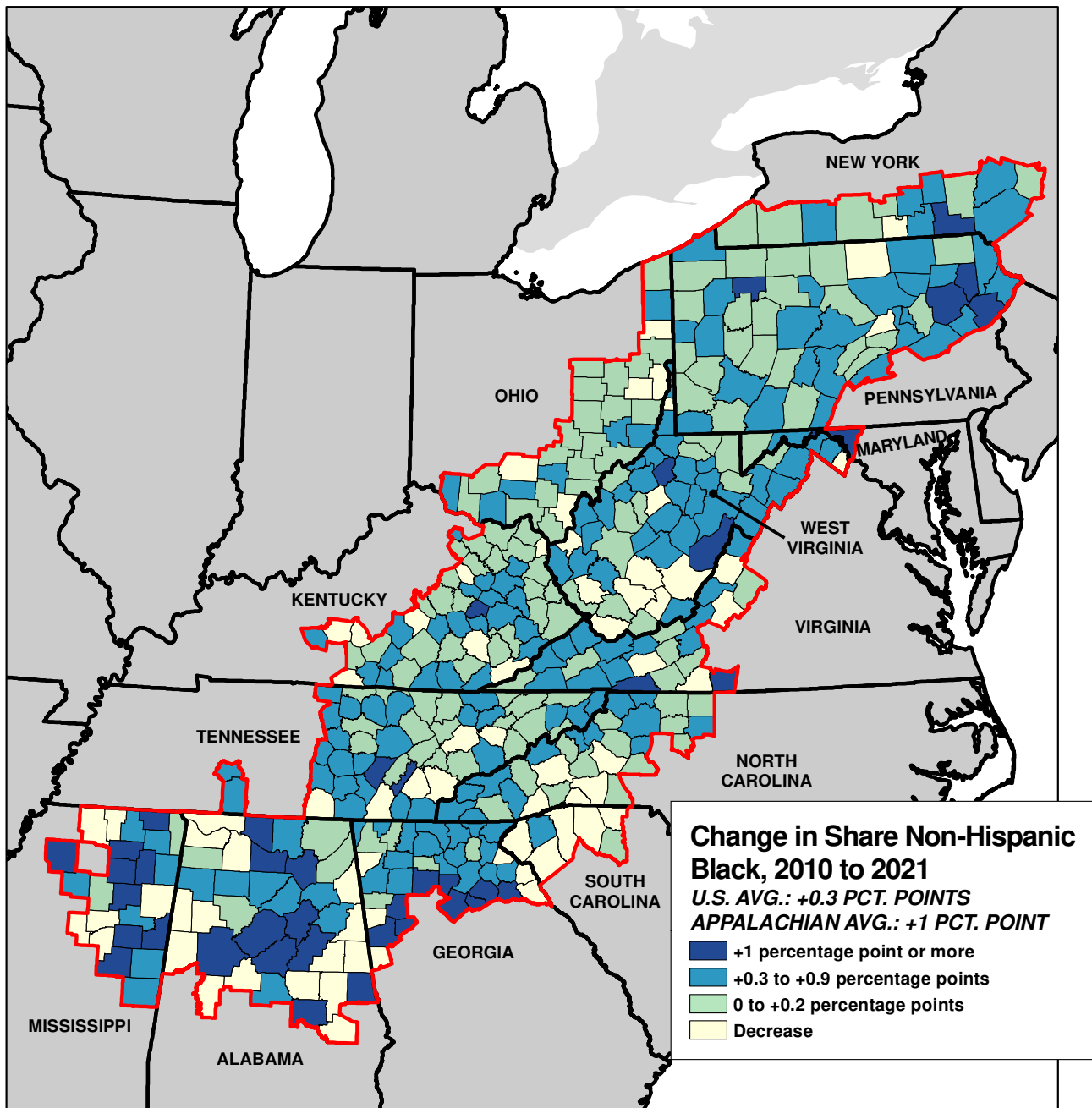
Table 3.2: Percentage Point Change in the Share of the Population in the Appalachian Region, by Race and Hispanic Origin, July 1, 2010 to July 1, 2021

Population by Race and Hispanic Origin	Percentage Point Change in Share of Population				
	White Alone, Not Hispanic	Minority			
		Total	Black Alone, Not Hispanic	Hispanic or Latino	Other, Not Hispanic
United States	- 4.5	+ 4.5	+ 0.3	+ 2.5	+ 1.7
Appalachian Region	- 3.7	+ 3.7	+ 1.0	+ 1.6	+ 1.2
Subregions					
Northern Appalachia	- 3.1	+ 3.1	+ 0.5	+ 1.5	+ 1.1
North Central Appalachia	- 1.6	+ 1.6	+ 0.2	+ 0.6	+ 0.8
Central Appalachia	- 1.5	+ 1.5	+ 0.2	+ 0.6	+ 0.7
South Central Appalachia	- 2.5	+ 2.5	+ 0.2	+ 1.4	+ 0.9
Southern Appalachia	- 4.6	+ 4.6	+ 1.2	+ 1.8	+ 1.6
County Types					
Large Metros (pop. 1 million +)	- 5.7	+ 5.7	+ 1.9	+ 1.6	+ 2.2
Small Metros (pop. <1 million)	- 3.5	+ 3.5	+ 0.6	+ 1.9	+ 0.9
Nonmetro, Adjacent to Large Metros	- 2.2	+ 2.2	+ 0.3	+ 1.2	+ 0.8
Nonmetro, Adjacent to Small Metros	- 2.1	+ 2.1	+ 0.2	+ 1.2	+ 0.7
Rural (nonmetro, not adj. to a metro)	- 1.8	+ 1.8	+ 0.4	+ 0.8	+ 0.6
Alabama	- 2.2	+ 2.2	+ 0.4	+ 0.9	+ 0.9
Appalachian Alabama	- 2.6	+ 2.6	+ 0.9	+ 0.9	+ 0.8
Non-Appalachian Alabama	- 1.6	+ 1.6	- 0.2	+ 0.8	+ 1.1
Georgia	- 4.9	+ 4.9	+ 1.8	+ 1.4	+ 1.8
Appalachian Georgia	- 7.6	+ 7.6	+ 3.0	+ 2.2	+ 2.5
Non-Appalachian Georgia	- 4.0	+ 4.0	+ 1.7	+ 0.9	+ 1.4
Kentucky	- 2.9	+ 2.9	+ 0.7	+ 1.1	+ 1.2
Appalachian Kentucky	- 1.3	+ 1.3	+ 0.1	+ 0.5	+ 0.7
Non-Appalachian Kentucky	- 3.2	+ 3.2	+ 0.6	+ 1.2	+ 1.3
Maryland	- 5.7	+ 5.7	+ 1.1	+ 2.9	+ 1.7
Appalachian Maryland	- 5.5	+ 5.5	+ 2.1	+ 2.1	+ 1.3
Non-Appalachian Maryland	- 5.7	+ 5.7	+ 1.0	+ 2.9	+ 1.7
Mississippi	- 2.0	+ 2.0	+ 0.7	+ 0.7	+ 0.6
Appalachian Mississippi	- 2.1	+ 2.1	+ 0.7	+ 0.7	+ 0.7
Non-Appalachian Mississippi	- 1.9	+ 1.9	+ 0.6	+ 0.7	+ 0.6
New York	- 3.7	+ 3.7	- 0.2	+ 1.8	+ 2.0
Appalachian New York	- 2.5	+ 2.5	+ 0.4	+ 1.0	+ 1.1
Non-Appalachian New York	- 3.6	+ 3.6	- 0.3	+ 1.8	+ 2.1
North Carolina	- 3.4	+ 3.4	+ 0.1	+ 1.8	+ 1.6
Appalachian North Carolina	- 2.8	+ 2.8	+ 0.3	+ 1.6	+ 0.9
Non-Appalachian North Carolina	- 3.4	+ 3.4	- 0.2	+ 1.8	+ 1.8
Ohio	- 3.5	+ 3.5	+ 0.7	+ 1.2	+ 1.6
Appalachian Ohio	- 1.6	+ 1.6	+ 0.1	+ 0.9	+ 0.7
Non-Appalachian Ohio	- 3.8	+ 3.8	+ 0.7	+ 1.3	+ 1.8
Pennsylvania	- 4.7	+ 4.7	+ 0.4	+ 2.7	+ 1.6
Appalachian Pennsylvania	- 3.4	+ 3.4	+ 0.5	+ 1.7	+ 1.2
Non-Appalachian Pennsylvania	- 5.1	+ 5.1	+ 0.1	+ 3.2	+ 1.8
South Carolina	- 0.7	+ 0.7	- 1.6	+ 1.3	+ 1.2
Appalachian South Carolina	- 2.9	+ 2.9	- 0.1	+ 1.8	+ 1.2
Non-Appalachian South Carolina	- 0.1	+ 0.1	- 2.1	+ 1.0	+ 1.2
Tennessee	- 2.6	+ 2.6	+ 0.0	+ 1.5	+ 1.1
Appalachian Tennessee	- 2.4	+ 2.4	+ 0.1	+ 1.4	+ 0.9
Non-Appalachian Tennessee	- 2.4	+ 2.4	- 0.4	+ 1.5	+ 1.3
Virginia	- 4.6	+ 4.6	+ 0.1	+ 2.3	+ 2.2
Appalachian Virginia	- 2.2	+ 2.2	+ 0.4	+ 0.9	+ 0.9
Non-Appalachian Virginia	- 4.5	+ 4.5	- 0.2	+ 2.3	+ 2.2
West Virginia (entire state)	- 1.7	+ 1.7	+ 0.2	+ 0.7	+ 0.8

Note: "Other" includes these racial groups: (a) American Indian and Alaska Native alone; (b) Asian alone; (c) Native Hawaiian and Other Pacific Islander alone; and (d) Two or more races.

Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.

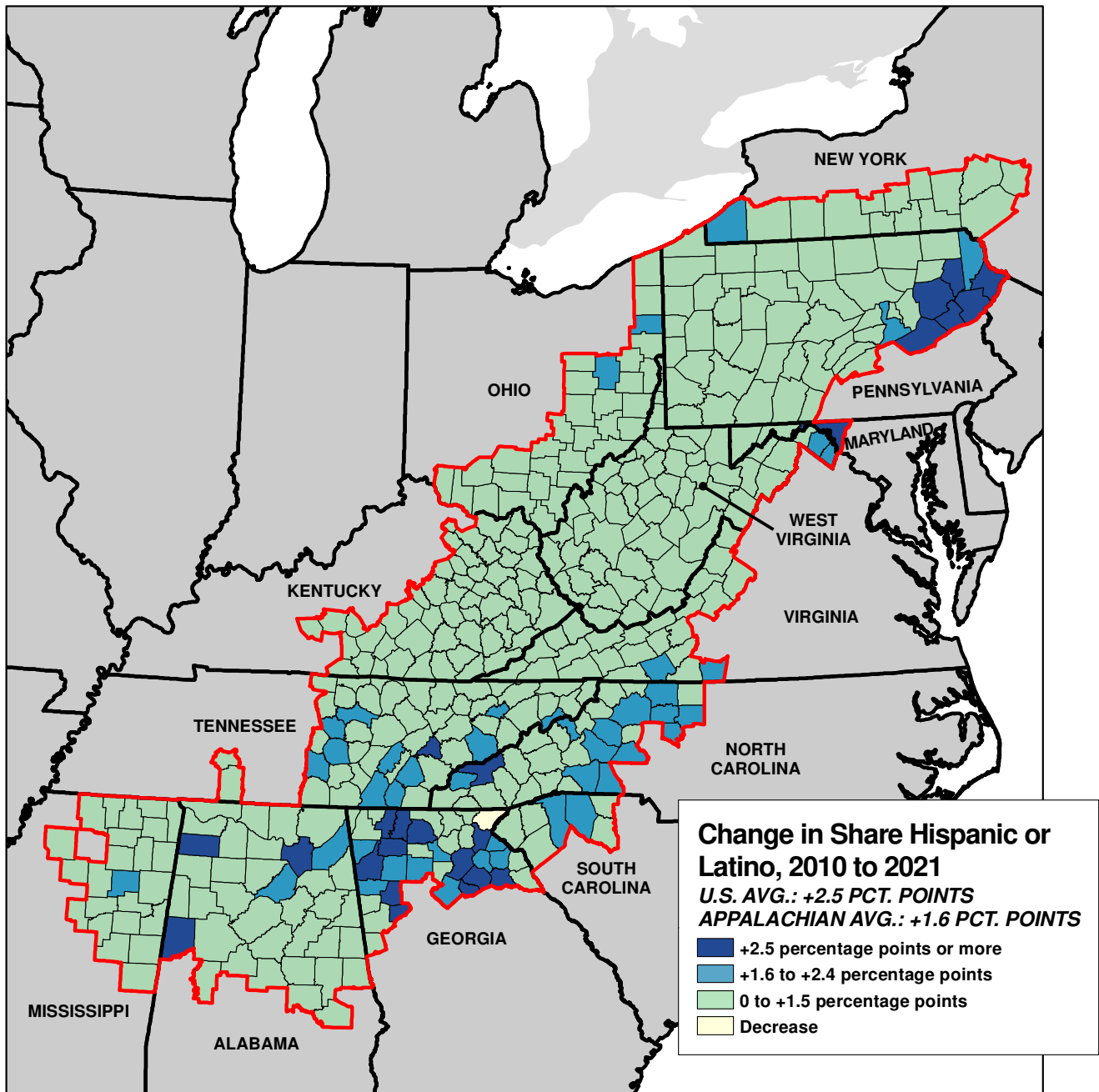
Figure 3.4: Percentage Point Change in the Share of the Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2010 to July 1, 2021



Map Title: Percentage Point Change in the Share of the Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2010 to July 1, 2021
 Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.

Although African Americans' share of the U.S. population barely changed between 2010 and 2021, their share of the Appalachian population increased a full percentage point, from 9.2 percent to 10.2 percent. There were 41 counties—about evenly divided between those with sizeable and those with small African American concentrations—where Blacks' share of the population increased by at least one percentage point. (Most of these counties were in three states—Alabama, Georgia, and Mississippi.) The share in Appalachian Georgia alone increased by three percentage points, with a two percentage point increase in Appalachian Maryland. On the other hand, in 73 of Appalachia's 423 counties, the African American share of the population has actually decreased from its level in 2010. Counties in the latter group were largely concentrated in Southern and South Central Appalachia.

Figure 3.5: Percentage Point Change in the Share of the Population in the Appalachian Region That Is Hispanic or Latino, July 1, 2010 to July 1, 2021



Map Title: Percentage Point Change in the Share of the Population in the Appalachian Region That Is Hispanic or Latino, July 1, 2010 to July 1, 2021

Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.

The Hispanic/Latino share of the Appalachian population rose by 1.6 percentage points from 2010 to 2021—although this increase was noticeably below the national average over the past decade. Still, there were 24 counties (21 of which were in Georgia, Alabama, or Pennsylvania) where the Hispanic share of the population grew at or above the national rate of 2.5 percentage points. Opportunities in industries such as food processing (in Franklin County, Alabama and Luzerne County, Pennsylvania) and construction (in the counties surrounding Atlanta)—as well as in creating small businesses—have been cited as possible factors fueling this growth.

TRENDS IN RACE AND HISPANIC ORIGIN

- The Appalachian Region has become more racially and ethnically diverse since 2010. Between July 1, 2010, and July 1, 2021, the share of the population that is minority (defined as anyone who identifies with a racial or ethnic group *other than* “White alone, not Hispanic”) rose 3.7 percentage points to 20.2 percent (see Tables 3.1 and 3.2). The pace of this increased diversity, however, is not as great as that of the nation, where the increase was four and a half percentage points over the period.
- Within the Region, the greatest increase in racial and ethnic diversity is occurring in Southern Appalachia and in counties that are part of large metropolitan areas (1 million population or more). Since 2010, minorities’ share of the population in those two areas rose at least four percentage points—increasing nearly six points in large metros. And Georgia’s Appalachian section has grown even faster: The minority share of the population increased 7.6 percentage points between 2010 and 2021. Not surprisingly, these three areas have minority concentrations that come close to the national minority share of just over 40 percent (34.6 percent for Southern Appalachia, 30.6 percent for counties in large metros, and 39.4 percent for Appalachian Georgia).
- Although African Americans comprise the largest minority group in Appalachia, Hispanics generally have fueled much (and in some areas, most) of the minority increase. The Hispanic/Latino share of the Appalachian population rose 1.6 percentage points between mid-2010 and mid-2021, compared with a one-point increase in the Region’s African American share. The increase in the Latino population may be associated with employment opportunities in such industries as warehouse and food processing and construction, as well as in the creation of small businesses. As with the overall minority population, Southern Appalachia, large metropolitan areas, Appalachian Maryland and Appalachian Georgia had the greatest increases in the Black share of the total population—and showed among the largest increases in their Latino shares as well. (Interestingly, Blacks fueled a slightly larger share of the minority increase than Latinos did in large metros and Appalachian Georgia but increased at the same rate as Hispanics in Appalachian Maryland.)

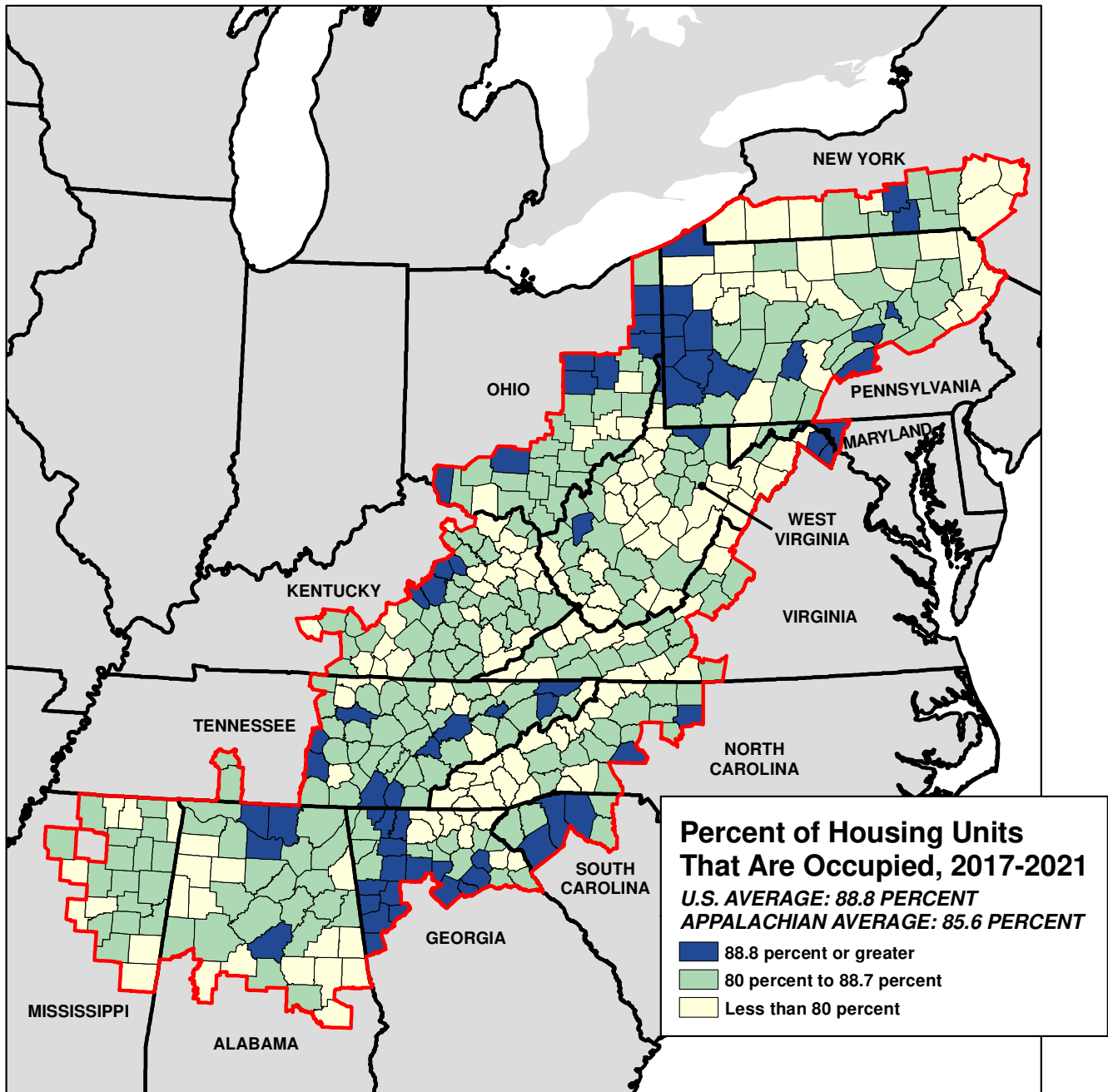
CHAPTER 4: HOUSING OCCUPANCY, TENURE, AND TYPE

Table 4.1: Occupancy and Tenure of Housing Units in the Appalachian Region, 2017-2021

Housing Occupancy and Tenure	Total Number of Housing Units	Number of Occupied Housing Units	Percent of Total Housing Units		Percent of Occupied Housing Units	
			Occupied	Vacant	Owner-Occupied	Renter-Occupied
United States	139,647,020	124,010,992	88.8	11.2	64.6	35.4
Appalachian Region	11,925,184	10,208,293	85.6	14.4	71.2	28.8
Subregions						
Northern Appalachia	3,855,469	3,298,948	85.6	14.4	71.2	28.8
North Central Appalachia	1,163,343	986,081	84.8	15.2	73.1	26.9
Central Appalachia	867,251	709,085	81.8	18.2	72.8	27.2
South Central Appalachia	2,452,134	2,071,304	84.5	15.5	70.1	29.9
Southern Appalachia	3,586,987	3,142,875	87.6	12.4	71.1	28.9
County Types						
Large Metros (pop. 1 million +)	2,664,538	2,411,892	90.5	9.5	71.3	28.7
Small Metros (pop. <1 million)	5,043,020	4,409,764	87.4	12.6	69.6	30.4
Nonmetro, Adjacent to Large Metros	1,074,401	892,865	83.1	16.9	72.3	27.7
Nonmetro, Adjacent to Small Metros	1,918,845	1,540,636	80.3	19.7	74.0	26.0
Rural (nonmetro, not adj. to a metro)	1,224,380	953,136	77.8	22.2	73.2	26.8
Alabama	2,278,526	1,902,983	83.5	16.5	69.4	30.6
Appalachian Alabama	1,444,266	1,230,489	85.2	14.8	70.9	29.1
Non-Appalachian Alabama	834,260	672,494	80.6	19.4	66.7	33.3
Georgia	4,375,039	3,885,371	88.8	11.2	64.5	35.5
Appalachian Georgia	1,276,667	1,156,935	90.6	9.4	71.9	28.1
Non-Appalachian Georgia	3,098,372	2,728,436	88.1	11.9	61.4	38.6
Kentucky	1,988,420	1,748,475	87.9	12.1	67.8	32.2
Appalachian Kentucky	534,042	441,305	82.6	17.4	71.6	28.4
Non-Appalachian Kentucky	1,454,378	1,307,170	89.9	10.1	66.5	33.5
Maryland	2,516,341	2,294,270	91.2	8.8	67.3	32.7
Appalachian Maryland	114,868	98,585	85.8	14.2	68.2	31.8
Non-Appalachian Maryland	2,401,473	2,195,685	91.4	8.6	67.2	32.8
Mississippi	1,317,375	1,108,670	84.2	15.8	68.9	31.1
Appalachian Mississippi	284,731	234,999	82.5	17.5	69.5	30.5
Non-Appalachian Mississippi	1,032,644	873,671	84.6	15.4	68.8	31.2
New York	8,449,178	7,530,150	89.1	10.9	54.4	45.6
Appalachian New York	508,536	416,763	82.0	18.0	69.4	30.6
Non-Appalachian New York	7,940,642	7,113,387	89.6	10.4	53.5	46.5
North Carolina	4,673,933	4,034,684	86.3	13.7	65.9	34.1
Appalachian North Carolina	994,650	807,797	81.2	18.8	70.3	29.7
Non-Appalachian North Carolina	3,679,283	3,226,887	87.7	12.3	64.8	35.2
Ohio	5,232,733	4,754,161	90.9	9.1	66.6	33.4
Appalachian Ohio	896,594	787,111	87.8	12.2	72.0	28.0
Non-Appalachian Ohio	4,336,139	3,967,050	91.5	8.5	65.5	34.5
Pennsylvania	5,728,788	5,147,783	89.9	10.1	69.2	30.8
Appalachian Pennsylvania	2,723,803	2,336,977	85.8	14.2	71.5	28.5
Non-Appalachian Pennsylvania	3,004,985	2,810,806	93.5	6.5	67.2	32.8
South Carolina	2,325,248	1,976,447	85.0	15.0	70.3	29.7
Appalachian South Carolina	581,323	520,452	89.5	10.5	70.6	29.4
Non-Appalachian South Carolina	1,743,925	1,455,995	83.5	16.5	70.2	29.8
Tennessee	3,011,124	2,664,791	88.5	11.5	66.9	33.1
Appalachian Tennessee	1,345,213	1,173,332	87.2	12.8	70.2	29.8
Non-Appalachian Tennessee	1,665,911	1,491,459	89.5	10.5	64.4	35.6
Virginia	3,596,100	3,248,528	90.3	9.7	66.6	33.4
Appalachian Virginia	361,054	292,196	80.9	19.1	71.7	28.3
Non-Appalachian Virginia	3,235,046	2,956,332	91.4	8.6	66.1	33.9
West Virginia (entire state)	859,437	711,352	82.8	17.2	73.9	26.1

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

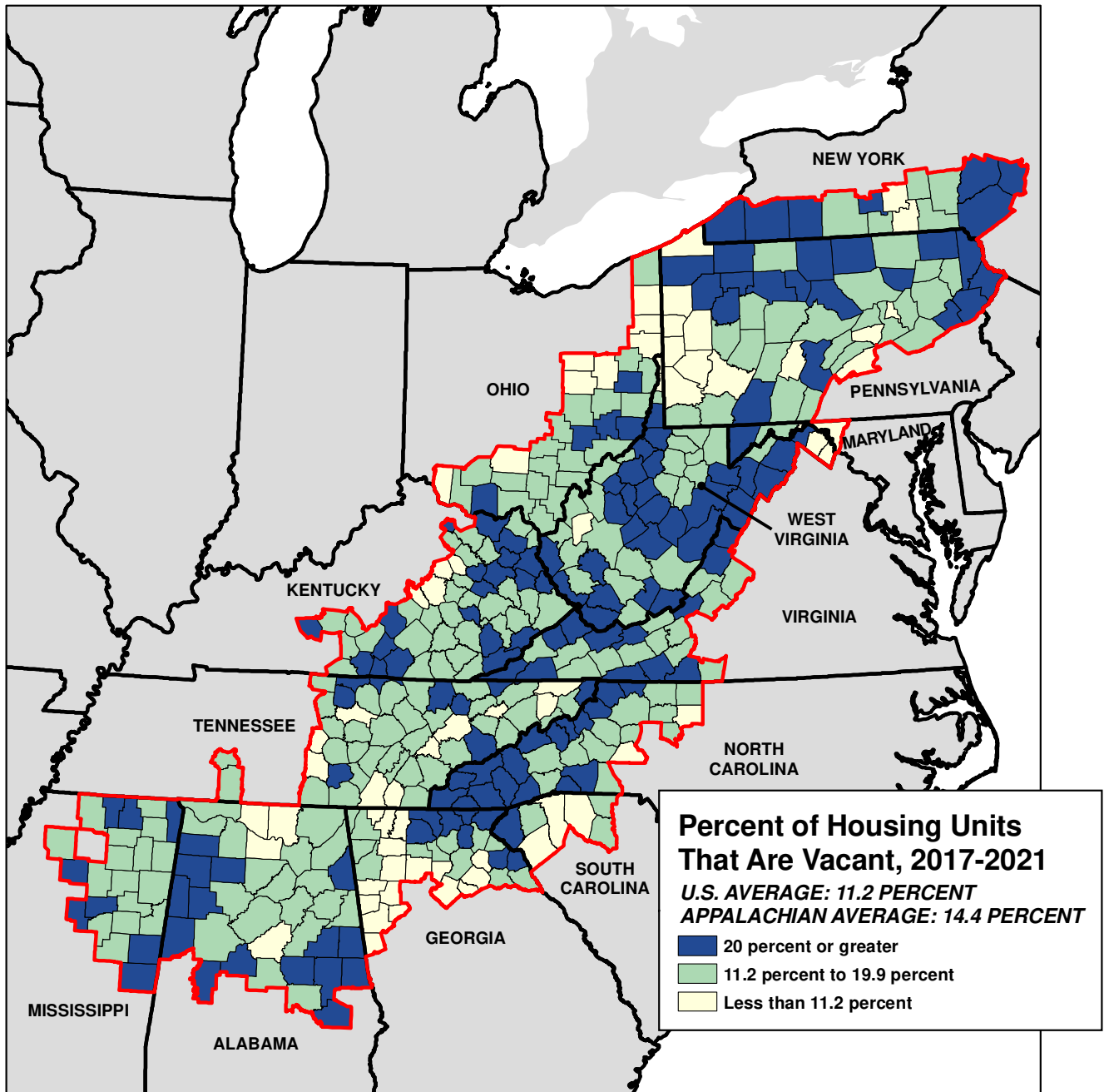
Figure 4.1: Percent of Housing Units in the Appalachian Region That Are Occupied, 2017-2021



Map Title: Percent of Housing Units in the Appalachian Region That Are Occupied, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Although the home occupancy rate during the 2017-2021 period was slightly lower in Appalachia than in the United States as a whole, there were 69 counties in the Region that had occupancy rates matching or exceeding the national average. And while they were scattered throughout the Region, 53 of these counties were in metropolitan areas, such as the Atlanta and Birmingham suburbs, exurban Cincinnati, and Martinsburg, West Virginia. Conversely, less than four-fifths of housing units were occupied in 147 Appalachian counties—127 of which were located outside metropolitan areas.

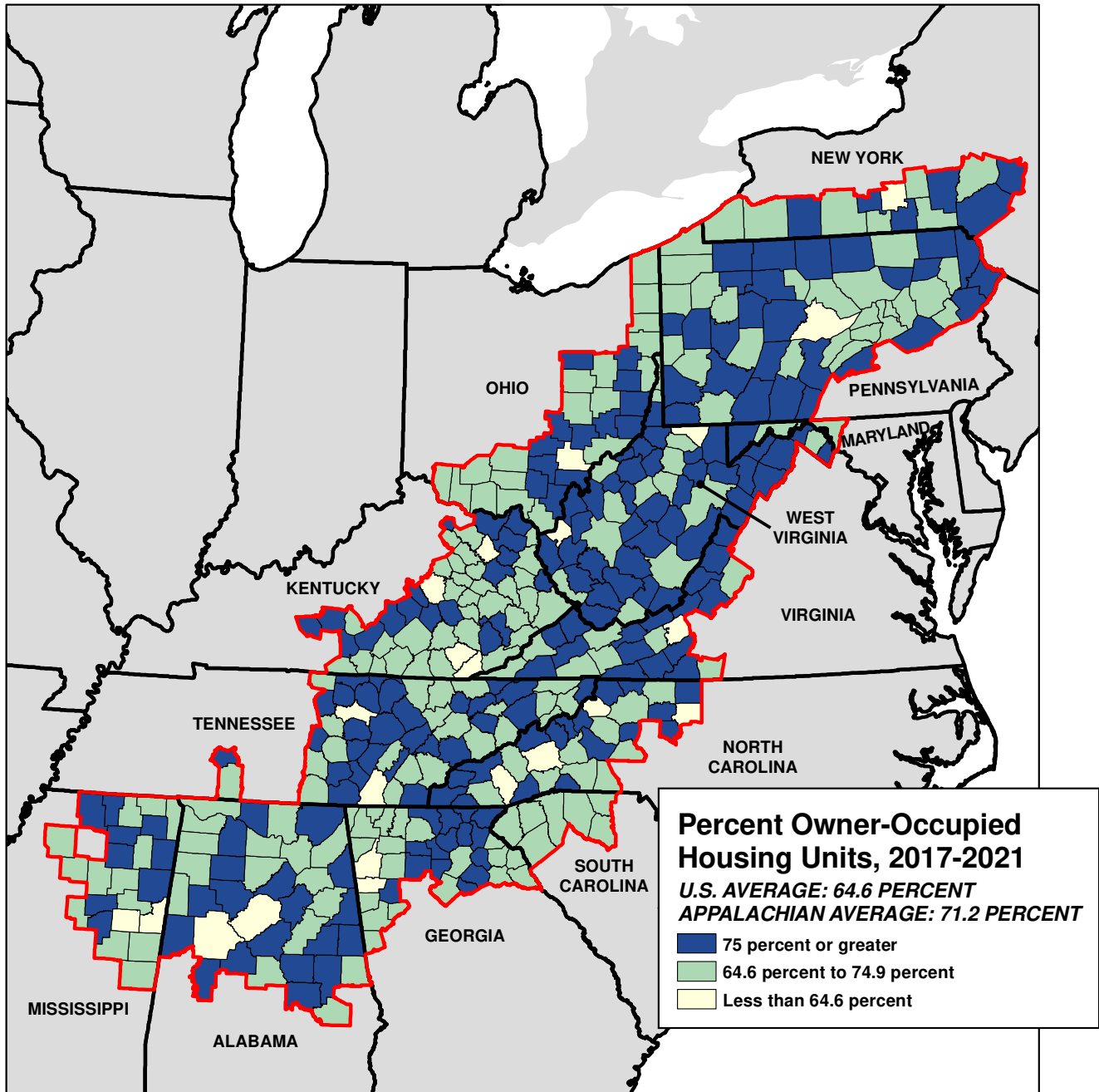
Figure 4.2: Percent of Housing Units in the Appalachian Region That Are Vacant, 2017-2021



Map Title: Percent of Housing Units in the Appalachian Region That Are Vacant, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Slightly more than 14 percent of housing units in Appalachia were vacant during the 2017-2021 period, compared with just 11.2 percent for the nation as a whole. Vacancy rates varied within the Region, however. While 149 of the 423 Appalachian counties (all but 21 of which were outside metropolitan areas) had vacancy rates at or above 20 percent, another 76 counties (mostly in metro areas) had rates below the national average of 11.2 percent. It is important to note that in 142 of the 347 Appalachian counties with vacancy rates of 11.2 percent or more, at least one-third of the vacant units were designated for seasonal or occasional use—suggesting significant recreational, resort, or retirement activity in the community. Examples of such areas include the Great Smoky Mountains along the North Carolina-Tennessee border, the Greenbrier resort in West Virginia (Greenbrier County), and the Pocono Mountains in northeastern Pennsylvania.

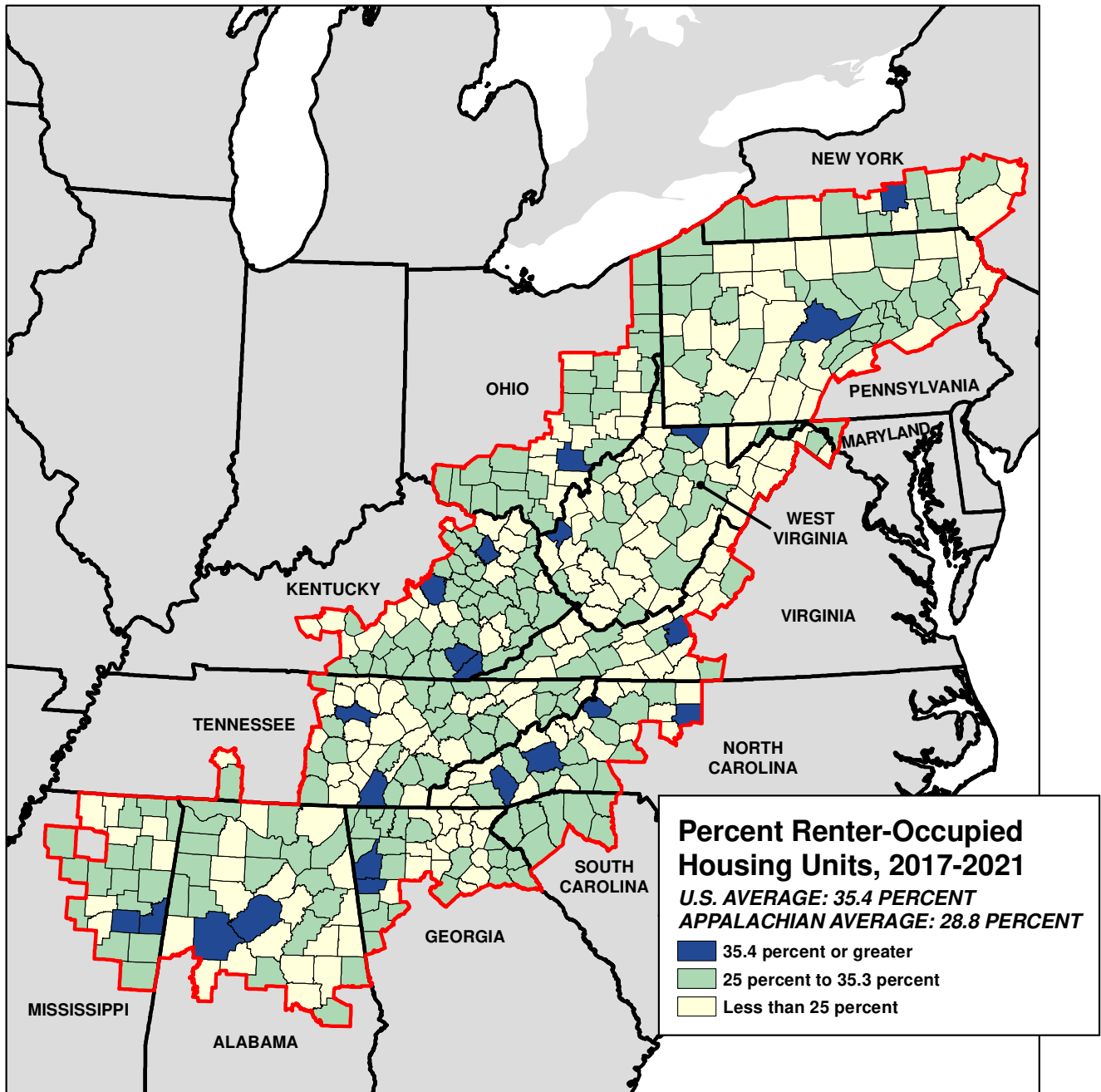
Figure 4.3: Percent Owner-Occupied Housing Units in the Appalachian Region, 2017-2021



Map Title: Percent Owner-Occupied Housing Units in the Appalachian Region, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Homeownership was more common in the Appalachian Region than in the rest of the country in the 2017-2021 period. In all but 22 counties, the share of owner-occupied housing units matched or exceeded the national average. Indeed, the homeownership rate was at least 75 percent in 207 of Appalachia’s 423 counties, scattered throughout the Region. It is important to note that in some areas, high homeownership rates might be related to low levels of economic and residential mobility, as well as the older age structure of the Appalachian population.

Figure 4.4: Percent Renter-Occupied Housing Units in the Appalachian Region, 2017-2021



Map Title: Percent Renter-Occupied Housing Units in the Appalachian Region, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

The share of renter-occupied housing units during the 2017-2021 period was well below the national average throughout Appalachia; in fact, it was less than 25 percent in 200 of the Region’s 423 counties. There were just 22 Appalachian counties where the share of renter-occupied units matched or exceeded the national average of 35.4 percent, and almost three-quarters are home to colleges or universities where students make up a sizeable share of the population. Examples of these counties include Madison County, Kentucky (Eastern Kentucky University); Forsyth County, North Carolina (Wake Forest University); and Cabell County, West Virginia (Marshall University).

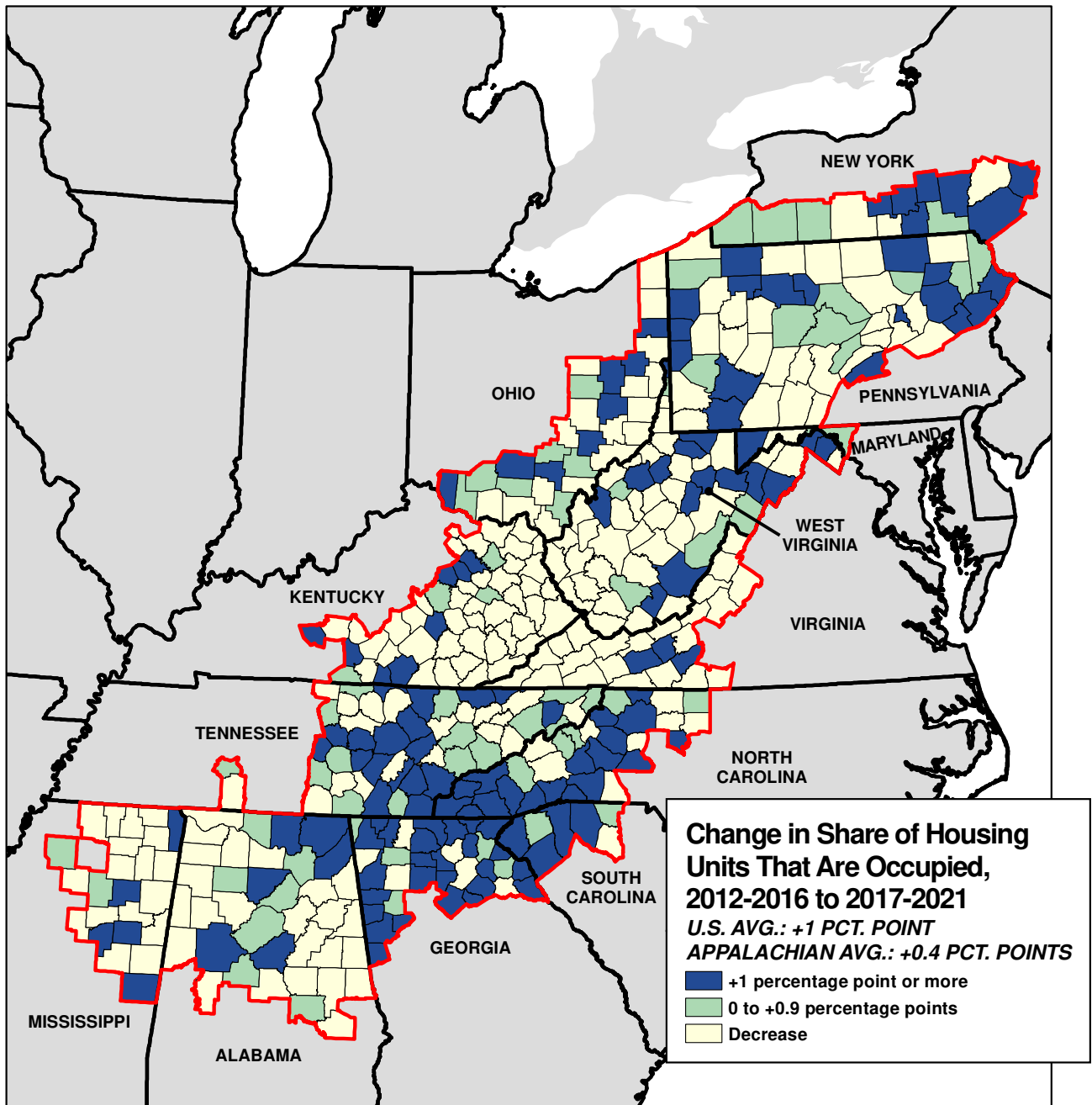
Table 4.2: Percentage Point Change in Occupancy and Tenure of Housing Units in the Appalachian Region, 2012-2016 to 2017-2021

Housing Occupancy and Tenure	Percentage Point Change, Share of Total Housing Units		Percentage Point Change, Share of Occupied Housing Units	
	Occupied	Vacant	Owner-Occupied	Renter-Occupied
United States	+ 1.0	- 1.0	+ 1.0	- 1.0
Appalachian Region	+ 0.4	- 0.4	+ 0.9	- 0.9
Subregions				
Northern Appalachia	+ 0.5	- 0.5	+ 0.5	- 0.5
North Central Appalachia	- 0.1	+ 0.1	+ 1.2	- 1.2
Central Appalachia	- 2.2	+ 2.2	+ 0.8	- 0.8
South Central Appalachia	+ 0.3	- 0.3	+ 1.0	- 1.0
Southern Appalachia	+ 1.0	- 1.0	+ 1.4	- 1.4
County Types				
Large Metros (pop. 1 million +)	+ 1.2	- 1.2	+ 0.9	- 0.9
Small Metros (pop. <1 million)	+ 0.1	- 0.1	+ 1.0	- 1.0
Nonmetro, Adjacent to Large Metros	- 0.1	+ 0.1	+ 1.1	- 1.1
Nonmetro, Adjacent to Small Metros	+ 0.2	- 0.2	+ 1.0	- 1.0
Rural (nonmetro, not adj. to a metro)	- 1.0	+ 1.0	+ 1.0	- 1.0
Alabama	- 0.3	+ 0.3	+ 0.9	- 0.9
Appalachian Alabama	+ 0.2	- 0.2	+ 0.8	- 0.8
Non-Appalachian Alabama	- 1.1	+ 1.1	+ 1.1	- 1.1
Georgia	+ 1.9	- 1.9	+ 1.7	- 1.7
Appalachian Georgia	+ 2.4	- 2.4	+ 1.9	- 1.9
Non-Appalachian Georgia	+ 1.7	- 1.7	+ 1.6	- 1.6
Kentucky	- 0.2	+ 0.2	+ 1.0	- 1.0
Appalachian Kentucky	- 2.1	+ 2.1	+ 0.8	- 0.8
Non-Appalachian Kentucky	+ 0.6	- 0.6	+ 1.1	- 1.1
Maryland	+ 1.3	- 1.3	+ 0.8	- 0.8
Appalachian Maryland	+ 1.3	- 1.3	+ 0.9	- 0.9
Non-Appalachian Maryland	+ 1.2	- 1.2	+ 0.7	- 0.7
Mississippi	- 0.6	+ 0.6	+ 1.0	- 1.0
Appalachian Mississippi	- 2.0	+ 2.0	- 0.3	+ 0.3
Non-Appalachian Mississippi	- 0.3	+ 0.3	+ 1.4	- 1.4
New York	+ 0.4	- 0.4	+ 0.8	- 0.8
Appalachian New York	+ 0.7	- 0.7	+ 0.3	- 0.3
Non-Appalachian New York	+ 0.4	- 0.4	+ 0.8	- 0.8
North Carolina	+ 0.6	- 0.6	+ 1.1	- 1.1
Appalachian North Carolina	+ 0.2	- 0.2	+ 1.3	- 1.3
Non-Appalachian North Carolina	+ 0.7	- 0.7	+ 1.1	- 1.1
Ohio	+ 1.5	- 1.5	+ 0.6	- 0.6
Appalachian Ohio	+ 0.1	- 0.1	+ 0.9	- 0.9
Non-Appalachian Ohio	+ 1.7	- 1.7	+ 0.6	- 0.6
Pennsylvania	+ 1.2	- 1.2	+ 0.2	- 0.2
Appalachian Pennsylvania	+ 0.5	- 0.5	+ 0.4	- 0.4
Non-Appalachian Pennsylvania	+ 1.5	- 1.5	+ 0.0	+ 0.0
South Carolina	+ 1.1	- 1.1	+ 1.9	- 1.9
Appalachian South Carolina	+ 1.3	- 1.3	+ 2.4	- 2.4
Non-Appalachian South Carolina	+ 1.0	- 1.0	+ 1.7	- 1.7
Tennessee	+ 0.7	- 0.7	+ 0.6	- 0.6
Appalachian Tennessee	+ 0.8	- 0.8	+ 0.7	- 0.7
Non-Appalachian Tennessee	+ 0.6	- 0.6	+ 0.6	- 0.6
Virginia	+ 0.6	- 0.6	+ 0.8	- 0.8
Appalachian Virginia	- 2.8	+ 2.8	+ 0.9	- 0.9
Non-Appalachian Virginia	+ 1.0	- 1.0	+ 0.9	- 0.9
West Virginia (entire state)	- 0.8	+ 0.8	+ 1.4	- 1.4

Note: Since occupied units and vacant units sum to the total number of housing units, the sum of the percentage point changes for the two categories will equal zero. The same principle holds for the sum of the percentage point changes for owner-occupied units and renter-occupied units, since these two categories sum to the total number of occupied housing units.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 4.5: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Occupied, 2012-2016 to 2017-2021

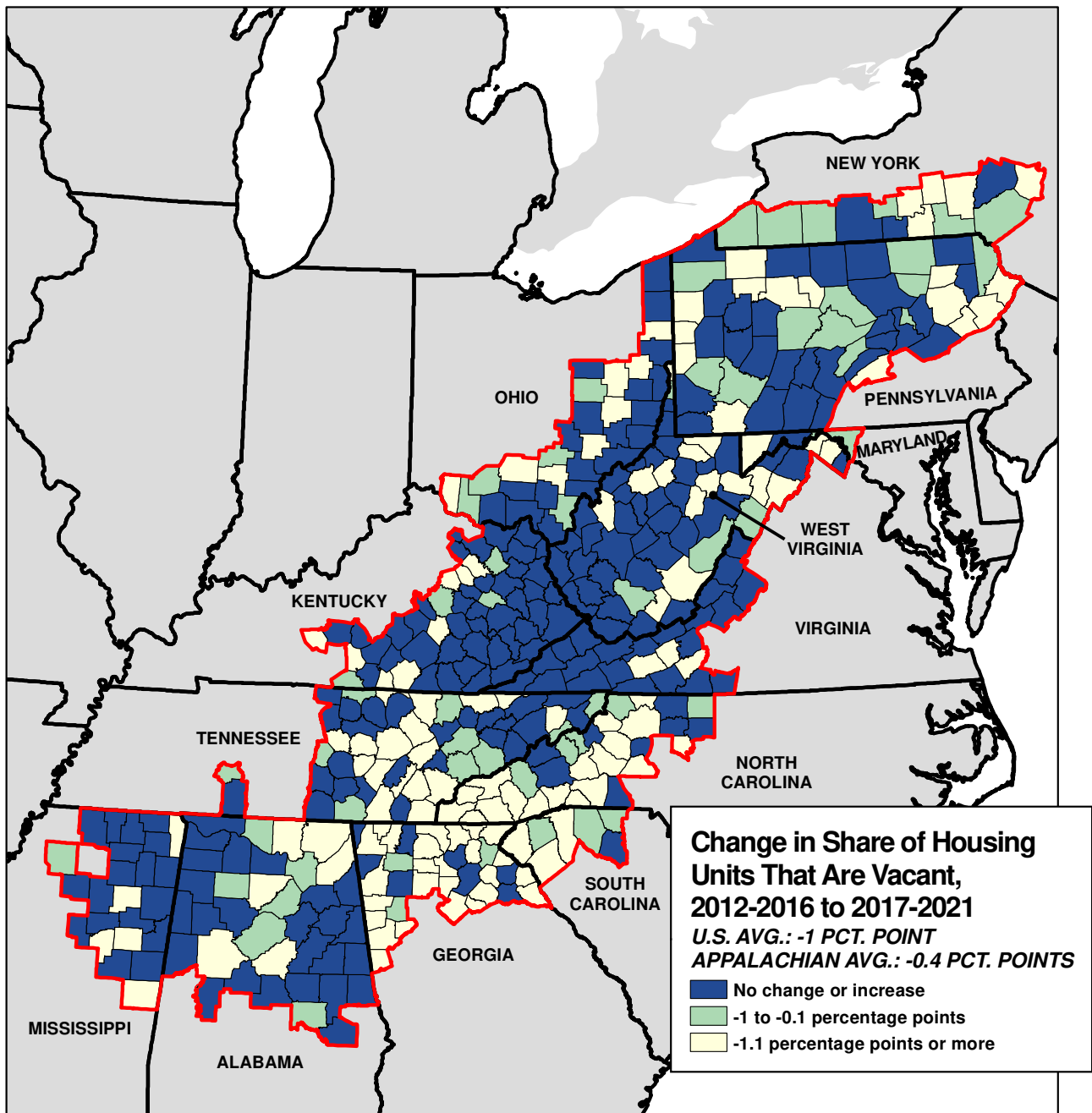


Map Title: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Occupied, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Appalachia’s home occupancy rate in 2017-2021 was slightly higher than it was in 2012-2016, yet it did not increase as much as the nation as a whole. However, the occupancy rate rose at or above the national average in 136 counties. While these counties were spread throughout the Region, there were concentrations in a few states, including Georgia, the Carolinas, Pennsylvania, and Tennessee. In fact, the occupancy rate rose in the Appalachian sections of all states except Kentucky, Mississippi, and Virginia, as well as the entire state of West Virginia. On the other hand, decreased home occupancy was present in 221 of the Region’s 423 counties. For those counties, factors other than the aftermath of the Great Recession may also be at play. For example, severe weather events, such as storms and tornadoes in early 2020 which affected parts of Virginia, Mississippi, Tennessee, and Kentucky may have contributed to this decline. Additionally, many of these counties may also still be impacted by severe weather events that took place toward the end of the 2012-2016 period, such as the outbreak of tornadoes in Fall 2016.

Figure 4.6: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Vacant, 2012-2016 to 2017-2021

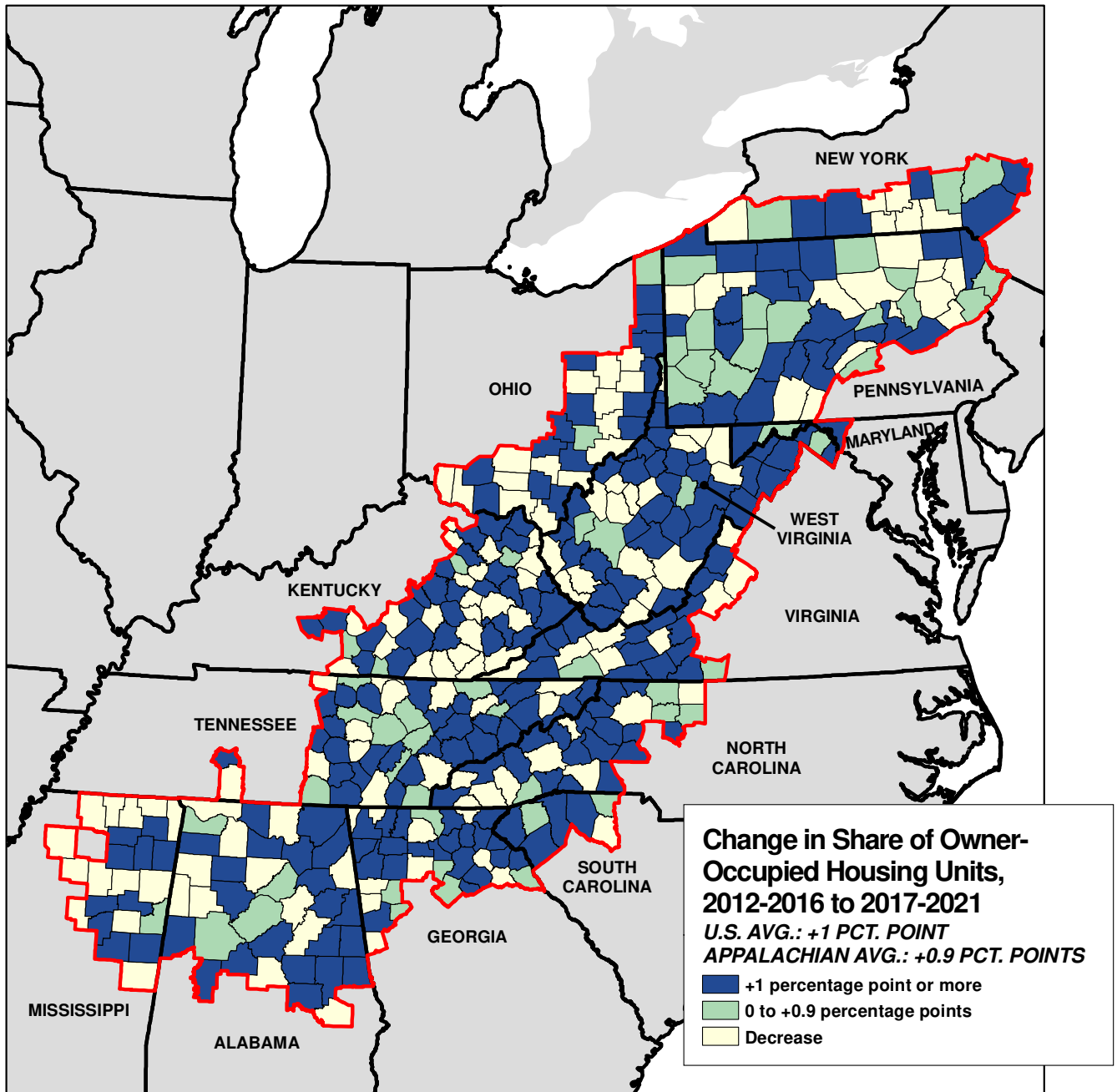


Map Title: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Vacant, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Between 2012-2016 and 2017-2021, the share of vacant housing units declined 0.4 percentage points in Appalachia and one point in the nation as a whole. Despite overall decline in the region, housing vacancy remained constant or increased in 235 of the Region’s 423 counties. The increase in many Appalachian counties at least partly suggests the failure of occupancy rates to return to pre-recessionary levels (as well as the effects of severe weather events). Yet another potential factor could be the fact that some parts of the Region have a large share of units that are mobile homes. Of the 161 Appalachian counties where mobile homes were at least 20 percent of all housing units, overall vacancy rates remained the same or increased in 108 of them.

Figure 4.7: Percentage Point Change in the Share of Owner-Occupied Housing Units in the Appalachian Region, 2012-2016 to 2017-2021

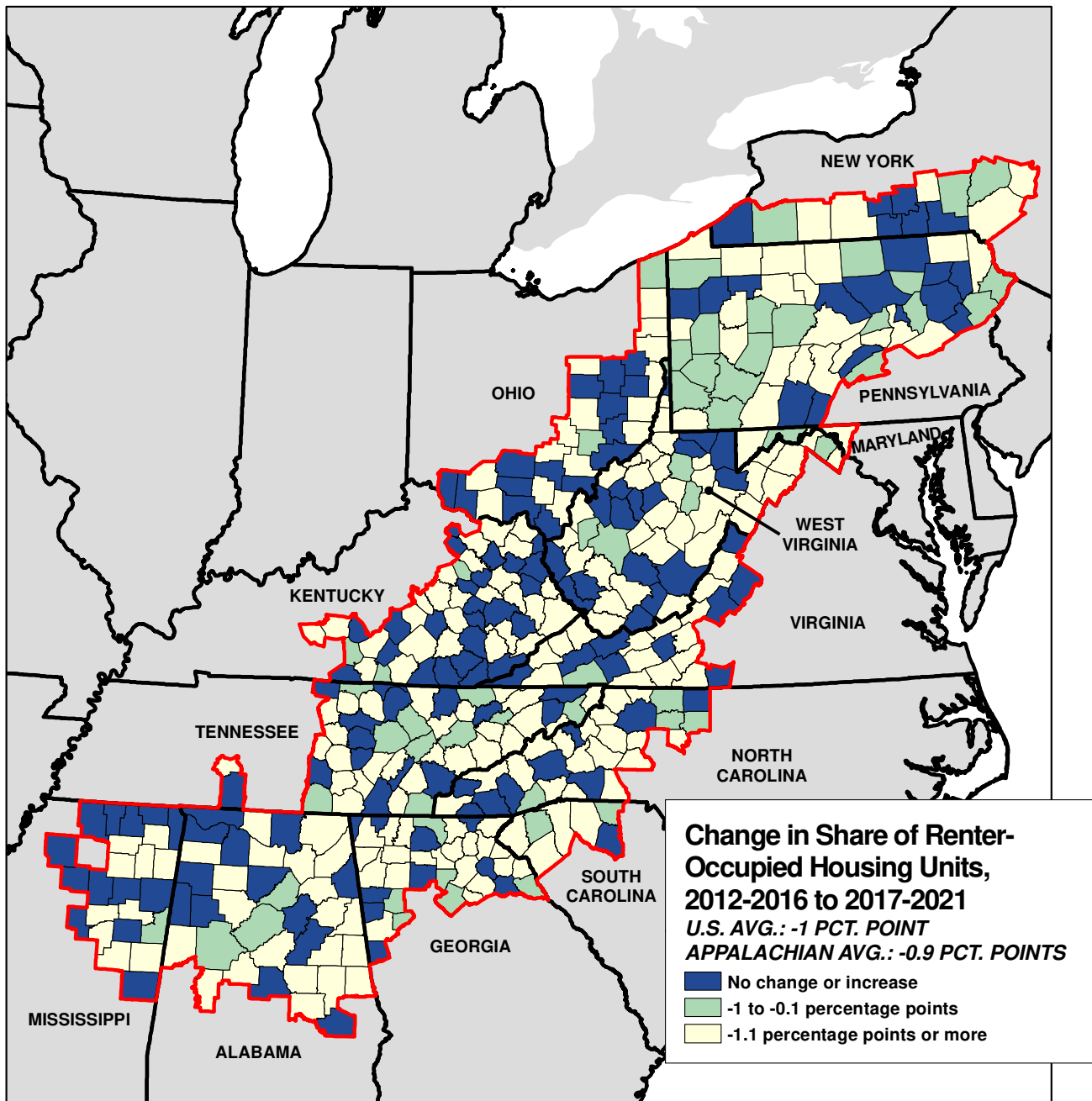


Map Title: Percentage Point Change in the Share of Owner-Occupied Housing Units in the Appalachian Region, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of owner-occupied housing units rose at about the same rate in Appalachia as it did nationwide between 2012-2016 and 2017-2021. In fact, the increase was at or above the national average in more than half of the Region's 423 counties. Still, there were 141 Appalachian counties—95 of which were outside metropolitan areas—where homeownership decreased between these two periods. Counties in both groups were scattered throughout Appalachia.

Figure 4.8: Percentage Point Change in the Share of Renter-Occupied Housing Units in the Appalachian Region, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Renter-Occupied Housing Units in the Appalachian Region, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

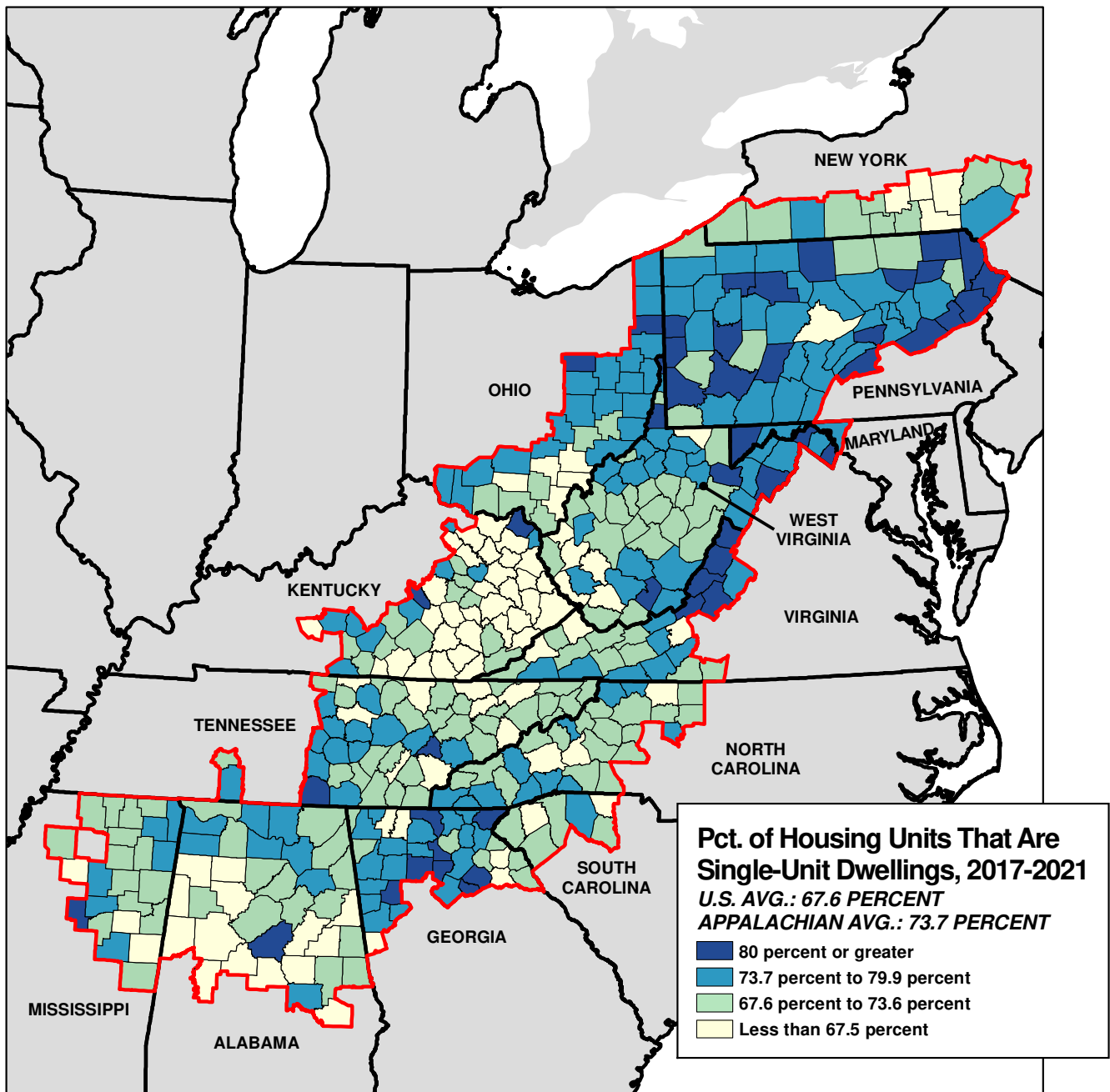
The share of renter-occupied housing units decreased at about the same rate in Appalachia as it did nationwide between 2012-2016 and 2017-2021. Yet variations were present within the Region: For example, there were 218 Appalachian counties where the decrease in rental shares exceeded the national average of one percentage point. These counties were scattered throughout the Region. Conversely, the percentage of units occupied by renters remained the same or increased in 146 counties between the two periods.

Table 4.3: Housing Units in the Appalachian Region, by Type of Housing, 2017-2021

Housing Units (Type of Housing)	Total Number of Housing Units (Occupied and Vacant)	Percent of All Housing Units					
		Single-Unit Dwellings (Attached or Detached)	Multiple-Unit Fixed Dwellings			Mobile Homes	Boats, RVs, Vans, Etc.
			Total	Two to Four Units	Five or More Units		
United States	139,647,020	67.6	26.4	7.8	18.6	5.9	0.1
Appalachian Region	11,925,184	73.7	15.1	5.9	9.2	11.1	0.1
Subregions							
Northern Appalachia	3,855,469	76.0	17.8	8.4	9.4	6.1	0.0
North Central Appalachia	1,163,343	73.6	13.0	5.0	8.0	13.4	0.1
Central Appalachia	867,251	67.5	9.2	4.2	5.0	23.1	0.1
South Central Appalachia	2,452,134	71.7	15.0	5.2	9.8	13.2	0.1
Southern Appalachia	3,586,987	74.0	14.4	4.3	10.1	11.5	0.1
County Types							
Large Metros (pop. 1 million +)	2,664,538	77.2	17.4	5.1	12.3	5.4	0.1
Small Metros (pop. <1 million)	5,043,020	72.9	17.5	6.6	10.8	9.6	0.1
Nonmetro, Adjacent to Large Metros	1,074,401	73.4	12.4	6.4	6.0	14.0	0.1
Nonmetro, Adjacent to Small Metros	1,918,845	73.1	10.4	5.2	5.2	16.3	0.2
Rural (nonmetro, not adj. to a metro)	1,224,380	70.4	10.0	4.8	5.2	19.5	0.1
Alabama	2,278,526	70.6	16.5	4.8	11.7	12.8	0.2
Appalachian Alabama	1,444,266	71.7	15.9	4.5	11.3	12.3	0.2
Non-Appalachian Alabama	834,260	68.7	17.5	5.3	12.3	13.6	0.2
Georgia	4,375,039	70.9	20.8	5.0	15.8	8.2	0.1
Appalachian Georgia	1,276,667	78.8	12.7	3.5	9.2	8.3	0.1
Non-Appalachian Georgia	3,098,372	67.6	24.1	5.7	18.5	8.2	0.1
Kentucky	1,988,420	70.5	18.4	7.2	11.2	11.0	0.1
Appalachian Kentucky	534,042	66.5	10.1	4.8	5.3	23.3	0.1
Non-Appalachian Kentucky	1,454,378	71.9	21.5	8.1	13.3	6.5	0.1
Maryland	2,516,341	72.7	25.9	3.6	22.3	1.3	0.0
Appalachian Maryland	114,868	78.8	17.2	6.4	10.8	3.9	0.0
Non-Appalachian Maryland	2,401,473	72.4	26.3	3.5	22.8	1.2	0.0
Mississippi	1,317,375	70.5	14.7	5.6	9.1	14.7	0.1
Appalachian Mississippi	284,731	70.1	12.6	6.1	6.4	17.3	0.1
Non-Appalachian Mississippi	1,032,644	70.6	15.3	5.4	9.8	13.9	0.2
New York	8,449,178	47.0	50.8	16.8	34.0	2.2	0.0
Appalachian New York	508,536	67.7	22.6	13.6	9.0	9.7	0.0
Non-Appalachian New York	7,940,642	45.7	52.6	17.0	35.6	1.7	0.0
North Carolina	4,673,933	69.8	18.2	4.7	13.5	11.9	0.1
Appalachian North Carolina	994,650	70.8	13.9	4.6	9.3	15.2	0.1
Non-Appalachian North Carolina	3,679,283	69.5	19.4	4.7	14.7	11.0	0.1
Ohio	5,232,733	73.6	22.8	8.3	14.5	3.6	0.0
Appalachian Ohio	896,594	76.2	13.8	5.8	8.0	10.0	0.1
Non-Appalachian Ohio	4,336,139	73.1	24.6	8.8	15.9	2.3	0.0
Pennsylvania	5,728,788	75.8	20.5	8.3	12.3	3.7	0.0
Appalachian Pennsylvania	2,723,803	77.0	17.5	7.8	9.7	5.5	0.0
Non-Appalachian Pennsylvania	3,004,985	74.7	23.3	8.7	14.6	2.0	0.0
South Carolina	2,325,248	67.1	17.4	4.6	12.8	15.4	0.1
Appalachian South Carolina	581,323	71.0	15.4	4.4	11.0	13.4	0.1
Non-Appalachian South Carolina	1,743,925	65.7	18.0	4.6	13.4	16.1	0.1
Tennessee	3,011,124	72.2	19.0	5.7	13.3	8.7	0.1
Appalachian Tennessee	1,345,213	72.0	15.3	5.6	9.8	12.5	0.2
Non-Appalachian Tennessee	1,665,911	72.3	21.9	5.9	16.0	5.7	0.1
Virginia	3,596,100	72.6	22.8	4.4	18.3	4.6	0.0
Appalachian Virginia	361,054	71.6	11.8	4.0	7.8	16.6	0.1
Non-Appalachian Virginia	3,235,046	72.7	24.0	4.5	19.5	3.3	0.0
West Virginia (entire state)	859,437	73.3	12.6	5.0	7.6	14.0	0.1

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 4.9: Percent of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2017-2021



Map Title: Percent of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

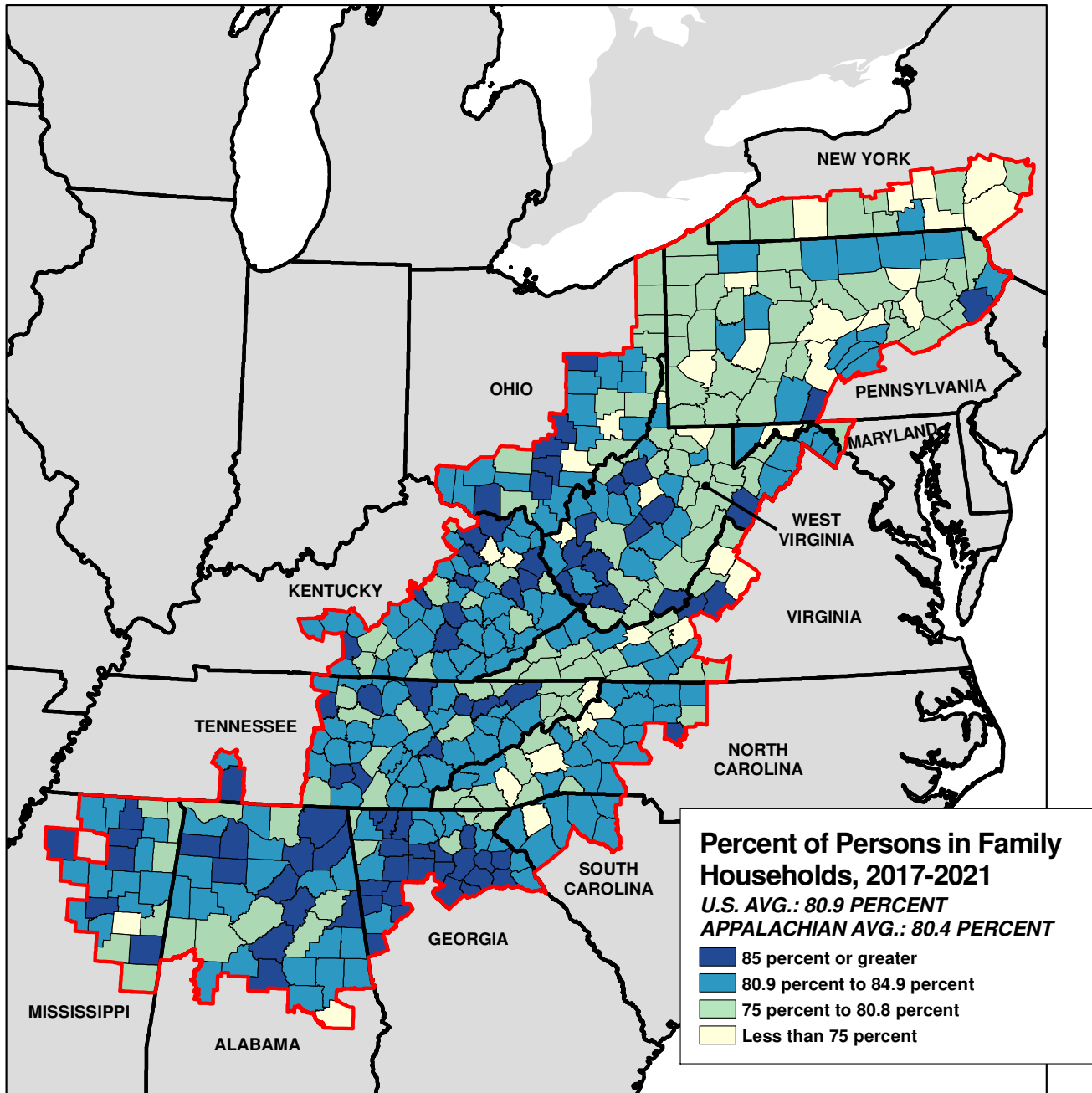
In 2017-2021, 73.7 percent of housing units in the Appalachian Region were single-unit dwellings (either attached or detached)—a larger share than the national average of 67.6 percent. The share was even greater in much of Appalachia: In 191 of the 423 counties, the share of single-unit homes was at or above the average for the Region. (Most of these counties were in Northern or North Central Appalachia—with 44 in Pennsylvania alone.) And there were 48 Appalachian counties where single-unit dwellings accounted for at least 80 percent of the housing stock. In contrast, there were 87 counties in the Region (nearly half in Central Appalachia) where the share of single-unit homes was lower than the U.S. average. In these low prevalence counties, mobile homes tended to comprise most of the remaining housing stock: They accounted for at least 25 percent of housing units in 57 of the counties where the share of single-unit homes was less than the national share.

Table 4.4: Population in Households and Group Quarters in the Appalachian Region, 2017-2021

Population in Households and Group Quarters	All Persons	Percent of All Persons			
		In Households			In Group Quarters
		Total	In Family Households	In Non-Family Households	
United States	329,725,481	97.6	80.9	16.8	2.4
Appalachian Region	26,141,328	97.2	80.4	16.7	2.8
Subregions					
Northern Appalachia	8,099,220	96.0	77.0	19.0	4.0
North Central Appalachia	2,506,257	97.2	79.8	17.4	2.8
Central Appalachia	1,863,338	97.1	82.1	15.0	2.9
South Central Appalachia	5,179,019	97.4	79.5	17.9	2.6
Southern Appalachia	8,493,494	98.1	84.1	14.1	1.9
County Types					
Large Metros (pop. 1 million +)	6,247,455	98.3	82.4	15.9	1.7
Small Metros (pop. <1 million)	11,178,676	96.9	79.2	17.7	3.1
Nonmetro, Adjacent to Large Metros	2,299,036	96.7	80.3	16.4	3.3
Nonmetro, Adjacent to Small Metros	3,934,906	96.9	80.9	16.0	3.1
Rural (nonmetro, not adj. to a metro)	2,481,255	96.3	80.2	16.1	3.7
Alabama	4,997,675	97.7	81.7	16.0	2.3
Appalachian Alabama	3,217,195	97.7	82.0	15.7	2.3
Non-Appalachian Alabama	1,780,480	97.8	81.2	16.6	2.2
Georgia	10,625,615	97.6	82.3	15.3	2.4
Appalachian Georgia	3,326,805	98.9	87.5	11.4	1.1
Non-Appalachian Georgia	7,298,810	97.1	79.9	17.1	2.9
Kentucky	4,494,141	97.2	80.2	17.0	2.8
Appalachian Kentucky	1,167,463	96.9	81.9	15.0	3.1
Non-Appalachian Kentucky	3,326,678	97.3	79.6	17.7	2.7
Maryland	6,148,545	97.8	81.8	15.9	2.2
Appalachian Maryland	251,595	92.7	76.2	16.6	7.3
Non-Appalachian Maryland	5,896,950	98.0	82.1	15.9	2.0
Mississippi	2,967,023	97.0	81.8	15.2	3.0
Appalachian Mississippi	614,170	97.3	81.2	16.1	2.7
Non-Appalachian Mississippi	2,352,853	97.0	82.0	15.0	3.0
New York	20,114,745	97.2	79.3	17.8	2.8
Appalachian New York	1,029,155	94.4	73.7	20.7	5.6
Non-Appalachian New York	19,085,590	97.3	79.6	17.7	2.7
North Carolina	10,367,022	97.5	80.3	17.1	2.5
Appalachian North Carolina	2,017,452	97.6	79.7	17.9	2.4
Non-Appalachian North Carolina	8,349,570	97.4	80.5	17.0	2.6
Ohio	11,769,923	97.4	78.7	18.7	2.6
Appalachian Ohio	1,989,080	97.1	80.2	16.9	2.9
Non-Appalachian Ohio	9,780,843	97.5	78.4	19.1	2.5
Pennsylvania	12,970,650	96.8	79.0	17.9	3.2
Appalachian Pennsylvania	5,714,141	96.2	77.1	19.1	3.8
Non-Appalachian Pennsylvania	7,256,509	97.3	80.4	16.9	2.7
South Carolina	5,078,903	97.5	80.8	16.7	2.5
Appalachian South Carolina	1,335,324	97.9	81.9	16.0	2.1
Non-Appalachian South Carolina	3,743,579	97.4	80.4	17.0	2.6
Tennessee	6,859,497	97.8	80.8	17.0	2.2
Appalachian Tennessee	2,938,981	97.7	80.6	17.1	2.3
Non-Appalachian Tennessee	3,920,516	97.9	80.9	16.9	2.1
Virginia	8,582,479	97.3	80.6	16.7	2.7
Appalachian Virginia	738,918	95.4	76.0	19.4	4.6
Non-Appalachian Virginia	7,843,561	97.4	81.0	16.4	2.6
West Virginia (entire state)	1,801,049	97.5	79.8	17.7	2.5

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 4.10: Percent of Persons in the Appalachian Region Living in Family Households, 2017-2021



Map Title: Percent of Persons in the Appalachian Region Living in Family Households, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

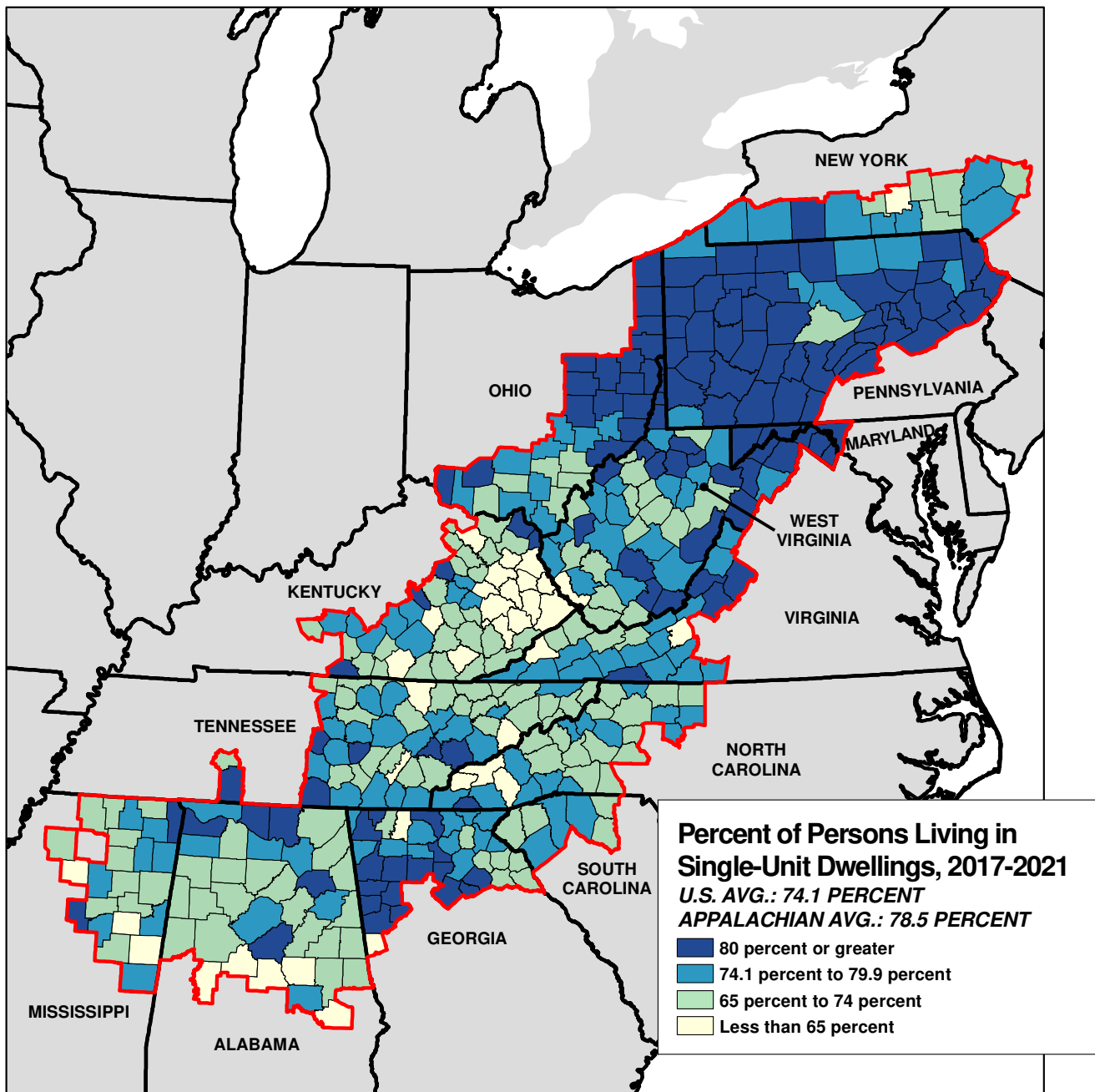
Just over 80 percent of Appalachia’s residents lived in family households during 2017-2021, which was just below the national average. Yet in 82 counties in the Region, at least 85 percent lived in family households. Nearly half of these counties were in Southern Appalachia, although there were pockets elsewhere in the Region. In contrast, there were 35 Appalachian counties where less than three-fourths of the residents were in family households. Just over half of the counties in the latter group have at least 10 percent of their residents living in group quarters, whether dormitories (in counties housing a college or university), nursing care facilities, or prisons. Forest County, Pennsylvania, which houses a state correctional facility, is particularly noteworthy in this regard: Persons in group quarters account for 39.7 percent of the county’s residents. But a more typical example is Rockbridge County, Virginia, home to Virginia Military Institute and Washington and Lee University with 10.2 percent of that county’s residents living in group quarters.

Table 4.5: Population in Occupied Housing Units in the Appalachian Region, by Type of Housing, 2017-2021

Population in Housing Units (Type of Housing)	Total Population in Occupied Housing Units	Percent of Population in Occupied Housing Units					
		In Single-Unit Dwellings (Attached or Detached)	In Multiple-Unit Fixed Dwellings			In Mobile Homes	In Boats, RVs, Vans, Etc.
			Total	Two to Four Units	Five or More Units		
United States	321,899,278	74.1	20.6	6.9	13.7	5.3	0.1
Appalachian Region	25,401,698	78.5	10.9	4.4	6.5	10.6	0.1
Subregions							
Northern Appalachia	7,778,241	82.4	12.5	6.3	6.2	5.1	0.0
North Central Appalachia	2,435,261	78.2	9.2	3.5	5.7	12.6	0.1
Central Appalachia	1,808,379	70.3	7.0	3.3	3.7	22.6	0.1
South Central Appalachia	5,043,906	75.5	11.2	4.0	7.2	13.2	0.1
Southern Appalachia	8,335,911	78.5	10.5	3.3	7.1	10.9	0.1
County Types							
Large Metros (pop. 1 million +)	6,140,756	83.0	11.8	3.6	8.2	5.2	0.0
Small Metros (pop. <1 million)	10,833,511	78.1	12.6	5.0	7.6	9.3	0.1
Nonmetro, Adjacent to Large Metros	2,223,034	77.9	9.1	5.0	4.1	12.8	0.1
Nonmetro, Adjacent to Small Metros	3,813,881	76.1	7.5	4.0	3.5	16.3	0.1
Rural (nonmetro, not adj. to a metro)	2,390,516	73.0	7.7	3.7	3.9	19.3	0.1
Alabama	4,882,809	75.8	11.4	3.7	7.6	12.7	0.1
Appalachian Alabama	3,142,057	76.3	11.2	3.6	7.7	12.3	0.1
Non-Appalachian Alabama	1,740,752	74.9	11.6	4.0	7.6	13.3	0.1
Georgia	10,373,321	76.7	15.4	4.1	11.2	7.9	0.1
Appalachian Georgia	3,289,295	82.7	9.6	2.9	6.7	7.7	0.0
Non-Appalachian Georgia	7,084,026	73.8	18.1	4.7	13.4	8.0	0.1
Kentucky	4,367,713	76.1	13.5	5.7	7.8	10.4	0.1
Appalachian Kentucky	1,131,135	69.4	7.7	3.7	4.0	22.8	0.1
Non-Appalachian Kentucky	3,236,578	78.4	15.6	6.4	9.1	6.0	0.1
Maryland	6,010,454	79.9	19.0	2.7	16.3	1.1	0.0
Appalachian Maryland	233,296	84.1	12.0	4.3	7.7	3.8	0.0
Non-Appalachian Maryland	5,777,158	79.7	19.2	2.6	16.6	1.0	0.0
Mississippi	2,879,329	74.2	11.3	4.6	6.7	14.4	0.1
Appalachian Mississippi	597,869	72.7	9.8	4.8	5.0	17.5	0.1
Non-Appalachian Mississippi	2,281,460	74.6	11.7	4.6	7.1	13.6	0.1
New York	19,542,206	52.2	46.1	17.2	28.9	1.7	0.0
Appalachian New York	971,843	73.6	17.9	11.3	6.6	8.5	0.0
Non-Appalachian New York	18,570,363	51.0	47.6	17.5	30.0	1.3	0.0
North Carolina	10,103,771	74.4	13.6	3.7	9.9	12.0	0.1
Appalachian North Carolina	1,968,303	73.6	10.4	3.5	6.9	16.0	0.1
Non-Appalachian North Carolina	8,135,468	74.6	14.4	3.8	10.6	11.0	0.0
Ohio	11,463,814	81.2	15.8	6.0	9.8	3.0	0.0
Appalachian Ohio	1,931,239	81.7	9.4	4.0	5.4	8.8	0.1
Non-Appalachian Ohio	9,532,575	81.1	17.1	6.4	10.7	1.9	0.0
Pennsylvania	12,556,941	82.9	14.2	6.2	8.0	2.9	0.0
Appalachian Pennsylvania	5,497,707	83.4	12.1	5.8	6.3	4.5	0.0
Non-Appalachian Pennsylvania	7,059,234	82.5	15.8	6.5	9.3	1.7	0.0
South Carolina	4,953,286	72.1	12.0	3.5	8.4	15.8	0.1
Appalachian South Carolina	1,306,690	75.9	11.1	3.1	8.0	12.8	0.1
Non-Appalachian South Carolina	3,646,596	70.7	12.3	3.7	8.6	16.9	0.1
Tennessee	6,706,923	77.7	13.9	4.6	9.3	8.3	0.1
Appalachian Tennessee	2,870,459	76.2	11.3	4.5	6.9	12.4	0.1
Non-Appalachian Tennessee	3,836,464	78.8	15.9	4.7	11.2	5.2	0.1
Virginia	8,346,977	79.1	17.1	3.5	13.6	3.8	0.0
Appalachian Virginia	705,277	75.5	9.7	3.1	6.6	14.7	0.1
Non-Appalachian Virginia	7,641,700	79.4	17.7	3.5	14.2	2.8	0.0
West Virginia (entire state)	1,756,528	77.8	8.6	3.5	5.1	13.4	0.1

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 4.11: Among Persons in the Appalachian Region in Occupied Housing Units, Percent Living in Single-Unit Dwellings (Attached or Detached), 2017-2021



Map Title: Among Persons in the Appalachian Region in Occupied Housing Units, Percent Living in Single-Unit Dwellings (Attached or Detached), 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

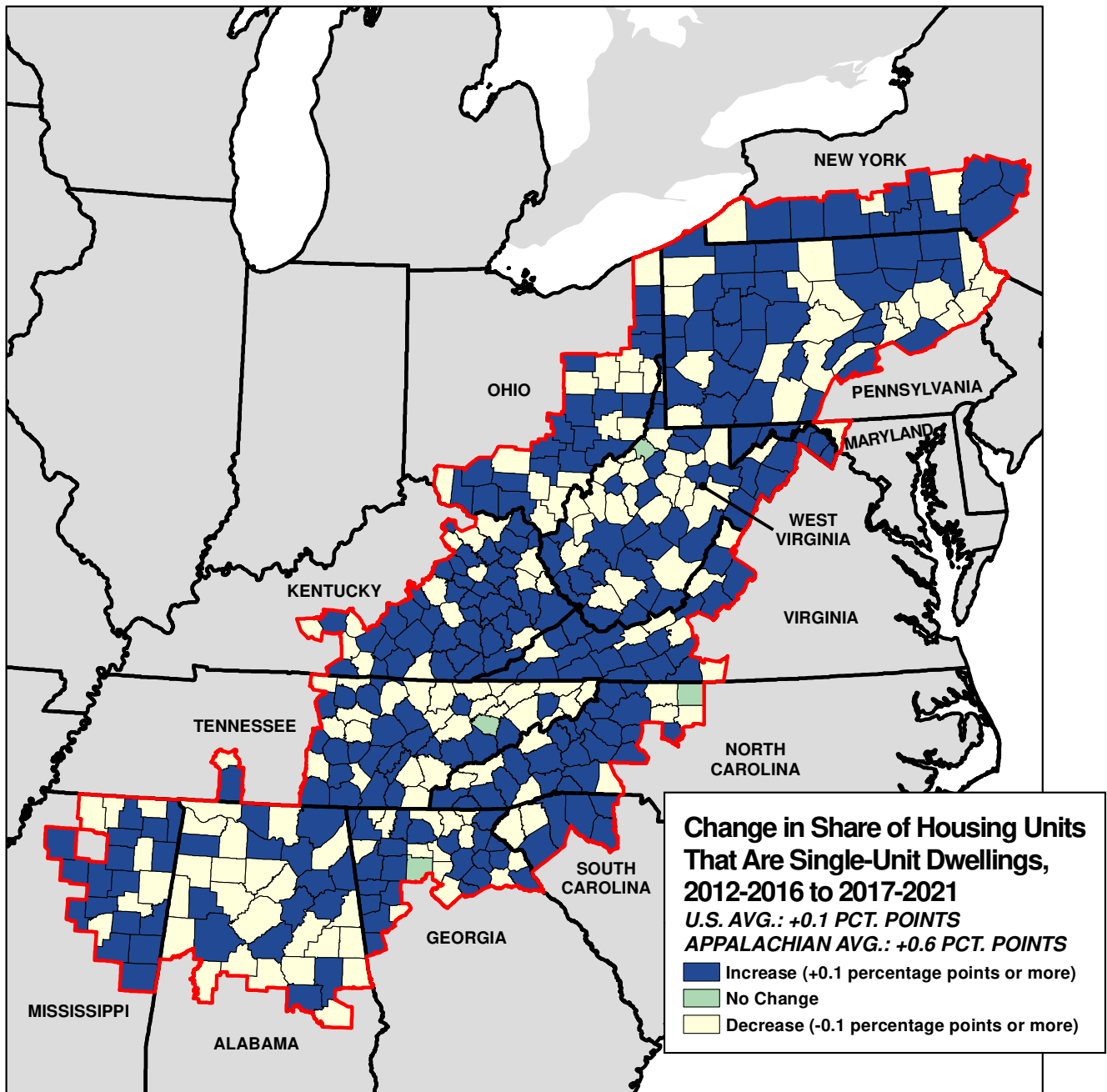
Of the Appalachian population who live in occupied housing units, 78.5 percent lived in single-unit dwellings during the 2017-2021 period, more than four percentage points above the national average. And the share was even greater in much of the Region: In 127 counties, at least four in five residents lived in single-unit homes. Almost half of these were in Northern Appalachia; 44 were in Pennsylvania alone. (There were concentrations in other states, including Ohio, Georgia, Maryland, and West Virginia.) Yet in 172 of Appalachia's 423 counties, the share living in single-unit dwellings was below the U.S. average of 74.1 percent; in 36 counties (just over half of which were in Central Appalachia), the percentage was below 65 percent. And in 31 of the counties that had the lowest prevalence of persons in single-unit homes, at least one in four residents lived in mobile homes.

Table 4.6: Percentage Point Change in the Share of Housing Units in the Appalachian Region, by Type of Housing, 2012-2016 to 2017-2021

Housing Units (Type of Housing)	Percentage Point Change in Share of All Housing Units					
	Single-Unit Dwellings (Attached or Detached)	Multiple-Unit Fixed Dwellings			Mobile Homes	Boats, RVs, Vans, Etc.
		Total	Two to Four Units	Five or More Units		
United States	+ 0.1	+ 0.3	- 0.3	+ 0.6	- 0.4	+ 0.0
Appalachian Region	+ 0.6	+ 0.2	- 0.1	+ 0.3	- 0.8	+ 0.0
Subregions						
Northern Appalachia	+ 0.3	+ 0.1	- 0.2	+ 0.3	- 0.5	+ 0.0
North Central Appalachia	+ 0.5	+ 0.3	+ 0.0	+ 0.3	- 0.8	+ 0.0
Central Appalachia	+ 1.3	+ 0.0	- 0.2	+ 0.1	- 1.4	+ 0.0
South Central Appalachia	+ 0.6	+ 0.4	+ 0.0	+ 0.5	- 1.0	+ 0.0
Southern Appalachia	+ 0.5	+ 0.3	- 0.1	+ 0.3	- 0.8	+ 0.0
County Types						
Large Metros (pop. 1 million +)	+ 0.4	+ 0.1	- 0.2	+ 0.3	- 0.5	+ 0.1
Small Metros (pop. <1 million)	+ 0.5	+ 0.2	- 0.3	+ 0.4	- 0.7	+ 0.1
Nonmetro, Adjacent to Large Metros	+ 0.7	- 0.2	- 0.3	+ 0.0	- 0.6	+ 0.0
Nonmetro, Adjacent to Small Metros	+ 0.4	+ 0.1	+ 0.0	+ 0.1	- 0.6	+ 0.1
Rural (nonmetro, not adj. to a metro)	+ 0.8	+ 0.1	+ 0.1	+ 0.1	- 1.0	+ 0.0
Alabama	+ 0.4	+ 0.2	- 0.2	+ 0.4	- 0.6	+ 0.1
Appalachian Alabama	+ 0.1	+ 0.2	- 0.1	+ 0.2	- 0.3	+ 0.1
Non-Appalachian Alabama	+ 0.9	+ 0.1	- 0.3	+ 0.5	- 1.1	+ 0.1
Georgia	+ 0.9	+ 0.1	- 0.2	+ 0.3	- 1.1	+ 0.0
Appalachian Georgia	+ 0.7	+ 0.4	- 0.1	+ 0.5	- 1.2	+ 0.0
Non-Appalachian Georgia	+ 0.9	+ 0.0	- 0.2	+ 0.3	- 1.0	+ 0.0
Kentucky	+ 1.0	+ 0.1	+ 0.1	+ 0.0	- 1.1	+ 0.0
Appalachian Kentucky	+ 1.6	- 0.2	- 0.3	+ 0.1	- 1.4	+ 0.0
Non-Appalachian Kentucky	+ 0.6	+ 0.2	+ 0.2	- 0.1	- 0.8	+ 0.1
Maryland	- 0.2	+ 0.3	- 0.3	+ 0.6	- 0.2	+ 0.0
Appalachian Maryland	+ 0.1	+ 0.1	+ 0.1	+ 0.0	- 0.3	+ 0.0
Non-Appalachian Maryland	- 0.2	+ 0.3	- 0.2	+ 0.5	- 0.2	+ 0.0
Mississippi	+ 0.0	+ 0.2	+ 0.2	+ 0.0	- 0.2	+ 0.0
Appalachian Mississippi	+ 0.3	+ 0.8	+ 0.4	+ 0.4	- 1.1	+ 0.0
Non-Appalachian Mississippi	- 0.1	+ 0.1	+ 0.1	- 0.2	- 0.1	+ 0.1
New York	+ 0.1	+ 0.0	- 1.0	+ 1.0	- 0.2	+ 0.0
Appalachian New York	+ 0.5	+ 0.3	+ 0.0	+ 0.3	- 0.8	+ 0.0
Non-Appalachian New York	+ 0.2	+ 0.0	- 1.1	+ 1.0	- 0.1	+ 0.0
North Carolina	+ 0.6	+ 0.7	- 0.2	+ 0.8	- 1.4	+ 0.1
Appalachian North Carolina	+ 0.8	+ 0.7	+ 0.0	+ 0.8	- 1.5	+ 0.0
Non-Appalachian North Carolina	+ 0.6	+ 0.6	- 0.2	+ 0.9	- 1.3	+ 0.1
Ohio	+ 0.5	- 0.3	- 0.6	+ 0.3	- 0.2	+ 0.0
Appalachian Ohio	+ 0.7	- 0.3	- 0.4	+ 0.1	- 0.4	+ 0.0
Non-Appalachian Ohio	+ 0.5	- 0.4	- 0.7	+ 0.3	- 0.1	+ 0.0
Pennsylvania	+ 0.2	+ 0.1	- 0.4	+ 0.6	- 0.3	+ 0.0
Appalachian Pennsylvania	+ 0.3	+ 0.1	- 0.2	+ 0.4	- 0.4	+ 0.0
Non-Appalachian Pennsylvania	+ 0.1	+ 0.1	- 0.6	+ 0.7	- 0.2	+ 0.0
South Carolina	+ 1.5	- 0.3	- 0.4	+ 0.0	- 1.2	+ 0.0
Appalachian South Carolina	+ 1.3	- 0.2	- 0.5	+ 0.3	- 1.2	+ 0.0
Non-Appalachian South Carolina	+ 1.4	- 0.4	- 0.4	+ 0.0	- 1.2	+ 0.0
Tennessee	+ 0.4	+ 0.2	- 0.5	+ 0.8	- 0.6	+ 0.0
Appalachian Tennessee	+ 0.4	+ 0.1	- 0.1	+ 0.3	- 0.6	+ 0.1
Non-Appalachian Tennessee	+ 0.3	+ 0.2	- 0.8	+ 1.0	- 0.5	+ 0.0
Virginia	- 0.2	+ 0.7	- 0.1	+ 0.8	- 0.5	+ 0.0
Appalachian Virginia	+ 0.7	+ 0.2	- 0.2	+ 0.4	- 0.8	+ 0.0
Non-Appalachian Virginia	- 0.3	+ 0.7	- 0.1	+ 0.8	- 0.4	+ 0.0
West Virginia (entire state)	+ 0.7	+ 0.4	+ 0.1	+ 0.3	- 1.1	+ 0.0

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 4.12: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

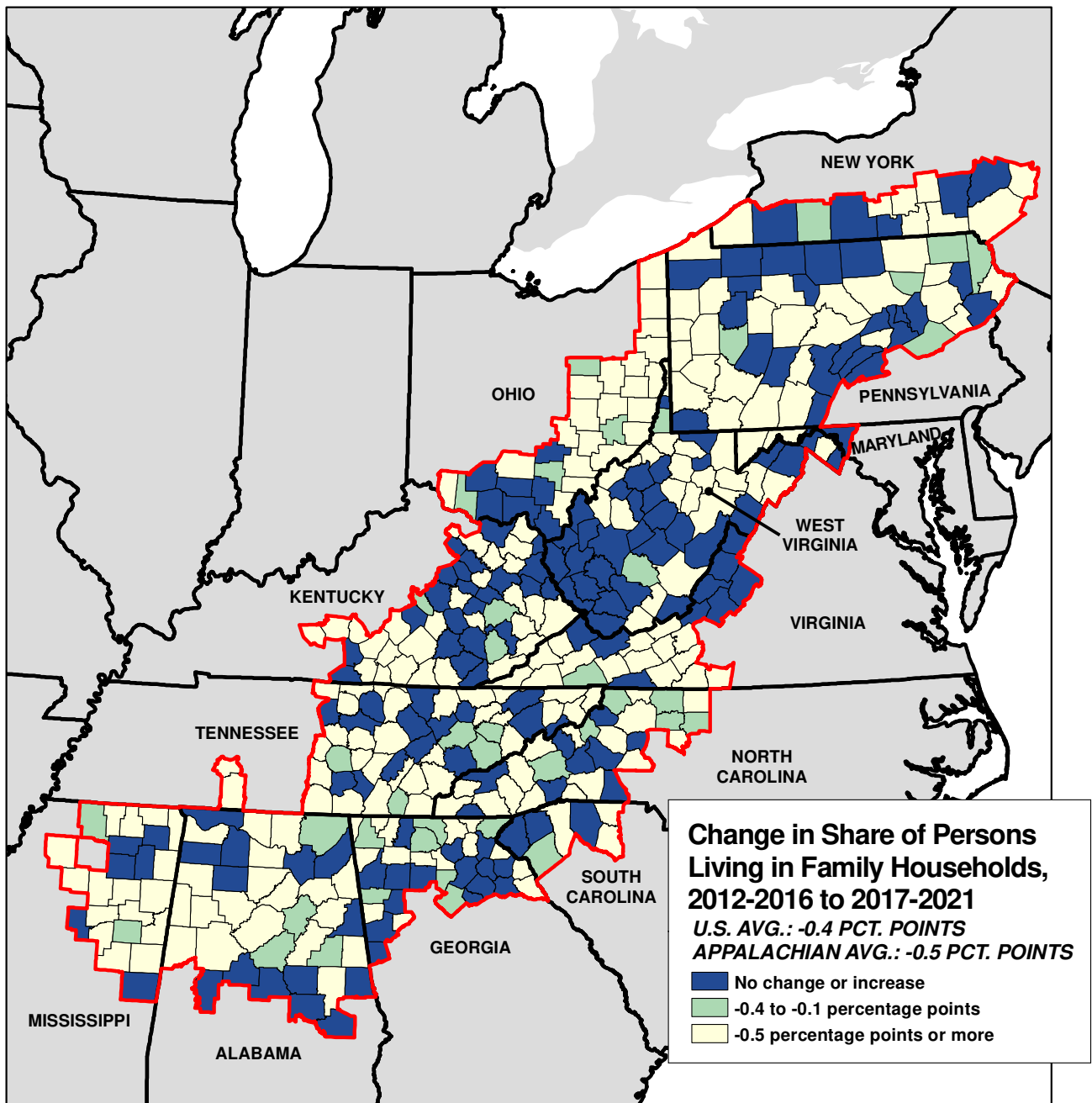
The share of single-unit dwellings among the housing stock increased 0.6 percentage points in Appalachia between the 2012-2016 and 2017-2021 periods, compared with 0.1 points nationwide. And the share likewise rose at or above the national average in 257 of the Region's 423 counties. Yet there were 162 other Appalachian counties where the share of single-unit homes was lower in 2017-2021 than in the earlier period. The slight rise in the share of single-unit homes in Appalachia seems to have come at the expense of mobile homes, the share of which fell 0.8 percentage points in the Region between 2012-2016 and 2017-2021.

Table 4.7: Percentage Point Change in the Share of Persons in the Appalachian Region Living in Households and Group Quarters, 2012-2016 to 2017-2021

Population in Households and Group Quarters	Percentage Point Change in Share of All Persons			
	In Households			In Group Quarters
	Total	In Family Households	In Non-Family Households	
United States	+ 0.1	- 0.4	+ 0.6	- 0.1
Appalachian Region	+ 0.2	- 0.5	+ 0.6	- 0.2
Subregions				
Northern Appalachia	+ 0.1	- 0.8	+ 0.9	- 0.1
North Central Appalachia	+ 0.2	- 0.3	+ 0.5	- 0.2
Central Appalachia	+ 0.1	- 0.2	+ 0.4	- 0.1
South Central Appalachia	+ 0.1	- 0.7	+ 0.8	- 0.1
Southern Appalachia	+ 0.1	- 0.3	+ 0.5	- 0.1
County Types				
Large Metros (pop. 1 million +)	+ 0.2	- 0.4	+ 0.6	- 0.2
Small Metros (pop. <1 million)	+ 0.1	- 0.5	+ 0.7	- 0.1
Nonmetro, Adjacent to Large Metros	+ 0.2	- 0.3	+ 0.5	- 0.2
Nonmetro, Adjacent to Small Metros	+ 0.1	- 0.4	+ 0.5	- 0.1
Rural (nonmetro, not adj. to a metro)	+ 0.1	- 0.7	+ 0.8	- 0.1
Alabama	+ 0.1	- 0.5	+ 0.7	- 0.1
Appalachian Alabama	+ 0.1	- 0.6	+ 0.8	- 0.1
Non-Appalachian Alabama	+ 0.3	- 0.3	+ 0.6	- 0.3
Georgia	+ 0.2	- 0.3	+ 0.5	- 0.2
Appalachian Georgia	+ 0.1	+ 0.1	+ 0.1	- 0.1
Non-Appalachian Georgia	+ 0.3	- 0.6	+ 0.8	- 0.3
Kentucky	+ 0.2	- 0.5	+ 0.7	- 0.2
Appalachian Kentucky	+ 0.2	- 0.2	+ 0.4	- 0.2
Non-Appalachian Kentucky	+ 0.2	- 0.6	+ 0.8	- 0.2
Maryland	+ 0.2	- 0.3	+ 0.3	- 0.2
Appalachian Maryland	- 0.5	- 1.1	+ 0.7	+ 0.5
Non-Appalachian Maryland	+ 0.2	- 0.2	+ 0.4	- 0.2
Mississippi	+ 0.2	- 0.8	+ 1.0	- 0.2
Appalachian Mississippi	+ 0.1	- 1.4	+ 1.5	- 0.1
Non-Appalachian Mississippi	+ 0.3	- 0.6	+ 0.9	- 0.3
New York	+ 0.1	- 0.5	+ 0.6	- 0.1
Appalachian New York	+ 0.1	- 0.8	+ 0.9	- 0.1
Non-Appalachian New York	+ 0.1	- 0.5	+ 0.6	- 0.1
North Carolina	+ 0.1	- 0.6	+ 0.6	- 0.1
Appalachian North Carolina	+ 0.2	- 0.4	+ 0.6	- 0.2
Non-Appalachian North Carolina	+ 0.0	- 0.6	+ 0.7	+ 0.0
Ohio	+ 0.1	- 0.9	+ 1.0	- 0.1
Appalachian Ohio	+ 0.2	- 0.8	+ 0.9	- 0.2
Non-Appalachian Ohio	+ 0.1	- 0.9	+ 1.0	- 0.1
Pennsylvania	+ 0.2	- 0.4	+ 0.6	- 0.2
Appalachian Pennsylvania	+ 0.1	- 0.8	+ 0.9	- 0.1
Non-Appalachian Pennsylvania	+ 0.2	- 0.2	+ 0.4	- 0.2
South Carolina	+ 0.3	- 0.3	+ 0.6	- 0.3
Appalachian South Carolina	+ 0.3	- 0.1	+ 0.5	- 0.3
Non-Appalachian South Carolina	+ 0.4	- 0.3	+ 0.7	- 0.4
Tennessee	+ 0.1	- 0.8	+ 0.9	- 0.1
Appalachian Tennessee	+ 0.1	- 0.8	+ 0.9	- 0.1
Non-Appalachian Tennessee	+ 0.2	- 0.8	+ 0.9	- 0.2
Virginia	+ 0.2	- 0.4	+ 0.6	- 0.2
Appalachian Virginia	- 0.2	- 1.2	+ 1.0	+ 0.2
Non-Appalachian Virginia	+ 0.2	- 0.4	+ 0.6	- 0.2
West Virginia (entire state)	+ 0.1	- 0.2	+ 0.3	- 0.1

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 4.13: Percentage Point Change in the Share of Persons in the Appalachian Region Living in Family Households, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region Living in Family Households, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

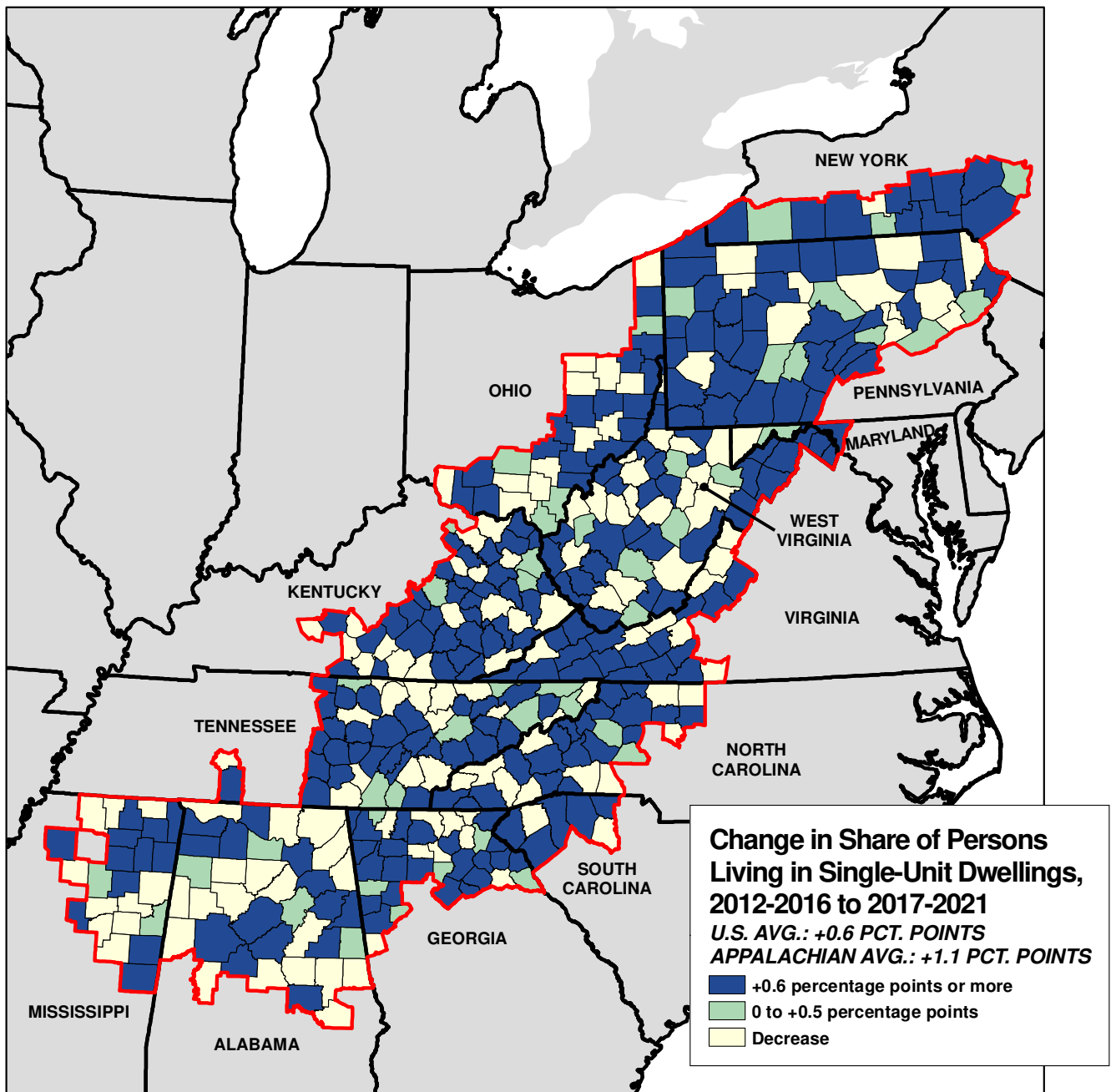
In the Appalachian Region, the share of persons living in family households fell 0.5 percentage points between 2012-2016 and 2017-2021—slightly more than in the nation as a whole (0.4 points). And there were 222 Appalachian counties—scattered throughout the Region—where the decrease in the share living in family households likewise exceeded the national average. Yet the declining prevalence of persons living in family households was not universal: there were 160 Appalachian counties where the share remained the same or increased. Georgia was the only state whose Appalachian portion had an increase in the share of persons in family households between 2012-2016 and 2017-2021.

Table 4.8: Percentage Point Change in the Share of the Population in Occupied Housing Units in the Appalachian Region, by Type of Housing, 2012-2016 to 2017-2021

Population in Housing Units (Type of Housing)	Percentage Point Change in Share of Population in Occupied Housing Units					
	In Single-Unit Dwellings (Attached or Detached)	In Multiple-Unit Fixed Dwellings			In Mobile Homes	In Boats, RVs, Vans, Etc.
		Total	Two to Four Units	Five or More Units		
United States	+ 0.6	- 0.1	- 0.4	+ 0.2	- 0.4	+ 0.0
Appalachian Region	+ 1.1	- 0.2	- 0.3	+ 0.1	- 0.9	+ 0.1
Subregions						
Northern Appalachia	+ 0.9	- 0.3	- 0.4	+ 0.1	- 0.5	+ 0.0
North Central Appalachia	+ 0.9	+ 0.1	- 0.1	+ 0.2	- 1.0	+ 0.1
Central Appalachia	+ 1.5	+ 0.0	- 0.3	+ 0.2	- 1.5	+ 0.0
South Central Appalachia	+ 1.2	+ 0.0	- 0.2	+ 0.1	- 1.2	+ 0.0
Southern Appalachia	+ 1.2	- 0.3	- 0.2	- 0.1	- 1.0	+ 0.0
County Types						
Large Metros (pop. 1 million +)	+ 0.8	- 0.3	- 0.3	+ 0.0	- 0.4	+ 0.0
Small Metros (pop. <1 million)	+ 1.1	- 0.2	- 0.3	+ 0.1	- 0.9	+ 0.1
Nonmetro, Adjacent to Large Metros	+ 1.4	- 0.4	- 0.3	- 0.1	- 1.2	+ 0.0
Nonmetro, Adjacent to Small Metros	+ 0.8	- 0.2	- 0.2	+ 0.0	- 0.6	+ 0.0
Rural (nonmetro, not adj. to a metro)	+ 1.2	+ 0.0	- 0.2	+ 0.1	- 1.2	+ 0.0
Alabama	+ 1.1	- 0.6	- 0.4	- 0.3	- 0.5	+ 0.0
Appalachian Alabama	+ 0.6	- 0.5	- 0.2	- 0.1	- 0.3	+ 0.0
Non-Appalachian Alabama	+ 2.0	- 1.0	- 0.7	- 0.3	- 1.1	+ 0.0
Georgia	+ 1.6	- 0.6	- 0.3	- 0.3	- 1.0	+ 0.0
Appalachian Georgia	+ 1.2	- 0.2	- 0.1	- 0.1	- 1.0	- 0.1
Non-Appalachian Georgia	+ 1.5	- 0.7	- 0.4	- 0.3	- 0.9	+ 0.0
Kentucky	+ 1.3	- 0.3	- 0.1	- 0.1	- 0.9	+ 0.1
Appalachian Kentucky	+ 1.6	- 0.5	- 0.7	+ 0.2	- 1.2	+ 0.0
Non-Appalachian Kentucky	+ 1.0	- 0.2	+ 0.0	- 0.3	- 0.8	+ 0.1
Maryland	+ 0.0	+ 0.0	- 0.1	+ 0.1	+ 0.0	+ 0.0
Appalachian Maryland	+ 0.3	- 1.0	- 0.4	- 0.6	+ 0.6	+ 0.0
Non-Appalachian Maryland	+ 0.0	+ 0.0	- 0.1	+ 0.1	- 0.1	+ 0.0
Mississippi	+ 0.6	- 0.2	+ 0.1	- 0.3	- 0.4	+ 0.0
Appalachian Mississippi	+ 0.4	+ 0.7	+ 0.1	+ 0.5	- 1.1	+ 0.0
Non-Appalachian Mississippi	+ 0.6	- 0.4	+ 0.1	- 0.5	- 0.2	+ 0.0
New York	+ 0.5	- 0.2	- 1.0	+ 0.7	- 0.2	+ 0.0
Appalachian New York	+ 1.6	- 0.5	- 0.7	+ 0.2	- 1.1	+ 0.0
Non-Appalachian New York	+ 0.4	- 0.3	- 1.0	+ 0.6	- 0.1	+ 0.0
North Carolina	+ 1.5	+ 0.1	- 0.2	+ 0.3	- 1.5	+ 0.1
Appalachian North Carolina	+ 1.3	+ 0.0	+ 0.0	+ 0.0	- 1.3	+ 0.0
Non-Appalachian North Carolina	+ 1.6	+ 0.1	- 0.2	+ 0.3	- 1.6	+ 0.0
Ohio	+ 0.7	- 0.3	- 0.5	+ 0.2	- 0.3	+ 0.0
Appalachian Ohio	+ 1.0	- 0.4	- 0.4	+ 0.0	- 0.7	+ 0.1
Non-Appalachian Ohio	+ 0.6	- 0.4	- 0.5	+ 0.2	- 0.1	+ 0.0
Pennsylvania	+ 0.3	+ 0.1	- 0.3	+ 0.4	- 0.4	+ 0.0
Appalachian Pennsylvania	+ 0.7	- 0.2	- 0.3	+ 0.1	- 0.5	+ 0.0
Non-Appalachian Pennsylvania	+ 0.0	+ 0.2	- 0.3	+ 0.5	- 0.2	+ 0.0
South Carolina	+ 2.0	- 0.5	- 0.6	+ 0.0	- 1.6	+ 0.1
Appalachian South Carolina	+ 2.6	- 0.7	- 0.6	- 0.1	- 2.0	+ 0.1
Non-Appalachian South Carolina	+ 1.7	- 0.4	- 0.5	+ 0.1	- 1.4	+ 0.1
Tennessee	+ 1.1	- 0.2	- 0.5	+ 0.2	- 0.9	+ 0.0
Appalachian Tennessee	+ 0.9	+ 0.0	- 0.1	+ 0.2	- 1.0	+ 0.0
Non-Appalachian Tennessee	+ 1.1	- 0.4	- 0.7	+ 0.3	- 0.7	+ 0.1
Virginia	+ 0.6	+ 0.1	- 0.1	+ 0.2	- 0.6	+ 0.0
Appalachian Virginia	+ 1.9	+ 0.2	- 0.1	+ 0.4	- 2.2	+ 0.1
Non-Appalachian Virginia	+ 0.4	+ 0.0	- 0.1	+ 0.1	- 0.4	+ 0.0
West Virginia (entire state)	+ 1.2	+ 0.0	- 0.1	+ 0.1	- 1.4	+ 0.1

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 4.14: Among Persons in the Appalachian Region in Occupied Housing Units, Percentage Point Change in the Share Living in Single-Unit Dwellings (Attached or Detached), 2012-2016 to 2017-2021



Map Title: Among Persons in the Appalachian Region in Occupied Housing Units, Percentage Point Change in the Share Living in Single-Unit Dwellings (Attached or Detached), 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian residents living in single-unit homes was just over a full percentage point higher in 2017-2021 than in 2012-2016, well above the national average of 0.6 points. Likewise, the share increased at or above the national average in 242 of the Region's 423 counties. The increase in the share of persons in single-unit dwellings was 1.5 percentage points or more in the Appalachian portions of Kentucky, New York, South Carolina, and Virginia. Yet the share living in single-unit dwellings declined in another 134 counties. As with the share of housing units, Appalachia's increased share of persons in single-unit residences has largely come at the expense of mobile units; the percentage of the Appalachian population living in mobile homes fell 0.9 points between 2012-2016 and 2017-2021.

TRENDS IN HOUSING OCCUPANCY, TENURE, AND TYPE

- At 85.6 percent in 2017-2021, Appalachia's home occupancy rate was 0.4 percentage points higher than it was in 2012-2016 (see Tables 4.1 and 4.2). Within the Region, home occupancy decreased in two of the five subregions (Central and North Central), and in the Appalachian portions of Kentucky, Mississippi, Virginia, and West Virginia. Occupancy increased in the Appalachian portion of all other states as well as in the Northern, Southern, and South Central subregions. Occupancy also increased in all county types except for non-metro counties adjacent to large metros and the most rural counties.
- Homeownership rates in Appalachia rose slightly (0.9 percentage points) between 2012-2016 and 2017-2021. Among subregions, the increases were greatest in North Central, South Central, and Southern Appalachia. The rise in homeownership was almost identical across the county types. Among the states, homeownership increased most in Appalachian South Carolina (2.4 percentage points).
- Single-unit dwellings accounted for 73.7 percent of Appalachia's housing stock in 2017-2021, which represents an increase of 0.6 percentage points from 2012-2016 (see Tables 4.3 and 4.6). Within the Region, the share increased for all county types and for all subregions. The greatest increases were in Central Appalachia, nonmetropolitan counties adjacent to large metro areas, and the most rural counties. The share also increased in the Appalachian section of all states, particularly in Kentucky and South Carolina. Throughout Appalachia, the rising share of single-unit homes seems to have come at the expense of mobile homes, the share of which has fallen 0.8 percentage points overall since 2012-2016, with slightly larger drops in Central and South Central Appalachia and decreases of more than one percentage point in the Appalachian portions of Georgia, Kentucky, Mississippi, the Carolinas, and West Virginia.
- At 80.4 percent, the share of Appalachian residents living in family households was 0.5 percentage points lower in 2017-2021 than in 2012-2016 (see Tables 4.4 and 4.7), and the decline was present throughout the Region. The greatest drops—at least a full percentage point in each case—occurred in the Appalachian portions of Maryland, Mississippi, and Virginia. Appalachian Georgia was the only area in the Region that experienced an increase in the share of persons living in family households between 2012-2016 and 2017-2021.
- The share of Appalachian residents living in single-unit homes was 78.5 percent in 2017-2021, more than a percentage point higher than in 2012-2016 (see Tables 4.5 and 4.8). Although the share rose in every subregion and county type, there was greater divergence among the states. For example, the share rose 2.6 percentage points in South Carolina's Appalachian section, but only 0.3 points in Appalachian Maryland. As with the share of housing units, Appalachia's increased share of persons in single-unit residences has largely come at the expense of mobile units; the share of the Appalachian population living in mobile homes in 2017-2021 was 0.9 percentage points lower than it was in 2012-2016.

CHAPTER 5: EDUCATION, DEVICE OWNERSHIP, AND INTERNET ACCESS

Table 5.1: Educational Attainment of Persons Ages 25 and Over in the Appalachian Region, 2017-2021

Education (Highest Level Attained)	Total Population Ages 25 and Over, 2017-2021	Percent of Population Ages 25 and Over					
		Less than High School Diploma	High School Diploma or More				
			Total	H.S. Grad, No Postsecondary Degree	Associate's Degree or More		
Total	Associate's Degree	Bachelor's Degree or More					
United States	225,152,317	11.1	88.9	46.5	42.4	8.7	33.7
Appalachian Region	18,199,149	11.7	88.3	53.0	35.3	9.2	26.0
Subregions							
Northern Appalachia	5,746,444	8.5	91.5	54.2	37.3	10.1	27.2
North Central Appalachia	1,759,118	11.3	88.7	58.4	30.3	8.4	21.9
Central Appalachia	1,306,365	18.9	81.1	58.0	23.1	7.9	15.3
South Central Appalachia	3,654,937	12.0	88.0	52.3	35.7	9.3	26.4
Southern Appalachia	5,732,285	13.2	86.8	49.5	37.2	8.9	28.4
County Types							
Large Metros (pop. 1 million +)	4,320,006	8.7	91.3	47.7	43.6	9.3	34.2
Small Metros (pop. <1 million)	7,764,896	11.1	88.9	52.3	36.6	9.3	27.4
Nonmetro, Adjacent to Large Metros	1,596,876	13.1	86.9	57.7	29.1	9.7	19.4
Nonmetro, Adjacent to Small Metros	2,791,497	14.1	85.9	58.5	27.4	9.0	18.5
Rural (nonmetro, not adj. to a metro)	1,725,874	17.0	83.0	56.2	26.8	8.8	18.0
Alabama	3,413,803	12.6	87.4	51.8	35.6	8.9	26.7
Appalachian Alabama	2,209,252	12.6	87.4	51.2	36.2	8.8	27.5
Non-Appalachian Alabama	1,204,551	12.7	87.3	53.0	34.3	9.1	25.2
Georgia	7,075,856	11.8	88.2	47.1	41.2	8.2	33.0
Appalachian Georgia	2,206,245	13.6	86.4	48.0	38.4	8.1	30.3
Non-Appalachian Georgia	4,869,611	10.9	89.1	46.7	42.4	8.2	34.2
Kentucky	3,053,564	12.3	87.7	53.3	34.3	8.6	25.7
Appalachian Kentucky	804,634	19.1	80.9	56.8	24.1	8.0	16.1
Non-Appalachian Kentucky	2,248,930	9.9	90.1	52.1	38.0	8.8	29.2
Maryland	4,240,795	9.2	90.8	42.4	48.4	6.9	41.6
Appalachian Maryland	177,460	11.0	89.0	58.3	30.7	8.4	22.2
Non-Appalachian Maryland	4,063,335	9.1	90.9	41.7	49.2	6.8	42.4
Mississippi	1,974,105	14.4	85.6	51.9	33.8	10.5	23.2
Appalachian Mississippi	407,851	17.2	82.8	52.6	30.3	10.1	20.1
Non-Appalachian Mississippi	1,566,254	13.6	86.4	51.7	34.7	10.6	24.1
New York	14,081,080	12.6	87.4	40.5	47.0	8.9	38.1
Appalachian New York	698,650	9.1	90.9	50.4	40.4	12.6	27.8
Non-Appalachian New York	13,382,430	12.7	87.3	39.9	47.3	8.7	38.6
North Carolina	7,084,876	11.0	89.0	46.0	43.0	10.0	33.0
Appalachian North Carolina	1,436,755	12.1	87.9	49.6	38.3	10.5	27.8
Non-Appalachian North Carolina	5,648,121	10.7	89.3	45.1	44.2	9.8	34.4
Ohio	8,077,453	8.9	91.1	52.6	38.5	8.8	29.7
Appalachian Ohio	1,389,286	11.7	88.3	60.0	28.3	9.1	19.2
Non-Appalachian Ohio	6,688,167	8.3	91.7	51.1	40.6	8.8	31.9
Pennsylvania	9,111,497	8.6	91.4	49.5	41.8	8.7	33.1
Appalachian Pennsylvania	4,091,528	7.7	92.3	53.3	39.0	10.0	28.9
Non-Appalachian Pennsylvania	5,019,969	9.4	90.6	46.4	44.2	7.7	36.5
South Carolina	3,507,171	11.2	88.8	48.9	39.8	10.0	29.8
Appalachian South Carolina	908,937	12.4	87.6	47.7	39.9	10.3	29.6
Non-Appalachian South Carolina	2,598,234	10.8	89.2	49.4	39.8	9.9	29.9
Tennessee	4,708,480	11.2	88.8	52.1	36.6	7.6	29.0
Appalachian Tennessee	2,069,432	12.4	87.6	54.8	32.8	8.1	24.7
Non-Appalachian Tennessee	2,639,048	10.3	89.7	50.0	39.7	7.2	32.5
Virginia	5,882,521	9.2	90.8	42.6	48.3	7.9	40.3
Appalachian Virginia	521,205	14.0	86.0	54.7	31.4	9.8	21.6
Non-Appalachian Virginia	5,361,316	8.7	91.3	41.4	49.9	7.7	42.2
West Virginia (entire state)	1,277,914	11.9	88.1	58.6	29.5	7.7	21.8

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 5.2: Educational Attainment of Persons Ages 25 to 64 in the Appalachian Region, 2017-2021

Education (Highest Level Attained)	Total Population Ages 25 to 64, 2017-2021	Percent of Population Ages 25 to 64					
		Less than High School Diploma	High School Diploma or More				
			Total	H.S. Grad, No Postsecondary Degree	Associate's Degree or More		
					Total	Associate's Degree	Bachelor's Degree or More
United States	172,263,696	10.3	89.7	45.4	44.3	9.3	35.1
Appalachian Region	13,412,052	10.5	89.5	51.8	37.7	10.2	27.4
Subregions							
Northern Appalachia	4,136,542	7.5	92.5	51.7	40.8	11.4	29.4
North Central Appalachia	1,280,675	9.7	90.3	57.7	32.6	9.5	23.1
Central Appalachia	958,086	16.0	84.0	59.0	25.0	9.1	15.9
South Central Appalachia	2,634,310	10.7	89.3	52.0	37.4	10.2	27.1
Southern Appalachia	4,402,439	12.3	87.7	48.6	39.1	9.6	29.5
County Types							
Large Metros (pop. 1 million +)	3,305,669	7.9	92.1	45.4	46.7	10.1	36.6
Small Metros (pop. <1 million)	5,718,953	10.1	89.9	51.1	38.8	10.2	28.6
Nonmetro, Adjacent to Large Metros	1,162,776	12.1	87.9	57.1	30.8	10.9	19.9
Nonmetro, Adjacent to Small Metros	1,983,311	12.5	87.5	58.5	29.0	10.2	18.8
Rural (nonmetro, not adj. to a metro)	1,241,343	14.9	85.1	56.6	28.6	10.1	18.5
Alabama	2,569,376	11.5	88.5	51.1	37.4	9.8	27.6
Appalachian Alabama	1,668,609	11.5	88.5	50.2	38.2	9.6	28.6
Non-Appalachian Alabama	900,767	11.4	88.6	52.7	35.9	10.0	25.9
Georgia	5,596,024	10.8	89.2	46.2	43.0	8.6	34.4
Appalachian Georgia	1,744,285	13.0	87.0	47.0	40.0	8.6	31.4
Non-Appalachian Georgia	3,851,739	9.8	90.2	45.9	44.3	8.6	35.8
Kentucky	2,318,713	10.7	89.3	52.5	36.8	9.7	27.1
Appalachian Kentucky	598,380	16.1	83.9	57.7	26.2	9.2	16.9
Non-Appalachian Kentucky	1,720,333	8.9	91.1	50.7	40.5	9.8	30.6
Maryland	3,290,905	8.4	91.6	41.4	50.2	7.2	43.0
Appalachian Maryland	131,045	9.8	90.2	57.5	32.7	9.6	23.1
Non-Appalachian Maryland	3,159,860	8.3	91.7	40.7	51.0	7.1	43.8
Mississippi	1,501,174	12.8	87.2	51.6	35.6	11.8	23.8
Appalachian Mississippi	304,696	15.0	85.0	52.6	32.4	11.6	20.8
Non-Appalachian Mississippi	1,196,478	12.2	87.8	51.3	36.4	11.9	24.5
New York	10,750,921	11.0	89.0	39.0	49.9	9.4	40.5
Appalachian New York	500,634	8.6	91.4	48.9	42.6	13.7	28.8
Non-Appalachian New York	10,250,287	11.1	88.9	38.6	50.3	9.2	41.1
North Carolina	5,398,641	10.0	90.0	44.9	45.1	10.5	34.6
Appalachian North Carolina	1,025,589	11.4	88.6	49.3	39.3	11.4	27.9
Non-Appalachian North Carolina	4,373,052	9.7	90.3	43.8	46.5	10.3	36.2
Ohio	6,072,651	7.9	92.1	50.8	41.3	9.7	31.6
Appalachian Ohio	1,011,401	10.7	89.3	58.5	30.7	10.4	20.3
Non-Appalachian Ohio	5,061,250	7.3	92.7	49.3	43.4	9.6	33.9
Pennsylvania	6,749,707	7.5	92.5	47.2	45.3	9.6	35.7
Appalachian Pennsylvania	2,947,166	6.6	93.4	50.5	42.9	11.4	31.6
Non-Appalachian Pennsylvania	3,802,541	8.2	91.8	44.6	47.2	8.3	38.9
South Carolina	2,605,674	10.2	89.8	48.6	41.2	10.7	30.5
Appalachian South Carolina	684,849	11.2	88.8	46.9	41.9	11.0	30.9
Non-Appalachian South Carolina	1,920,825	9.9	90.1	49.2	41.0	10.6	30.4
Tennessee	3,590,290	10.0	90.0	51.3	38.8	8.2	30.6
Appalachian Tennessee	1,509,191	10.9	89.1	54.5	34.5	9.0	25.5
Non-Appalachian Tennessee	2,081,099	9.3	90.7	48.9	41.8	7.6	34.2
Virginia	4,553,921	8.0	92.0	41.4	50.6	8.4	42.2
Appalachian Virginia	367,168	10.7	89.3	55.2	34.1	11.1	23.0
Non-Appalachian Virginia	4,186,753	7.8	92.2	40.2	52.1	8.2	43.9
West Virginia (entire state)	919,039	10.2	89.8	58.1	31.7	8.7	23.0

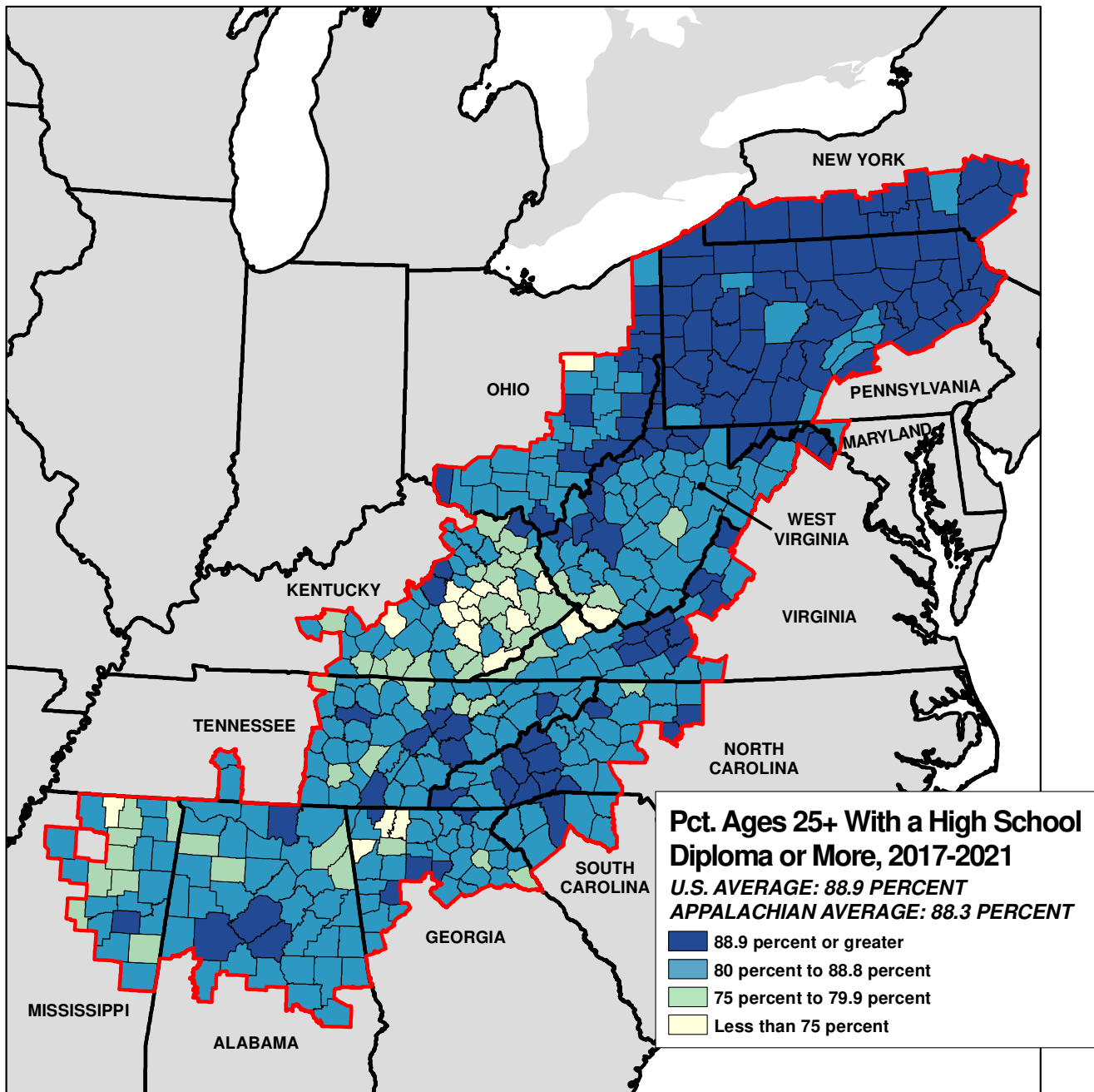
Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 5.3: Educational Attainment of Persons Ages 65 and Over in the Appalachian Region, 2017-2021

Education (Highest Level Attained)	Total Population Ages 65 and Over, 2017-2021	Percent of Population Ages 65 and Over					
		Less than High School Diploma	High School Diploma or More				
			Total	H.S. Grad, No Postsecondary Degree	Associate's Degree or More		
					Total	Associate's Degree	Bachelor's Degree or More
United States	52,888,621	13.8	86.2	50.1	36.1	6.9	29.2
Appalachian Region	4,787,097	15.0	85.0	56.3	28.6	6.4	22.2
Subregions							
Northern Appalachia	1,609,902	11.0	89.0	60.5	28.4	6.8	21.6
North Central Appalachia	478,443	15.5	84.5	60.4	24.1	5.4	18.7
Central Appalachia	348,279	26.9	73.1	55.2	17.9	4.5	13.5
South Central Appalachia	1,020,627	15.3	84.7	53.1	31.6	7.0	24.6
Southern Appalachia	1,329,846	16.4	83.6	52.5	31.1	6.5	24.6
County Types							
Large Metros (pop. 1 million +)	1,014,337	11.4	88.6	55.3	33.3	6.8	26.5
Small Metros (pop. <1 million)	2,045,943	13.8	86.2	55.6	30.6	6.6	24.0
Nonmetro, Adjacent to Large Metros	434,100	15.9	84.1	59.4	24.7	6.7	18.1
Nonmetro, Adjacent to Small Metros	808,186	17.9	82.1	58.4	23.6	6.0	17.6
Rural (nonmetro, not adj. to a metro)	484,531	22.5	77.5	55.3	22.2	5.4	16.8
Alabama	844,427	16.0	84.0	54.1	30.0	6.2	23.7
Appalachian Alabama	540,643	15.7	84.3	54.2	30.1	6.1	24.0
Non-Appalachian Alabama	303,784	16.4	83.6	53.9	29.7	6.4	23.4
Georgia	1,479,832	15.5	84.5	50.4	34.2	6.5	27.7
Appalachian Georgia	461,960	15.8	84.2	51.9	32.3	6.3	26.0
Non-Appalachian Georgia	1,017,872	15.3	84.7	49.7	35.0	6.6	28.4
Kentucky	734,851	17.5	82.5	56.0	26.6	5.3	21.3
Appalachian Kentucky	206,254	27.7	72.3	54.3	18.1	4.5	13.5
Non-Appalachian Kentucky	528,597	13.5	86.5	56.6	29.9	5.6	24.3
Maryland	949,890	12.2	87.8	45.7	42.1	5.5	36.6
Appalachian Maryland	46,415	14.7	85.3	60.4	24.9	5.2	19.6
Non-Appalachian Maryland	903,475	12.1	87.9	44.9	43.0	5.5	37.5
Mississippi	472,931	19.3	80.7	52.7	28.0	6.4	21.6
Appalachian Mississippi	103,155	23.4	76.6	52.5	24.1	5.8	18.3
Non-Appalachian Mississippi	369,776	18.1	81.9	52.8	29.1	6.6	22.5
New York	3,330,159	17.6	82.4	45.1	37.4	7.0	30.4
Appalachian New York	198,016	10.6	89.4	54.3	35.1	9.8	25.3
Non-Appalachian New York	3,132,143	18.0	82.0	44.5	37.5	6.8	30.7
North Carolina	1,686,235	14.0	86.0	49.8	36.2	8.3	27.9
Appalachian North Carolina	411,166	14.1	85.9	50.3	35.6	8.2	27.4
Non-Appalachian North Carolina	1,275,069	13.9	86.1	49.7	36.4	8.3	28.1
Ohio	2,004,802	11.9	88.1	58.1	30.0	6.1	23.9
Appalachian Ohio	377,885	14.3	85.7	63.8	21.9	5.6	16.2
Non-Appalachian Ohio	1,626,917	11.4	88.6	56.7	31.9	6.2	25.7
Pennsylvania	2,361,790	11.9	88.1	56.1	31.9	6.1	25.8
Appalachian Pennsylvania	1,144,362	10.6	89.4	60.7	28.8	6.6	22.2
Non-Appalachian Pennsylvania	1,217,428	13.2	86.8	51.9	34.9	5.7	29.2
South Carolina	901,497	14.1	85.9	49.9	36.0	8.1	27.9
Appalachian South Carolina	224,088	15.9	84.1	50.0	34.0	8.1	25.9
Non-Appalachian South Carolina	677,409	13.5	86.5	49.9	36.6	8.1	28.5
Tennessee	1,118,190	15.3	84.7	54.8	29.8	5.7	24.2
Appalachian Tennessee	560,241	16.5	83.5	55.4	28.1	5.7	22.3
Non-Appalachian Tennessee	557,949	14.2	85.8	54.2	31.6	5.6	26.0
Virginia	1,328,600	13.2	86.8	46.6	40.1	6.2	33.9
Appalachian Virginia	154,037	21.7	78.3	53.5	24.8	6.5	18.3
Non-Appalachian Virginia	1,174,563	12.1	87.9	45.7	42.1	6.2	35.9
West Virginia (entire state)	358,875	16.3	83.7	59.9	23.8	5.1	18.7

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

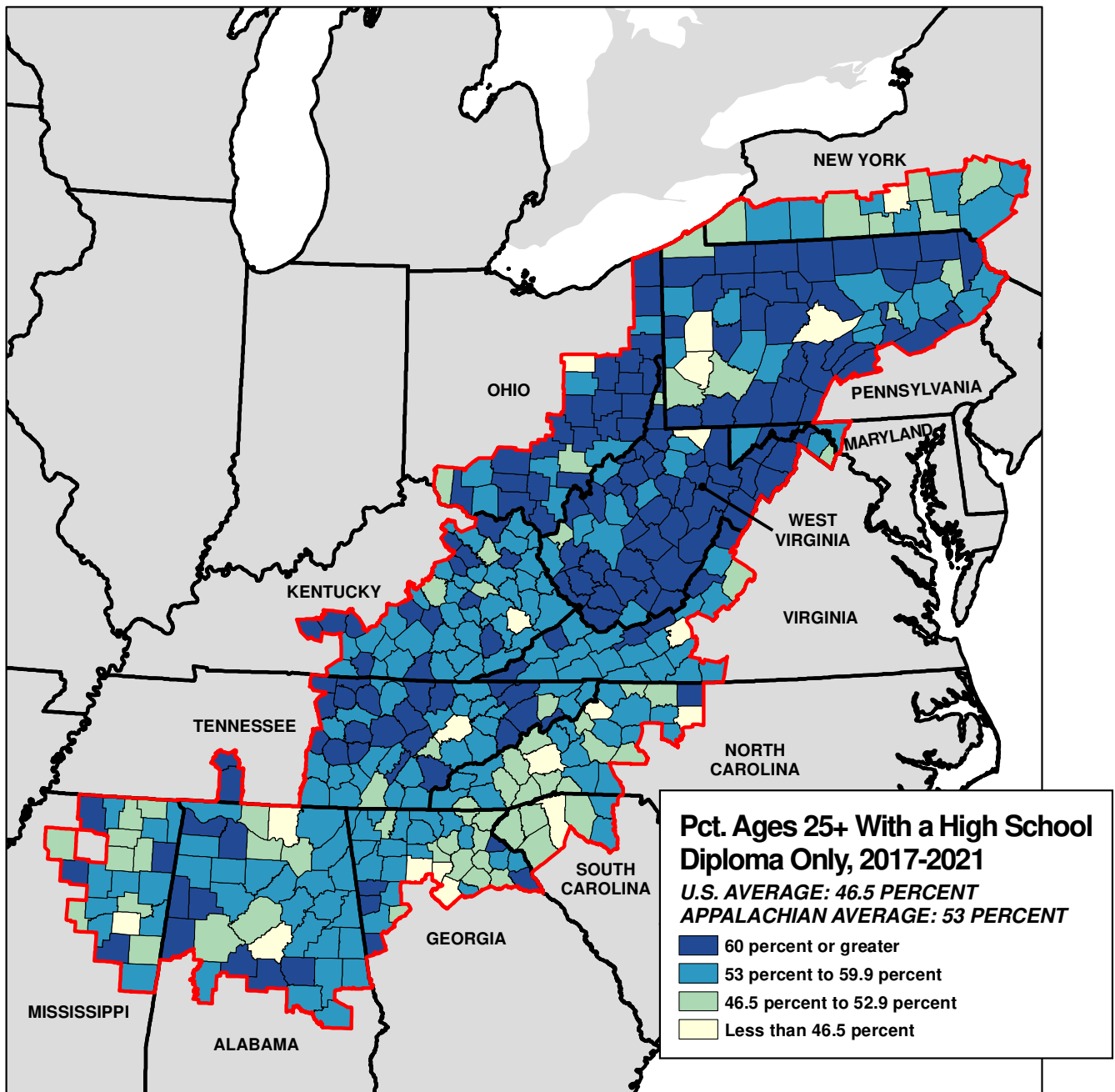
Figure 5.1: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2017-2021



Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Although the share of Appalachian adults with at least a high school diploma was slightly below the national average for the 2017-2021 period, it matched or exceeded the national share in 130 counties in the Region—108 of which were either in Northern Appalachia or in metropolitan areas. The rates were especially high in the Appalachian sections of Pennsylvania and New York, where the share of adults who had completed high school was 92.3 percent and nearly 91 percent, respectively. Yet in 18 counties, less than three-fourths of adults had completed high school; all but three of those counties were outside metropolitan areas. Kentucky alone had 11 of these 18 counties; just 80.9 percent of adults in the state’s Appalachian counties had a high school diploma or more in 2017-2021.

Figure 5.2: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2017-2021

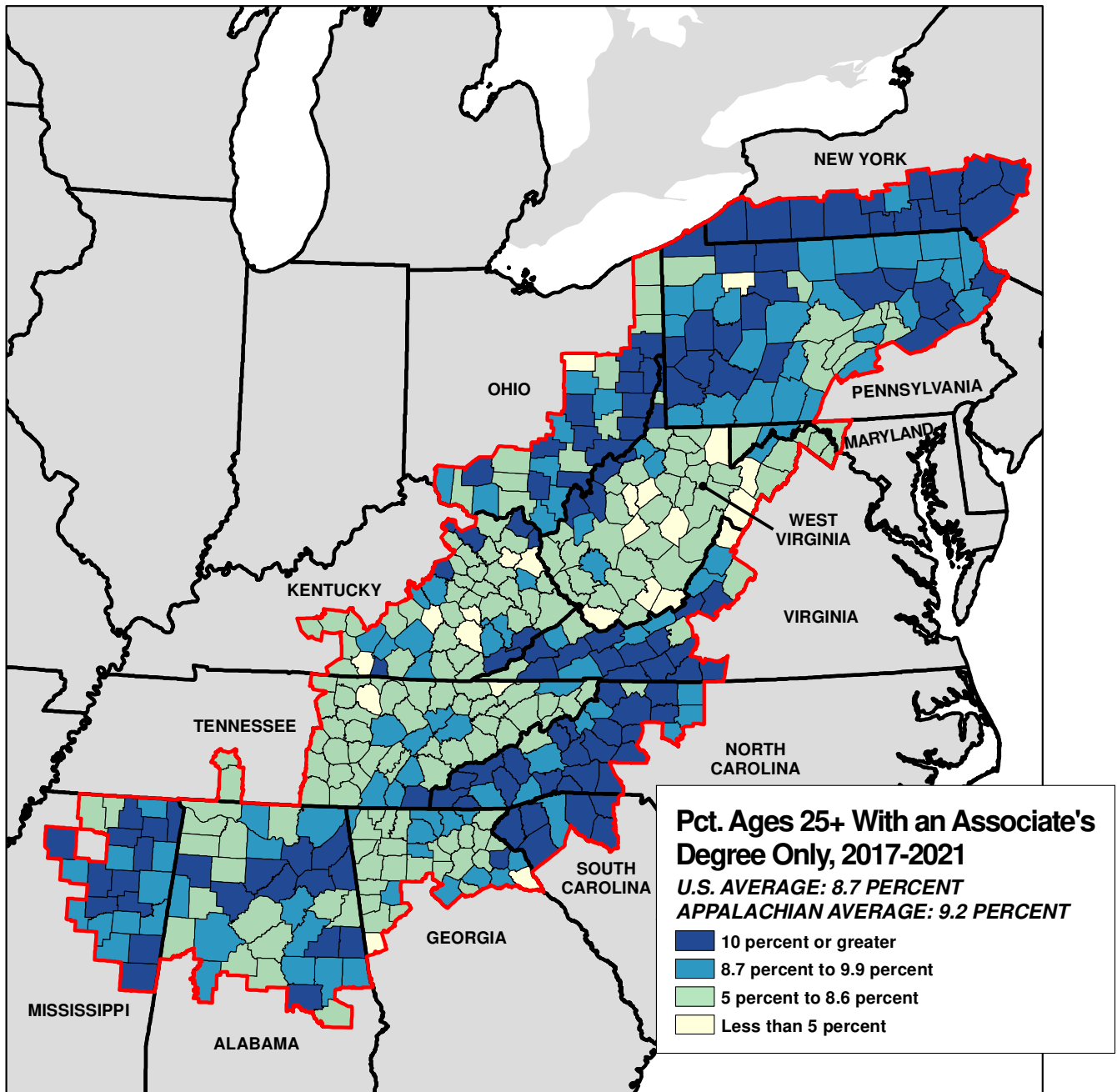


Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

During the 2017-2021 period, 53 percent of adults ages 25 and over in the Appalachian Region had a high school diploma, but no postsecondary degree (including an associate’s degree). And the share was at least 60 percent in 157 of the Region’s 423 counties—118 of which were in four states: Ohio, Pennsylvania, Tennessee, and West Virginia. Many of these adults may have attended college but did not graduate, while others may have acquired vocational training. Conversely, 35.3 percent of adults in Appalachia did earn an associate’s or bachelor’s degree, while 11.7 percent never finished high school.

Figure 5.3: Percent of Persons Ages 25 and Over in the Appalachian Region With an Associate’s Degree but Without a Bachelor’s Degree, 2017-2021

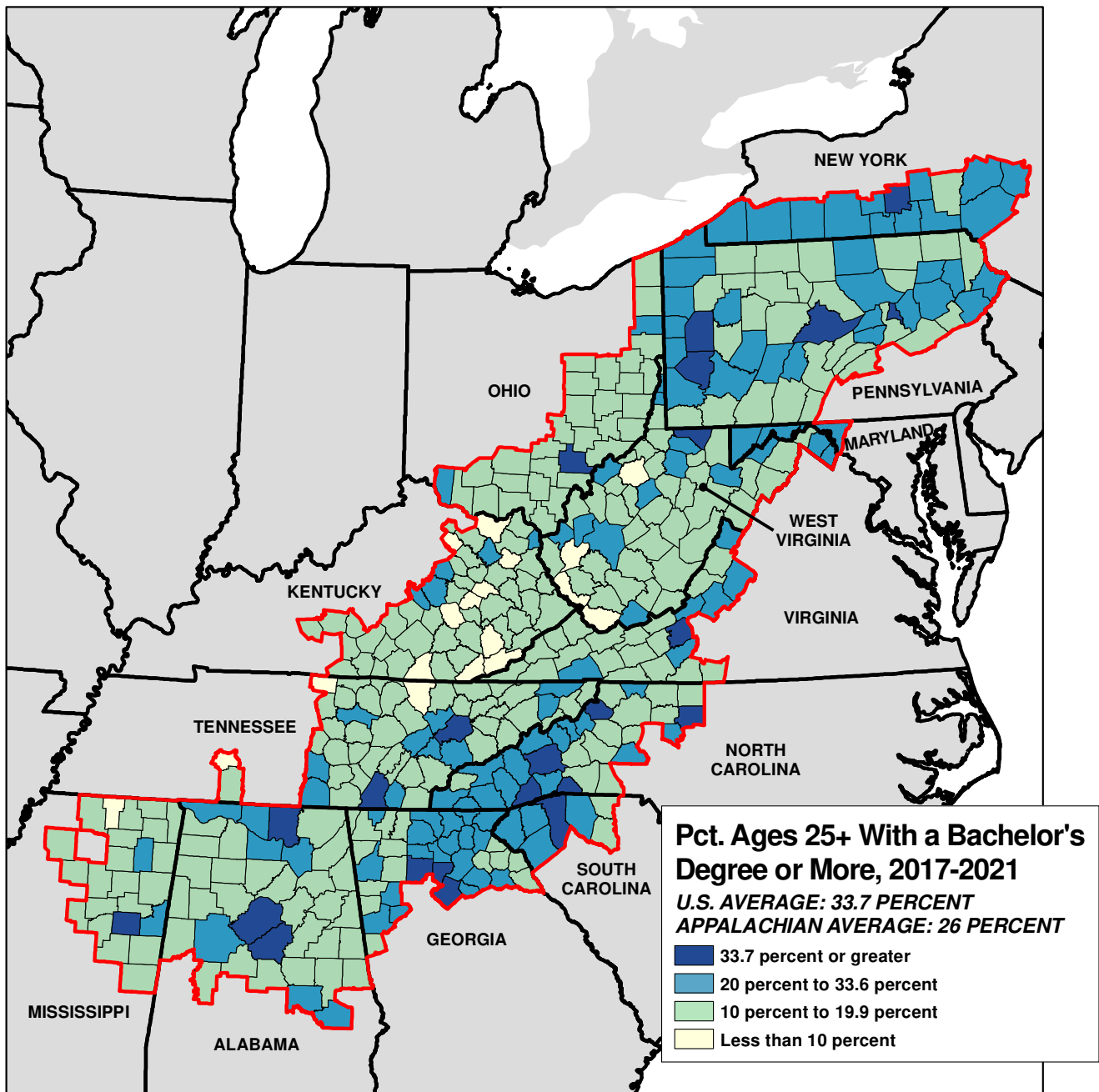


Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With an Associate's Degree but Without a Bachelor's Degree, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the Appalachian Region, the share of adults ages 25 and over with an associate’s degree but without a bachelor’s degree was 9.2 percent in 2017-2021, just above the national rate (8.7 percent). And it was even higher in some parts of the Region—12.6 percent in Appalachian New York and just over 10 percent in both Appalachian North and South Carolina, for example. Indeed, those three states alone accounted for 40 of the 125 counties where the share matched or exceeded 10 percent. In contrast, the share was less than 5 percent in 23 other Appalachian counties—16 of which were in West Virginia or Kentucky. In the Appalachian portion of each of these states, the share of adults who had an associate’s degree as their highest level of education was no more than 8 percent.

Figure 5.4: Percent of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2017-2021

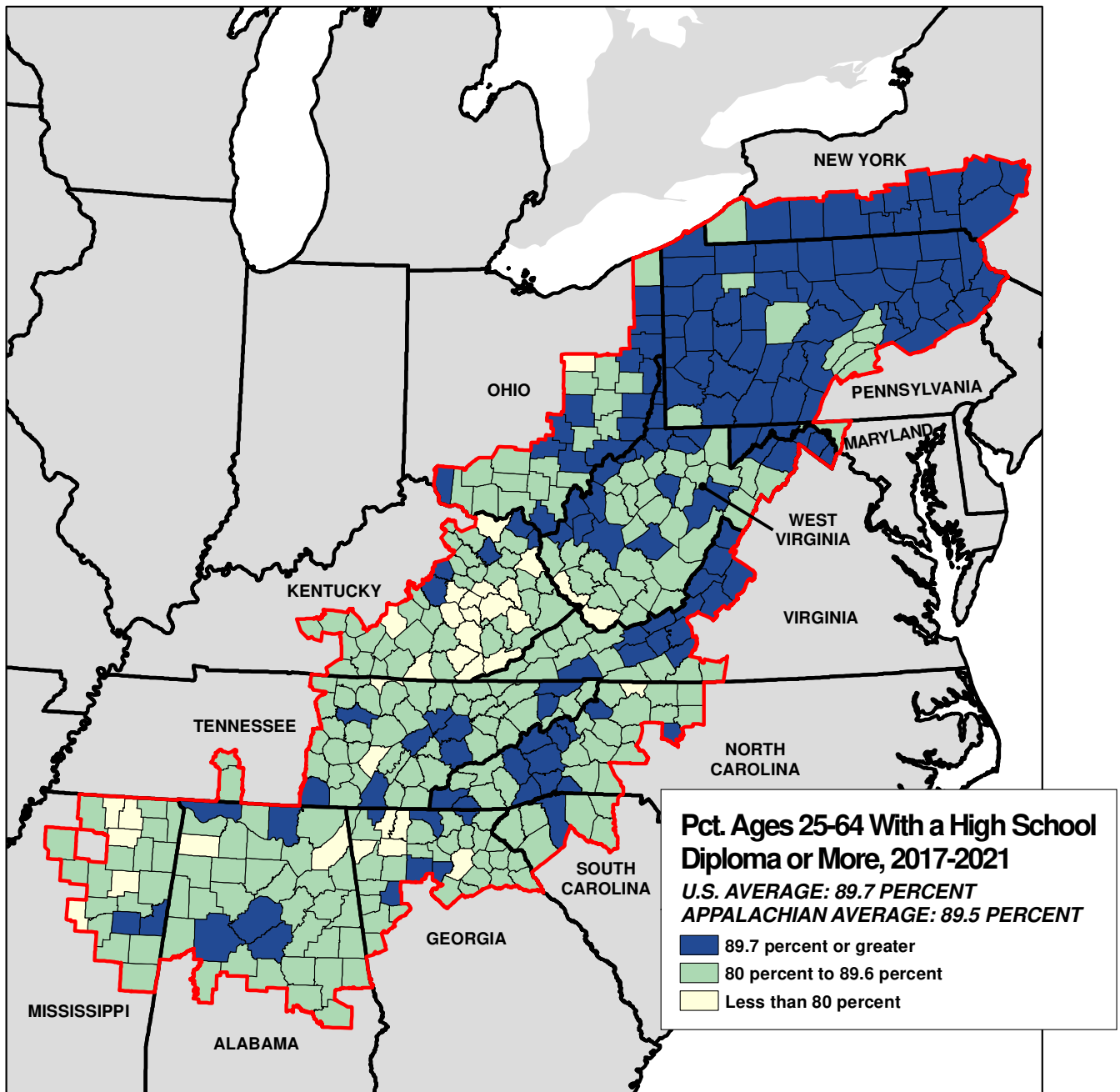


Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

The share of adults ages 25 and over with a bachelor's degree or more was 7.7 percentage points lower in Appalachia during the 2017-2021 period than in the nation as a whole. Indeed, the rate was lower than the national average in 400 of the Region's 423 counties. In fact, less than one in five residents ages 25 and over were graduates of a four-year college or university in 281 Appalachian counties. And in 18 counties—all but one of which were either outside metropolitan areas or in Central Appalachia—the share was less than one in 10. The 23 counties where the percentage of college graduates matched or surpassed the national average were largely in metro areas (e.g., Pittsburgh, Birmingham, suburban Atlanta) or home to a college or university (such as Watauga County, North Carolina where Appalachian State University is located).

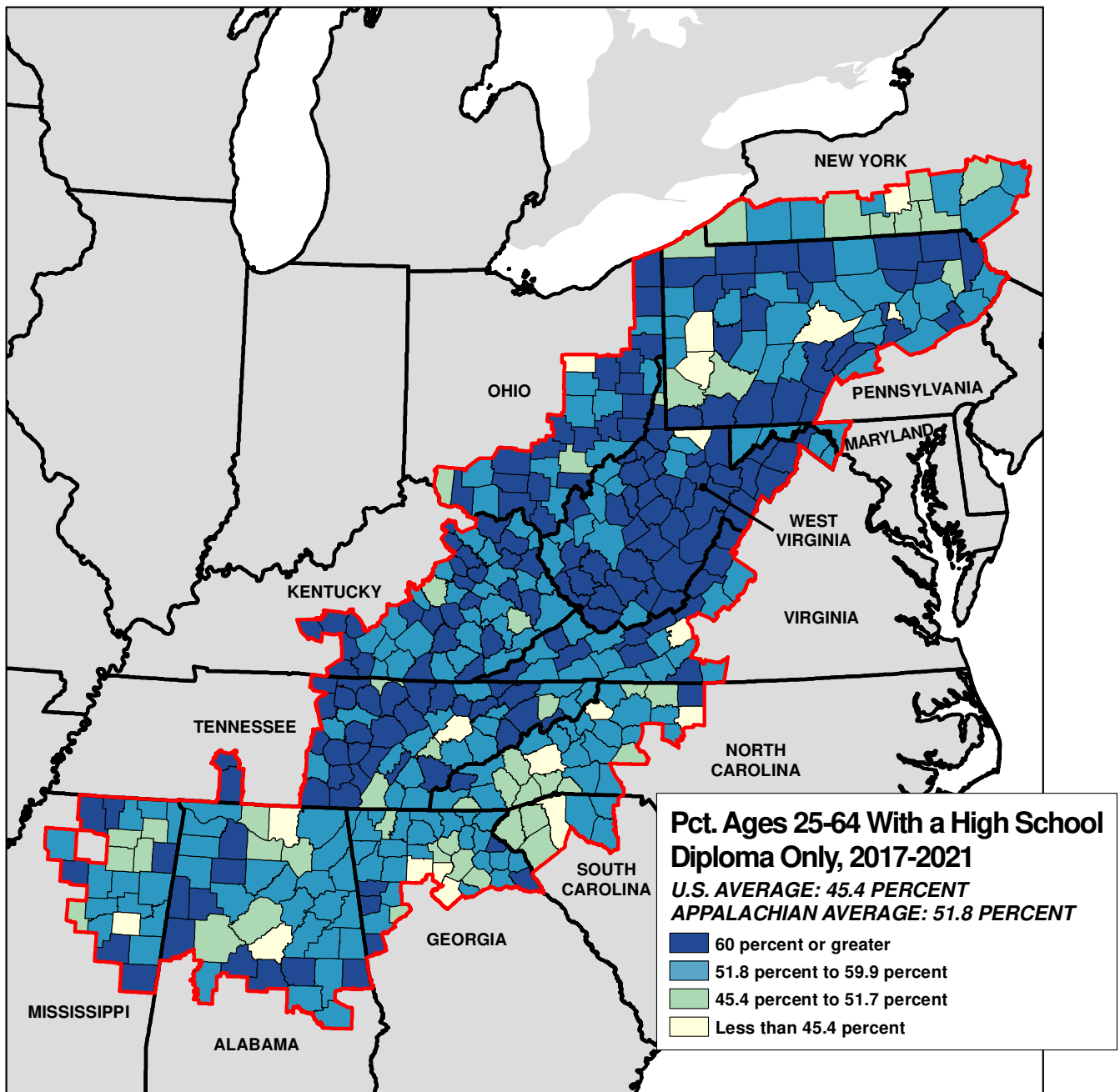
Figure 5.5: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma or More, 2017-2021



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma or More, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, the percentage of working-age adults (ages 25 to 64) in the Appalachian Region with at least a high school diploma was almost equal to the national average of 89.7 percent, and the share matched or exceeded the national rate in 149 counties. More than half of these counties were in metropolitan areas, and 96 of them were in Northern or North Central Appalachia. More than one-third of these 149 counties were in New York or Pennsylvania; the share of working-age adults with a high school diploma or more exceeded 91 percent in both states' Appalachian sections. (The share in Appalachian Pennsylvania was 93.4 percent.) At the other end of the spectrum, less than 80 percent of working-age adults had finished high school in 34 Appalachian counties. All but four of these counties were outside metropolitan areas, and 16 of them were in Kentucky alone.

Figure 5.6: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2017-2021

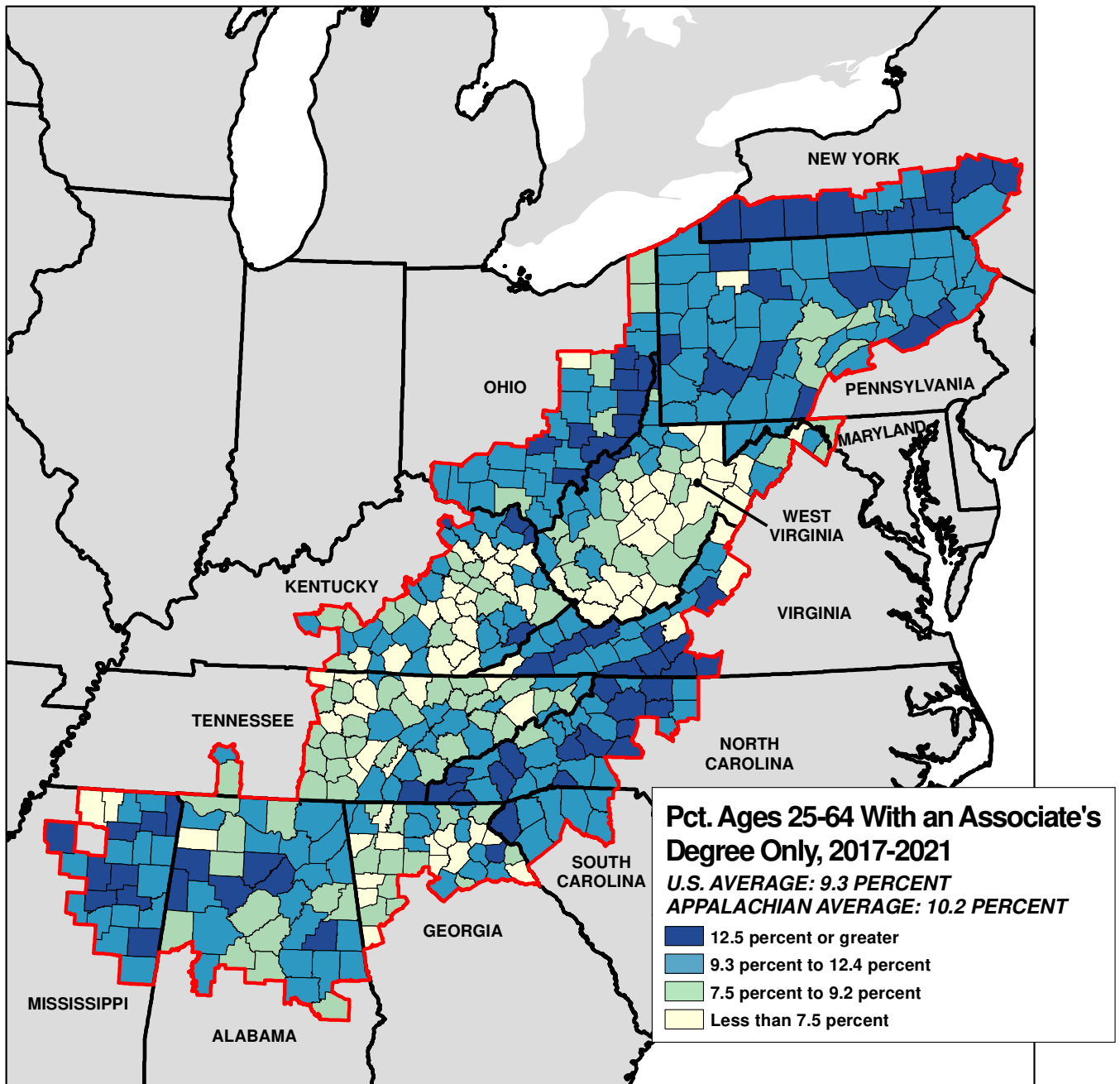


Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, 51.8 percent of working-age adults (ages 25 to 64) in the Appalachian Region had a high school diploma but no postsecondary degree, compared to just 45.4 percent nationally. And the share was at least 60 percent in 171 of Appalachia’s 423 counties. One-third of these counties were in Ohio and West Virginia; the share with just a high school diploma was more than 58 percent in the Appalachian portion of both states. In contrast, there were 19 Appalachian counties where the share of 25-to-64-year-olds with no more than a high school diploma was below the national average; all but one of these were in metro areas and/or college or university towns. Many working-age adults with this level of attainment may have continued their education after high school, either by attending college without graduating or by acquiring vocational training.

Figure 5.7: Percent of Persons Ages 25 to 64 in the Appalachian Region With an Associate’s Degree but Without a Bachelor’s Degree, 2017-2021

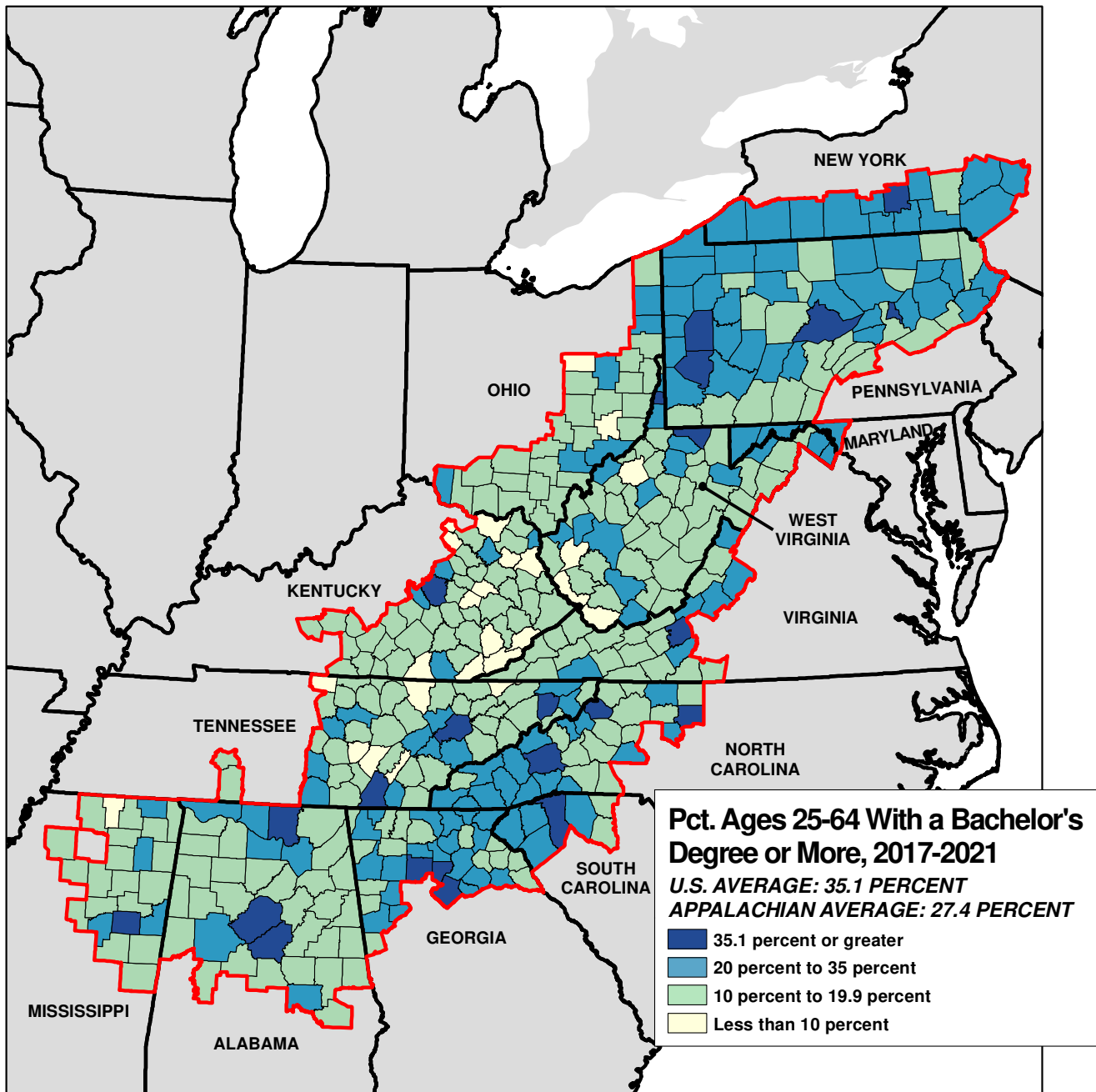


Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With an Associate's Degree but Without a Bachelor's Degree, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, 10.2 percent of working-age adults (ages 25 to 64) in Appalachia had attained an associate’s degree but not a bachelor’s degree, compared with 9.3 percent nationally. And the share was even higher in much of the Region: In 96 Appalachian counties, at least one in eight working-age adults had an associate’s degree as their highest level of education. The share with an associate’s degree only was 11 percent or more in the Appalachian sections of Mississippi, New York, North Carolina, Pennsylvania, South Carolina, and Virginia. In contrast, there were 73 other counties where less than 7.5 percent of 25-to-64-year-olds had attained an associate’s degree only. All but nine of the counties in the latter group were in four states—Georgia, Kentucky, Tennessee, and West Virginia.

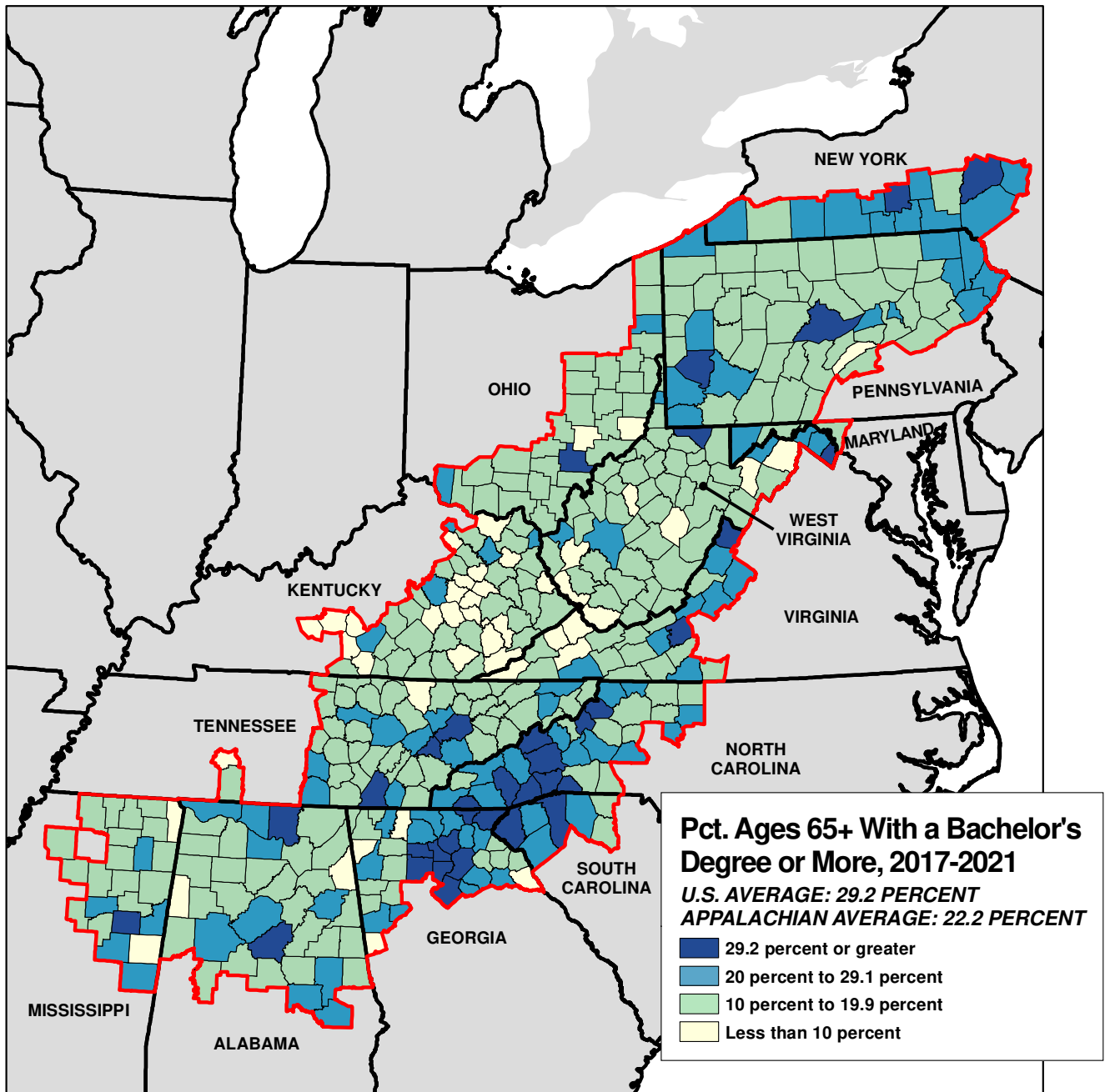
Figure 5.8: Percent of Persons Ages 25 to 64 in the Appalachian Region With a Bachelor's Degree or More, 2017-2021



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a Bachelor's Degree or More, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Just over 27 percent of Appalachia's working-age population had a bachelor's degree or more in 2017-2021—almost eight percentage points lower than the U.S. average of 35.1 percent. This is a striking indicator of the lower educational level of the Appalachian workforce. Indeed, just 15.9 percent of working-age adults in Central Appalachia had a bachelor's degree, as did 18.5 percent of residents in the Region's most rural counties, although the share exceeded the national average among counties in large metro areas. There were only 23 Appalachian counties where the share of working-age adults ages 25 to 64 with at least a bachelor's degree matched or exceeded the national average. More than half of these counties were homes to colleges and universities, and all but three of them were in metro areas. In contrast, less than one in 10 adults had a four-year degree in 25 counties. Of the counties in this latter group, 18 were in Central Appalachia, 22 were outside metropolitan areas and 13 were in the most rural communities, suggesting a lack of employment opportunities for college-educated adults in such areas.

Figure 5.9: Percent of Persons Ages 65 and Over in the Appalachian Region With a Bachelor's Degree or More, 2017-2021



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region With a Bachelor's Degree or More, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

While 29.2 percent of older Americans (ages 65 and over) had at least a bachelor's degree in 2017-2021, less than 10 percent had one in 45 of Appalachia's 423 counties. (And in one-quarter of these counties, less than two-thirds of older adults had completed high school.) Of these 45 counties, 40 were outside metropolitan areas, and more than three-fifths were in Central Appalachia—Kentucky alone had 21 of these counties. Yet in 35 Appalachian counties, the share of older adults with a four-year degree was at or above the national average. These were either counties in metropolitan areas (like suburban Atlanta), counties that had a college or university (such as Athens County, Ohio, home to Ohio University), or counties with significant retirement or seasonal activity (the latter suggested by the fact that much of their vacant housing is for seasonal or occasional use—such as Avery, Watauga, and other western North Carolina counties that lie along the Blue Ridge Parkway).

Table 5.4: Percentage Point Change in Educational Attainment of Persons Ages 25 and Over in the Appalachian Region, 2012-2016 to 2017-2021

Education (Highest Level Attained)	Percentage Point Change in Share of Population Ages 25 and Over					
	Less than High School Diploma	High School Diploma or More				
		Total	H.S. Grad, No Postsecondary Degree	Associate's Degree or More		
				Total	Associate's Degree	Bachelor's Degree or More
United States	- 1.9	+ 1.9	- 2.0	+ 3.9	+ 0.5	+ 3.4
Appalachian Region	- 2.4	+ 2.4	- 1.4	+ 3.9	+ 0.9	+ 2.9
Subregions						
Northern Appalachia	- 1.5	+ 1.5	- 2.2	+ 3.7	+ 0.8	+ 2.9
North Central Appalachia	- 2.4	+ 2.4	- 0.4	+ 2.8	+ 0.7	+ 2.1
Central Appalachia	- 3.8	+ 3.8	+ 0.8	+ 2.9	+ 1.3	+ 1.7
South Central Appalachia	- 3.1	+ 3.1	- 0.9	+ 4.0	+ 1.1	+ 2.9
Southern Appalachia	- 2.7	+ 2.7	- 1.5	+ 4.1	+ 0.8	+ 3.4
County Types						
Large Metros (pop. 1 million +)	- 1.7	+ 1.7	- 2.5	+ 4.2	+ 0.6	+ 3.6
Small Metros (pop. <1 million)	- 2.2	+ 2.2	- 1.6	+ 3.8	+ 1.0	+ 2.9
Nonmetro, Adjacent to Large Metros	- 2.5	+ 2.5	- 1.1	+ 3.5	+ 1.0	+ 2.5
Nonmetro, Adjacent to Small Metros	- 2.8	+ 2.8	- 0.3	+ 3.1	+ 1.0	+ 2.2
Rural (nonmetro, not adj. to a metro)	- 3.4	+ 3.4	+ 0.3	+ 3.1	+ 1.1	+ 2.0
Alabama	- 2.6	+ 2.6	- 1.1	+ 3.7	+ 1.0	+ 2.7
Appalachian Alabama	- 2.6	+ 2.6	- 1.1	+ 3.7	+ 0.9	+ 2.9
Non-Appalachian Alabama	- 2.6	+ 2.6	- 0.8	+ 3.4	+ 1.1	+ 2.3
Georgia	- 2.4	+ 2.4	- 2.0	+ 4.4	+ 0.8	+ 3.6
Appalachian Georgia	- 2.3	+ 2.3	- 1.9	+ 4.2	+ 0.5	+ 3.8
Non-Appalachian Georgia	- 2.5	+ 2.5	- 2.0	+ 4.5	+ 1.0	+ 3.5
Kentucky	- 3.1	+ 3.1	- 0.9	+ 3.8	+ 0.8	+ 3.0
Appalachian Kentucky	- 3.7	+ 3.7	+ 0.7	+ 3.0	+ 1.3	+ 1.8
Non-Appalachian Kentucky	- 2.7	+ 2.7	- 1.3	+ 4.0	+ 0.6	+ 3.4
Maryland	- 1.2	+ 1.2	- 2.4	+ 3.6	+ 0.5	+ 3.2
Appalachian Maryland	- 1.3	+ 1.3	- 1.9	+ 3.2	+ 0.3	+ 2.8
Non-Appalachian Maryland	- 1.2	+ 1.2	- 2.4	+ 3.6	+ 0.5	+ 3.1
Mississippi	- 2.6	+ 2.6	- 1.3	+ 4.0	+ 1.8	+ 2.2
Appalachian Mississippi	- 3.1	+ 3.1	- 0.7	+ 3.9	+ 1.8	+ 2.0
Non-Appalachian Mississippi	- 2.6	+ 2.6	- 1.5	+ 4.0	+ 1.7	+ 2.3
New York	- 1.5	+ 1.5	- 2.1	+ 3.6	+ 0.3	+ 3.4
Appalachian New York	- 1.2	+ 1.2	- 1.6	+ 2.6	+ 0.5	+ 2.2
Non-Appalachian New York	- 1.6	+ 1.6	- 2.1	+ 3.6	+ 0.3	+ 3.4
North Carolina	- 2.7	+ 2.7	- 2.2	+ 4.9	+ 0.9	+ 4.0
Appalachian North Carolina	- 3.2	+ 3.2	- 1.0	+ 4.3	+ 1.2	+ 3.1
Non-Appalachian North Carolina	- 2.6	+ 2.6	- 2.5	+ 5.0	+ 0.8	+ 4.2
Ohio	- 1.6	+ 1.6	- 1.8	+ 3.4	+ 0.4	+ 3.0
Appalachian Ohio	- 1.6	+ 1.6	- 1.0	+ 2.6	+ 0.5	+ 2.1
Non-Appalachian Ohio	- 1.6	+ 1.6	- 1.9	+ 3.5	+ 0.4	+ 3.2
Pennsylvania	- 1.9	+ 1.9	- 2.7	+ 4.4	+ 0.7	+ 3.8
Appalachian Pennsylvania	- 1.6	+ 1.6	- 2.5	+ 4.1	+ 0.9	+ 3.1
Non-Appalachian Pennsylvania	- 2.0	+ 2.0	- 2.7	+ 4.7	+ 0.5	+ 4.2
South Carolina	- 2.8	+ 2.8	- 1.5	+ 4.2	+ 0.9	+ 3.3
Appalachian South Carolina	- 2.9	+ 2.9	- 1.8	+ 4.7	+ 0.9	+ 3.8
Non-Appalachian South Carolina	- 2.7	+ 2.7	- 1.4	+ 4.1	+ 0.8	+ 3.2
Tennessee	- 2.8	+ 2.8	- 1.7	+ 4.4	+ 0.8	+ 3.6
Appalachian Tennessee	- 3.1	+ 3.1	- 0.9	+ 4.1	+ 1.1	+ 3.0
Non-Appalachian Tennessee	- 2.5	+ 2.5	- 2.3	+ 4.8	+ 0.6	+ 4.2
Virginia	- 2.2	+ 2.2	- 1.8	+ 4.1	+ 0.5	+ 3.4
Appalachian Virginia	- 3.8	+ 3.8	+ 0.6	+ 3.2	+ 1.3	+ 1.9
Non-Appalachian Virginia	- 2.0	+ 2.0	- 2.0	+ 4.0	+ 0.5	+ 3.5
West Virginia (entire state)	- 2.8	+ 2.8	- 0.4	+ 3.2	+ 0.9	+ 2.2

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 5.5: Percentage Point Change in Educational Attainment of Persons Ages 25 to 64 in the Appalachian Region, 2012-2016 to 2017-2021

Education (Highest Level Attained)	Percentage Point Change in Share of Population Ages 25 to 64					
	Less than High School Diploma	High School Diploma or More				
		Total	H.S. Grad, No Postsecondary Degree	Associate's Degree or More		
				Total	Associate's Degree	Bachelor's Degree or More
United States	- 1.3	+ 1.3	- 2.3	+ 3.6	+ 0.4	+ 3.3
Appalachian Region	- 1.3	+ 1.3	- 2.1	+ 3.5	+ 0.7	+ 2.7
Subregions						
Northern Appalachia	- 0.4	+ 0.4	- 2.8	+ 3.2	+ 0.5	+ 2.7
North Central Appalachia	- 1.3	+ 1.3	- 1.0	+ 2.3	+ 0.6	+ 1.7
Central Appalachia	- 1.9	+ 1.9	- 1.0	+ 2.9	+ 1.4	+ 1.5
South Central Appalachia	- 1.9	+ 1.9	- 1.6	+ 3.5	+ 0.9	+ 2.5
Southern Appalachia	- 1.8	+ 1.8	- 2.0	+ 3.9	+ 0.7	+ 3.2
County Types						
Large Metros (pop. 1 million +)	- 0.9	+ 0.9	- 2.9	+ 3.8	+ 0.3	+ 3.5
Small Metros (pop. <1 million)	- 1.2	+ 1.2	- 2.1	+ 3.3	+ 0.7	+ 2.5
Nonmetro, Adjacent to Large Metros	- 1.2	+ 1.2	- 1.8	+ 3.0	+ 0.8	+ 2.2
Nonmetro, Adjacent to Small Metros	- 1.6	+ 1.6	- 1.1	+ 2.7	+ 0.8	+ 1.8
Rural (nonmetro, not adj. to a metro)	- 2.1	+ 2.1	- 0.8	+ 3.0	+ 1.1	+ 1.9
Alabama	- 1.8	+ 1.8	- 1.5	+ 3.3	+ 0.9	+ 2.4
Appalachian Alabama	- 1.9	+ 1.9	- 1.6	+ 3.4	+ 0.7	+ 2.6
Non-Appalachian Alabama	- 1.8	+ 1.8	- 1.4	+ 3.2	+ 1.0	+ 2.2
Georgia	- 1.8	+ 1.8	- 2.4	+ 4.3	+ 0.6	+ 3.6
Appalachian Georgia	- 1.6	+ 1.6	- 2.3	+ 3.9	+ 0.3	+ 3.6
Non-Appalachian Georgia	- 1.9	+ 1.9	- 2.4	+ 4.4	+ 0.8	+ 3.7
Kentucky	- 1.8	+ 1.8	- 1.9	+ 3.7	+ 0.8	+ 2.9
Appalachian Kentucky	- 2.2	+ 2.2	- 0.9	+ 3.1	+ 1.3	+ 1.7
Non-Appalachian Kentucky	- 1.5	+ 1.5	- 2.2	+ 3.8	+ 0.6	+ 3.1
Maryland	- 0.6	+ 0.6	- 2.7	+ 3.3	+ 0.3	+ 2.9
Appalachian Maryland	- 0.4	+ 0.4	- 2.2	+ 2.6	+ 0.2	+ 2.4
Non-Appalachian Maryland	- 0.6	+ 0.6	- 2.7	+ 3.3	+ 0.3	+ 2.9
Mississippi	- 1.9	+ 1.9	- 2.2	+ 4.1	+ 1.9	+ 2.2
Appalachian Mississippi	- 2.6	+ 2.6	- 1.5	+ 4.1	+ 1.9	+ 2.2
Non-Appalachian Mississippi	- 1.8	+ 1.8	- 2.4	+ 4.1	+ 1.9	+ 2.1
New York	- 1.1	+ 1.1	- 2.3	+ 3.4	- 0.1	+ 3.4
Appalachian New York	+ 0.0	+ 0.0	- 1.9	+ 2.1	+ 0.0	+ 1.9
Non-Appalachian New York	- 1.2	+ 1.2	- 2.3	+ 3.5	- 0.1	+ 3.5
North Carolina	- 2.0	+ 2.0	- 2.6	+ 4.6	+ 0.6	+ 4.0
Appalachian North Carolina	- 2.0	+ 2.0	- 1.3	+ 3.3	+ 0.8	+ 2.5
Non-Appalachian North Carolina	- 1.9	+ 1.9	- 2.9	+ 4.9	+ 0.5	+ 4.3
Ohio	- 0.8	+ 0.8	- 2.3	+ 3.0	+ 0.1	+ 2.9
Appalachian Ohio	- 0.5	+ 0.5	- 1.7	+ 2.2	+ 0.3	+ 1.9
Non-Appalachian Ohio	- 0.9	+ 0.9	- 2.3	+ 3.1	+ 0.2	+ 3.1
Pennsylvania	- 0.8	+ 0.8	- 3.2	+ 4.0	+ 0.4	+ 3.6
Appalachian Pennsylvania	- 0.5	+ 0.5	- 3.0	+ 3.5	+ 0.7	+ 2.9
Non-Appalachian Pennsylvania	- 1.2	+ 1.2	- 3.2	+ 4.4	+ 0.3	+ 4.1
South Carolina	- 1.9	+ 1.9	- 2.0	+ 3.9	+ 0.7	+ 3.2
Appalachian South Carolina	- 2.0	+ 2.0	- 2.5	+ 4.4	+ 0.8	+ 3.7
Non-Appalachian South Carolina	- 1.8	+ 1.8	- 1.9	+ 3.7	+ 0.7	+ 3.1
Tennessee	- 1.6	+ 1.6	- 2.6	+ 4.3	+ 0.6	+ 3.7
Appalachian Tennessee	- 1.6	+ 1.6	- 2.1	+ 3.6	+ 1.0	+ 2.6
Non-Appalachian Tennessee	- 1.6	+ 1.6	- 3.0	+ 4.5	+ 0.3	+ 4.2
Virginia	- 1.4	+ 1.4	- 2.4	+ 3.8	+ 0.5	+ 3.3
Appalachian Virginia	- 2.6	+ 2.6	- 0.2	+ 2.8	+ 1.4	+ 1.4
Non-Appalachian Virginia	- 1.2	+ 1.2	- 2.5	+ 3.8	+ 0.4	+ 3.4
West Virginia (entire state)	- 1.4	+ 1.4	- 1.2	+ 2.7	+ 0.9	+ 1.8

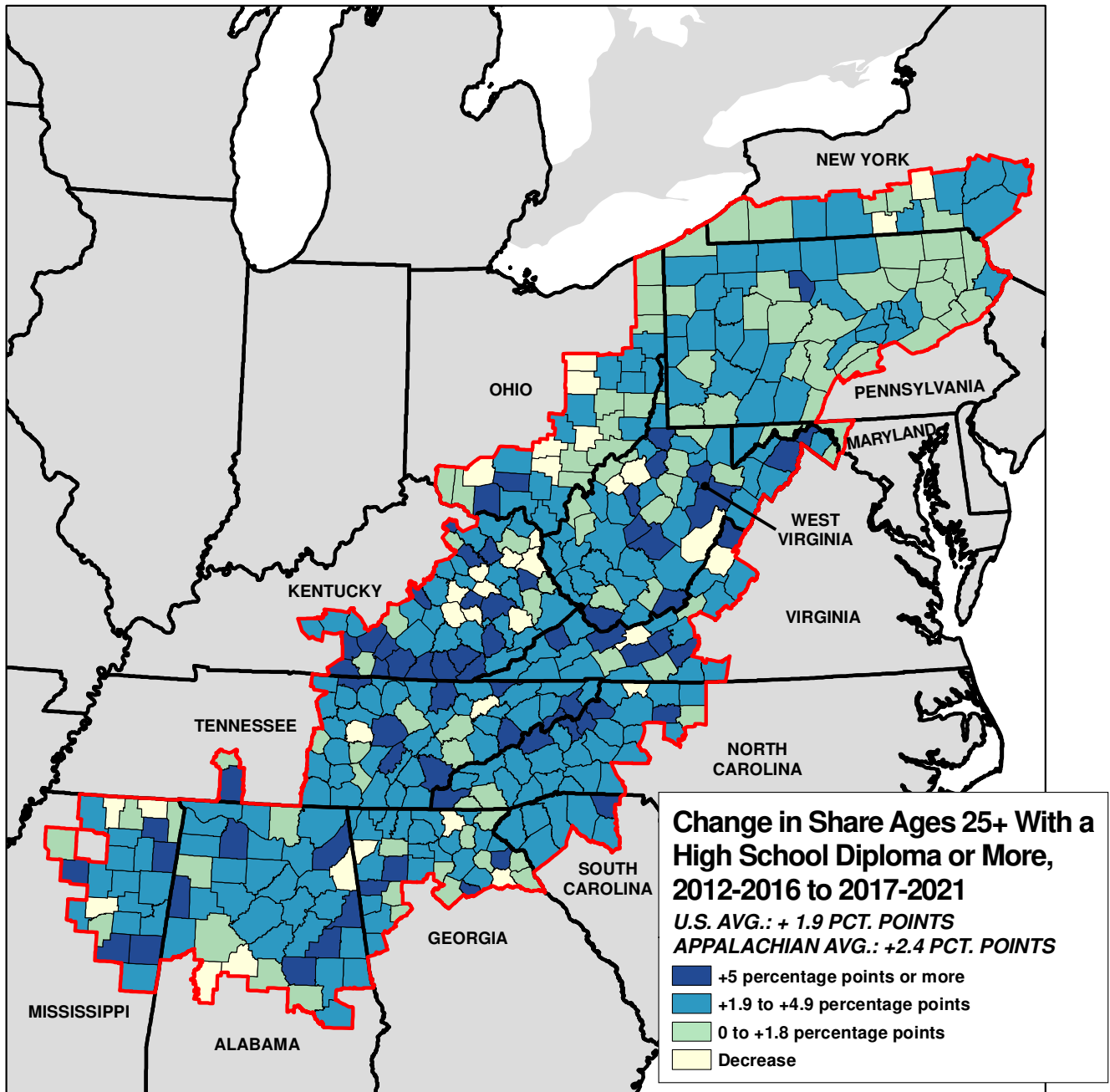
Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 5.6: Percentage Point Change in Educational Attainment of Persons Ages 65 and Over in the Appalachian Region, 2012-2016 to 2017-2021

Education (Highest Level Attained)	Percentage Point Change in Share of Population Ages 65 and Over					
	Less than High School Diploma	High School Diploma or More				
		Total	H.S. Grad, No Postsecondary Degree	Associate's Degree or More		
				Total	Associate's Degree	Bachelor's Degree or More
United States	- 4.3	+ 4.3	- 1.4	+ 5.7	+ 1.5	+ 4.2
Appalachian Region	- 6.2	+ 6.2	+ 0.2	+ 5.9	+ 1.7	+ 4.1
Subregions						
Northern Appalachia	- 5.1	+ 5.1	- 1.3	+ 6.3	+ 2.1	+ 4.2
North Central Appalachia	- 6.5	+ 6.5	+ 1.2	+ 5.3	+ 1.4	+ 3.9
Central Appalachia	- 10.6	+ 10.6	+ 6.9	+ 3.7	+ 1.6	+ 2.3
South Central Appalachia	- 7.0	+ 7.0	+ 0.8	+ 6.2	+ 1.8	+ 4.4
Southern Appalachia	- 5.7	+ 5.7	- 0.1	+ 5.8	+ 1.5	+ 4.3
County Types						
Large Metros (pop. 1 million +)	- 4.7	+ 4.7	- 1.9	+ 6.6	+ 1.9	+ 4.8
Small Metros (pop. <1 million)	- 5.9	+ 5.9	- 0.3	+ 6.2	+ 1.8	+ 4.4
Nonmetro, Adjacent to Large Metros	- 6.6	+ 6.6	+ 1.0	+ 5.7	+ 2.1	+ 3.7
Nonmetro, Adjacent to Small Metros	- 6.9	+ 6.9	+ 1.9	+ 4.9	+ 1.7	+ 3.3
Rural (nonmetro, not adj. to a metro)	- 7.8	+ 7.8	+ 3.9	+ 4.0	+ 1.5	+ 2.5
Alabama	- 5.6	+ 5.6	+ 0.4	+ 5.3	+ 1.6	+ 3.6
Appalachian Alabama	- 5.6	+ 5.6	+ 0.1	+ 5.5	+ 1.5	+ 4.0
Non-Appalachian Alabama	- 5.7	+ 5.7	+ 0.8	+ 4.9	+ 1.8	+ 3.2
Georgia	- 5.2	+ 5.2	- 0.6	+ 5.9	+ 1.7	+ 4.2
Appalachian Georgia	- 5.4	+ 5.4	- 0.6	+ 6.0	+ 1.4	+ 4.7
Non-Appalachian Georgia	- 5.2	+ 5.2	- 0.6	+ 5.8	+ 1.9	+ 3.9
Kentucky	- 8.1	+ 8.1	+ 2.9	+ 5.4	+ 1.4	+ 4.0
Appalachian Kentucky	- 9.9	+ 9.9	+ 6.4	+ 3.6	+ 1.7	+ 1.9
Non-Appalachian Kentucky	- 7.2	+ 7.2	+ 1.3	+ 5.9	+ 1.3	+ 4.6
Maryland	- 3.7	+ 3.7	- 1.9	+ 5.6	+ 0.9	+ 4.7
Appalachian Maryland	- 4.0	+ 4.0	- 1.4	+ 5.4	+ 1.0	+ 4.2
Non-Appalachian Maryland	- 3.7	+ 3.7	- 1.9	+ 5.5	+ 0.9	+ 4.7
Mississippi	- 6.0	+ 6.0	+ 1.6	+ 4.5	+ 1.9	+ 2.6
Appalachian Mississippi	- 5.8	+ 5.8	+ 1.7	+ 4.1	+ 2.1	+ 2.0
Non-Appalachian Mississippi	- 6.1	+ 6.1	+ 1.6	+ 4.5	+ 1.8	+ 2.7
New York	- 3.7	+ 3.7	- 1.9	+ 5.7	+ 1.5	+ 4.2
Appalachian New York	- 4.4	+ 4.4	- 1.0	+ 5.4	+ 2.2	+ 3.2
Non-Appalachian New York	- 3.7	+ 3.7	- 2.0	+ 5.6	+ 1.4	+ 4.2
North Carolina	- 5.8	+ 5.8	- 1.0	+ 6.8	+ 2.2	+ 4.6
Appalachian North Carolina	- 6.5	+ 6.5	- 0.5	+ 7.0	+ 2.3	+ 4.6
Non-Appalachian North Carolina	- 5.6	+ 5.6	- 1.1	+ 6.7	+ 2.1	+ 4.6
Ohio	- 4.8	+ 4.8	- 0.9	+ 5.7	+ 1.6	+ 4.1
Appalachian Ohio	- 5.3	+ 5.3	+ 0.6	+ 4.7	+ 1.7	+ 2.9
Non-Appalachian Ohio	- 4.6	+ 4.6	- 1.3	+ 5.9	+ 1.6	+ 4.3
Pennsylvania	- 5.2	+ 5.2	- 1.7	+ 6.8	+ 1.7	+ 5.1
Appalachian Pennsylvania	- 5.2	+ 5.2	- 1.6	+ 6.9	+ 2.2	+ 4.6
Non-Appalachian Pennsylvania	- 5.3	+ 5.3	- 1.5	+ 6.7	+ 1.3	+ 5.4
South Carolina	- 6.0	+ 6.0	+ 0.0	+ 6.0	+ 1.7	+ 4.3
Appalachian South Carolina	- 6.6	+ 6.6	+ 0.2	+ 6.3	+ 1.6	+ 4.7
Non-Appalachian South Carolina	- 5.8	+ 5.8	+ 0.0	+ 5.8	+ 1.7	+ 4.1
Tennessee	- 7.3	+ 7.3	+ 1.2	+ 6.0	+ 1.6	+ 4.4
Appalachian Tennessee	- 7.7	+ 7.7	+ 2.2	+ 5.5	+ 1.4	+ 4.0
Non-Appalachian Tennessee	- 6.6	+ 6.6	+ 0.2	+ 6.4	+ 1.8	+ 4.7
Virginia	- 5.8	+ 5.8	- 0.3	+ 6.0	+ 1.1	+ 4.9
Appalachian Virginia	- 8.2	+ 8.2	+ 3.1	+ 5.1	+ 1.2	+ 3.8
Non-Appalachian Virginia	- 5.4	+ 5.4	- 0.6	+ 5.9	+ 1.1	+ 4.8
West Virginia (entire state)	- 7.3	+ 7.3	+ 1.9	+ 5.4	+ 1.4	+ 4.0

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 5.10: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2012-2016 to 2017-2021

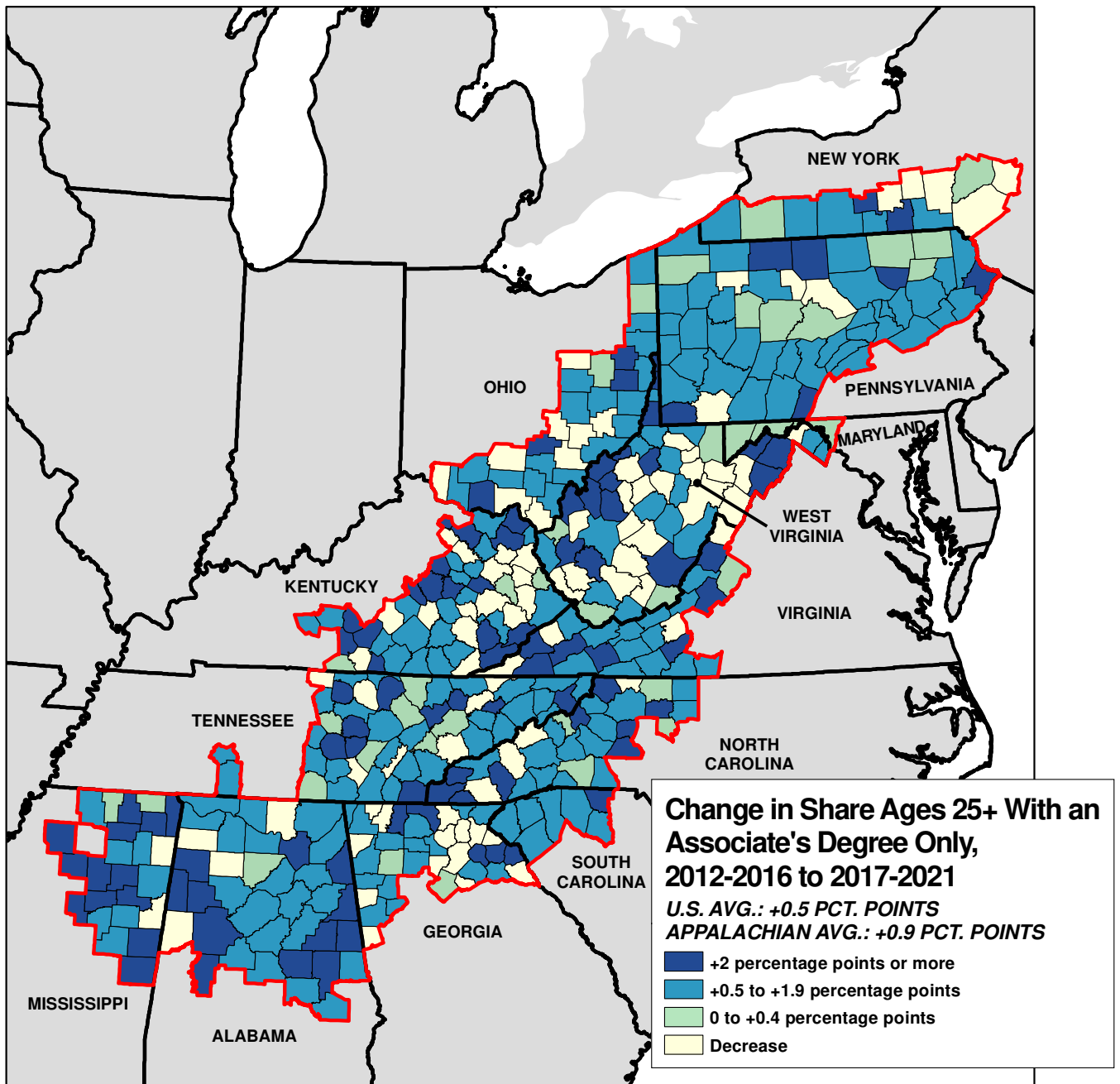


Map Title: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Since the 2012-2016 period, the share of Appalachian adults who have completed high school or more has increased more than two percentage points. This rise, which is higher than the national average of 1.9 points, has continued a longstanding trend in the Region. That increase has been even greater in some places: The share of adults with at least a high school diploma rose more than three percentage points in the Appalachian counties of Kentucky, Mississippi, North Carolina, Tennessee, and Virginia. In 70 Appalachian counties—all but 13 in Central, South Central, and Southern Appalachia—the share of adults with a high school diploma or more rose by at least five percentage points (almost three times the national average) between 2012-2016 and 2017-2021. In about 15% of these 70 counties, however, less than 80 percent of adult residents have completed high school.

Figure 5.11: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With an Associate's Degree but Without a Bachelor's Degree, 2012-2016 to 2017-2021

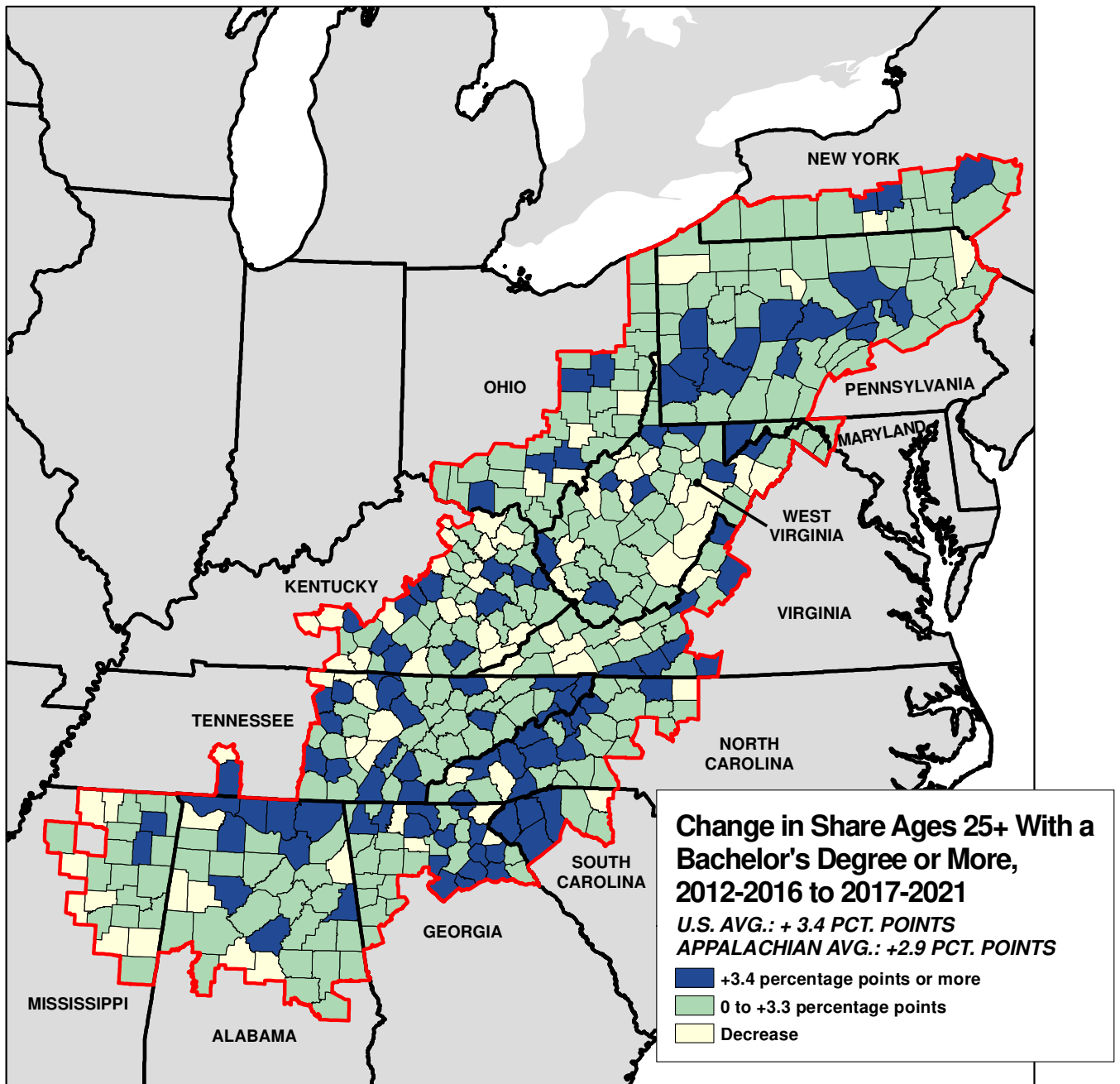


Map Title: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With an Associate's Degree but Without a Bachelor's Degree, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of adults ages 25 and over in the Appalachian Region whose highest level of education was an associate's degree increased almost a full percentage point between 2012-2016 and 2017-2021, slightly above the national average of 0.5 points. In 101 Appalachian counties, the share rose at least two percentage points. Yet it either stayed the same or increased less than the national average in 38 of the Region's counties, and decreased in 88 others. Among most of the counties in this latter group, however, the decrease in the share with only an associate's degree may be related to an increase in the share who have gone on to complete a bachelor's degree or more. In four-fifths of these counties where the percentage of associate's degrees as highest education level declined, the bachelor's degree or more attainment increased.

Figure 5.12: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Although the percentage of Appalachian adults ages 25 and over with at least a bachelor's degree is considerably lower than the national average, that share has been increasing at close to the same pace as in the nation as a whole. Both in Appalachia and nationwide, it was about three percentage points higher in 2017-2021 than it was in 2012-2016, suggesting a continued trend toward greater educational attainment in the Region. In 107 of the Region's 423 counties (scattered throughout the Region), the share increases matched or exceeded the national average of 3.4 points. Conversely, the share of adults ages 25 and over with at least a four-year degree decreased in 77 counties. Nearly three-quarters of the counties in the latter group were in Central, South Central, and Southern Appalachia.

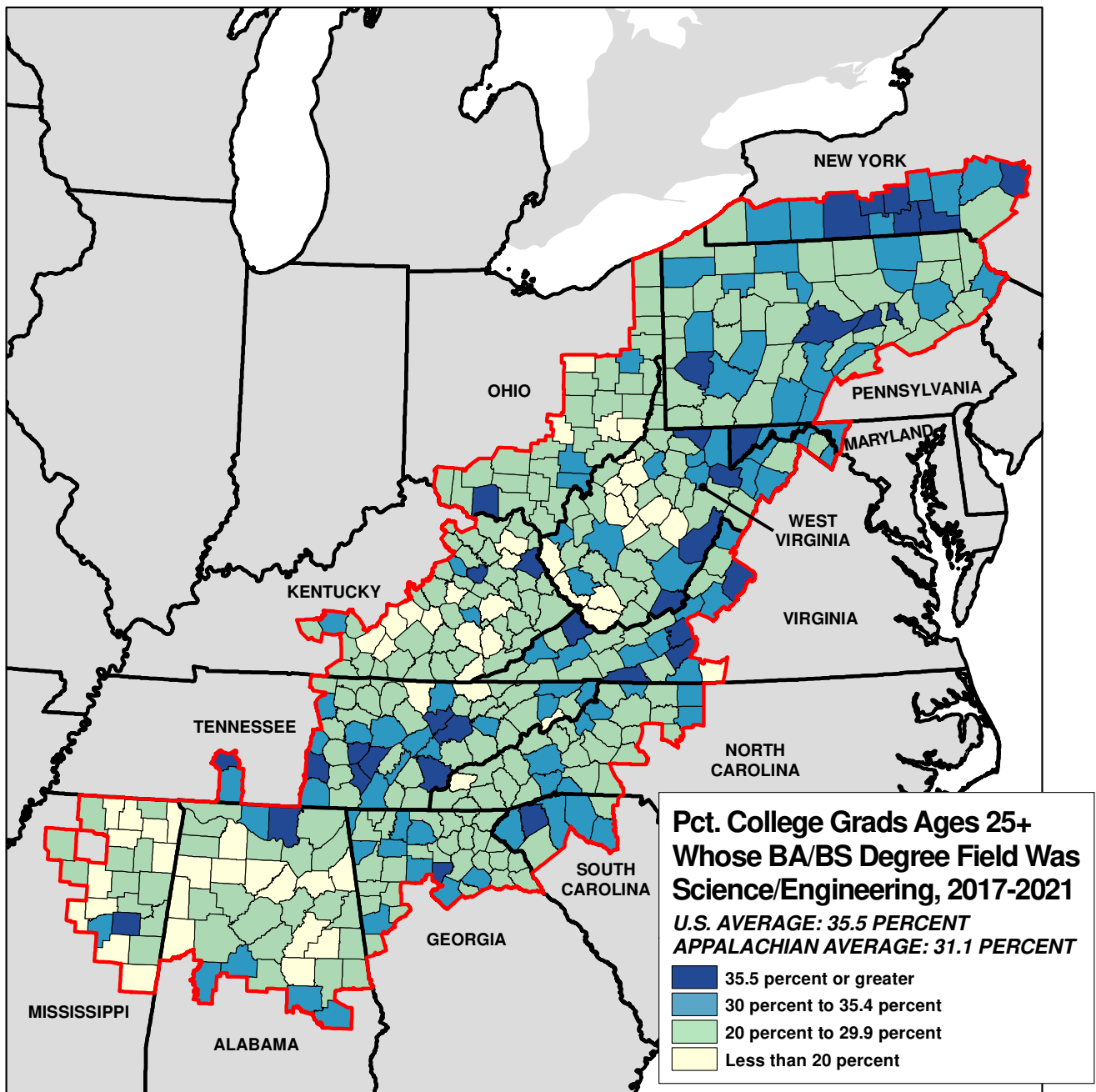
Table 5.7: Bachelor's Degree Field (First Major) for Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2017-2021

Bachelor's Degree Field (First Major)	Total Population Ages 25 and Over With a Bachelor's Degree or More, 2017-2021	Percent of Population Ages 25 and Over With a Bachelor's Degree or More				
		Science and Engineering	Science- and Engineering-Related Fields	Business	Education	Arts, Humanities, and Other
United States	75,808,834	35.5	9.7	20.3	11.6	22.9
Appalachian Region	4,740,162	31.1	11.3	20.0	16.6	21.0
Subregions						
Northern Appalachia	1,562,224	32.2	11.7	17.9	16.8	21.5
North Central Appalachia	385,669	28.6	13.0	18.6	19.5	20.2
Central Appalachia	199,662	26.5	13.5	15.9	24.6	19.5
South Central Appalachia	966,210	31.4	11.1	18.8	15.4	23.3
Southern Appalachia	1,626,397	31.0	10.5	23.6	15.3	19.5
County Types						
Large Metros (pop. 1 million +)	1,478,800	32.7	10.4	23.1	13.2	20.6
Small Metros (pop. <1 million)	2,124,869	32.0	11.5	19.3	15.7	21.6
Nonmetro, Adjacent to Large Metros	309,881	27.6	11.9	17.7	22.5	20.2
Nonmetro, Adjacent to Small Metros	515,889	28.1	12.4	17.3	21.8	20.5
Rural (nonmetro, not adj. to a metro)	310,723	26.1	12.5	17.3	23.8	20.2
Alabama	910,425	29.3	10.9	23.5	16.2	20.2
Appalachian Alabama	606,559	29.7	10.8	23.8	15.8	19.8
Non-Appalachian Alabama	303,866	28.4	11.0	22.7	16.9	21.1
Georgia	2,335,225	32.9	9.5	23.9	12.1	21.6
Appalachian Georgia	668,238	32.3	10.1	24.9	13.9	18.8
Non-Appalachian Georgia	1,666,987	33.1	9.2	23.5	11.4	22.8
Kentucky	785,070	29.5	11.9	19.4	15.9	23.3
Appalachian Kentucky	129,328	25.0	13.4	15.4	25.1	21.1
Non-Appalachian Kentucky	655,742	30.4	11.6	20.2	14.1	23.8
Maryland	1,762,482	41.5	8.9	17.9	9.0	22.7
Appalachian Maryland	39,434	34.6	11.1	15.8	15.0	23.6
Non-Appalachian Maryland	1,723,048	41.7	8.8	17.9	8.9	22.6
Mississippi	458,928	25.9	13.1	21.5	20.0	19.4
Appalachian Mississippi	82,114	24.2	12.1	20.8	25.1	17.7
Non-Appalachian Mississippi	376,814	26.3	13.3	21.6	18.9	19.8
New York	5,366,712	34.8	9.1	18.6	10.6	26.9
Appalachian New York	194,446	37.0	9.7	12.3	17.6	23.4
Non-Appalachian New York	5,172,266	34.7	9.1	18.9	10.3	27.1
North Carolina	2,339,163	34.4	9.5	20.4	12.3	23.4
Appalachian North Carolina	398,884	30.2	10.9	17.7	15.6	25.6
Non-Appalachian North Carolina	1,940,279	35.2	9.2	21.0	11.6	23.0
Ohio	2,398,329	31.0	11.7	21.3	15.1	20.9
Appalachian Ohio	266,665	26.0	13.5	19.0	21.4	20.2
Non-Appalachian Ohio	2,131,664	31.6	11.4	21.6	14.4	21.0
Pennsylvania	3,017,250	33.7	10.7	19.6	13.8	22.2
Appalachian Pennsylvania	1,183,756	32.2	11.7	18.7	16.0	21.3
Non-Appalachian Pennsylvania	1,833,494	34.7	10.0	20.2	12.4	22.7
South Carolina	1,046,424	32.1	10.0	22.4	14.5	21.0
Appalachian South Carolina	269,486	32.9	10.2	21.0	14.7	21.3
Non-Appalachian South Carolina	776,938	31.9	9.9	23.0	14.4	20.9
Tennessee	1,367,211	30.3	10.8	22.2	13.5	23.2
Appalachian Tennessee	510,483	31.7	11.5	20.1	15.8	20.9
Non-Appalachian Tennessee	856,728	29.4	10.4	23.5	12.2	24.5
Virginia	2,372,397	40.5	7.9	18.8	9.0	23.8
Appalachian Virginia	112,488	34.5	10.7	16.0	16.0	22.8
Non-Appalachian Virginia	2,259,909	40.8	7.8	18.9	8.6	23.9
West Virginia (entire state)	278,281	28.6	13.6	18.4	19.7	19.6

Note: Examples of "Science- and Engineering-Related Fields" include nursing, architecture, and mathematics teacher education.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 5.13: Among Persons Ages 25 and Over in the Appalachian Region With a Bachelor’s Degree or More, Percent Whose Bachelor’s Degree Field (First Major) Was Science and Engineering, 2017-2021



Map Title: Among Persons Ages 25 and Over in the Appalachian Region With a Bachelor’s Degree or More, Percent Whose Bachelor’s Degree Field (First Major) Was Science and Engineering, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Among the 4.7 million adults in the Appalachian Region with a bachelor’s degree or more, just over 31 percent held a degree in the science and engineering field—more than four points lower than the national share of 35.5 percent. But there was much variation within the Region. In 35 Appalachian counties, the share of BA/BS holders with science and engineering degrees matched or exceeded the national average. A number of these counties are home to major universities, such as Virginia Tech and Penn State. Yet in another 56 counties in the Region, less than one-fifth of adult college graduates had a science and engineering degree. Science and engineering jobs are becoming increasingly important in keeping the United States competitive in the global economy. The field of science and engineering includes the following detailed fields and majors: computers, mathematics, and statistics; biological, agricultural, and environmental sciences; physical and related science; psychology; social sciences; and engineering.

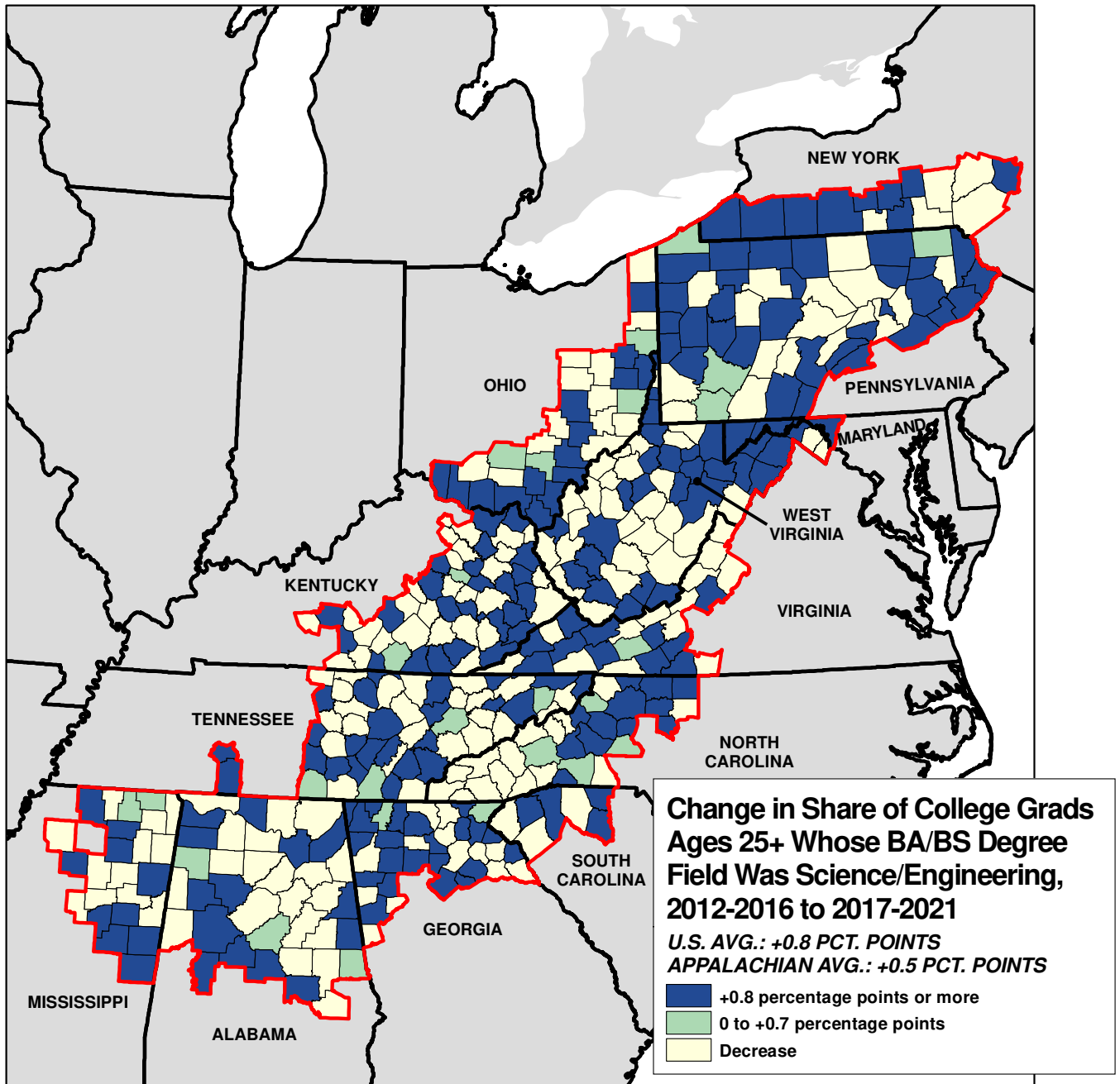
Table 5.8: Percentage Point Change in Bachelor's Degree Field (First Major) for Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016 to 2017-2021

Bachelor's Degree Field (First Major)	Percentage Point Change in Share of Population Ages 25 and Over With a Bachelor's Degree or More				
	Science and Engineering	Science- and Engineering-Related Fields	Business	Education	Arts, Humanities, and Other
United States	+ 0.8	+ 0.5	- 0.1	- 1.4	+ 0.3
Appalachian Region	+ 0.5	+ 0.6	- 0.2	- 1.5	+ 0.6
Subregions					
Northern Appalachia	+ 0.5	+ 0.6	- 0.3	- 1.7	+ 1.0
North Central Appalachia	+ 0.6	+ 0.4	- 0.2	- 1.6	+ 0.7
Central Appalachia	+ 0.3	+ 1.0	- 0.1	- 2.2	+ 1.0
South Central Appalachia	- 0.2	+ 0.5	- 0.2	- 1.1	+ 1.1
Southern Appalachia	+ 0.9	+ 0.9	- 0.5	- 1.4	- 0.1
County Types					
Large Metros (pop. 1 million +)	+ 1.1	+ 0.3	- 0.7	- 1.2	+ 0.5
Small Metros (pop. <1 million)	+ 0.1	+ 0.8	- 0.2	- 1.3	+ 0.8
Nonmetro, Adjacent to Large Metros	+ 1.1	+ 0.4	+ 0.2	- 2.0	+ 0.2
Nonmetro, Adjacent to Small Metros	+ 0.6	+ 0.6	- 0.1	- 1.9	+ 0.9
Rural (nonmetro, not adj. to a metro)	+ 0.1	+ 1.4	+ 0.7	- 2.5	+ 0.2
Alabama	+ 0.0	+ 0.7	+ 0.1	- 1.4	+ 0.6
Appalachian Alabama	- 0.4	+ 0.8	+ 0.1	- 1.0	+ 0.4
Non-Appalachian Alabama	+ 0.8	+ 0.5	- 0.1	- 2.2	+ 1.2
Georgia	+ 1.0	+ 0.7	- 0.7	- 1.5	+ 0.5
Appalachian Georgia	+ 2.1	+ 0.8	- 0.9	- 1.4	- 0.6
Non-Appalachian Georgia	+ 0.6	+ 0.5	- 0.6	- 1.6	+ 1.0
Kentucky	+ 0.6	+ 0.6	- 0.8	- 1.4	+ 0.9
Appalachian Kentucky	+ 0.1	+ 0.9	+ 0.4	- 2.4	+ 1.0
Non-Appalachian Kentucky	+ 0.7	+ 0.6	- 1.1	- 1.0	+ 1.0
Maryland	+ 0.5	+ 0.4	- 0.4	- 1.1	+ 0.6
Appalachian Maryland	+ 1.2	+ 1.8	- 1.1	- 4.6	+ 2.8
Non-Appalachian Maryland	+ 0.5	+ 0.3	- 0.4	- 0.9	+ 0.5
Mississippi	+ 0.7	+ 0.9	+ 0.1	- 2.0	+ 0.2
Appalachian Mississippi	+ 0.1	+ 0.8	+ 0.7	- 1.2	- 0.5
Non-Appalachian Mississippi	+ 0.9	+ 0.9	- 0.1	- 2.2	+ 0.3
New York	+ 0.7	+ 0.4	- 0.3	- 1.0	+ 0.3
Appalachian New York	+ 0.4	+ 0.4	- 0.3	- 1.1	+ 0.6
Non-Appalachian New York	+ 0.7	+ 0.4	- 0.2	- 1.1	+ 0.3
North Carolina	+ 0.5	+ 0.2	+ 0.0	- 1.3	+ 0.6
Appalachian North Carolina	- 0.2	+ 0.2	- 0.2	- 1.0	+ 1.2
Non-Appalachian North Carolina	+ 0.5	+ 0.3	+ 0.1	- 1.4	+ 0.5
Ohio	+ 0.4	+ 0.8	- 0.2	- 1.3	+ 0.3
Appalachian Ohio	+ 0.6	- 0.1	+ 0.1	- 1.5	+ 1.0
Non-Appalachian Ohio	+ 0.3	+ 0.9	- 0.3	- 1.2	+ 0.3
Pennsylvania	+ 0.5	+ 0.5	- 0.2	- 1.6	+ 0.8
Appalachian Pennsylvania	+ 0.5	+ 0.5	- 0.3	- 1.8	+ 1.0
Non-Appalachian Pennsylvania	+ 0.4	+ 0.4	- 0.2	- 1.3	+ 0.6
South Carolina	+ 0.5	+ 1.2	- 0.1	- 1.3	- 0.3
Appalachian South Carolina	+ 1.2	+ 1.1	- 1.0	- 1.7	+ 0.5
Non-Appalachian South Carolina	+ 0.4	+ 1.1	+ 0.4	- 1.2	- 0.6
Tennessee	+ 0.3	+ 0.6	- 0.3	- 1.8	+ 1.1
Appalachian Tennessee	+ 0.3	+ 0.5	- 0.4	- 1.4	+ 1.0
Non-Appalachian Tennessee	+ 0.3	+ 0.8	- 0.2	- 2.0	+ 1.1
Virginia	+ 0.1	+ 0.4	- 0.2	- 0.9	+ 0.5
Appalachian Virginia	- 1.3	+ 1.3	- 0.2	- 0.8	+ 1.0
Non-Appalachian Virginia	+ 0.2	+ 0.4	- 0.2	- 0.9	+ 0.6
West Virginia (entire state)	+ 0.3	+ 1.3	- 0.6	- 1.6	+ 0.5

Note: Examples of "Science- and Engineering-Related Fields" include nursing, architecture, and mathematics teacher education.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 5.14: Among Persons Ages 25 and Over in the Appalachian Region With a Bachelor’s Degree or More, Percentage Point Change in the Share Whose Bachelor’s Degree Field (First Major) Was Science and Engineering, 2012-2016 to 2017-2021



Map Title: Among Persons Ages 25 and Over in the Appalachian Region With a Bachelor’s Degree or More, Percentage Point Change in the Share Whose Bachelor’s Degree Field (First Major) Was Science and Engineering, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Among adults in the Appalachian Region with a bachelor’s degree or more, the share with a degree in the science and engineering field was 0.5 percentage points greater in 2017-2021 than it was in 2012-2016. And in 206 Appalachian counties, the increase matched or exceeded the national average (0.8 points). The share with a degree in science and engineering increased most in the North Central and Southern subregions and among counties in large metros and in nonmetro areas adjacent to large metros. Yet in 191 of the Region’s counties, the share actually decreased—including in 48 of the 56 counties where less than one-fifth of adult college graduates had a science and engineering degree.

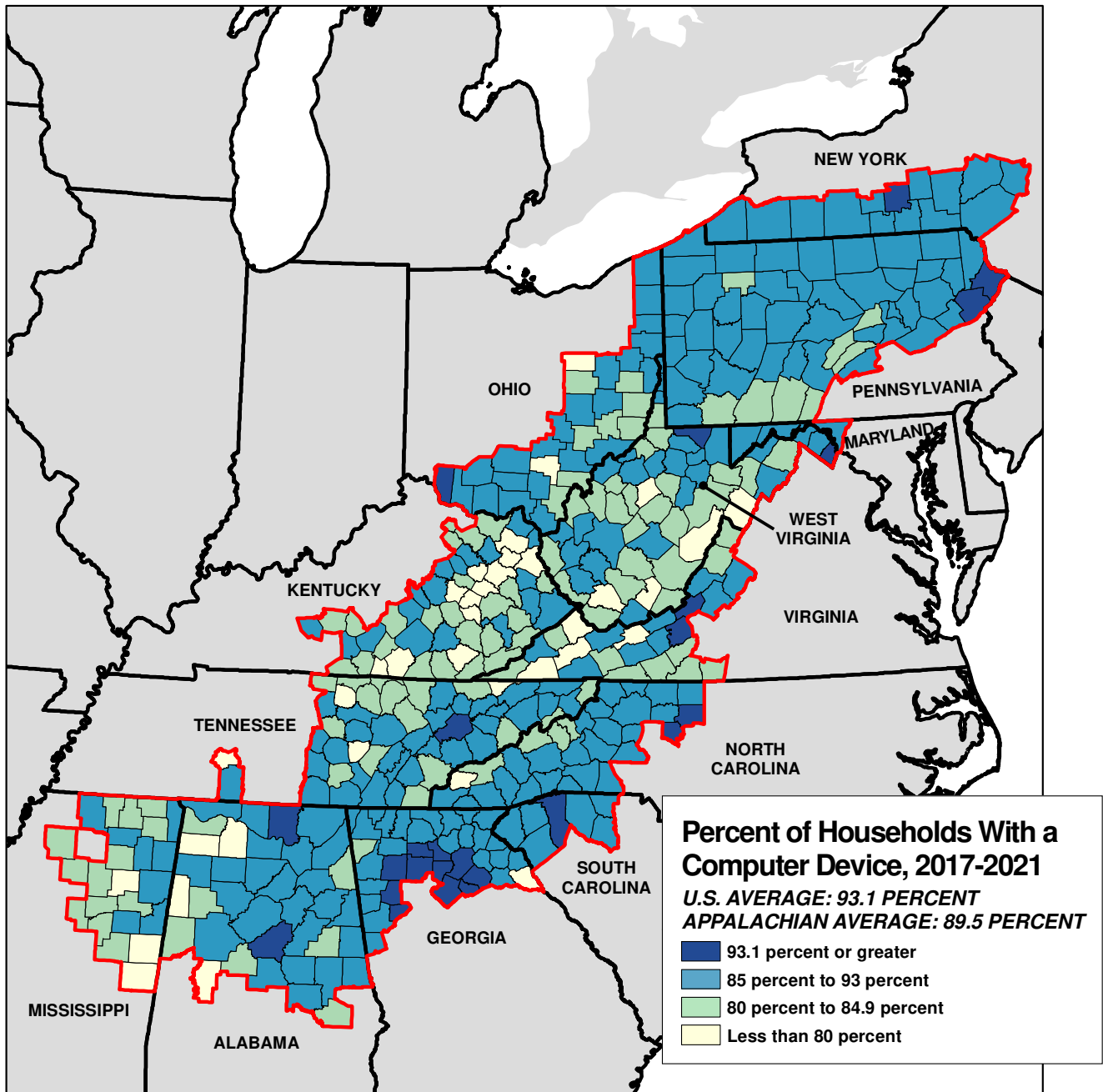
Table 5.9: Households in the Appalachian Region With a Computer Device, By Type of Device, 2017-2021

Device Ownership	Total Households	Percent of Households With One of More Computer Devices					Percent of Households Without a Computer Device
		Total	Desktop or Laptop Computer	Smartphone	Tablet	Other Device	
United States	124,010,992	93.1	78.9	86.5	63.2	2.6	6.9
Appalachian Region	10,208,293	89.5	72.5	80.9	58.3	2.0	10.5
Subregions							
Northern Appalachia	3,298,948	89.1	73.9	78.6	58.4	1.8	10.9
North Central Appalachia	986,081	88.1	69.7	77.9	56.6	1.7	11.9
Central Appalachia	709,085	85.0	63.6	74.6	53.4	1.7	15.0
South Central Appalachia	2,071,304	89.4	71.7	81.4	56.8	2.1	10.6
Southern Appalachia	3,142,875	91.4	74.3	85.5	61.0	2.3	8.6
County Types							
Large Metros (pop. 1 million +)	2,411,892	92.5	79.0	85.5	64.6	2.3	7.5
Small Metros (pop. <1 million)	4,409,764	90.2	73.3	82.1	58.7	2.1	9.8
Nonmetro, Adjacent to Large Metros	892,865	87.6	69.0	77.9	55.3	1.6	12.4
Nonmetro, Adjacent to Small Metros	1,540,636	86.6	66.9	76.1	53.2	1.7	13.4
Rural (nonmetro, not adj. to a metro)	953,136	84.9	64.2	74.9	51.9	1.5	15.1
Alabama	1,902,983	89.7	69.8	83.2	56.5	2.1	10.3
Appalachian Alabama	1,230,489	90.1	71.1	83.7	57.9	2.0	9.9
Non-Appalachian Alabama	672,494	88.9	67.4	82.3	53.9	2.3	11.1
Georgia	3,885,371	93.2	78.6	87.8	63.7	2.5	6.8
Appalachian Georgia	1,156,935	94.0	81.0	88.7	66.9	2.8	6.0
Non-Appalachian Georgia	2,728,436	92.8	77.6	87.4	62.3	2.3	7.2
Kentucky	1,748,475	90.2	72.0	82.8	59.5	2.6	9.8
Appalachian Kentucky	441,305	85.2	64.5	75.5	54.4	1.8	14.8
Non-Appalachian Kentucky	1,307,170	91.8	74.6	85.2	61.2	2.9	8.2
Maryland	2,294,270	94.6	83.9	88.2	68.7	3.0	5.4
Appalachian Maryland	98,585	89.6	73.0	79.9	59.3	1.8	10.4
Non-Appalachian Maryland	2,195,685	94.8	84.4	88.6	69.1	3.1	5.2
Mississippi	1,108,670	88.4	64.8	82.7	52.5	2.1	11.6
Appalachian Mississippi	234,999	85.4	58.7	80.2	47.2	1.2	14.6
Non-Appalachian Mississippi	873,671	89.2	66.5	83.4	54.0	2.3	10.8
New York	7,530,150	92.2	79.0	84.7	63.1	2.8	7.8
Appalachian New York	416,763	89.9	75.5	77.6	58.9	1.9	10.1
Non-Appalachian New York	7,113,387	92.3	79.2	85.1	63.3	2.8	7.7
North Carolina	4,034,684	92.0	77.2	85.4	61.0	2.3	8.0
Appalachian North Carolina	807,797	89.3	72.5	80.8	55.8	2.2	10.7
Non-Appalachian North Carolina	3,226,887	92.7	78.4	86.6	62.3	2.3	7.3
Ohio	4,754,161	91.9	76.3	83.8	61.8	2.2	8.1
Appalachian Ohio	787,111	87.8	69.2	78.2	56.5	1.4	12.2
Non-Appalachian Ohio	3,967,050	92.7	77.8	84.9	62.8	2.4	7.3
Pennsylvania	5,147,783	90.9	77.3	82.0	61.6	2.1	9.1
Appalachian Pennsylvania	2,336,977	89.3	74.7	78.9	58.8	1.9	10.7
Non-Appalachian Pennsylvania	2,810,806	92.2	79.4	84.6	64.0	2.3	7.8
South Carolina	1,976,447	91.7	74.2	85.3	59.9	3.9	8.3
Appalachian South Carolina	520,452	91.5	74.0	84.8	61.4	2.3	8.5
Non-Appalachian South Carolina	1,455,995	91.7	74.2	85.4	59.4	4.5	8.3
Tennessee	2,664,791	90.9	73.3	84.5	60.0	3.0	9.1
Appalachian Tennessee	1,173,332	89.4	70.8	82.0	57.5	2.0	10.6
Non-Appalachian Tennessee	1,491,459	92.0	75.3	86.4	62.1	3.7	8.0
Virginia	3,248,528	93.4	81.2	87.1	65.7	2.8	6.6
Appalachian Virginia	292,196	86.0	66.2	76.3	52.3	1.9	14.0
Non-Appalachian Virginia	2,956,332	94.1	82.7	88.2	67.1	2.9	5.9
West Virginia (entire state)	711,352	87.6	68.9	76.4	55.8	1.8	12.4

Note: Device percentages are not mutually exclusive.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 5.15: Percent of Households in the Appalachian Region With a Computer Device, 2017-2021



Map Title: Percent of Households in the Appalachian Region With a Computer Device, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, 89.5 percent of households in the Appalachian Region had one or more computer devices (desktop or laptop, smartphone, tablet, or other device)—nearly four points below the national average. The share is even lower in some parts of the Region: It was below 80 percent in 36 of Appalachia’s 423 counties. All but three of these counties were outside metropolitan areas and more than half were in the most rural areas. Half of the 36 counties were in Central Appalachia. Yet there were 25 Appalachian counties where the share of households with a computer was at or above the national average, all but one of which were in metropolitan areas. These data indicate an ongoing “digital divide” between urban and rural areas in Appalachia as well as between the Region and the rest of the nation. Even before the COVID-19 pandemic hit, computer devices had become commonly used for such activities as school work, entertainment, online banking, health care access, and socializing—and the pandemic’s effects have magnified the importance of such devices.

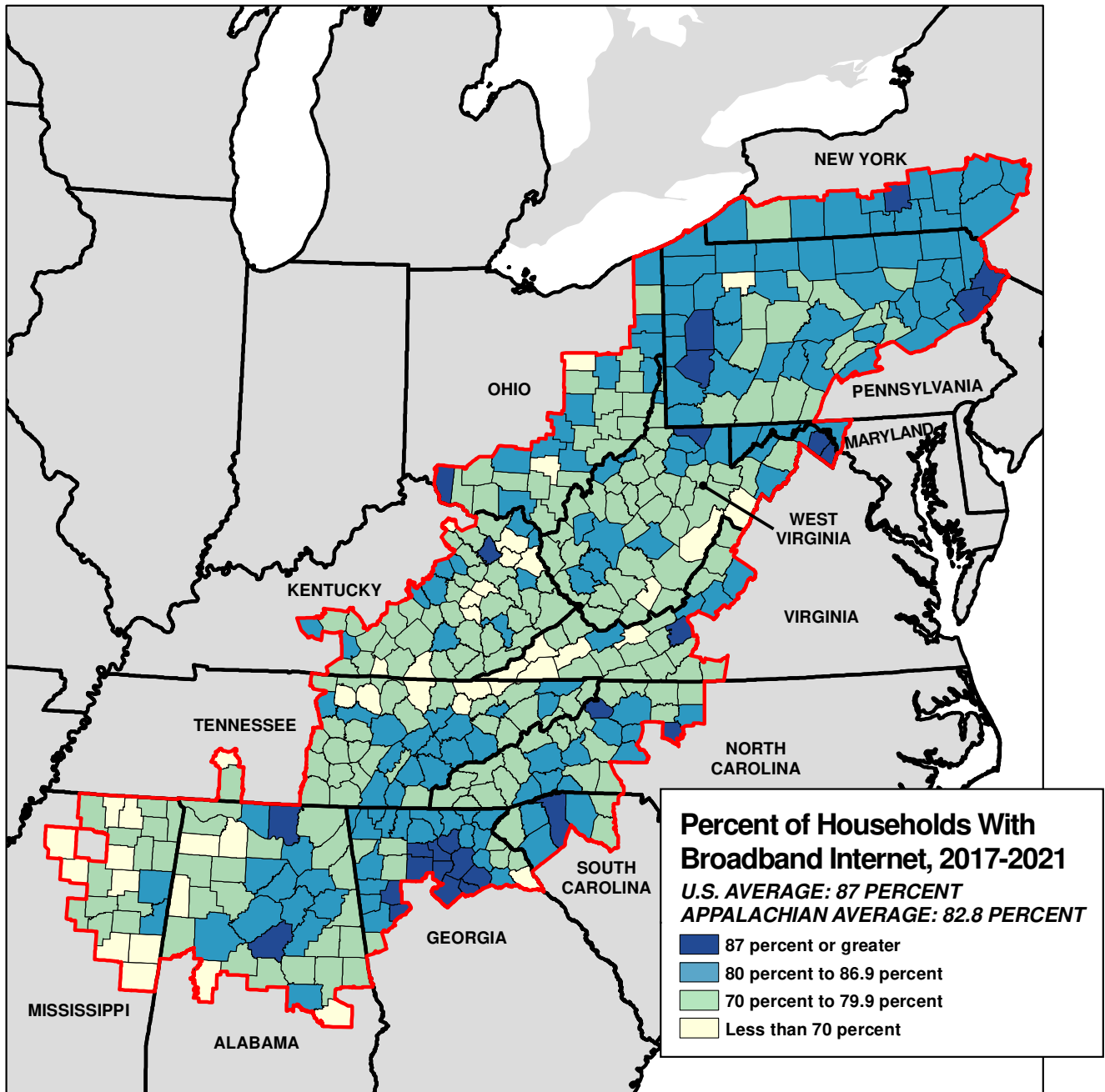
Table 5.10: Households in the Appalachian Region With an Internet Subscription, By Type of Subscription, 2017-2021

Type of Internet Subscription	Total Households	Percent of Households With an Internet Subscription					
		Total	Dial-Up Only	Broadband (High-Speed)			
				Total	Cable, Fiber Optic, or DSL	Cellular	Satellite
United States	124,010,992	87.2	0.2	87.0	72.0	78.7	6.8
Appalachian Region	10,208,293	83.1	0.3	82.8	66.4	72.2	6.8
Subregions							
Northern Appalachia	3,298,948	83.9	0.5	83.5	69.1	71.8	5.2
North Central Appalachia	986,081	81.5	0.3	81.2	64.2	68.2	7.4
Central Appalachia	709,085	76.7	0.4	76.4	60.6	62.9	6.9
South Central Appalachia	2,071,304	82.0	0.2	81.7	65.0	70.5	6.4
Southern Appalachia	3,142,875	84.8	0.2	84.6	66.5	77.0	8.4
County Types							
Large Metros (pop. 1 million +)	2,411,892	87.6	0.2	87.4	74.2	79.2	6.1
Small Metros (pop. <1 million)	4,409,764	83.9	0.3	83.6	67.9	72.8	6.1
Nonmetro, Adjacent to Large Metros	892,865	80.3	0.4	80.0	60.4	67.9	8.0
Nonmetro, Adjacent to Small Metros	1,540,636	79.0	0.5	78.5	58.7	66.7	7.9
Rural (nonmetro, not adj. to a metro)	953,136	77.0	0.3	76.6	57.8	64.4	8.4
Alabama	1,902,983	82.4	0.4	82.0	61.2	74.2	8.6
Appalachian Alabama	1,230,489	83.4	0.2	83.2	63.2	74.8	8.3
Non-Appalachian Alabama	672,494	80.6	0.7	79.9	57.6	73.1	9.2
Georgia	3,885,371	86.4	0.1	86.2	71.1	78.6	7.7
Appalachian Georgia	1,156,935	88.3	0.1	88.2	73.7	81.5	8.2
Non-Appalachian Georgia	2,728,436	85.5	0.1	85.4	70.0	77.4	7.5
Kentucky	1,748,475	83.9	0.3	83.6	66.2	74.6	7.1
Appalachian Kentucky	441,305	78.0	0.3	77.7	61.9	66.0	7.2
Non-Appalachian Kentucky	1,307,170	85.9	0.2	85.7	67.7	77.5	7.0
Maryland	2,294,270	89.9	0.2	89.7	77.8	82.2	4.7
Appalachian Maryland	98,585	82.8	0.2	82.5	65.1	72.8	6.1
Non-Appalachian Maryland	2,195,685	90.2	0.2	90.1	78.4	82.6	4.7
Mississippi	1,108,670	78.2	0.2	78.0	52.3	71.1	10.7
Appalachian Mississippi	234,999	74.7	0.2	74.6	44.4	68.6	10.9
Non-Appalachian Mississippi	873,671	79.2	0.2	78.9	54.4	71.7	10.6
New York	7,530,150	87.1	0.2	86.9	74.7	77.5	4.0
Appalachian New York	416,763	83.8	0.5	83.3	68.3	69.1	7.0
Non-Appalachian New York	7,113,387	87.3	0.2	87.1	75.1	78.0	3.8
North Carolina	4,034,684	85.6	0.2	85.4	71.6	76.1	6.2
Appalachian North Carolina	807,797	81.9	0.3	81.6	65.5	70.3	6.7
Non-Appalachian North Carolina	3,226,887	86.5	0.2	86.4	73.2	77.6	6.1
Ohio	4,754,161	86.5	0.3	86.3	72.2	76.9	6.2
Appalachian Ohio	787,111	81.5	0.3	81.1	62.4	68.5	7.6
Non-Appalachian Ohio	3,967,050	87.5	0.2	87.3	74.1	78.6	5.9
Pennsylvania	5,147,783	86.1	0.4	85.8	73.3	76.4	4.3
Appalachian Pennsylvania	2,336,977	84.5	0.5	84.0	70.5	73.0	4.6
Non-Appalachian Pennsylvania	2,810,806	87.5	0.3	87.2	75.6	79.1	4.1
South Carolina	1,976,447	83.4	0.2	83.2	67.2	75.0	7.7
Appalachian South Carolina	520,452	84.6	0.1	84.5	68.1	76.3	7.7
Non-Appalachian South Carolina	1,455,995	83.0	0.2	82.8	66.9	74.6	7.7
Tennessee	2,664,791	84.0	0.2	83.8	66.6	75.4	6.6
Appalachian Tennessee	1,173,332	81.7	0.2	81.5	64.4	70.1	5.7
Non-Appalachian Tennessee	1,491,459	85.8	0.1	85.6	68.3	79.6	7.4
Virginia	3,248,528	87.8	0.2	87.6	72.6	80.3	6.0
Appalachian Virginia	292,196	77.5	0.4	77.1	58.7	63.9	8.5
Non-Appalachian Virginia	2,956,332	88.8	0.2	88.7	74.0	81.9	5.8
West Virginia (entire state)	711,352	81.1	0.3	80.8	65.8	66.7	6.5

Note: Households can have more than one type of Internet subscription at a time. Broadband categories are not mutually exclusive.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 5.16: Percent of Households in the Appalachian Region With a Broadband Internet Subscription, 2017-2021



Map Title: Percent of Households in the Appalachian Region With a Broadband Internet Subscription, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Access to broadband or high-speed Internet service (cable, fiber optic, DSL, cellular, or satellite) enhances people's ability to pay bills online, pursue learning, telework, and connect with friends and family. Indeed, it has become a tool for promoting economic development. During the 2017-2021 period, 82.8 percent of Appalachian households had a broadband Internet subscription, more than four percentage points below the national average of 87 percent. There are also signs of a rural-urban "digital divide" within the Region: In 42 Appalachian counties, less than 70 percent of households had a broadband subscription. All but five of these counties were outside metropolitan areas, and almost half were in the most rural counties. In contrast, almost all 27 counties with subscription rates at or above the national average were in metro areas (Pittsburgh, Birmingham, suburban Atlanta) and/or home to a four-year university (such as Rowan County, Kentucky, where Morehead State University is located). With high-speed Internet access becoming even more important, in light of trends toward increased remote interaction since the COVID-19 pandemic, these are signs that many communities in the Region continue to be at risk of being left behind.

TRENDS IN EDUCATION

- Since the 2012-2016 period, the share of Appalachian adults ages 25 and over with at least a high school diploma has risen more than two percentage points, to just over 88 percent in 2017-2021 (see Tables 5.1 and 5.4). The increase is close to the national average, placing the Region's high school completion prevalence almost equal to that of the country. Most of this increase is due to the rising share of adults attaining a bachelor's degree or more.
- Within the Region, the high school completion prevalence among adults ages 25 and over increased most in Central Appalachia and in Appalachia's most rural counties (an increase of at least 3.4 percentage points in each case). With these improvements, the share of adults completing high school as of 2017-2021 has reached 81.1 percent in Central Appalachia and 83 percent in the Region's rural areas. The Appalachian sections of Virginia and Kentucky had the largest increases among the states—3.8 and 3.7 percentage points, respectively.
- The share of Appalachian adults ages 25 and over with an associate's degree but no bachelor's degree was 9.2 percent in 2017-2021—almost a full percentage point higher than in 2012-2016. The increase between the two periods took place throughout the Region, with the highest increases occurring in Central Appalachia and the Appalachian portions of Mississippi, Virginia, and Kentucky, each with an increase of at least 1.3 percentage points.
- The share of adults ages 25 and over in the Region with at least a bachelor's degree has risen 2.9 percentage points since 2012-2016 and now exceeds 25 percent. The increase was highest in Southern Appalachia, as well as in large metropolitan areas and in the Appalachian portions of Georgia, Pennsylvania, and the Carolinas, with increases of more than three percentage points. Yet in Central Appalachia, as well as in the Appalachian sections of Kentucky and Virginia, the improvement has been noticeably smaller—less than two percentage points.
- The pattern of improvement among working-age adults ages 25 to 64 has been similar to that for all adults, except the overall improvement was smaller: 1.3 percentage points for high school completion, 0.7 points for completion of an associate's degree without a bachelor's degree, and 2.7 points for attainment of a four-year degree or more (see Table 5.5). Central and South Central Appalachia, the Region's most rural counties, and the Appalachian sections of Virginia and Mississippi had the greatest improvements in the share with at least a high school diploma. Central Appalachia and Mississippi's Appalachian section likewise showed the greatest gains in the share whose highest education level was an associate's degree. Northern and Southern Appalachia, counties in large metros, and the Appalachian sections of Georgia and South Carolina experienced the largest gains in the share of adults with at least a bachelor's degree.
- The greatest improvement since 2012-2016 has been among adults ages 65 and over. The share of older adults in Appalachia with at least a high school diploma has risen more than six percentage points; the share with at least a bachelor's degree has increased more than four points (see Table 5.6). Possible factors fueling this increase include both the influx of younger, more educated cohorts into the older ages, and the arrival of well-educated older adults moving into the Region upon retirement.
- Even with the improvements cited above, however, it is important to note that regardless of age, the prevalence of four-year college completion among adults in the Region remains well below the U.S. average (see Tables 5.1 through 5.3). For example, the percentage of persons ages 25 and over with a bachelor's degree or more remained at least 10 percentage points below the national share in the Appalachian sections of six states (Kentucky, Maryland, Mississippi, Ohio, Virginia, and West Virginia).
- Among adults in Appalachia with a bachelor's degree or more, the share with a degree in the science and engineering field was just over 31 percent in 2017-2021—half a percentage point higher than it was in 2012-2016 (see Tables 5.7 and 5.8). While the share rose in most parts of the Region, the increase was especially noticeable in counties in large metros, nonmetro counties adjacent to large metros, and the Appalachian portions of Georgia, Maryland, and South Carolina. Conversely, the share fell 1.3 percentage points in Appalachian Virginia.

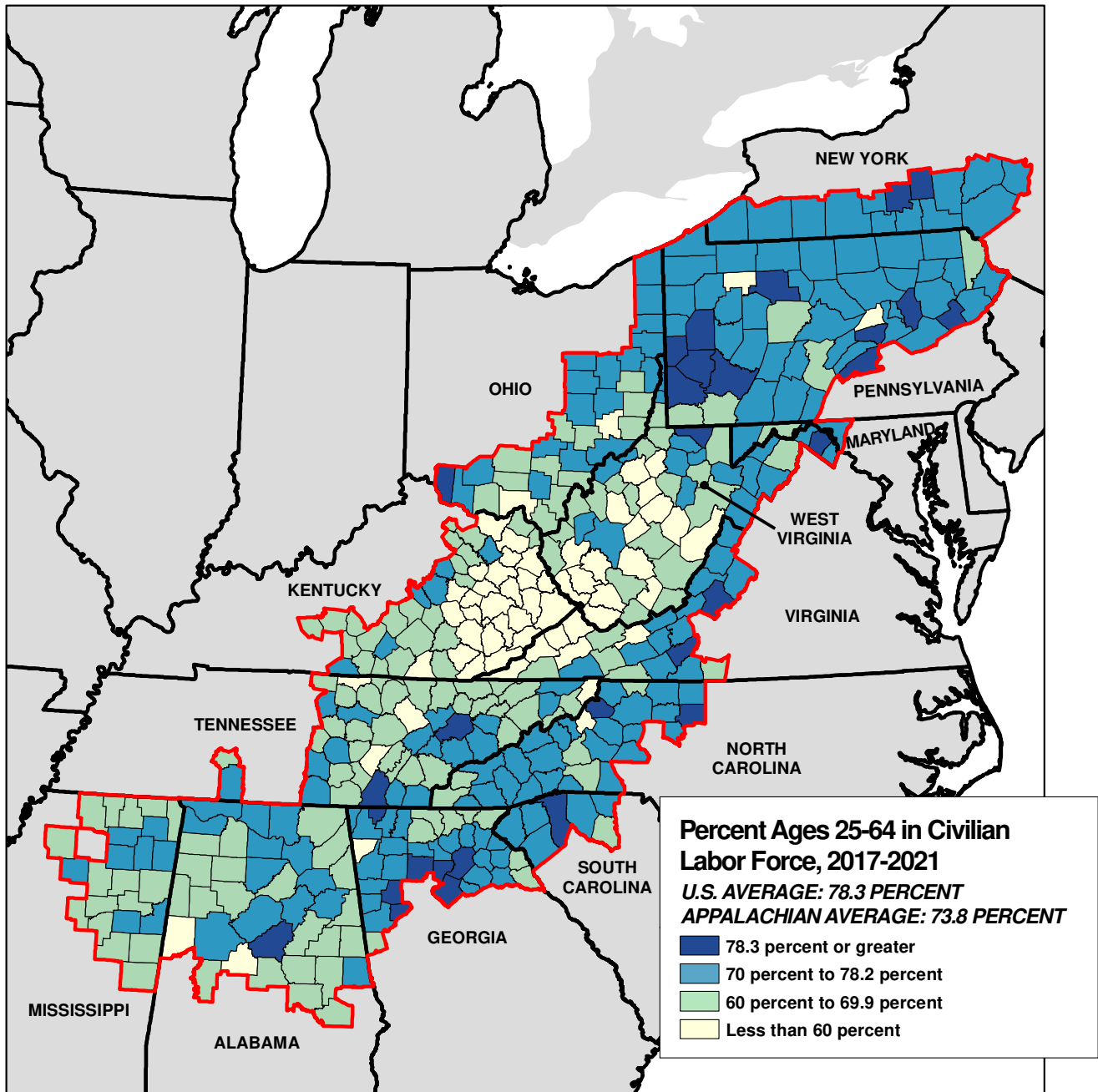
CHAPTER 6: LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Table 6.1: Labor Force, Employment, and Unemployment Status of Persons Ages 25 to 64 in the Appalachian Region, 2017-2021

Labor Force, Employment, and Unemployment	Total Number of Civilian Persons Ages 25-64	Total Persons Ages 25-64 in Civilian Labor Force		Employment Rate (Pct. of Civ. Labor Force)	Unemployment Rate (Pct. of Civ. Labor Force)
		Number	Percent		
United States	171,508,174	134,376,565	78.3	95.4	4.6
Appalachian Region	13,394,544	9,888,920	73.8	95.5	4.5
Subregions					
Northern Appalachia	4,132,339	3,147,185	76.2	95.3	4.7
North Central Appalachia	1,278,738	897,034	70.1	95.2	4.8
Central Appalachia	957,633	577,641	60.3	93.8	6.2
South Central Appalachia	2,630,936	1,949,487	74.1	95.8	4.2
Southern Appalachia	4,394,898	3,317,573	75.5	95.9	4.1
County Types					
Large Metros (pop. 1 million +)	3,301,856	2,599,982	78.7	95.9	4.1
Small Metros (pop. <1 million)	5,709,521	4,272,276	74.8	95.7	4.3
Nonmetro, Adjacent to Large Metros	1,161,628	831,919	71.6	95.3	4.7
Nonmetro, Adjacent to Small Metros	1,981,913	1,374,696	69.4	95.2	4.8
Rural (nonmetro, not adj. to a metro)	1,239,626	810,047	65.3	94.6	5.4
Alabama	2,557,009	1,846,363	72.2	95.4	4.6
Appalachian Alabama	1,665,250	1,216,585	73.1	95.6	4.4
Non-Appalachian Alabama	891,759	629,778	70.6	95.1	4.9
Georgia	5,559,800	4,288,779	77.1	95.5	4.5
Appalachian Georgia	1,742,135	1,359,211	78.0	96.3	3.7
Non-Appalachian Georgia	3,817,665	2,929,568	76.7	95.1	4.9
Kentucky	2,310,851	1,674,333	72.5	95.6	4.4
Appalachian Kentucky	598,134	362,819	60.7	94.1	5.9
Non-Appalachian Kentucky	1,712,717	1,311,514	76.6	96.1	3.9
Maryland	3,266,492	2,689,864	82.3	95.7	4.3
Appalachian Maryland	130,710	92,849	71.0	95.4	4.6
Non-Appalachian Maryland	3,135,782	2,597,015	82.8	95.7	4.3
Mississippi	1,492,681	1,072,217	71.8	94.4	5.6
Appalachian Mississippi	303,466	216,569	71.4	94.8	5.2
Non-Appalachian Mississippi	1,189,215	855,648	72.0	94.3	5.7
New York	10,735,166	8,471,646	78.9	94.7	5.3
Appalachian New York	500,201	376,475	75.3	95.0	5.0
Non-Appalachian New York	10,234,965	8,095,171	79.1	94.6	5.4
North Carolina	5,346,374	4,135,256	77.3	95.7	4.3
Appalachian North Carolina	1,024,279	767,857	75.0	95.9	4.1
Non-Appalachian North Carolina	4,322,095	3,367,399	77.9	95.6	4.4
Ohio	6,064,160	4,745,076	78.2	95.6	4.4
Appalachian Ohio	1,010,820	727,717	72.0	95.2	4.8
Non-Appalachian Ohio	5,053,340	4,017,359	79.5	95.7	4.3
Pennsylvania	6,742,519	5,343,924	79.3	95.4	4.6
Appalachian Pennsylvania	2,944,031	2,269,033	77.1	95.5	4.5
Non-Appalachian Pennsylvania	3,798,488	3,074,891	81.0	95.3	4.7
South Carolina	2,587,184	1,961,175	75.8	95.6	4.4
Appalachian South Carolina	684,047	525,208	76.8	96.0	4.0
Non-Appalachian South Carolina	1,903,137	1,435,967	75.5	95.4	4.6
Tennessee	3,576,283	2,702,472	75.6	95.6	4.4
Appalachian Tennessee	1,507,478	1,098,086	72.8	95.5	4.5
Non-Appalachian Tennessee	2,068,805	1,604,386	77.6	95.7	4.3
Virginia	4,467,255	3,581,731	80.2	96.3	3.7
Appalachian Virginia	366,696	250,642	68.4	95.9	4.1
Non-Appalachian Virginia	4,100,559	3,331,089	81.2	96.4	3.6
West Virginia (entire state)	917,297	625,869	68.2	94.6	5.4

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

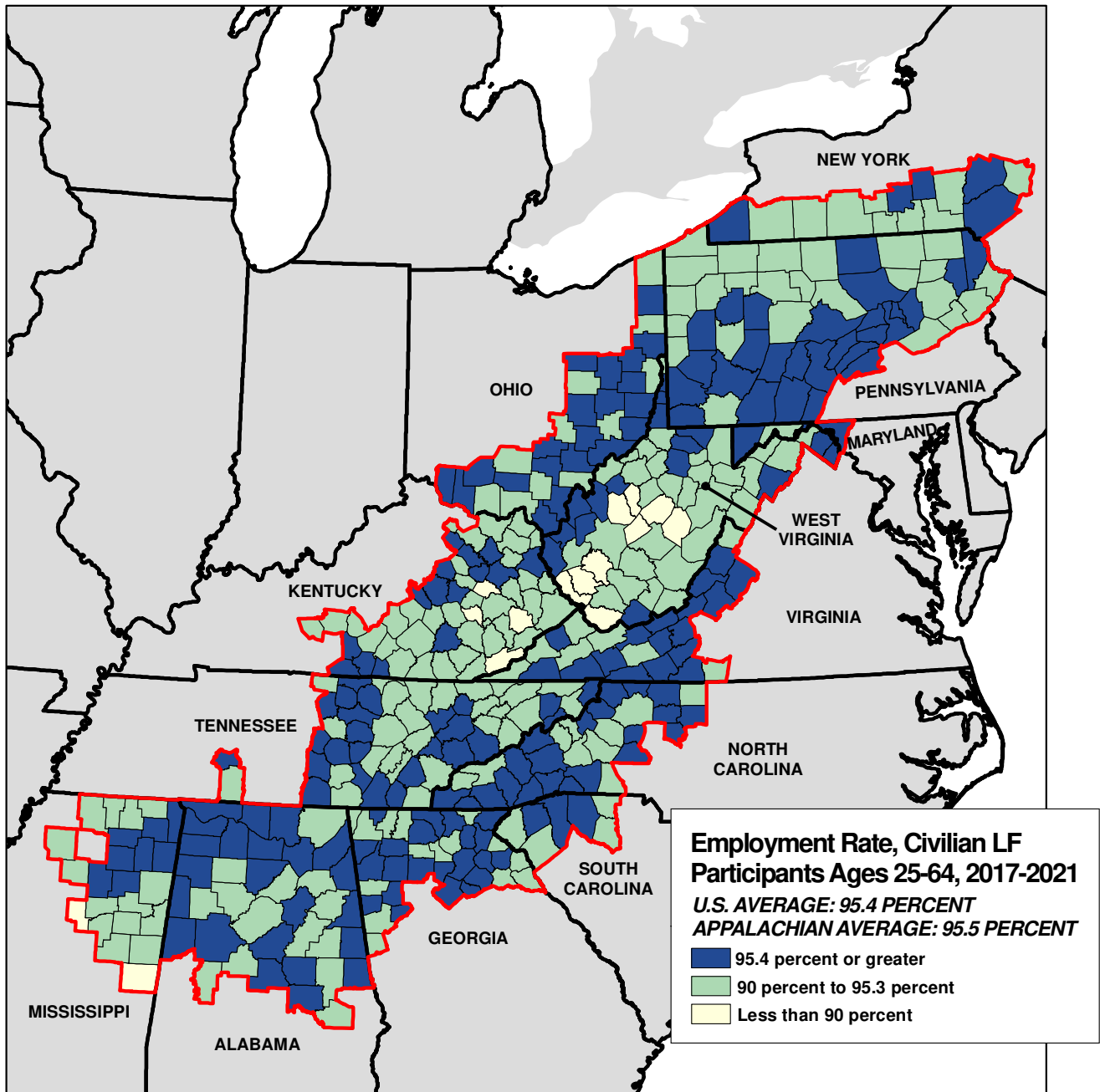
Figure 6.1: Percent of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Civilian Labor Force, 2017-2021



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Civilian Labor Force, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the 2017-2021 period, 73.8 percent of Appalachia’s civilian population in the prime working ages (ages 25 to 64) were in the civilian labor force, more than four percentage points below the U.S. average of 78.3 percent. In 30 Appalachian counties (26 of which were in metropolitan areas), the share was at or above the national average, yet there were 60 counties where less than 60 percent of 25-to-64-year-olds were in the civilian labor force. All but seven of the counties in the latter group were outside of metropolitan areas, and 39 were in Central Appalachia. Indeed, just 60.3 percent of working-age residents in Central Appalachia and 65.3 percent of those in the most isolated rural areas were in the labor force. And there are indications of a possible connection between educational attainment and labor force participation. For example, in 24 of the 30 counties where labor force participation levels were at or above the national rate, 90 percent or more of working-age adults had attained at least a high school diploma.

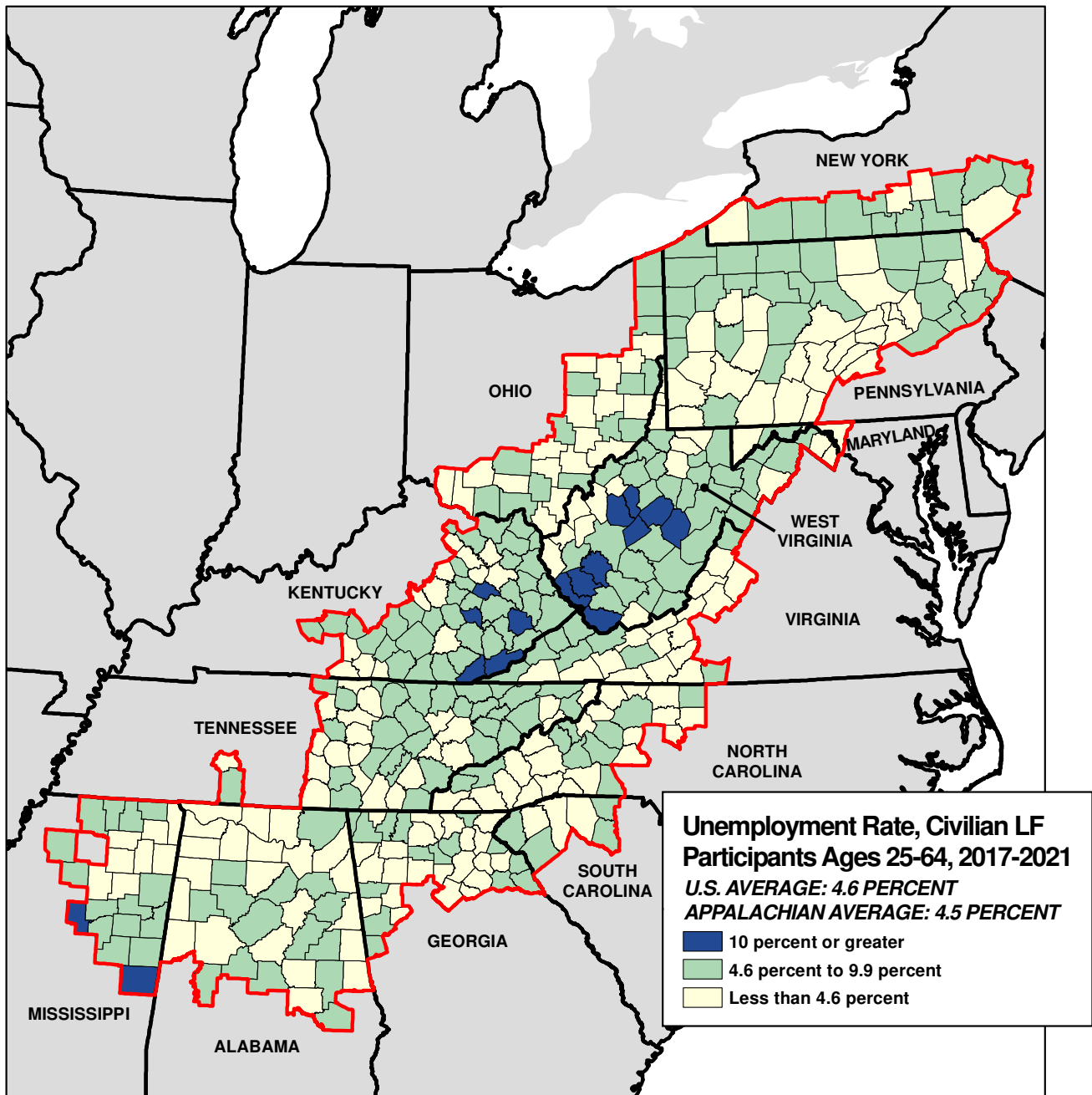
Figure 6.2: Employment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2017-2021



Map Title: Employment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

At 95.5 percent, the employment rate in Appalachia among members of the civilian labor force ages 25 to 64 was nearly identical to the national rate during the 2017-2021 period. Although there were only slight differences among subregions and urban/rural county types, there was some variation at the county level. In 205 of the Region's 423 counties, the employment rate matched or exceeded the national average, yet there were 15 counties in the Region (eight of which were in Central Appalachia) where employment among 25-to-64-year-olds was less than 90 percent—all but two of which were outside metropolitan areas. While many of the 15 counties with the lowest employment rates also had similarly low employment in 2012-2016, the rate had been at least 92 percent in four of them—suggesting continued economic hardship for these counties long after the end of the 2007-2009 recession. Because the 2017-2021 period includes the first 22 months of the COVID-19 pandemic, the above numbers reflect some of the pandemic's early impacts, particularly in Central Appalachian counties already facing low employment.

Figure 6.3: Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2017-2021



Map Title: Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

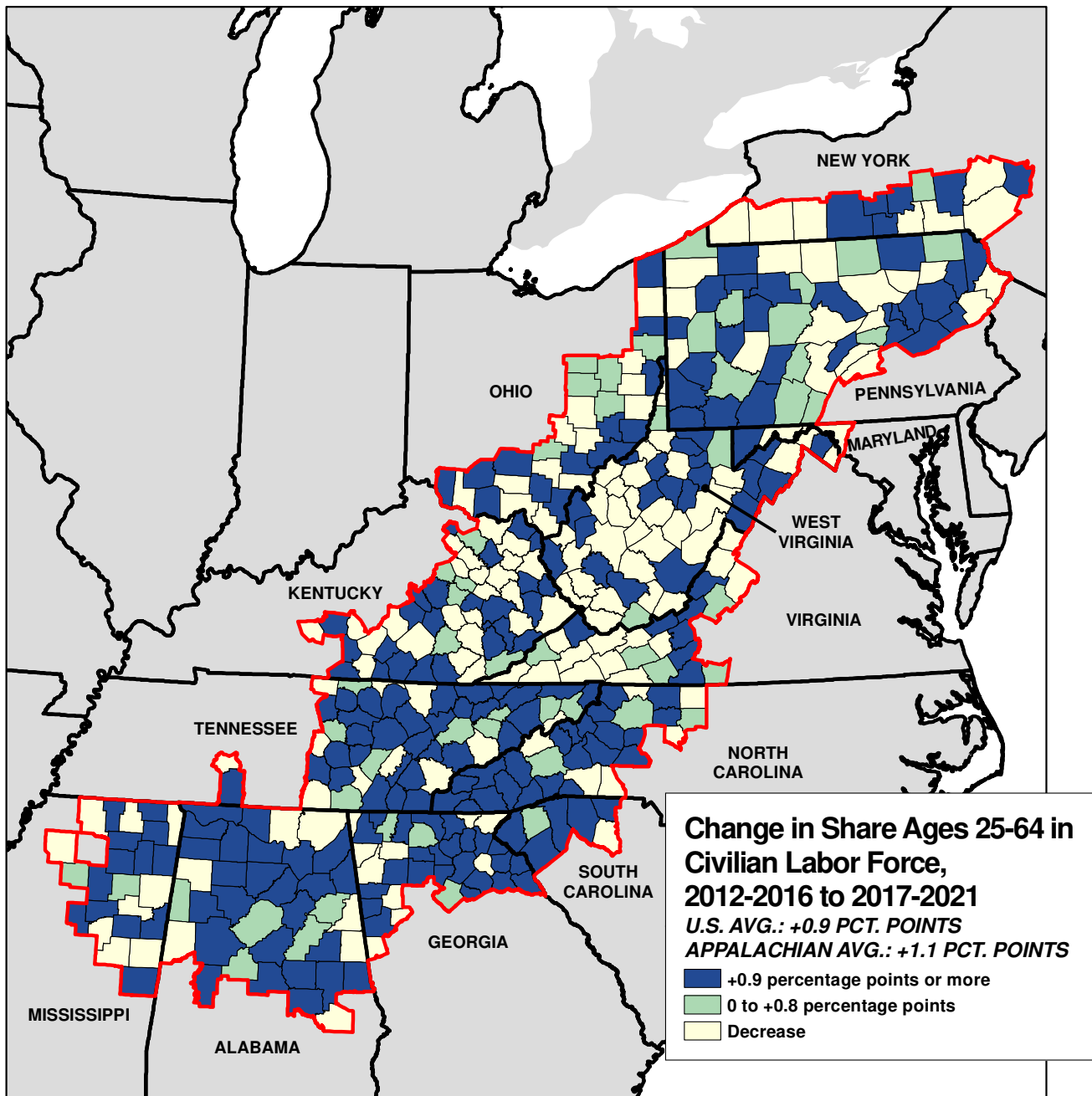
Unemployment in the Appalachian Region among persons ages 25 to 64 almost matched the national average of 4.6 percent during the 2017-2021 period. Within Appalachia, the jobless rate was at least 10 percent in 16 counties—all but two of which were outside metropolitan areas and nine of which were in Central Appalachia. (Unemployment was 6.2 percent overall in Central Appalachia.) Conversely, the unemployment rate was below the national average in 193 other counties, with 110 of these located in South Central and Southern Appalachia—the subregions where the jobless levels were below the national rate. There are indications of a connection between unemployment and educational attainment: In all 16 Appalachian counties with double-digit unemployment, the share of 25-to-64-year-olds with at least a high school diploma was below the national average of 89.7 percent; in exactly half of those counties, the share was below 80 percent.

Table 6.2: Percentage Point Change in Civilian Labor Force, Employment, and Unemployment Status of Persons Ages 25 to 64 in the Appalachian Region, 2012-2016 to 2017-2021

Labor Force, Employment, and Unemployment	Percentage Point Change		
	Labor Force Participation Rate	Employment Rate (Pct. of Civ. Labor Force)	Unemployment Rate (Pct. of Civ. Labor Force)
United States	+ 0.9	+ 1.5	- 1.5
Appalachian Region	+ 1.1	+ 1.7	- 1.7
Subregions			
Northern Appalachia	+ 0.7	+ 1.0	- 1.0
North Central Appalachia	+ 0.8	+ 1.4	- 1.4
Central Appalachia	+ 0.9	+ 1.8	- 1.8
South Central Appalachia	+ 1.2	+ 2.1	- 2.1
Southern Appalachia	+ 1.5	+ 2.1	- 2.1
County Types			
Large Metros (pop. 1 million +)	+ 1.0	+ 1.5	- 1.5
Small Metros (pop. <1 million)	+ 1.1	+ 1.8	- 1.8
Nonmetro, Adjacent to Large Metros	+ 1.0	+ 2.0	- 2.0
Nonmetro, Adjacent to Small Metros	+ 0.7	+ 1.7	- 1.7
Rural (nonmetro, not adj. to a metro)	+ 1.0	+ 1.8	- 1.8
Alabama	+ 1.0	+ 2.0	- 2.0
Appalachian Alabama	+ 1.5	+ 1.9	- 1.9
Non-Appalachian Alabama	+ 0.1	+ 2.3	- 2.3
Georgia	+ 1.5	+ 2.4	- 2.4
Appalachian Georgia	+ 1.2	+ 2.4	- 2.4
Non-Appalachian Georgia	+ 1.7	+ 2.4	- 2.4
Kentucky	+ 1.1	+ 1.8	- 1.8
Appalachian Kentucky	+ 1.1	+ 2.4	- 2.4
Non-Appalachian Kentucky	+ 1.0	+ 1.8	- 1.8
Maryland	+ 0.3	+ 1.2	- 1.2
Appalachian Maryland	- 1.3	+ 1.8	- 1.8
Non-Appalachian Maryland	+ 0.4	+ 1.2	- 1.2
Mississippi	+ 0.6	+ 2.1	- 2.1
Appalachian Mississippi	+ 0.9	+ 2.1	- 2.1
Non-Appalachian Mississippi	+ 0.6	+ 2.0	- 2.0
New York	+ 0.6	+ 1.0	- 1.0
Appalachian New York	+ 0.0	+ 0.9	- 0.9
Non-Appalachian New York	+ 0.7	+ 0.9	- 0.9
North Carolina	+ 1.0	+ 2.5	- 2.5
Appalachian North Carolina	+ 1.4	+ 2.6	- 2.6
Non-Appalachian North Carolina	+ 0.9	+ 2.4	- 2.4
Ohio	+ 1.0	+ 1.5	- 1.5
Appalachian Ohio	+ 0.7	+ 1.6	- 1.6
Non-Appalachian Ohio	+ 1.0	+ 1.5	- 1.5
Pennsylvania	+ 1.2	+ 1.3	- 1.3
Appalachian Pennsylvania	+ 1.0	+ 1.0	- 1.0
Non-Appalachian Pennsylvania	+ 1.3	+ 1.5	- 1.5
South Carolina	+ 1.1	+ 2.4	- 2.4
Appalachian South Carolina	+ 2.2	+ 2.0	- 2.0
Non-Appalachian South Carolina	+ 0.8	+ 2.4	- 2.4
Tennessee	+ 1.4	+ 1.8	- 1.8
Appalachian Tennessee	+ 1.4	+ 1.9	- 1.9
Non-Appalachian Tennessee	+ 1.3	+ 1.7	- 1.7
Virginia	+ 0.7	+ 1.0	- 1.0
Appalachian Virginia	+ 0.0	+ 1.8	- 1.8
Non-Appalachian Virginia	+ 0.7	+ 1.0	- 1.0
West Virginia (entire state)	+ 0.6	+ 0.9	- 0.9

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 6.4: Percentage Point Change in the Share of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Civilian Labor Force, 2012-2016 to 2017-2021

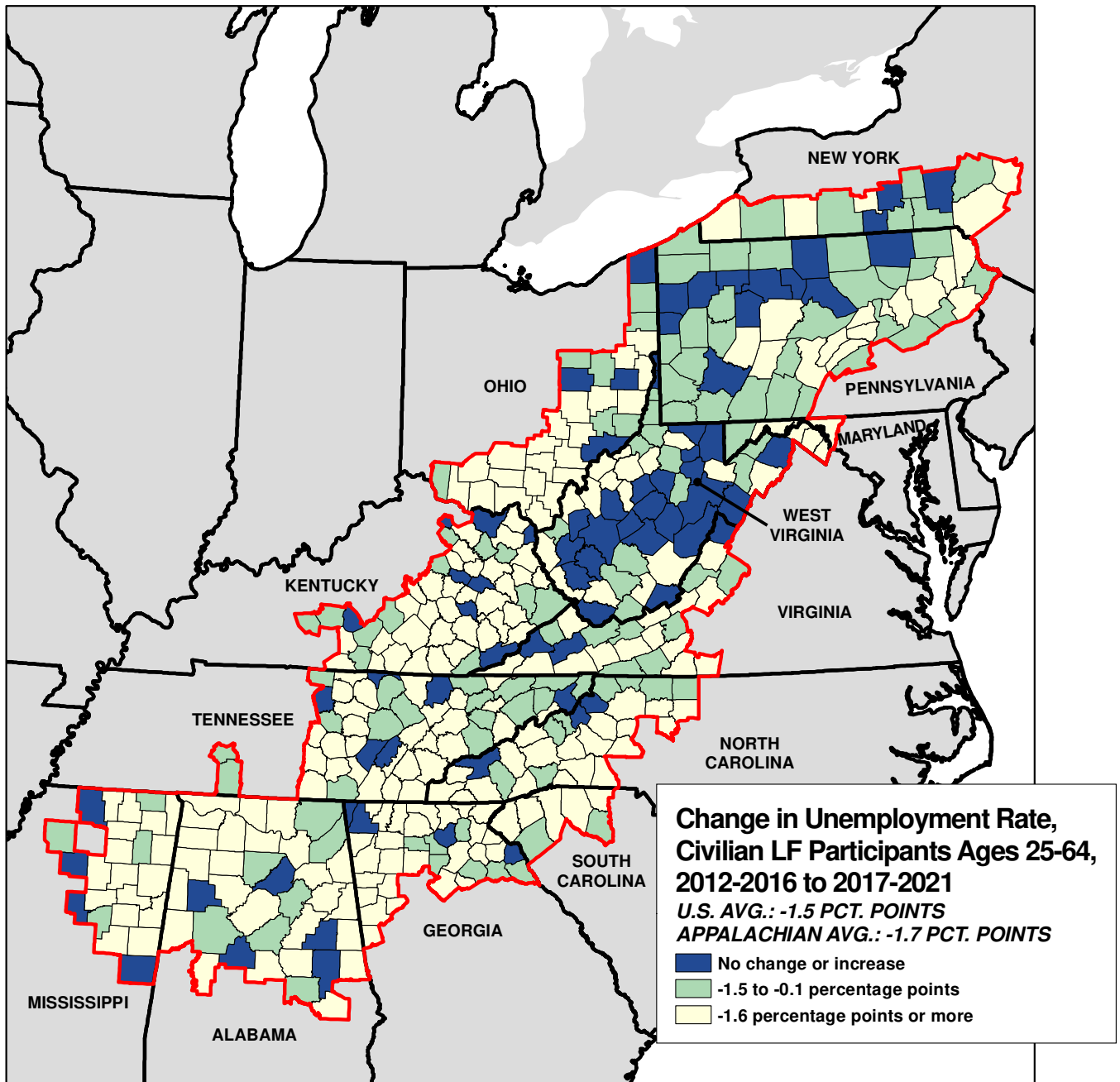


Map Title: Percentage Point Change in the Share of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Civilian Labor Force, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

In the Appalachian Region, the labor force participation rate among civilians ages 25 to 64 was 1.1 percentage points higher in 2017-2021 than it was in 2012-2016, slightly outpacing the national increase of 0.9 points. And the increase was present in much of the Region—217 of Appalachia’s 423 counties had increases in labor force participation rates that matched or exceeded the U.S. average. Included in this group are five of the seven South Carolina counties; that state’s Appalachian section saw an increase of 2.2 percentage points. Yet participation rates also fell in some parts of Appalachia—there were 150 counties in the Region where the share of adults in the labor force decreased between the two periods, including more than half of the counties in Appalachian Virginia and West Virginia. In Appalachian Maryland where two of the three Appalachian counties saw a decrease, the labor force participation rate declined by 1.3 points between 2012-2016 and 2017-2021, while non-Appalachian Maryland saw an increase of 0.4 percentage points.

Figure 6.5: Percentage Point Change in the Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Unemployment among civilian labor force participants in Appalachia declined by 1.7 percentage points between 2012-2016 and 2017-2021, compared with the national decrease of 1.5 percentage points. More than four-fifths of the counties in the Region had an unemployment rate decrease that matched or exceeded the national average. More than half of those counties were in South Central and Southern Appalachia. These numbers support a continued economic rebound from the recession of 2007-2009. Yet in 75 other Appalachian counties, the unemployment rate either remained the same or increased between 2012-2016 and 2017-2021, with more than two-thirds of these counties in nonmetro areas and nearly one third in West Virginia. While 26 of those counties already had jobless rates at or above the national average of 6.1 percent in 2012-2016, unemployment in the earlier period had been less than 5 percent in 27 others. This suggests that more recent economic forces such as the early period of the COVID-19 pandemic—in addition to a slow recovery—may be at play in some areas.

TRENDS IN LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

- Among working-age adults (ages 25 to 64), Appalachia's labor force participation rate in 2017-2021 was 73.8 percent, 1.1 percentage points higher than its rate in 2012-2016 (see Tables 6.1 and 6.2). This share increased in all five subregions, all five urban-rural county types, and the Appalachian sections of 10 states. The largest increase was in South Carolina's Appalachian section, where labor force participation increased more than two percentage points. Meanwhile, the participation rate fell 1.3 percentage points in Appalachian Maryland and remained the same in Appalachian New York and Virginia.
- Within the civilian labor force, the employment rate in Appalachia was 95.5 percent, which was 1.7 percentage points higher than the employment rate in 2012-2016. Among the subregions, the increase was greatest in South Central and Southern Appalachia, where employment rose at least two percentage points. Employment in Northern and North Central Appalachia, however, rose by less than the national average of 1.5 percentage points. Elsewhere in the Region, the employment rate rose at or above the national average in all county types throughout the region. Among the states, employment increased the most in the Appalachian sections of North Carolina, Georgia, and Kentucky (2.6 percentage points in North Carolina and 2.4 percentage points in both Georgia and Kentucky). Conversely, West Virginia and Appalachian New York had the smallest increase, at just under a full percentage point.
- As Appalachia's employment rate rose between 2012-2016 and 2017-2021, its unemployment rate fell. The Region's unemployment rate of 4.5 percent in the later period is 1.7 percentage points lower than its rate in 2012-2016.
- Although there are some parts of the Appalachian Region that likely have not yet rebounded from the economic downturn of 2007-2009, the rise in labor force participation and employment (along with the corresponding lower rates of unemployment) support the idea of an economic recovery in much of the Region. Most of these labor force and employment patterns occurred before the onset of the coronavirus pandemic in March 2020, which mutes the economic impact of the first months of the pandemic.

CHAPTER 7: TRANSPORTATION AND COMMUTING PATTERNS

Table 7.1: Means of Transportation for Workers Ages 16 and Over in the Appalachian Region, 2017-2021

Means of Transportation	Total Workers Ages 16 and Over	Percent of Workers Ages 16 and Over					
		Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	155,284,955	73.2	8.6	4.2	2.5	1.8	9.7
Appalachian Region	11,504,277	79.8	8.8	1.0	2.0	1.2	7.3
Subregions							
Northern Appalachia	3,676,416	76.9	8.5	2.2	3.3	1.4	7.7
North Central Appalachia	1,045,179	81.6	8.4	0.6	2.5	1.1	5.8
Central Appalachia	658,238	82.2	10.1	0.2	1.8	0.8	4.8
South Central Appalachia	2,293,364	81.4	8.4	0.4	1.6	1.1	7.1
Southern Appalachia	3,831,080	80.6	9.2	0.4	1.0	1.1	7.7
County Types							
Large Metros (pop. 1 million +)	2,974,178	76.1	8.5	2.1	1.7	1.1	10.4
Small Metros (pop. <1 million)	5,012,389	80.8	8.4	0.8	2.0	1.2	6.9
Nonmetro, Adjacent to Large Metros	972,582	81.4	9.4	0.3	2.4	1.2	5.2
Nonmetro, Adjacent to Small Metros	1,602,037	81.6	9.5	0.3	2.3	1.1	5.2
Rural (nonmetro, not adj. to a metro)	943,091	81.4	9.5	0.3	2.5	1.4	4.9
Alabama	2,146,674	83.8	8.3	0.3	1.1	0.9	5.6
Appalachian Alabama	1,408,651	83.5	8.3	0.3	1.0	0.9	5.9
Non-Appalachian Alabama	738,023	84.2	8.1	0.3	1.3	1.0	5.0
Georgia	4,926,936	76.0	9.1	1.7	1.4	1.8	10.1
Appalachian Georgia	1,556,220	77.0	10.1	0.5	0.9	1.2	10.3
Non-Appalachian Georgia	3,370,716	75.5	8.6	2.2	1.6	2.1	10.0
Kentucky	1,976,861	80.1	9.0	0.8	2.1	1.3	6.7
Appalachian Kentucky	415,446	81.6	10.5	0.2	2.1	0.8	4.8
Non-Appalachian Kentucky	1,561,415	79.8	8.6	1.0	2.1	1.4	7.2
Maryland	3,091,677	69.8	8.2	6.4	2.0	1.8	11.9
Appalachian Maryland	108,982	79.1	8.8	1.1	2.0	1.2	7.8
Non-Appalachian Maryland	2,982,695	69.5	8.1	6.6	2.0	1.8	12.0
Mississippi	1,227,836	84.3	8.9	0.3	1.3	1.5	3.8
Appalachian Mississippi	250,384	86.7	7.7	0.1	0.8	1.1	3.6
Non-Appalachian Mississippi	977,452	83.7	9.2	0.3	1.4	1.6	3.8
New York	9,440,371	51.3	6.3	24.7	5.8	2.3	9.5
Appalachian New York	449,932	75.8	8.8	1.7	5.2	1.6	6.9
Non-Appalachian New York	8,990,439	50.1	6.1	25.9	5.8	2.4	9.7
North Carolina	4,840,986	77.2	8.7	0.9	1.6	1.3	10.3
Appalachian North Carolina	896,959	80.6	8.7	0.4	1.6	1.3	7.4
Non-Appalachian North Carolina	3,944,027	76.5	8.6	1.0	1.7	1.3	10.9
Ohio	5,548,580	79.8	7.5	1.3	2.1	1.3	8.1
Appalachian Ohio	851,381	82.2	8.3	0.5	2.2	1.6	5.3
Non-Appalachian Ohio	4,697,199	79.4	7.4	1.4	2.0	1.2	8.6
Pennsylvania	6,173,679	72.6	8.0	4.7	3.4	1.6	9.8
Appalachian Pennsylvania	2,639,639	76.1	8.5	2.6	3.2	1.2	8.3
Non-Appalachian Pennsylvania	3,534,040	70.0	7.6	6.3	3.5	1.9	10.8
South Carolina	2,304,699	80.4	8.6	0.5	1.9	1.5	7.2
Appalachian South Carolina	615,825	80.8	9.2	0.3	1.2	1.4	7.0
Non-Appalachian South Carolina	1,688,874	80.2	8.4	0.5	2.1	1.5	7.2
Tennessee	3,155,978	80.5	8.5	0.5	1.2	1.2	8.0
Appalachian Tennessee	1,288,910	82.0	8.4	0.4	1.4	1.0	6.9
Non-Appalachian Tennessee	1,867,068	79.4	8.6	0.7	1.1	1.4	8.8
Virginia	4,268,079	72.7	8.5	3.4	2.2	1.7	11.4
Appalachian Virginia	299,488	82.0	8.3	0.8	2.2	1.2	5.6
Non-Appalachian Virginia	3,968,591	72.1	8.5	3.6	2.2	1.7	11.9
West Virginia (entire state)	722,460	81.4	8.3	0.7	2.7	1.2	5.7

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.2: Means of Transportation for Workers Ages 16 and Over in the Appalachian Region Below the Poverty Level, 2017-2021

Means of Transportation	Total Workers Ages 16 and Over Below the Poverty Level	Percent of Workers Ages 16 and Over Below the Poverty Level					
		Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	8,613,770	65.3	12.4	6.7	5.5	3.5	6.7
Appalachian Region	710,500	70.4	13.2	2.7	5.3	2.6	5.6
Subregions							
Northern Appalachia	207,176	63.8	11.9	5.9	9.3	3.0	6.1
North Central Appalachia	71,601	69.9	11.6	2.6	7.6	3.0	5.3
Central Appalachia	54,179	74.8	13.8	0.5	3.8	1.9	5.2
South Central Appalachia	152,548	73.5	12.7	1.8	3.5	2.7	5.9
Southern Appalachia	224,996	73.7	15.2	1.0	2.6	2.4	5.2
County Types							
Large Metros (pop. 1 million +)	138,800	65.8	14.9	5.3	5.0	1.9	7.0
Small Metros (pop. <1 million)	323,385	70.9	12.4	3.0	5.4	2.9	5.4
Nonmetro, Adjacent to Large Metros	66,722	71.8	12.3	1.1	6.5	3.2	5.0
Nonmetro, Adjacent to Small Metros	108,085	71.6	15.2	0.9	5.0	2.1	5.2
Rural (nonmetro, not adj. to a metro)	73,508	74.0	11.7	0.8	5.1	3.0	5.4
Alabama	139,043	78.2	12.6	1.4	2.4	1.7	3.8
Appalachian Alabama	85,164	77.7	12.7	1.4	2.5	1.7	4.0
Non-Appalachian Alabama	53,879	79.1	12.4	1.3	2.1	1.6	3.5
Georgia	302,261	67.7	15.1	3.4	3.0	3.9	6.8
Appalachian Georgia	80,699	68.4	19.6	0.7	2.8	2.2	6.3
Non-Appalachian Georgia	221,562	67.4	13.5	4.4	3.1	4.5	7.0
Kentucky	133,561	70.8	13.7	2.6	4.7	3.4	4.8
Appalachian Kentucky	37,541	74.2	14.6	0.3	4.2	1.8	5.0
Non-Appalachian Kentucky	96,020	69.5	13.3	3.6	4.9	4.0	4.7
Maryland	114,160	59.1	12.3	11.8	5.1	3.9	7.8
Appalachian Maryland	5,943	71.6	12.4	3.7	5.9	1.9	4.5
Non-Appalachian Maryland	108,217	58.4	12.3	12.2	5.1	4.0	8.0
Mississippi	101,224	79.5	12.1	0.6	1.8	2.9	3.1
Appalachian Mississippi	19,517	81.6	8.8	0.0	1.4	3.3	4.8
Non-Appalachian Mississippi	81,707	79.0	12.9	0.8	1.9	2.8	2.7
New York	477,444	36.7	7.9	32.6	11.7	3.5	7.7
Appalachian New York	31,101	59.3	11.8	6.4	12.3	3.3	6.9
Non-Appalachian New York	446,343	35.1	7.6	34.4	11.7	3.5	7.7
North Carolina	300,585	70.4	14.7	2.8	2.8	2.5	6.8
Appalachian North Carolina	61,100	72.1	14.8	1.5	2.9	2.5	6.1
Non-Appalachian North Carolina	239,485	70.0	14.7	3.1	2.8	2.5	6.9
Ohio	325,026	68.5	12.6	4.6	6.1	2.8	5.4
Appalachian Ohio	58,408	71.6	12.3	1.5	6.2	3.2	5.3
Non-Appalachian Ohio	266,618	67.9	12.7	5.2	6.0	2.7	5.5
Pennsylvania	298,016	57.7	11.7	11.5	8.7	3.6	6.8
Appalachian Pennsylvania	136,343	62.5	11.9	6.9	9.6	2.6	6.4
Non-Appalachian Pennsylvania	161,673	53.7	11.4	15.4	8.0	4.5	7.1
South Carolina	149,885	72.5	14.1	1.6	3.2	3.3	5.4
Appalachian South Carolina	39,616	71.9	14.5	1.3	2.7	3.6	5.9
Non-Appalachian South Carolina	110,269	72.7	13.9	1.6	3.3	3.2	5.2
Tennessee	192,950	73.9	13.4	2.0	2.7	2.5	5.5
Appalachian Tennessee	84,071	75.4	11.7	1.4	3.4	2.3	5.8
Non-Appalachian Tennessee	108,879	72.7	14.7	2.5	2.1	2.7	5.3
Virginia	186,516	65.2	12.6	5.6	4.9	4.2	7.5
Appalachian Virginia	20,659	71.1	10.3	4.0	4.5	3.9	6.1
Non-Appalachian Virginia	165,857	64.5	12.9	5.8	4.9	4.2	7.7
West Virginia (entire state)	50,338	69.6	10.9	3.2	8.1	3.5	4.7

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.3: Availability of Vehicles for Households in the Appalachian Region, 2017-2021

Availability of Vehicles	Total Households	Percent of Households				
		No Vehicle Available	One Vehicle Available	Two Vehicles Available	Three Vehicles Available	Four or More Vehicles Available
United States	124,010,992	8.3	32.5	37.1	14.8	7.3
Appalachian Region	10,208,293	6.8	31.2	37.4	16.4	8.2
Subregions						
Northern Appalachia	3,298,948	9.2	34.1	36.8	13.8	6.1
North Central Appalachia	986,081	7.6	31.9	36.8	15.9	7.8
Central Appalachia	709,085	7.4	31.2	35.5	17.1	8.8
South Central Appalachia	2,071,304	5.3	29.8	37.2	17.8	9.8
Southern Appalachia	3,142,875	4.9	28.9	38.6	18.2	9.5
County Types						
Large Metros (pop. 1 million +)	2,411,892	6.6	31.0	39.1	15.8	7.5
Small Metros (pop. <1 million)	4,409,764	6.8	32.0	37.0	16.3	8.0
Nonmetro, Adjacent to Large Metros	892,865	7.0	30.2	37.0	16.8	9.1
Nonmetro, Adjacent to Small Metros	1,540,636	6.5	30.1	36.5	17.5	9.4
Rural (nonmetro, not adj. to a metro)	953,136	7.5	31.2	36.3	16.6	8.4
Alabama	1,902,983	5.6	31.5	36.7	17.2	9.0
Appalachian Alabama	1,230,489	5.3	30.3	36.7	18.0	9.7
Non-Appalachian Alabama	672,494	6.2	33.8	36.6	15.7	7.7
Georgia	3,885,371	6.1	32.2	38.0	15.9	7.8
Appalachian Georgia	1,156,935	3.8	26.7	41.0	18.8	9.8
Non-Appalachian Georgia	2,728,436	7.1	34.6	36.8	14.7	6.9
Kentucky	1,748,475	6.9	31.8	37.6	16.0	7.8
Appalachian Kentucky	441,305	7.6	31.3	36.1	16.6	8.4
Non-Appalachian Kentucky	1,307,170	6.6	32.0	38.2	15.7	7.5
Maryland	2,294,270	8.7	32.4	36.5	15.0	7.5
Appalachian Maryland	98,585	8.3	31.1	35.3	16.8	8.6
Non-Appalachian Maryland	2,195,685	8.7	32.4	36.5	14.9	7.5
Mississippi	1,108,670	6.2	32.2	36.5	16.7	8.3
Appalachian Mississippi	234,999	5.9	29.8	37.0	18.3	9.1
Non-Appalachian Mississippi	873,671	6.3	32.9	36.3	16.3	8.1
New York	7,530,150	28.9	32.8	25.8	8.6	3.8
Appalachian New York	416,763	10.3	35.6	36.7	12.4	5.1
Non-Appalachian New York	7,113,387	30.0	32.7	25.2	8.4	3.8
North Carolina	4,034,684	5.5	31.3	38.1	16.7	8.4
Appalachian North Carolina	807,797	5.4	30.5	37.0	17.6	9.5
Non-Appalachian North Carolina	3,226,887	5.5	31.5	38.4	16.5	8.1
Ohio	4,754,161	7.5	33.1	37.8	14.6	7.0
Appalachian Ohio	787,111	7.6	30.5	36.5	16.8	8.6
Non-Appalachian Ohio	3,967,050	7.5	33.6	38.1	14.2	6.7
Pennsylvania	5,147,783	10.6	34.1	36.1	13.4	5.9
Appalachian Pennsylvania	2,336,977	9.1	34.4	36.9	13.7	5.9
Non-Appalachian Pennsylvania	2,810,806	11.8	33.8	35.5	13.1	5.8
South Carolina	1,976,447	5.8	32.2	38.6	16.0	7.3
Appalachian South Carolina	520,452	5.8	30.0	38.7	17.3	8.3
Non-Appalachian South Carolina	1,455,995	5.9	33.0	38.6	15.6	7.0
Tennessee	2,664,791	5.4	30.7	37.9	17.1	8.9
Appalachian Tennessee	1,173,332	5.1	29.4	37.4	18.1	10.0
Non-Appalachian Tennessee	1,491,459	5.5	31.8	38.3	16.4	8.0
Virginia	3,248,528	6.0	30.0	37.8	17.1	9.0
Appalachian Virginia	292,196	6.2	29.7	35.3	18.6	10.2
Non-Appalachian Virginia	2,956,332	6.0	30.1	38.0	17.0	8.9
West Virginia (entire state)	711,352	8.4	33.9	36.9	14.4	6.4

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.4: Number of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, by Means of Transportation, 2017-2021

Availability of Vehicles	Total Workers Ages 16 and Over	Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	6,533,475	1,466,273	664,940	2,308,853	864,477	575,171	653,761
Appalachian Region	298,389	108,609	58,544	33,981	45,054	30,650	21,551
Subregions							
Northern Appalachia	145,675	39,277	24,842	26,237	26,993	15,803	12,523
North Central Appalachia	26,437	10,030	4,938	2,038	5,310	2,402	1,719
Central Appalachia	13,588	6,272	3,465	227	1,831	934	859
South Central Appalachia	40,728	18,823	7,449	2,707	4,312	4,951	2,486
Southern Appalachia	71,961	34,207	17,850	2,772	6,608	6,560	3,964
County Types							
Large Metros (pop. 1 million +)	77,794	24,656	12,500	18,541	11,049	4,888	6,160
Small Metros (pop. <1 million)	125,139	49,220	23,334	13,390	18,790	13,111	7,294
Nonmetro, Adjacent to Large Metros	27,009	10,121	5,397	748	4,573	3,524	2,646
Nonmetro, Adjacent to Small Metros	40,771	16,259	10,491	752	5,881	4,374	3,014
Rural (nonmetro, not adj. to a metro)	27,676	8,353	6,822	550	4,761	4,753	2,437
Alabama	39,458	21,152	8,354	1,567	3,689	2,745	1,951
Appalachian Alabama	23,987	13,235	4,515	1,126	2,455	1,484	1,172
Non-Appalachian Alabama	15,471	7,917	3,839	441	1,234	1,261	779
Georgia	142,083	45,344	30,629	25,445	11,899	18,664	10,102
Appalachian Georgia	29,821	12,588	9,234	835	2,492	2,844	1,828
Non-Appalachian Georgia	112,262	32,756	21,395	24,610	9,407	15,820	8,274
Kentucky	48,962	16,973	9,572	6,301	7,205	5,868	3,043
Appalachian Kentucky	9,134	3,942	2,494	108	1,324	631	635
Non-Appalachian Kentucky	39,828	13,031	7,078	6,193	5,881	5,237	2,408
Maryland	121,930	29,089	14,374	47,281	11,081	10,410	9,695
Appalachian Maryland	3,118	1,260	602	329	559	186	182
Non-Appalachian Maryland	118,812	27,829	13,772	46,952	10,522	10,224	9,513
Mississippi	26,068	12,705	5,923	417	2,318	3,184	1,521
Appalachian Mississippi	4,394	2,063	794	13	577	636	311
Non-Appalachian Mississippi	21,674	10,642	5,129	404	1,741	2,548	1,210
New York	2,029,503	134,035	62,229	1,228,405	272,305	101,876	230,653
Appalachian New York	20,628	5,460	2,607	3,419	4,842	2,355	1,945
Non-Appalachian New York	2,008,875	128,575	59,622	1,224,986	267,463	99,521	228,708
North Carolina	102,414	41,708	20,421	11,554	9,010	11,179	8,542
Appalachian North Carolina	17,324	8,170	2,951	991	1,633	2,561	1,018
Non-Appalachian North Carolina	85,090	33,538	17,470	10,563	7,377	8,618	7,524
Ohio	166,110	49,783	33,115	29,538	23,163	18,815	11,696
Appalachian Ohio	30,231	8,687	7,614	1,102	4,025	6,474	2,329
Non-Appalachian Ohio	135,879	41,096	25,501	28,436	19,138	12,341	9,367
Pennsylvania	307,721	66,095	38,672	96,048	50,635	27,589	28,682
Appalachian Pennsylvania	99,613	27,614	15,634	21,570	18,673	7,575	8,547
Non-Appalachian Pennsylvania	208,108	38,481	23,038	74,478	31,962	20,014	20,135
South Carolina	52,127	19,554	14,474	3,628	4,881	6,840	2,750
Appalachian South Carolina	13,759	6,321	3,307	798	1,084	1,596	653
Non-Appalachian South Carolina	38,368	13,233	11,167	2,830	3,797	5,244	2,097
Tennessee	57,683	25,591	10,802	5,923	5,206	5,997	4,164
Appalachian Tennessee	20,826	9,486	4,357	1,430	2,243	2,014	1,296
Non-Appalachian Tennessee	36,857	16,105	6,445	4,493	2,963	3,983	2,868
Virginia	115,820	37,009	16,849	26,011	12,799	11,384	11,768
Appalachian Virginia	6,030	3,095	974	378	718	553	312
Non-Appalachian Virginia	109,790	33,914	15,875	25,633	12,081	10,831	11,456
West Virginia (entire state)	19,524	6,688	3,461	1,882	4,429	1,741	1,323

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.5: Percent of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, by Means of Transportation, 2017-2021

Availability of Vehicles	Total Workers Ages 16 and Over	Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	4.2	1.3	5.0	36.2	26.5	20.5	4.4
Appalachian Region	2.6	1.2	5.8	31.1	23.6	22.8	2.6
Subregions							
Northern Appalachia	4.0	1.4	8.0	33.6	26.9	31.1	4.5
North Central Appalachia	2.6	1.2	5.7	33.9	23.9	21.4	2.9
Central Appalachia	2.1	1.2	5.3	16.4	19.4	18.2	2.7
South Central Appalachia	1.8	1.0	3.9	28.9	15.6	19.4	1.6
Southern Appalachia	1.9	1.1	5.1	19.4	21.0	15.8	1.4
County Types							
Large Metros (pop. 1 million +)	2.6	1.1	4.9	29.6	25.6	14.8	2.0
Small Metros (pop. <1 million)	2.5	1.2	5.6	35.9	23.7	22.3	2.2
Nonmetro, Adjacent to Large Metros	2.8	1.3	5.9	28.5	22.8	30.1	5.4
Nonmetro, Adjacent to Small Metros	2.6	1.2	6.9	19.0	20.1	25.0	3.7
Rural (nonmetro, not adj. to a metro)	3.0	1.1	7.7	21.2	24.9	36.1	5.4
Alabama	1.9	1.2	4.7	22.5	19.9	13.8	1.6
Appalachian Alabama	1.7	1.1	3.9	24.4	21.4	12.0	1.4
Non-Appalachian Alabama	2.1	1.3	6.5	18.9	17.4	16.8	2.1
Georgia	2.9	1.2	6.9	32.1	22.2	21.3	2.1
Appalachian Georgia	1.9	1.1	5.9	11.2	19.6	16.0	1.1
Non-Appalachian Georgia	3.4	1.3	7.5	34.3	22.9	22.7	2.5
Kentucky	2.5	1.1	5.4	39.3	24.2	24.1	2.3
Appalachian Kentucky	2.2	1.2	5.8	12.6	20.5	20.4	3.2
Non-Appalachian Kentucky	2.6	1.1	5.3	40.8	25.2	24.6	2.2
Maryland	4.0	1.4	5.7	24.1	20.8	19.4	2.7
Appalachian Maryland	2.9	1.5	6.3	31.1	28.3	14.2	2.2
Non-Appalachian Maryland	4.0	1.3	5.7	24.1	20.5	19.5	2.7
Mississippi	2.1	1.2	5.5	13.3	21.4	17.0	3.3
Appalachian Mississippi	1.8	1.0	4.1	6.2	34.3	23.1	3.6
Non-Appalachian Mississippi	2.2	1.3	5.8	13.8	19.1	15.9	3.3
New York	21.7	2.8	10.6	53.0	53.4	46.9	26.1
Appalachian New York	4.7	1.6	6.6	48.2	26.8	33.1	6.6
Non-Appalachian New York	22.6	2.9	10.9	53.0	54.4	47.4	26.8
North Carolina	2.1	1.1	5.0	28.7	15.8	17.9	1.7
Appalachian North Carolina	1.9	1.1	3.8	29.4	14.0	22.0	1.6
Non-Appalachian North Carolina	2.2	1.1	5.3	28.7	16.3	17.0	1.8
Ohio	3.0	1.1	8.0	42.9	24.4	27.5	2.7
Appalachian Ohio	3.6	1.2	10.8	31.2	26.1	49.4	5.2
Non-Appalachian Ohio	2.9	1.1	7.4	43.5	24.1	22.3	2.4
Pennsylvania	5.0	1.5	7.9	33.5	28.6	28.1	4.9
Appalachian Pennsylvania	3.8	1.4	7.0	31.8	26.3	23.5	4.0
Non-Appalachian Pennsylvania	6.0	1.6	8.7	34.1	30.1	30.4	5.4
South Carolina	2.3	1.1	7.4	34.9	20.5	20.6	1.7
Appalachian South Carolina	2.3	1.3	5.9	39.2	19.1	18.7	1.6
Non-Appalachian South Carolina	2.3	1.0	8.0	33.8	21.0	21.3	1.8
Tennessee	1.8	1.0	4.0	36.0	17.2	16.1	1.7
Appalachian Tennessee	1.6	0.9	4.0	33.3	16.9	16.8	1.5
Non-Appalachian Tennessee	2.0	1.1	4.0	37.0	17.4	15.8	1.8
Virginia	2.8	1.2	4.7	18.1	19.0	16.0	2.5
Appalachian Virginia	2.0	1.3	4.0	17.8	16.5	15.4	2.0
Non-Appalachian Virginia	2.8	1.2	4.8	18.1	19.2	16.1	2.5
West Virginia (entire state)	2.7	1.1	5.8	39.2	25.6	20.2	3.3

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.6: Relationship Between Number of Workers and Availability of Vehicles for Households in the Appalachian Region With One or More Workers, 2017-2021

Availability of Vehicles	Total Households With One or More Workers	Percent of Households With One or More Workers			
		Households With Zero Vehicles	Households Where Workers Exceed Vehicles	Households Where Workers Equal Vehicles	Households Where Vehicles Exceed Workers
United States	91,114,059	5.0	6.6	51.7	36.8
Appalachian Region	6,911,127	3.1	4.5	49.0	43.4
Subregions					
Northern Appalachia	2,226,608	4.7	5.7	52.3	37.3
North Central Appalachia	634,152	3.1	4.3	48.0	44.6
Central Appalachia	405,315	2.4	3.9	42.2	51.5
South Central Appalachia	1,380,870	2.2	3.6	47.2	47.0
Southern Appalachia	2,264,182	2.2	4.1	48.3	45.4
County Types					
Large Metros (pop. 1 million +)	1,770,480	3.2	4.9	52.7	39.2
Small Metros (pop. <1 million)	3,018,801	3.1	4.5	49.8	42.6
Nonmetro, Adjacent to Large Metros	582,255	3.2	4.2	46.2	46.3
Nonmetro, Adjacent to Small Metros	970,263	3.0	4.2	43.9	48.9
Rural (nonmetro, not adj. to a metro)	569,328	3.3	4.1	44.4	48.3
Alabama	1,294,200	2.1	3.6	47.5	46.8
Appalachian Alabama	849,360	2.0	3.4	47.0	47.5
Non-Appalachian Alabama	444,840	2.4	3.8	48.4	45.5
Georgia	2,916,178	3.4	5.6	51.6	39.4
Appalachian Georgia	888,305	2.1	4.7	49.8	43.4
Non-Appalachian Georgia	2,027,873	4.0	6.0	52.3	37.7
Kentucky	1,195,516	3.1	4.8	50.5	41.6
Appalachian Kentucky	255,131	2.6	4.2	43.4	49.8
Non-Appalachian Kentucky	940,385	3.2	5.0	52.4	39.4
Maryland	1,779,887	4.9	7.5	54.2	33.4
Appalachian Maryland	66,894	3.5	4.2	50.5	41.8
Non-Appalachian Maryland	1,712,993	5.0	7.7	54.3	33.1
Mississippi	751,561	2.6	4.2	47.1	46.1
Appalachian Mississippi	153,069	2.1	3.4	44.8	49.7
Non-Appalachian Mississippi	598,492	2.7	4.5	47.7	45.2
New York	5,459,371	24.2	12.5	41.8	21.5
Appalachian New York	275,867	5.6	6.5	52.5	35.4
Non-Appalachian New York	5,183,504	25.2	12.8	41.3	20.7
North Carolina	2,915,863	2.6	4.6	50.4	42.4
Appalachian North Carolina	535,495	2.4	3.8	47.9	46.0
Non-Appalachian North Carolina	2,380,368	2.6	4.8	51.0	41.6
Ohio	3,383,987	3.6	4.4	54.0	38.0
Appalachian Ohio	516,173	3.8	3.7	46.7	45.8
Non-Appalachian Ohio	2,867,814	3.6	4.5	55.3	36.6
Pennsylvania	3,672,972	6.1	7.1	53.1	33.6
Appalachian Pennsylvania	1,590,408	4.6	5.9	53.1	36.3
Non-Appalachian Pennsylvania	2,082,564	7.3	8.1	53.1	31.6
South Carolina	1,385,668	2.8	4.8	50.2	42.2
Appalachian South Carolina	373,448	2.8	4.4	49.1	43.7
Non-Appalachian South Carolina	1,012,220	2.8	5.0	50.7	41.6
Tennessee	1,903,239	2.2	4.1	49.7	44.0
Appalachian Tennessee	784,195	1.9	3.4	46.5	48.1
Non-Appalachian Tennessee	1,119,044	2.4	4.6	51.9	41.1
Virginia	2,472,301	3.3	5.9	51.2	39.5
Appalachian Virginia	179,072	2.4	3.4	43.3	50.9
Non-Appalachian Virginia	2,293,229	3.4	6.1	51.9	38.6
West Virginia (entire state)	443,710	3.4	4.7	49.0	43.0

Note: "Households Where Workers Equal Vehicles" include households with three (3) or more workers with three (3) or more vehicles available. Because those are open-ended categories, some of these households could have more workers than available vehicles, while others could have more vehicles than workers.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.7: Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, by Amount of Time, 2017-2021

Travel Time to Work (Minutes)	Workers Ages 16 and Over	Percent of Workers Ages 16 and Over				Mean Travel Time to Work (Minutes)
		Less Than 15 Minutes	15 Minutes to 29 Minutes	30 Minutes to 59 Minutes	60 Minutes or More	
United States	140,223,271	25.6	36.2	29.1	9.1	26.8
Appalachian Region	10,669,880	27.9	37.0	27.1	7.9	25.7
Subregions						
Northern Appalachia	3,392,869	31.6	35.8	25.1	7.6	24.9
North Central Appalachia	984,631	28.5	36.0	26.2	9.2	26.5
Central Appalachia	626,324	30.4	32.4	27.4	9.9	26.9
South Central Appalachia	2,131,318	28.9	40.9	24.6	5.6	23.6
Southern Appalachia	3,534,738	23.3	36.9	30.8	9.0	27.4
County Types						
Large Metros (pop. 1 million +)	2,663,856	20.7	33.5	35.0	10.8	29.5
Small Metros (pop. <1 million)	4,669,013	28.6	41.3	24.2	5.8	23.9
Nonmetro, Adjacent to Large Metros	922,288	33.3	32.9	24.7	9.1	25.4
Nonmetro, Adjacent to Small Metros	1,518,069	31.6	33.7	26.1	8.6	25.7
Rural (nonmetro, not adj. to a metro)	896,654	34.2	34.7	23.1	8.0	24.4
Alabama	2,025,951	25.9	39.0	28.2	6.9	25.2
Appalachian Alabama	1,325,178	25.0	38.5	29.3	7.1	25.6
Non-Appalachian Alabama	700,773	27.6	39.9	26.1	6.4	24.5
Georgia	4,427,990	22.1	35.6	31.8	10.5	28.6
Appalachian Georgia	1,395,260	19.6	32.8	34.6	13.0	30.9
Non-Appalachian Georgia	3,032,730	23.2	37.0	30.5	9.4	27.5
Kentucky	1,844,983	30.5	39.4	24.2	6.0	23.7
Appalachian Kentucky	395,383	32.6	32.7	25.4	9.2	26.3
Non-Appalachian Kentucky	1,449,600	29.9	41.2	23.8	5.1	23.0
Maryland	2,724,672	17.1	31.6	36.6	14.8	32.5
Appalachian Maryland	100,479	28.7	36.8	23.9	10.6	27.2
Non-Appalachian Maryland	2,624,193	16.6	31.4	37.1	14.9	32.7
Mississippi	1,181,315	28.9	37.4	26.2	7.4	25.4
Appalachian Mississippi	241,412	30.4	37.3	25.9	6.3	24.0
Non-Appalachian Mississippi	939,903	28.6	37.4	26.3	7.7	25.8
New York	8,540,691	19.8	29.4	33.0	17.8	33.3
Appalachian New York	418,715	39.6	35.4	19.4	5.6	21.5
Non-Appalachian New York	8,121,976	18.8	29.1	33.7	18.4	33.9
North Carolina	4,343,047	26.5	39.5	27.4	6.5	25.0
Appalachian North Carolina	830,746	29.7	41.7	23.0	5.6	23.3
Non-Appalachian North Carolina	3,512,301	25.8	39.0	28.5	6.7	25.4
Ohio	5,099,813	28.8	40.4	25.6	5.2	23.7
Appalachian Ohio	805,978	30.5	35.7	25.4	8.4	25.6
Non-Appalachian Ohio	4,293,835	28.5	41.3	25.6	4.6	23.3
Pennsylvania	5,571,052	26.2	35.6	29.4	8.8	26.9
Appalachian Pennsylvania	2,419,296	29.9	35.5	26.7	7.8	25.6
Non-Appalachian Pennsylvania	3,151,756	23.3	35.7	31.4	9.6	27.9
South Carolina	2,139,404	25.0	39.5	29.1	6.4	25.3
Appalachian South Carolina	572,888	25.1	42.7	27.3	4.8	24.3
Non-Appalachian South Carolina	1,566,516	24.9	38.3	29.8	7.0	25.7
Tennessee	2,902,545	24.7	39.3	29.1	6.8	25.5
Appalachian Tennessee	1,200,244	27.1	40.3	26.6	6.0	24.3
Non-Appalachian Tennessee	1,702,301	23.1	38.6	30.9	7.4	26.3
Virginia	3,780,856	22.2	36.3	31.5	9.9	28.2
Appalachian Virginia	282,756	32.6	35.8	24.7	6.9	24.1
Non-Appalachian Virginia	3,498,100	21.4	36.4	32.1	10.1	28.5
West Virginia (entire state)	681,545	29.3	36.8	24.7	9.3	26.0

Note: Persons ages 16 and over who primarily worked from home are excluded from this analysis.

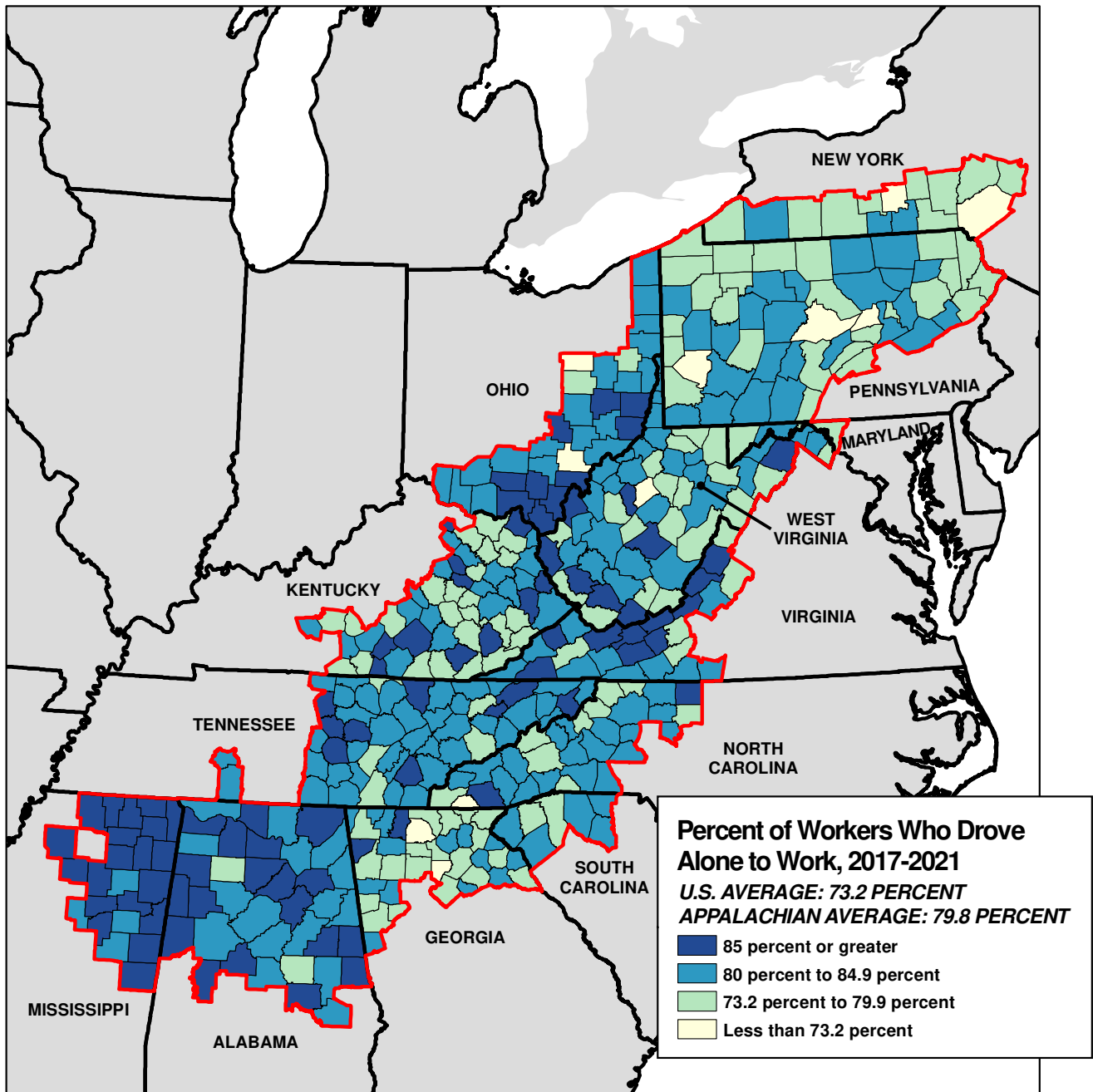
Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 7.8: Place of Work (State and County Level) for Workers Ages 16 and Over in the Appalachian Region, 2017-2021

Place of Work (State and County Level)	Workers Ages 16 and Over	Percent of Workers Ages 16 and Over			
		Worked in County of Residence	Worked Outside County of Residence		
			Total	Worked in State of Residence	Worked Outside State of Residence
United States	155,284,955	73.6	26.4	23.0	3.5
Appalachian Region	11,504,277	68.7	31.3	27.0	4.3
Subregions					
Northern Appalachia	3,676,416	74.5	25.5	21.6	3.9
North Central Appalachia	1,045,179	63.2	36.8	25.0	11.9
Central Appalachia	658,238	59.9	40.1	34.1	6.0
South Central Appalachia	2,293,364	71.0	29.0	26.0	3.0
Southern Appalachia	3,831,080	64.9	35.1	32.0	3.2
County Types					
Large Metros (pop. 1 million +)	2,974,178	65.4	34.6	32.2	2.4
Small Metros (pop. <1 million)	5,012,389	72.5	27.5	22.4	5.1
Nonmetro, Adjacent to Large Metros	972,582	66.7	33.3	29.5	3.8
Nonmetro, Adjacent to Small Metros	1,602,037	64.7	35.3	29.5	5.9
Rural (nonmetro, not adj. to a metro)	943,091	68.1	31.9	27.9	4.0
Alabama	2,146,674	72.8	27.2	23.0	4.2
Appalachian Alabama	1,408,651	71.4	28.6	26.0	2.6
Non-Appalachian Alabama	738,023	75.3	24.7	17.4	7.3
Georgia	4,926,936	60.1	39.9	37.3	2.6
Appalachian Georgia	1,556,220	55.5	44.5	41.0	3.6
Non-Appalachian Georgia	3,370,716	62.3	37.7	35.5	2.2
Kentucky	1,976,861	68.4	31.6	25.3	6.3
Appalachian Kentucky	415,446	62.3	37.7	32.8	4.9
Non-Appalachian Kentucky	1,561,415	70.0	30.0	23.3	6.7
Maryland	3,091,677	57.6	42.4	27.3	15.0
Appalachian Maryland	108,982	72.0	28.0	15.3	12.7
Non-Appalachian Maryland	2,982,695	57.1	42.9	27.8	15.1
Mississippi	1,227,836	63.0	37.0	28.3	8.7
Appalachian Mississippi	250,384	62.1	37.9	32.4	5.5
Non-Appalachian Mississippi	977,452	63.2	36.8	27.3	9.5
New York	9,440,371	66.7	33.3	31.2	2.1
Appalachian New York	449,932	77.8	22.2	19.8	2.4
Non-Appalachian New York	8,990,439	66.1	33.9	31.8	2.1
North Carolina	4,840,986	71.9	28.1	25.5	2.5
Appalachian North Carolina	896,959	72.5	27.5	25.3	2.3
Non-Appalachian North Carolina	3,944,027	71.8	28.2	25.6	2.6
Ohio	5,548,580	70.6	29.4	26.8	2.6
Appalachian Ohio	851,381	61.7	38.3	29.9	8.4
Non-Appalachian Ohio	4,697,199	72.2	27.8	26.3	1.6
Pennsylvania	6,173,679	71.9	28.1	23.2	4.8
Appalachian Pennsylvania	2,639,639	75.4	24.6	21.4	3.2
Non-Appalachian Pennsylvania	3,534,040	69.3	30.7	24.6	6.1
South Carolina	2,304,699	70.9	29.1	23.9	5.2
Appalachian South Carolina	615,825	74.9	25.1	22.7	2.5
Non-Appalachian South Carolina	1,688,874	69.4	30.6	24.3	6.2
Tennessee	3,155,978	71.7	28.3	24.8	3.5
Appalachian Tennessee	1,288,910	70.5	29.5	26.5	3.0
Non-Appalachian Tennessee	1,867,068	72.6	27.4	23.6	3.8
Virginia	4,268,079	52.3	47.7	40.3	7.3
Appalachian Virginia	299,488	59.0	41.0	32.8	8.2
Non-Appalachian Virginia	3,968,591	51.8	48.2	40.9	7.3
West Virginia (entire state)	722,460	66.7	33.3	20.5	12.8

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

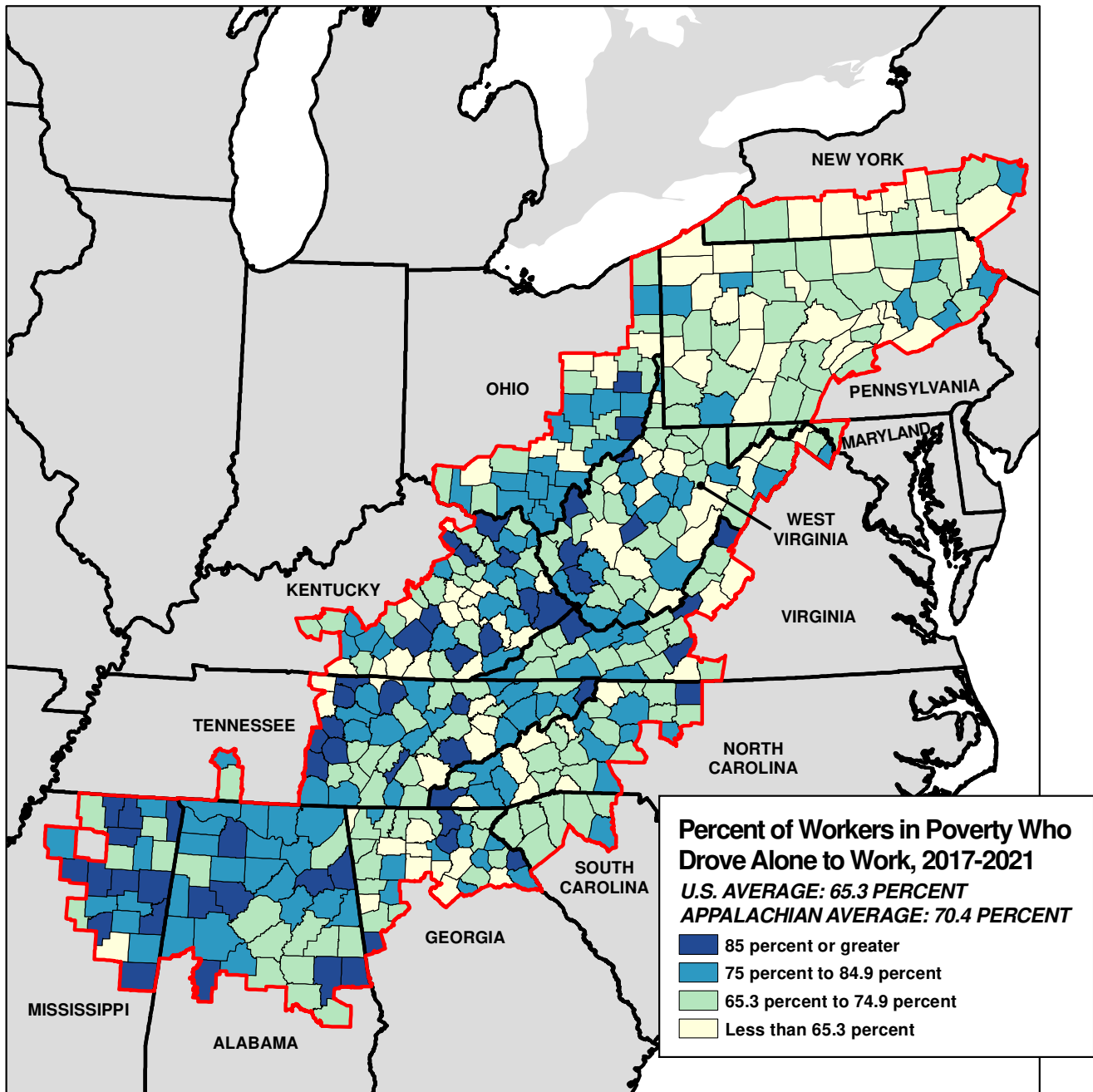
Figure 7.1: Percent of Workers Ages 16 and Over in the Appalachian Region Who Drove Alone to Work, 2017-2021



Map Title: Percent of Workers Ages 16 and Over in the Appalachian Region Who Drove Alone to Work, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the 2017-2021 period, 79.8 percent of workers in the Appalachian Region drove alone to their jobs, which is more than six percentage points higher than the nationwide share. And the percentage is even greater in much of Appalachia: In 91 Appalachian counties, at least 85 percent of workers drove alone. Central, South Central, and Southern Appalachia accounted for 76 of these counties, including 39 in Alabama and Mississippi alone. (The share of workers driving alone exceeded 83 percent in the Appalachian sections of both states.) In contrast, Northern Appalachia had six of the 11 counties in the Region where the share of workers driving alone was below the national average; it was the only subregion where less than 80 percent of workers drove alone. Among the county types, only counties in large metros had less than 80 percent of workers driving alone to work.

Figure 7.2: Percent of Workers Ages 16 and Over Below the Poverty Level in the Appalachian Region Who Drove Alone to Work, 2017-2021

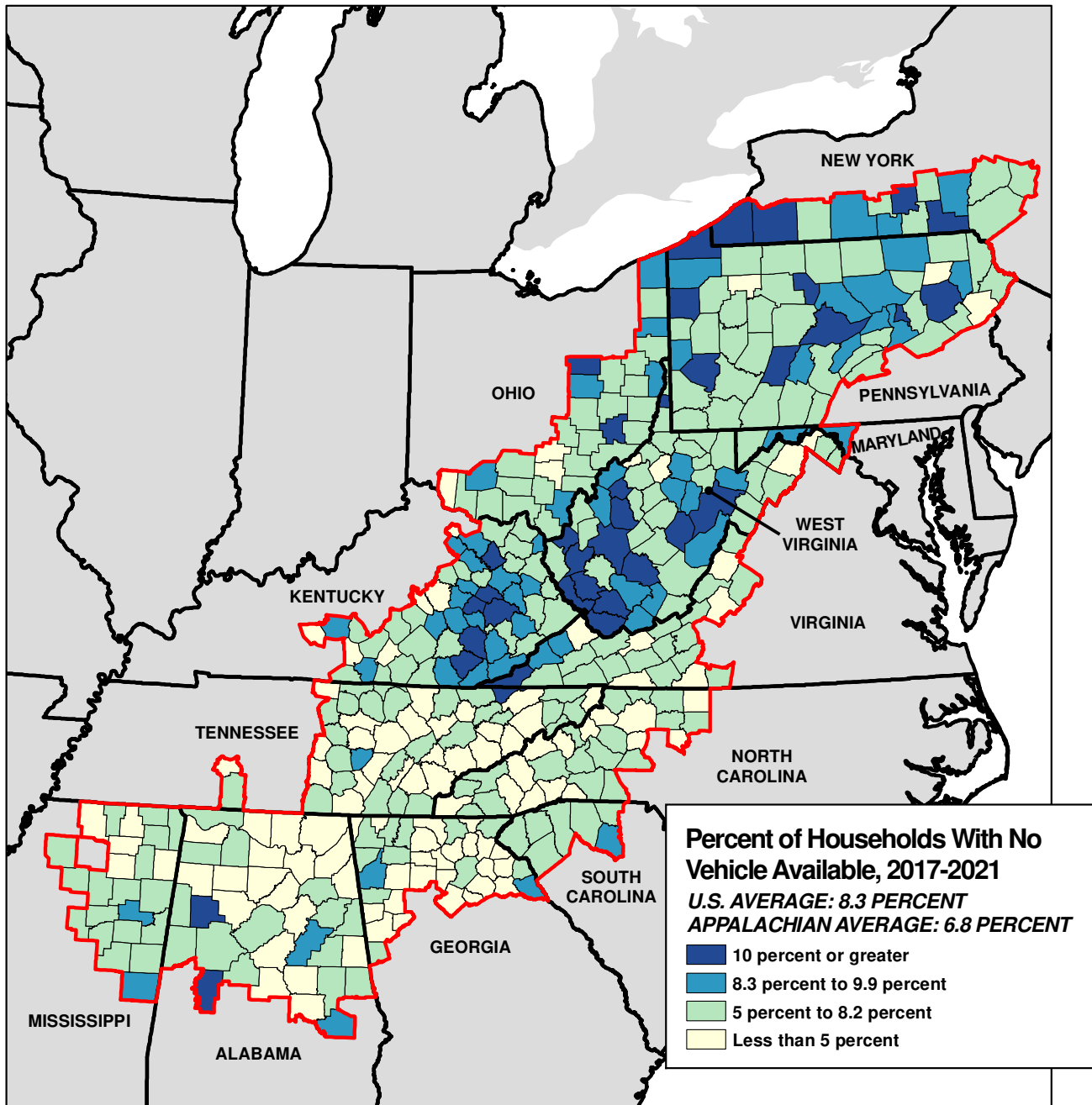


Map Title: Percent of Workers Ages 16 and Over Below the Poverty Level in the Appalachian Region Who Drove Alone to Work, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Among workers with incomes below the poverty level (\$27,479 for a family of two adults and two children in 2021), the share who drove alone to their places of employment was 70.4 percent in Appalachia, compared to just 65.3 percent nationally. The share was at least 75 percent in 172 of the Region's 423 counties, and at least 85 percent in 57 of them. Central, South Central, and Southern Appalachia had the vast majority of counties in both groups; the share of poor workers who drove alone exceeded 73 percent in all three subregions. In contrast, 33 of the 93 counties with rates below the national average were in Northern Appalachia—the only subregion where fewer than two-thirds of workers below the poverty level drove alone to their jobs. Among the states, the lowest share driving alone to work was 59.3 percent in Appalachian New York.

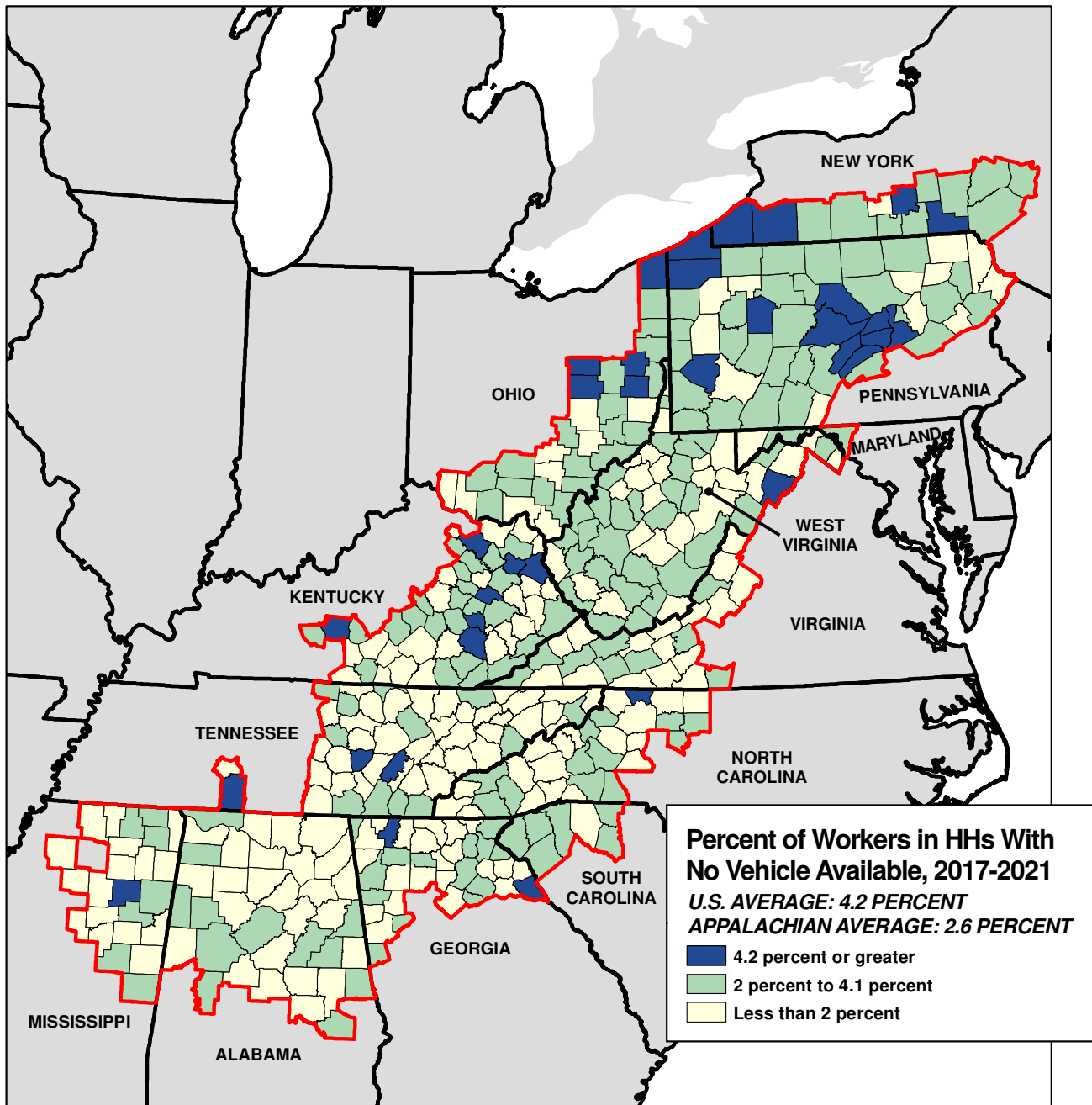
Figure 7.3: Percent of Households in the Appalachian Region With No Vehicle Available, 2017-2021



Map Title: Percent of Households in the Appalachian Region With No Vehicle Available, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Having a reliable mode of transportation is an important part of many household members' ability to gain and keep employment. Yet in Appalachia, 6.8 percent of households have no vehicle available to get to current and/or potential employment. While this is lower than the national average of 8.3 percent, that is not the case in much of the Region. In fact, there were 37 Appalachian counties where at least one in 10 households had no vehicle available; 31 of these counties were in four states—New York, Pennsylvania, West Virginia, and Kentucky. Yet in 109 other counties in the Region, less than 5 percent of households were without any motor vehicle. South Central and Southern Appalachia had 87 of the counties in the latter group.

Figure 7.4: Percent of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, 2017-2021

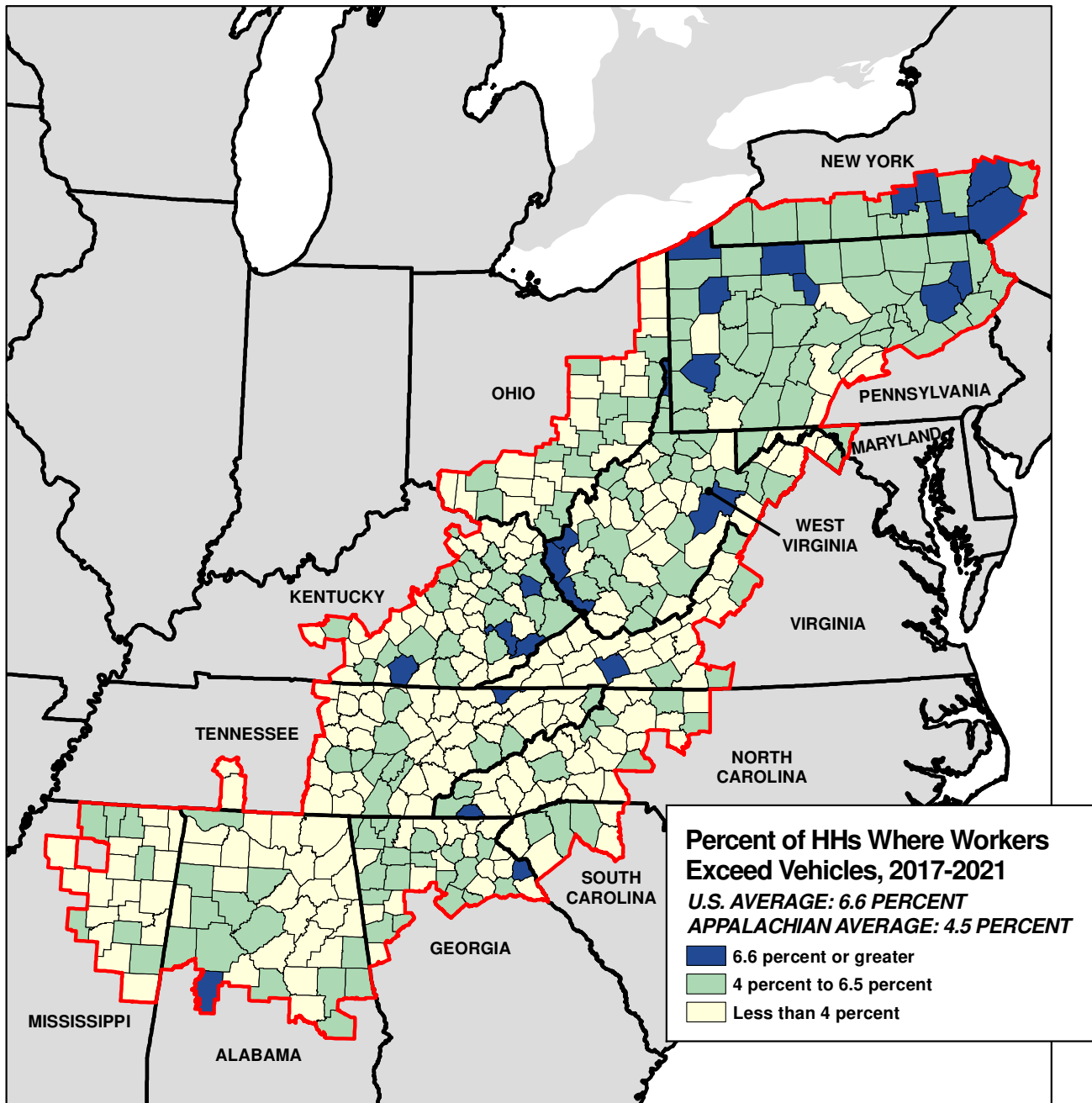


Map Title: Percent of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Just 2.6 percent of Appalachian workers live in households with no vehicle available, compared with 4.2 percent of workers nationally. And the share is even lower in a large part of the Region: In 204 of Appalachia’s 423 counties, less than 2 percent of the work force did not have a vehicle in their household. These counties were heavily concentrated in Central, South Central, and Southern Appalachia; the share of workers without a vehicle was around 2 percent in all three subregions. In contrast, Northern Appalachia had 20 of the Region’s 35 counties where the share of workers in zero-vehicle households was at or above the U.S. average.

Figure 7.5: Percent of Households With One or More Workers in the Appalachian Region Where the Number of Workers Exceeds the Number of Vehicles Available, 2017-2021

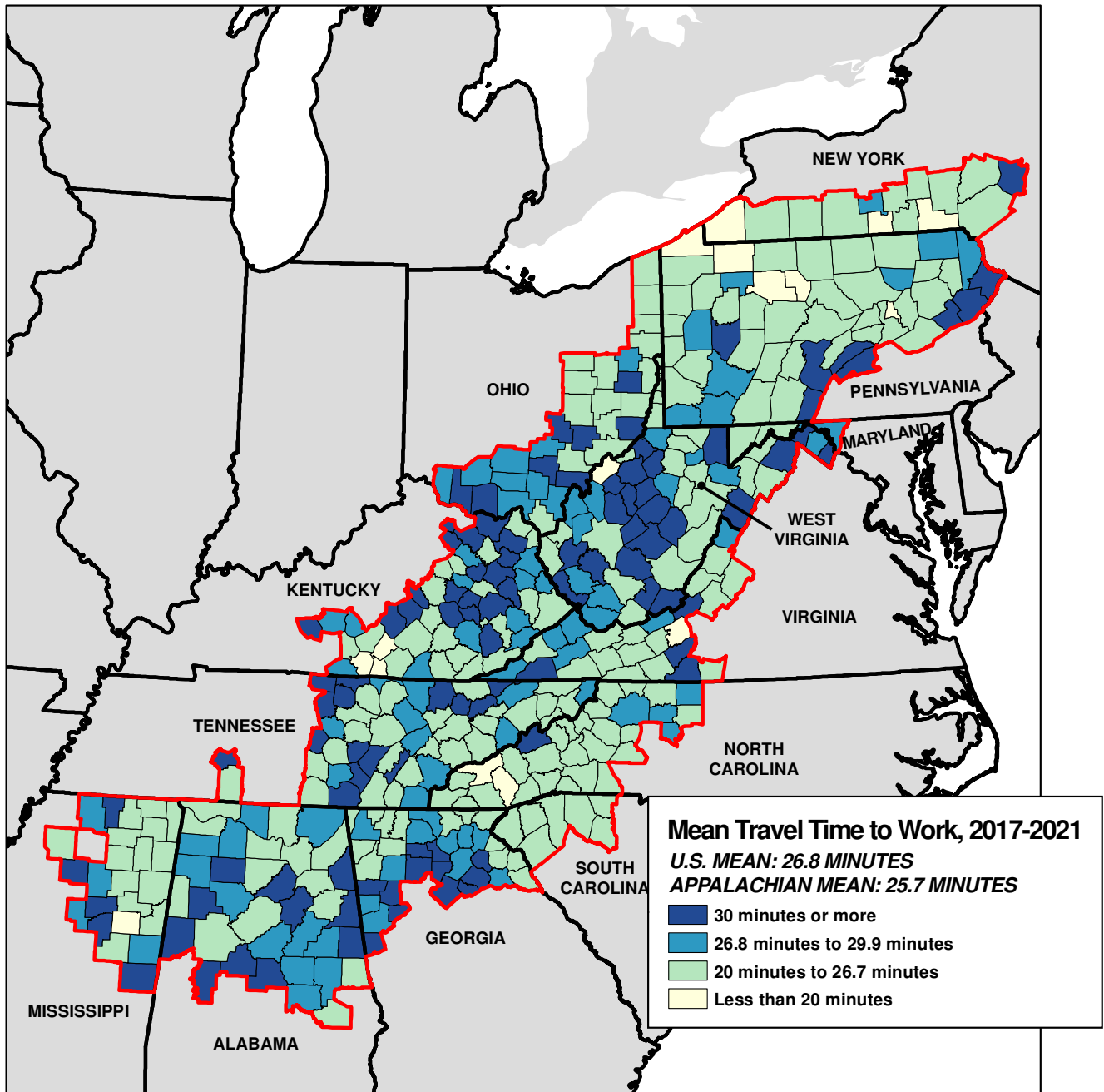


Map Title: Percent of Households With One or More Workers in the Appalachian Region Where the Number of Workers Exceeds the Number of Vehicles Available, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 4.5 percent of Appalachian households, the number of workers in the household exceeds the number of vehicles available to provide transportation to places of employment, compared with 6.6 percent nationwide. Such a situation is potentially problematic for household members, as they often must make special arrangements to accommodate different work schedules and responsibilities. This share is even lower than the Appalachian average in much of the Region—less than 4 percent in more than half of Appalachia’s 423 counties, mostly in Central, South Central, and Southern Appalachia. Yet in 27 Appalachian counties, the share of households with more workers than vehicles matched or exceeded the national average. Almost half of the counties in the latter group were in New York and Pennsylvania: the Appalachian sections of these two states were the only ones where workers exceeded available vehicles in more than 5 percent of the households.

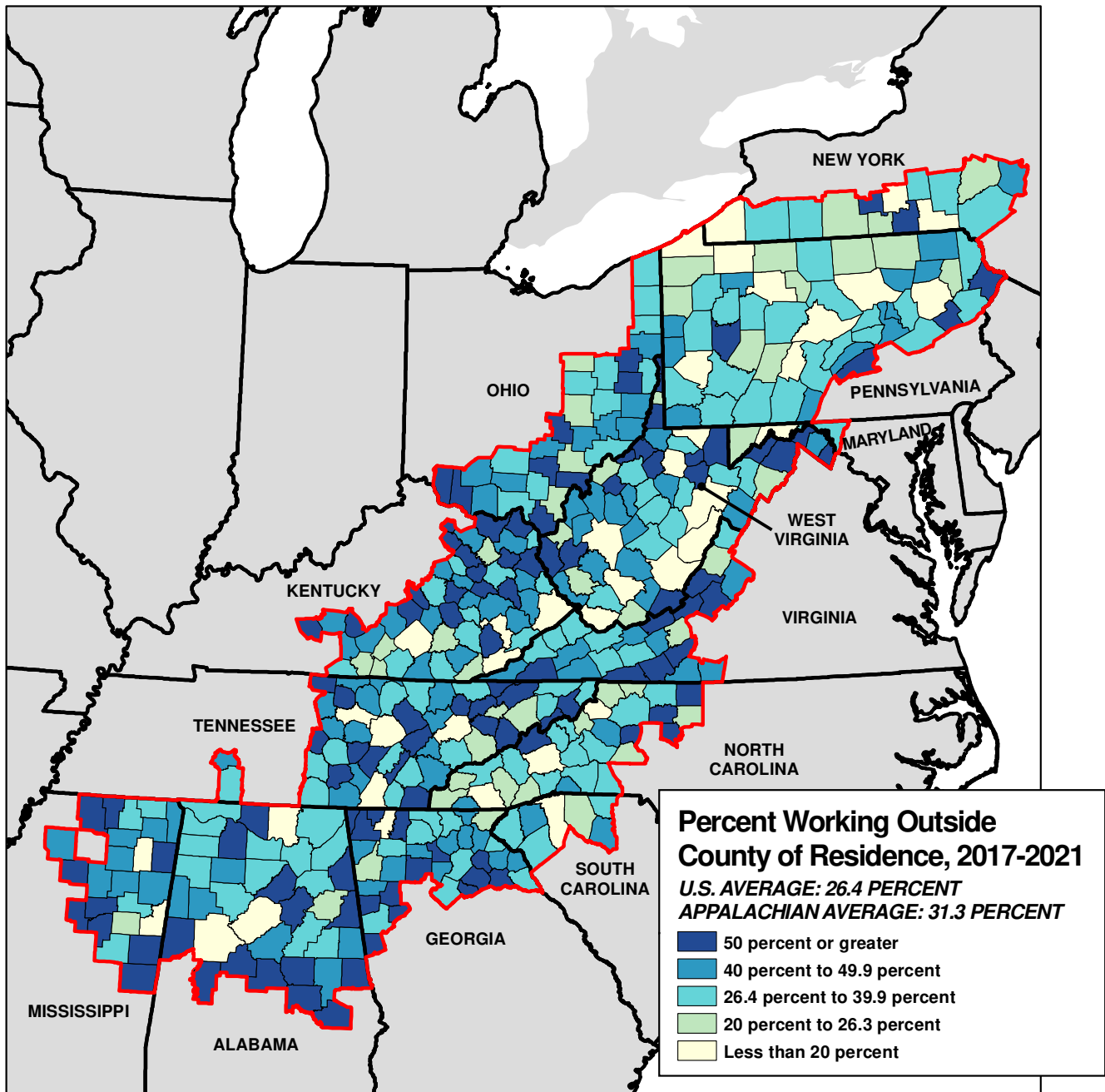
Figure 7.6: Mean Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, 2017-2021



Map Title: Mean Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the Appalachian Region, workers ages 16 and older took, on average, 25.7 minutes to get to their jobs, just over a minute less than workers nationwide. But that was not the case in much of Appalachia: In 196 of the Region’s 423 counties, the mean travel time to work was at or above the national average. And in 106 Appalachian counties, workers averaged a half hour or more to get to their jobs. More than two-fifths of these 106 counties were in metropolitan areas, including suburban Atlanta and the exurban counties of New York City (Pike County, Pennsylvania) and Washington, D.C. (Jefferson County, West Virginia). Yet workers in 61 nonmetropolitan counties—38 of which were in Kentucky, Ohio, and West Virginia—faced similarly lengthy commutes. By comparison, workers in just 16 Appalachian counties had average commutes lasting less than 20 minutes. Some of these counties were home to colleges and universities (for example, Montgomery County, Virginia, home to Virginia Tech). It is important to note, however, that these data cover the 2017-2021 period, so most of these commuting patterns still pre-date the onset of the COVID-19 pandemic.

Figure 7.7: Percent of Workers Ages 16 and Over in the Appalachian Region Who Work Outside Their County of Residence, 2017-2021



Map Title: Percent of Workers Ages 16 and Over in the Appalachian Region Who Work Outside Their County of Residence, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

More than 31 percent of Appalachian workers ages 16 and older had jobs outside their county of residence during 2017-2021, almost five percentage points above the national average. And the share is even higher in most of the Region: In 218 of Appalachia's 423 counties, at least 40 percent of workers had their primary employment outside their county of residence. And in 116 of these counties, at least half of workers were commuting to another county. Most of the counties in this latter group were in metropolitan areas, including the suburbs and exurbs of Atlanta, Birmingham, and even places like Cincinnati (Brown and Clermont counties in Ohio). In contrast, just 38 Appalachian counties had fewer than one in five workers employed outside their residential county. Many of these were central counties in metro areas (such as Allegheny County, Pennsylvania, where Pittsburgh is located) and counties that housed colleges and universities (like Watauga County, North Carolina, home to Appalachian State University).

Table 7.9: Percentage Point Change in Means of Transportation for Workers Ages 16 and Over in the Appalachian Region, 2012-2016 to 2017-2021

Means of Transportation	Percentage Point Change in Share of Workers Ages 16 and Over					
	Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	- 3.2	- 0.7	- 0.9	- 0.3	+ 0.0	+ 5.1
Appalachian Region	- 2.4	- 0.6	- 0.2	- 0.3	+ 0.0	+ 3.5
Subregions						
Northern Appalachia	- 2.8	- 0.6	- 0.3	- 0.4	+ 0.2	+ 3.9
North Central Appalachia	- 1.0	- 0.9	- 0.2	- 0.4	+ 0.0	+ 2.5
Central Appalachia	- 1.2	- 0.2	- 0.1	- 0.2	- 0.4	+ 2.0
South Central Appalachia	- 1.8	- 0.9	- 0.2	- 0.1	- 0.1	+ 3.0
Southern Appalachia	- 3.2	- 0.4	- 0.1	- 0.1	- 0.1	+ 3.9
County Types						
Large Metros (pop. 1 million +)	- 4.3	- 0.8	- 0.5	- 0.3	+ 0.0	+ 5.8
Small Metros (pop. <1 million)	- 2.2	- 0.6	- 0.1	- 0.3	+ 0.0	+ 3.3
Nonmetro, Adjacent to Large Metros	- 1.7	+ 0.0	- 0.1	- 0.3	+ 0.0	+ 1.9
Nonmetro, Adjacent to Small Metros	- 0.8	- 0.7	+ 0.0	- 0.3	+ 0.0	+ 1.9
Rural (nonmetro, not adj. to a metro)	- 0.8	- 0.7	- 0.2	- 0.1	+ 0.1	+ 1.7
Alabama	- 1.9	- 0.5	- 0.1	+ 0.0	- 0.2	+ 2.7
Appalachian Alabama	- 2.3	- 0.8	- 0.1	+ 0.0	- 0.1	+ 3.2
Non-Appalachian Alabama	- 1.4	- 0.1	- 0.1	+ 0.0	- 0.1	+ 1.7
Georgia	- 3.6	- 1.0	- 0.4	- 0.2	+ 0.2	+ 5.0
Appalachian Georgia	- 4.4	- 0.3	- 0.1	- 0.2	- 0.2	+ 5.1
Non-Appalachian Georgia	- 3.3	- 1.4	- 0.6	- 0.2	+ 0.4	+ 5.0
Kentucky	- 2.1	- 0.7	- 0.3	- 0.3	+ 0.0	+ 3.4
Appalachian Kentucky	- 0.7	- 0.3	- 0.2	- 0.2	- 0.5	+ 2.0
Non-Appalachian Kentucky	- 2.4	- 0.8	- 0.3	- 0.3	+ 0.1	+ 3.8
Maryland	- 3.9	- 1.1	- 2.5	- 0.4	+ 0.5	+ 7.5
Appalachian Maryland	- 1.8	- 1.2	+ 0.2	- 0.9	+ 0.2	+ 3.5
Non-Appalachian Maryland	- 4.0	- 1.1	- 2.6	- 0.4	+ 0.5	+ 7.6
Mississippi	- 0.4	- 0.8	- 0.1	- 0.2	+ 0.0	+ 1.6
Appalachian Mississippi	+ 1.4	- 1.9	- 0.1	- 0.5	+ 0.0	+ 1.0
Non-Appalachian Mississippi	- 0.9	- 0.5	- 0.1	- 0.1	- 0.1	+ 1.7
New York	- 1.7	- 0.4	- 3.3	- 0.5	+ 0.4	+ 5.5
Appalachian New York	- 1.9	- 0.4	- 0.2	- 0.8	+ 0.3	+ 3.0
Non-Appalachian New York	- 1.6	- 0.5	- 3.5	- 0.5	+ 0.5	+ 5.7
North Carolina	- 3.9	- 1.1	- 0.2	- 0.2	+ 0.0	+ 5.5
Appalachian North Carolina	- 1.9	- 0.9	- 0.1	- 0.2	+ 0.2	+ 2.9
Non-Appalachian North Carolina	- 4.3	- 1.3	- 0.2	- 0.1	- 0.1	+ 6.0
Ohio	- 3.6	- 0.3	- 0.4	- 0.2	+ 0.2	+ 4.4
Appalachian Ohio	- 2.1	+ 0.1	+ 0.0	- 0.1	+ 0.3	+ 2.0
Non-Appalachian Ohio	- 3.8	- 0.3	- 0.5	- 0.3	+ 0.1	+ 4.8
Pennsylvania	- 3.9	- 0.5	- 0.9	- 0.4	+ 0.2	+ 5.6
Appalachian Pennsylvania	- 3.0	- 0.7	- 0.4	- 0.4	+ 0.0	+ 4.4
Non-Appalachian Pennsylvania	- 4.4	- 0.5	- 1.3	- 0.5	+ 0.4	+ 6.4
South Carolina	- 2.4	- 0.7	- 0.1	- 0.3	- 0.1	+ 3.6
Appalachian South Carolina	- 4.0	+ 0.1	- 0.1	- 0.2	+ 0.4	+ 3.8
Non-Appalachian South Carolina	- 1.9	- 0.9	- 0.1	- 0.3	- 0.2	+ 3.5
Tennessee	- 3.1	- 0.7	- 0.3	- 0.2	- 0.1	+ 4.1
Appalachian Tennessee	- 2.2	- 0.7	+ 0.0	+ 0.1	- 0.1	+ 3.1
Non-Appalachian Tennessee	- 3.7	- 0.6	- 0.3	- 0.3	+ 0.0	+ 4.8
Virginia	- 4.7	- 1.0	- 1.1	- 0.2	+ 0.1	+ 6.7
Appalachian Virginia	- 1.0	- 0.7	- 0.3	- 0.2	- 0.1	+ 2.5
Non-Appalachian Virginia	- 4.8	- 1.0	- 1.1	- 0.1	+ 0.0	+ 7.1
West Virginia (entire state)	- 0.6	- 1.6	- 0.2	- 0.2	+ 0.1	+ 2.6

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 7.10: Percentage Point Change in Means of Transportation for Workers Ages 16 and Over in the Appalachian Region Below the Poverty Level, 2012-2016 to 2017-2021

Means of Transportation	Percentage Point Change in Share of Workers Ages 16 and Over Below the Poverty Level					
	Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	+ 1.0	- 0.8	- 1.7	- 0.8	+ 0.0	+ 2.5
Appalachian Region	- 1.0	- 0.9	+ 0.0	- 0.5	+ 0.1	+ 2.0
Subregions						
Northern Appalachia	+ 0.0	- 0.8	+ 0.0	- 1.4	+ 0.1	+ 2.1
North Central Appalachia	- 0.2	- 1.3	+ 0.5	- 1.6	+ 0.8	+ 1.8
Central Appalachia	- 1.3	+ 0.3	- 0.2	- 0.8	- 0.1	+ 2.1
South Central Appalachia	- 0.4	- 1.4	- 0.2	+ 0.1	+ 0.3	+ 1.6
Southern Appalachia	- 1.8	- 0.6	+ 0.0	+ 0.1	- 0.2	+ 2.4
County Types						
Large Metros (pop. 1 million +)	- 1.1	- 1.4	- 0.1	- 0.7	- 0.6	+ 3.7
Small Metros (pop. <1 million)	- 1.0	- 0.9	+ 0.1	- 0.4	+ 0.2	+ 2.0
Nonmetro, Adjacent to Large Metros	+ 1.1	- 1.3	+ 0.4	- 1.3	+ 0.5	+ 0.6
Nonmetro, Adjacent to Small Metros	- 1.3	+ 0.7	+ 0.1	- 0.3	- 0.5	+ 1.3
Rural (nonmetro, not adj. to a metro)	- 1.8	- 1.4	- 0.3	+ 0.3	+ 1.2	+ 2.0
Alabama	- 0.3	- 0.7	+ 0.2	- 0.3	- 0.3	+ 1.5
Appalachian Alabama	+ 0.4	- 2.0	+ 0.2	+ 0.0	- 0.4	+ 1.8
Non-Appalachian Alabama	- 1.2	+ 1.3	+ 0.1	- 1.1	- 0.2	+ 1.1
Georgia	- 1.0	- 0.9	- 1.4	- 0.4	+ 0.5	+ 3.0
Appalachian Georgia	- 3.8	+ 2.3	- 0.1	+ 0.4	- 1.1	+ 2.4
Non-Appalachian Georgia	+ 0.0	- 2.0	- 1.9	- 0.6	+ 1.1	+ 3.3
Kentucky	- 0.4	+ 0.4	- 0.5	- 1.9	+ 0.8	+ 1.5
Appalachian Kentucky	- 0.7	+ 1.2	- 0.4	- 1.3	- 0.6	+ 1.9
Non-Appalachian Kentucky	- 0.2	+ 0.1	- 0.5	- 2.1	+ 1.4	+ 1.4
Maryland	+ 2.4	- 1.3	- 3.7	- 1.5	+ 1.2	+ 2.9
Appalachian Maryland	+ 4.1	- 4.2	+ 0.6	- 0.3	- 0.8	+ 0.6
Non-Appalachian Maryland	+ 2.3	- 1.1	- 4.0	- 1.6	+ 1.3	+ 3.0
Mississippi	+ 2.0	- 2.3	- 0.4	- 0.8	+ 0.1	+ 1.3
Appalachian Mississippi	+ 0.0	- 4.4	- 0.1	- 0.3	+ 1.6	+ 3.1
Non-Appalachian Mississippi	+ 2.5	- 1.8	- 0.4	- 1.0	- 0.2	+ 0.9
New York	+ 3.5	- 0.1	- 5.1	- 1.6	+ 0.6	+ 2.8
Appalachian New York	- 2.3	- 0.3	+ 0.5	- 1.0	+ 0.5	+ 2.5
Non-Appalachian New York	+ 3.7	- 0.2	- 5.3	- 1.6	+ 0.6	+ 2.8
North Carolina	- 0.7	- 1.6	- 0.3	- 0.6	+ 0.1	+ 3.2
Appalachian North Carolina	- 1.4	+ 0.7	- 0.5	- 0.5	+ 0.3	+ 1.3
Non-Appalachian North Carolina	- 0.5	- 2.2	- 0.3	- 0.6	+ 0.1	+ 3.6
Ohio	- 0.2	- 0.1	- 1.1	- 0.8	+ 0.1	+ 2.1
Appalachian Ohio	- 1.4	+ 0.2	+ 0.3	- 1.0	+ 0.3	+ 1.6
Non-Appalachian Ohio	+ 0.1	- 0.1	- 1.5	- 0.8	+ 0.0	+ 2.3
Pennsylvania	+ 0.2	- 0.8	- 1.0	- 1.7	+ 0.7	+ 2.7
Appalachian Pennsylvania	+ 0.8	- 0.9	- 0.1	- 2.1	- 0.2	+ 2.5
Non-Appalachian Pennsylvania	- 0.1	- 0.8	- 1.9	- 1.3	+ 1.5	+ 2.8
South Carolina	- 0.9	- 1.1	- 0.1	- 0.5	- 0.1	+ 2.8
Appalachian South Carolina	- 3.0	- 1.7	- 0.1	- 0.2	+ 1.2	+ 3.7
Non-Appalachian South Carolina	- 0.2	- 0.9	- 0.2	- 0.6	- 0.6	+ 2.4
Tennessee	- 0.4	- 1.1	- 0.2	- 0.3	+ 0.1	+ 1.9
Appalachian Tennessee	- 0.2	- 2.6	+ 0.2	+ 0.7	+ 0.1	+ 1.7
Non-Appalachian Tennessee	- 0.7	+ 0.1	- 0.5	- 1.1	+ 0.1	+ 2.1
Virginia	- 0.5	- 0.9	- 1.7	- 0.4	+ 0.4	+ 3.0
Appalachian Virginia	- 0.8	- 3.2	- 0.2	- 0.3	+ 1.2	+ 3.1
Non-Appalachian Virginia	- 0.3	- 0.6	- 1.9	- 0.5	+ 0.3	+ 3.0
West Virginia (entire state)	- 0.5	- 2.3	+ 0.5	- 0.4	+ 1.4	+ 1.3

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 7.11: Percentage Point Change in Availability of Vehicles for Households in the Appalachian Region, 2012-2016 to 2017-2021

Availability of Vehicles	Percentage Point Change in Share of Households				
	No Vehicle Available	One Vehicle Available	Two Vehicles Available	Three Vehicles Available	Four or More Vehicles Available
United States	- 0.7	- 1.1	- 0.2	+ 0.8	+ 1.2
Appalachian Region	- 0.7	- 1.4	- 0.2	+ 1.0	+ 1.2
Subregions					
Northern Appalachia	- 0.4	- 0.5	- 0.2	+ 0.5	+ 0.5
North Central Appalachia	- 0.3	- 1.3	- 0.4	+ 0.9	+ 1.1
Central Appalachia	- 1.4	- 1.6	- 0.7	+ 1.7	+ 2.0
South Central Appalachia	- 0.8	- 2.0	+ 0.0	+ 0.9	+ 1.8
Southern Appalachia	- 0.7	- 1.8	- 0.4	+ 1.4	+ 1.6
County Types					
Large Metros (pop. 1 million +)	- 0.7	- 1.2	+ 0.0	+ 0.9	+ 1.0
Small Metros (pop. <1 million)	- 0.6	- 1.3	- 0.4	+ 1.2	+ 1.1
Nonmetro, Adjacent to Large Metros	- 0.4	- 2.0	- 0.1	+ 1.0	+ 1.5
Nonmetro, Adjacent to Small Metros	- 0.7	- 1.4	- 0.4	+ 0.8	+ 1.7
Rural (nonmetro, not adj. to a metro)	- 1.0	- 1.5	- 0.1	+ 1.1	+ 1.5
Alabama	- 0.8	- 1.4	- 0.3	+ 1.1	+ 1.4
Appalachian Alabama	- 0.8	- 1.6	- 0.5	+ 1.4	+ 1.5
Non-Appalachian Alabama	- 0.9	- 1.1	+ 0.1	+ 0.5	+ 1.3
Georgia	- 0.8	- 1.5	- 0.3	+ 1.1	+ 1.5
Appalachian Georgia	- 0.4	- 1.7	- 0.7	+ 1.2	+ 1.8
Non-Appalachian Georgia	- 0.9	- 1.3	+ 0.0	+ 1.0	+ 1.3
Kentucky	- 0.9	- 1.7	- 0.2	+ 1.3	+ 1.5
Appalachian Kentucky	- 1.3	- 2.0	- 0.1	+ 1.4	+ 2.0
Non-Appalachian Kentucky	- 0.7	- 1.5	- 0.2	+ 1.2	+ 1.2
Maryland	- 0.5	- 0.3	- 0.3	+ 0.5	+ 0.7
Appalachian Maryland	- 0.7	- 1.1	- 0.2	+ 0.9	+ 1.2
Non-Appalachian Maryland	- 0.6	- 0.4	- 0.4	+ 0.5	+ 0.8
Mississippi	- 0.6	- 1.3	- 0.6	+ 1.1	+ 1.4
Appalachian Mississippi	- 0.8	- 1.6	+ 0.0	+ 1.2	+ 1.3
Non-Appalachian Mississippi	- 0.5	- 1.2	- 0.9	+ 1.2	+ 1.4
New York	- 0.3	- 0.1	- 0.4	+ 0.3	+ 0.4
Appalachian New York	- 0.1	- 0.4	+ 0.0	+ 0.2	+ 0.5
Non-Appalachian New York	- 0.4	+ 0.0	- 0.4	+ 0.3	+ 0.5
North Carolina	- 0.8	- 1.3	- 0.3	+ 0.9	+ 1.5
Appalachian North Carolina	- 0.6	- 1.5	- 0.4	+ 0.9	+ 1.6
Non-Appalachian North Carolina	- 0.9	- 1.2	- 0.3	+ 0.9	+ 1.4
Ohio	- 0.9	- 0.6	+ 0.3	+ 0.4	+ 0.8
Appalachian Ohio	- 0.2	- 0.9	- 0.2	+ 0.6	+ 0.7
Non-Appalachian Ohio	- 1.1	- 0.6	+ 0.5	+ 0.4	+ 0.9
Pennsylvania	- 0.6	- 0.1	- 0.3	+ 0.6	+ 0.6
Appalachian Pennsylvania	- 0.5	- 0.3	- 0.2	+ 0.6	+ 0.5
Non-Appalachian Pennsylvania	- 0.7	+ 0.0	- 0.3	+ 0.5	+ 0.5
South Carolina	- 0.9	- 1.4	+ 0.1	+ 1.1	+ 1.0
Appalachian South Carolina	- 0.9	- 2.2	+ 0.2	+ 1.7	+ 1.3
Non-Appalachian South Carolina	- 0.8	- 1.2	+ 0.2	+ 0.9	+ 1.0
Tennessee	- 0.8	- 1.9	- 0.1	+ 1.2	+ 1.7
Appalachian Tennessee	- 0.9	- 2.4	- 0.1	+ 1.4	+ 2.0
Non-Appalachian Tennessee	- 0.9	- 1.4	- 0.2	+ 1.1	+ 1.4
Virginia	- 0.4	- 0.5	- 0.2	+ 0.1	+ 0.9
Appalachian Virginia	- 1.0	- 0.3	- 0.1	+ 0.3	+ 1.2
Non-Appalachian Virginia	- 0.3	- 0.5	- 0.3	+ 0.2	+ 0.9
West Virginia (entire state)	- 0.4	- 1.4	- 0.2	+ 0.9	+ 1.1

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 7.12: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, by Means of Transportation, 2012-2016 to 2017-2021

Availability of Vehicles	Percentage Point Change in Share Who Live in Households With No Vehicle Available						
	Total Workers Ages 16 and Over	Car, Truck, or Van (Drove Alone)	Car, Truck, or Van (Carpooled)	Public Transportation (Excluding Taxicab)	Walked	Taxicab, Motorcycle, Bicycle, or Other Means	Worked at Home
United States	- 0.2	+ 0.1	- 0.4	+ 0.4	- 0.6	+ 1.4	+ 0.2
Appalachian Region	- 0.1	+ 0.0	- 0.1	+ 3.3	- 0.1	+ 1.9	- 0.8
Subregions							
Northern Appalachia	+ 0.1	+ 0.1	+ 0.4	+ 4.4	+ 1.0	+ 3.0	- 1.8
North Central Appalachia	+ 0.0	+ 0.0	+ 0.2	+ 4.7	+ 1.9	- 0.4	- 0.8
Central Appalachia	- 0.1	+ 0.0	+ 0.1	+ 7.7	- 1.9	+ 2.5	- 0.3
South Central Appalachia	- 0.1	+ 0.0	- 0.1	- 2.2	- 2.8	+ 5.4	- 0.4
Southern Appalachia	- 0.1	+ 0.0	- 0.5	+ 0.3	- 1.9	- 2.1	+ 0.0
County Types							
Large Metros (pop. 1 million +)	- 0.2	+ 0.0	- 0.1	+ 3.3	- 2.7	- 1.2	+ 0.1
Small Metros (pop. <1 million)	+ 0.0	+ 0.0	+ 0.1	+ 2.0	+ 0.3	+ 2.0	- 0.6
Nonmetro, Adjacent to Large Metros	+ 0.1	+ 0.1	- 1.0	+ 7.0	+ 1.0	+ 5.4	- 1.2
Nonmetro, Adjacent to Small Metros	+ 0.1	+ 0.0	+ 0.6	+ 2.6	+ 0.5	+ 3.7	- 1.7
Rural (nonmetro, not adj. to a metro)	+ 0.0	- 0.1	- 0.5	+ 10.2	+ 1.8	+ 3.8	- 1.7
Alabama	- 0.1	+ 0.0	- 1.2	- 4.3	- 2.5	- 0.4	+ 0.1
Appalachian Alabama	- 0.2	+ 0.0	- 1.4	- 4.1	- 0.8	- 1.3	+ 0.1
Non-Appalachian Alabama	- 0.1	+ 0.1	- 0.6	- 5.1	- 5.2	+ 1.2	+ 0.2
Georgia	- 0.1	+ 0.1	- 0.2	- 0.4	- 3.7	+ 1.1	- 0.1
Appalachian Georgia	- 0.1	+ 0.1	+ 0.7	- 2.6	- 3.5	- 2.9	- 0.3
Non-Appalachian Georgia	- 0.1	+ 0.1	- 0.5	- 0.1	- 3.8	+ 2.1	- 0.2
Kentucky	- 0.2	+ 0.1	- 0.4	- 2.5	+ 0.4	+ 1.6	- 1.4
Appalachian Kentucky	- 0.1	+ 0.1	+ 0.0	+ 2.1	- 0.1	+ 0.9	- 0.3
Non-Appalachian Kentucky	- 0.2	+ 0.1	- 0.4	- 3.7	+ 0.6	+ 1.3	- 1.5
Maryland	- 0.2	+ 0.2	+ 0.1	+ 1.7	- 1.2	+ 1.6	+ 0.1
Appalachian Maryland	- 0.5	- 0.4	+ 1.2	- 5.2	+ 9.0	- 22.6	- 2.3
Non-Appalachian Maryland	- 0.3	+ 0.1	+ 0.1	+ 1.7	- 1.6	+ 2.2	+ 0.1
Mississippi	- 0.2	- 0.1	- 1.1	- 6.7	+ 0.8	+ 1.6	+ 1.5
Appalachian Mississippi	- 0.2	+ 0.0	- 2.9	+ 3.1	+ 10.8	+ 6.6	+ 1.8
Non-Appalachian Mississippi	- 0.2	- 0.1	- 0.7	- 8.3	- 0.7	+ 0.6	+ 1.5
New York	- 0.4	+ 0.4	- 0.7	- 0.3	- 0.8	- 0.6	+ 2.4
Appalachian New York	+ 0.4	+ 0.1	- 0.8	+ 13.2	- 0.6	+ 5.2	+ 1.0
Non-Appalachian New York	- 0.4	+ 0.4	- 0.7	- 0.3	- 0.9	- 0.7	+ 2.2
North Carolina	- 0.4	- 0.1	- 1.5	- 0.7	- 2.6	- 0.2	+ 0.2
Appalachian North Carolina	- 0.2	- 0.1	- 0.7	- 2.0	- 4.2	+ 2.6	+ 0.1
Non-Appalachian North Carolina	- 0.3	- 0.1	- 1.6	- 0.5	- 2.1	- 0.9	+ 0.3
Ohio	+ 0.0	+ 0.0	+ 0.2	+ 3.5	+ 1.8	+ 4.3	- 1.6
Appalachian Ohio	+ 0.3	- 0.1	- 0.5	+ 4.3	+ 4.9	+ 11.8	- 3.4
Non-Appalachian Ohio	- 0.1	+ 0.0	+ 0.3	+ 3.5	+ 1.2	+ 2.3	- 1.2
Pennsylvania	- 0.1	+ 0.2	+ 0.1	+ 0.8	+ 0.9	+ 2.6	- 1.8
Appalachian Pennsylvania	+ 0.1	+ 0.1	+ 0.7	+ 3.6	+ 0.7	+ 0.2	- 1.5
Non-Appalachian Pennsylvania	- 0.1	+ 0.2	- 0.4	+ 0.0	+ 0.9	+ 3.6	- 2.1
South Carolina	- 0.1	+ 0.1	+ 0.3	+ 2.0	- 3.5	- 0.6	+ 0.3
Appalachian South Carolina	+ 0.1	+ 0.1	- 0.6	+ 17.6	- 4.7	- 7.2	+ 0.1
Non-Appalachian South Carolina	- 0.1	+ 0.1	+ 0.7	- 1.9	- 3.0	+ 1.1	+ 0.5
Tennessee	- 0.2	+ 0.0	- 0.8	- 1.6	- 3.3	+ 3.3	- 0.4
Appalachian Tennessee	- 0.1	- 0.1	+ 0.5	- 4.2	- 2.7	+ 5.6	- 0.5
Non-Appalachian Tennessee	- 0.3	+ 0.1	- 1.7	- 0.6	- 3.7	+ 2.1	- 0.3
Virginia	+ 0.0	+ 0.1	- 0.4	+ 1.2	+ 1.7	+ 0.5	+ 0.1
Appalachian Virginia	+ 0.0	+ 0.2	- 0.4	- 0.3	+ 0.7	+ 7.3	- 2.7
Non-Appalachian Virginia	+ 0.0	+ 0.1	- 0.3	+ 1.2	+ 1.8	+ 0.1	+ 0.2
West Virginia (entire state)	- 0.2	- 0.1	+ 0.0	+ 6.5	+ 0.1	- 2.1	- 0.5

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 7.13: Change in Relationship Between Number of Workers and Availability of Vehicles for Households in the Appalachian Region With One or More Workers, 2012-2016 to 2017-2021

Availability of Vehicles	Percentage Point Change in Share of Households With One or More Workers			
	Households With Zero Vehicles	Households Where Workers Exceed Vehicles	Households Where Workers Equal Vehicles	Households Where Vehicles Exceed Workers
United States	- 0.2	+ 0.1	- 0.3	+ 0.5
Appalachian Region	- 0.1	- 0.2	- 0.3	+ 0.7
Subregions				
Northern Appalachia	+ 0.0	- 0.2	- 0.2	+ 0.3
North Central Appalachia	- 0.2	- 0.2	- 0.4	+ 0.8
Central Appalachia	- 0.1	+ 0.0	- 1.0	+ 1.1
South Central Appalachia	- 0.1	- 0.4	- 0.3	+ 0.8
Southern Appalachia	- 0.2	- 0.2	- 0.3	+ 0.7
County Types				
Large Metros (pop. 1 million +)	- 0.2	- 0.3	+ 0.1	+ 0.4
Small Metros (pop. <1 million)	+ 0.0	- 0.2	- 0.5	+ 0.7
Nonmetro, Adjacent to Large Metros	- 0.1	- 0.4	- 0.6	+ 1.0
Nonmetro, Adjacent to Small Metros	- 0.1	- 0.1	- 1.0	+ 1.2
Rural (nonmetro, not adj. to a metro)	+ 0.0	- 0.1	- 0.6	+ 0.9
Alabama	- 0.4	- 0.3	- 0.8	+ 1.4
Appalachian Alabama	- 0.3	- 0.3	- 0.7	+ 1.2
Non-Appalachian Alabama	- 0.3	- 0.4	- 0.9	+ 1.7
Georgia	- 0.1	+ 0.0	+ 0.0	+ 0.1
Appalachian Georgia	- 0.1	- 0.3	+ 0.3	+ 0.0
Non-Appalachian Georgia	- 0.1	+ 0.2	- 0.3	+ 0.2
Kentucky	- 0.1	- 0.1	- 0.5	+ 0.7
Appalachian Kentucky	- 0.1	+ 0.0	- 0.7	+ 0.8
Non-Appalachian Kentucky	- 0.2	- 0.1	- 0.5	+ 0.9
Maryland	- 0.2	- 0.4	+ 0.6	+ 0.1
Appalachian Maryland	- 0.8	- 2.2	+ 3.1	- 0.2
Non-Appalachian Maryland	- 0.2	- 0.2	+ 0.4	+ 0.1
Mississippi	- 0.2	- 0.1	- 1.3	+ 1.6
Appalachian Mississippi	- 0.4	+ 0.1	- 1.1	+ 1.3
Non-Appalachian Mississippi	- 0.2	+ 0.0	- 1.4	+ 1.7
New York	- 0.2	+ 0.7	- 0.4	- 0.1
Appalachian New York	+ 0.1	- 0.4	- 0.3	+ 0.5
Non-Appalachian New York	- 0.3	+ 0.8	- 0.3	- 0.1
North Carolina	- 0.3	- 0.2	+ 0.1	+ 0.3
Appalachian North Carolina	- 0.1	- 0.4	+ 0.5	+ 0.1
Non-Appalachian North Carolina	- 0.4	- 0.1	+ 0.1	+ 0.5
Ohio	- 0.1	- 0.2	+ 0.0	+ 0.3
Appalachian Ohio	+ 0.1	- 0.3	- 0.5	+ 0.6
Non-Appalachian Ohio	- 0.1	- 0.3	+ 0.0	+ 0.4
Pennsylvania	+ 0.1	+ 0.4	- 0.3	- 0.3
Appalachian Pennsylvania	+ 0.0	- 0.1	- 0.1	+ 0.1
Non-Appalachian Pennsylvania	+ 0.1	+ 0.9	- 0.5	- 0.4
South Carolina	- 0.1	- 0.3	- 0.5	+ 0.9
Appalachian South Carolina	+ 0.0	- 0.1	- 1.1	+ 1.2
Non-Appalachian South Carolina	- 0.2	- 0.3	- 0.2	+ 0.7
Tennessee	- 0.3	- 0.3	- 0.6	+ 1.2
Appalachian Tennessee	- 0.2	- 0.3	- 1.1	+ 1.6
Non-Appalachian Tennessee	- 0.4	- 0.2	- 0.3	+ 1.0
Virginia	+ 0.0	+ 0.1	+ 0.2	- 0.4
Appalachian Virginia	- 0.1	- 0.5	+ 0.1	+ 0.5
Non-Appalachian Virginia	+ 0.0	+ 0.1	+ 0.2	- 0.4
West Virginia (entire state)	- 0.2	- 0.1	- 0.9	+ 1.3

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 7.14: Change in Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, by Amount of Time, 2012-2016 to 2017-2021

Travel Time to Work (Minutes)	Percentage Point Change in Share of Workers Ages 16 and Over				Change in Mean Travel Time to Work (Minutes)
	Less Than 15 Minutes	15 Minutes to 29 Minutes	30 Minutes to 59 Minutes	60 Minutes or More	
United States	- 1.1	- 0.1	+ 0.8	+ 0.4	+ 0.7
Appalachian Region	- 1.4	- 0.1	+ 0.9	+ 0.5	+ 0.7
Subregions					
Northern Appalachia	- 0.8	- 0.2	+ 0.7	+ 0.4	+ 0.6
North Central Appalachia	- 1.1	+ 0.5	+ 0.5	+ 0.1	+ 0.4
Central Appalachia	- 1.0	- 0.6	+ 0.4	+ 1.3	+ 1.4
South Central Appalachia	- 1.4	+ 0.0	+ 1.1	+ 0.4	+ 0.6
Southern Appalachia	- 1.5	- 0.3	+ 1.2	+ 0.7	+ 1.0
County Types					
Large Metros (pop. 1 million +)	- 1.0	- 0.4	+ 1.1	+ 0.3	+ 0.7
Small Metros (pop. <1 million)	- 1.6	+ 0.0	+ 1.2	+ 0.4	+ 0.8
Nonmetro, Adjacent to Large Metros	- 0.5	- 1.3	+ 1.0	+ 0.8	+ 0.9
Nonmetro, Adjacent to Small Metros	- 1.3	+ 0.1	+ 0.5	+ 0.6	+ 0.8
Rural (nonmetro, not adj. to a metro)	- 1.4	+ 0.3	+ 0.2	+ 0.9	+ 0.9
Alabama	- 0.8	- 0.4	+ 0.3	+ 0.8	+ 0.7
Appalachian Alabama	- 0.7	- 0.9	+ 0.7	+ 0.8	+ 0.7
Non-Appalachian Alabama	- 1.0	+ 0.6	- 0.4	+ 0.8	+ 0.7
Georgia	- 1.2	- 0.4	+ 0.9	+ 0.7	+ 0.9
Appalachian Georgia	- 1.4	- 0.4	+ 1.2	+ 0.6	+ 1.0
Non-Appalachian Georgia	- 1.1	- 0.3	+ 0.8	+ 0.8	+ 0.9
Kentucky	- 0.6	+ 0.1	+ 0.0	+ 0.6	+ 0.7
Appalachian Kentucky	- 1.2	- 0.6	+ 0.4	+ 1.4	+ 1.7
Non-Appalachian Kentucky	- 0.4	+ 0.2	- 0.2	+ 0.3	+ 0.4
Maryland	- 0.1	+ 0.2	+ 0.4	- 0.3	+ 0.1
Appalachian Maryland	- 2.5	+ 0.1	+ 2.7	- 0.3	+ 1.0
Non-Appalachian Maryland	- 0.1	+ 0.2	+ 0.3	- 0.4	+ 0.1
Mississippi	- 2.3	+ 0.3	+ 1.0	+ 0.9	+ 1.2
Appalachian Mississippi	- 4.0	+ 1.8	+ 1.6	+ 0.4	+ 0.7
Non-Appalachian Mississippi	- 1.8	- 0.1	+ 0.9	+ 1.0	+ 1.4
New York	- 0.7	- 0.1	+ 0.1	+ 0.7	+ 0.7
Appalachian New York	- 0.6	- 0.8	+ 0.8	+ 0.6	+ 0.7
Non-Appalachian New York	- 0.6	- 0.1	+ 0.0	+ 0.7	+ 0.6
North Carolina	- 1.3	- 0.8	+ 1.2	+ 0.8	+ 0.9
Appalachian North Carolina	- 1.1	- 0.4	+ 1.1	+ 0.4	+ 0.7
Non-Appalachian North Carolina	- 1.3	- 0.8	+ 1.3	+ 0.8	+ 1.0
Ohio	- 0.5	+ 0.1	+ 0.2	+ 0.2	+ 0.4
Appalachian Ohio	- 0.4	- 0.5	+ 0.6	+ 0.3	+ 0.4
Non-Appalachian Ohio	- 0.5	+ 0.2	+ 0.1	+ 0.2	+ 0.3
Pennsylvania	- 1.0	+ 0.2	+ 0.8	+ 0.0	+ 0.4
Appalachian Pennsylvania	- 0.9	- 0.1	+ 0.6	+ 0.2	+ 0.6
Non-Appalachian Pennsylvania	- 1.0	+ 0.5	+ 0.8	- 0.2	+ 0.3
South Carolina	- 2.3	+ 0.0	+ 1.6	+ 0.8	+ 1.2
Appalachian South Carolina	- 3.0	+ 0.0	+ 2.0	+ 0.9	+ 1.5
Non-Appalachian South Carolina	- 2.2	- 0.1	+ 1.5	+ 0.8	+ 1.1
Tennessee	- 1.5	- 0.1	+ 0.8	+ 0.7	+ 0.8
Appalachian Tennessee	- 1.8	+ 0.2	+ 1.1	+ 0.5	+ 0.7
Non-Appalachian Tennessee	- 1.2	- 0.3	+ 0.6	+ 0.9	+ 0.9
Virginia	- 0.3	- 0.2	+ 0.8	- 0.3	+ 0.1
Appalachian Virginia	- 0.3	- 0.1	+ 0.1	+ 0.3	+ 0.4
Non-Appalachian Virginia	- 0.2	- 0.2	+ 0.8	- 0.4	+ 0.0
West Virginia (entire state)	- 1.4	+ 0.7	+ 0.4	+ 0.3	+ 0.4

Note: Persons ages 16 and over who primarily worked from home are excluded from this analysis.

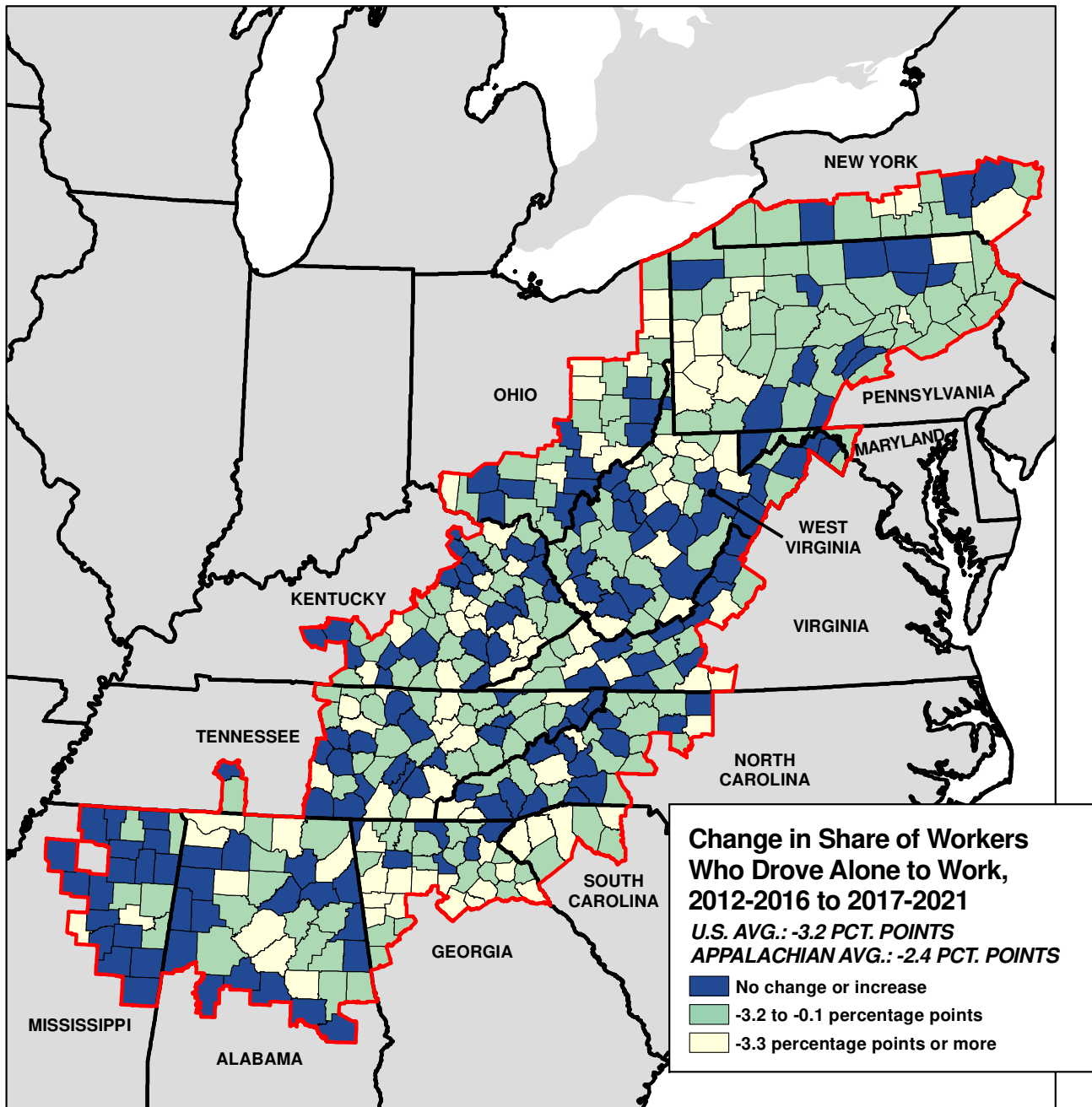
Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Table 7.15: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region, by Place of Work (State and County Level), 2012-2016 to 2017-2021

Place of Work (State and County Level)	Percentage Point Change in Share of Workers Ages 16 and Over			
	Worked in County of Residence	Worked Outside County of Residence		
		Total	Worked in State of Residence	Worked Outside State of Residence
United States	+ 1.2	- 1.2	- 0.9	- 0.2
Appalachian Region	+ 0.2	- 0.2	+ 0.0	- 0.2
Subregions				
Northern Appalachia	+ 0.6	- 0.6	- 0.5	- 0.1
North Central Appalachia	- 0.2	+ 0.2	+ 0.0	+ 0.3
Central Appalachia	- 1.3	+ 1.3	+ 1.1	+ 0.2
South Central Appalachia	+ 0.1	- 0.1	+ 0.2	- 0.2
Southern Appalachia	+ 0.5	- 0.5	- 0.3	- 0.1
County Types				
Large Metros (pop. 1 million +)	+ 1.4	- 1.4	- 1.2	- 0.2
Small Metros (pop. <1 million)	+ 0.0	+ 0.0	+ 0.1	- 0.1
Nonmetro, Adjacent to Large Metros	- 0.7	+ 0.7	+ 1.1	- 0.4
Nonmetro, Adjacent to Small Metros	- 0.4	+ 0.4	+ 0.6	- 0.1
Rural (nonmetro, not adj. to a metro)	- 0.9	+ 0.9	+ 1.0	- 0.1
Alabama	+ 0.2	- 0.2	+ 0.2	- 0.4
Appalachian Alabama	+ 0.0	+ 0.0	+ 0.1	- 0.2
Non-Appalachian Alabama	+ 0.4	- 0.4	+ 0.3	- 0.7
Georgia	+ 1.6	- 1.6	- 1.4	- 0.1
Appalachian Georgia	+ 2.0	- 2.0	- 1.6	- 0.3
Non-Appalachian Georgia	+ 1.5	- 1.5	- 1.5	+ 0.0
Kentucky	+ 0.0	+ 0.0	+ 0.2	- 0.2
Appalachian Kentucky	- 1.1	+ 1.1	+ 0.7	+ 0.4
Non-Appalachian Kentucky	+ 0.3	- 0.3	+ 0.1	- 0.3
Maryland	+ 4.1	- 4.1	- 2.3	- 1.9
Appalachian Maryland	+ 0.2	- 0.2	- 1.3	+ 1.1
Non-Appalachian Maryland	+ 4.3	- 4.3	- 2.3	- 2.0
Mississippi	- 0.9	+ 0.9	+ 0.5	+ 0.3
Appalachian Mississippi	- 2.2	+ 2.2	+ 2.5	- 0.3
Non-Appalachian Mississippi	- 0.5	+ 0.5	+ 0.1	+ 0.5
New York	+ 2.4	- 2.4	- 1.9	- 0.4
Appalachian New York	+ 0.9	- 0.9	- 0.4	- 0.4
Non-Appalachian New York	+ 2.4	- 2.4	- 2.0	- 0.4
North Carolina	+ 0.4	- 0.4	- 0.4	- 0.1
Appalachian North Carolina	+ 0.2	- 0.2	+ 0.2	- 0.3
Non-Appalachian North Carolina	+ 0.4	- 0.4	- 0.5	+ 0.0
Ohio	+ 0.9	- 0.9	- 0.7	- 0.2
Appalachian Ohio	+ 0.2	- 0.2	- 0.2	+ 0.0
Non-Appalachian Ohio	+ 0.9	- 0.9	- 0.7	- 0.1
Pennsylvania	+ 1.4	- 1.4	- 1.0	- 0.4
Appalachian Pennsylvania	+ 0.7	- 0.7	- 0.5	- 0.1
Non-Appalachian Pennsylvania	+ 2.1	- 2.1	- 1.5	- 0.6
South Carolina	+ 0.3	- 0.3	- 0.2	- 0.1
Appalachian South Carolina	- 0.2	+ 0.2	- 0.1	+ 0.4
Non-Appalachian South Carolina	+ 0.3	- 0.3	- 0.3	- 0.2
Tennessee	+ 0.0	+ 0.0	+ 0.3	- 0.3
Appalachian Tennessee	- 0.6	+ 0.6	+ 0.7	- 0.1
Non-Appalachian Tennessee	+ 0.5	- 0.5	+ 0.0	- 0.5
Virginia	+ 3.9	- 3.9	- 2.5	- 1.5
Appalachian Virginia	+ 0.1	- 0.1	+ 0.0	- 0.1
Non-Appalachian Virginia	+ 4.3	- 4.3	- 2.7	- 1.6
West Virginia (entire state)	- 0.4	+ 0.4	- 0.3	+ 0.7

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 7.8: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region Who Drove Alone to Work, 2012-2016 to 2017-2021

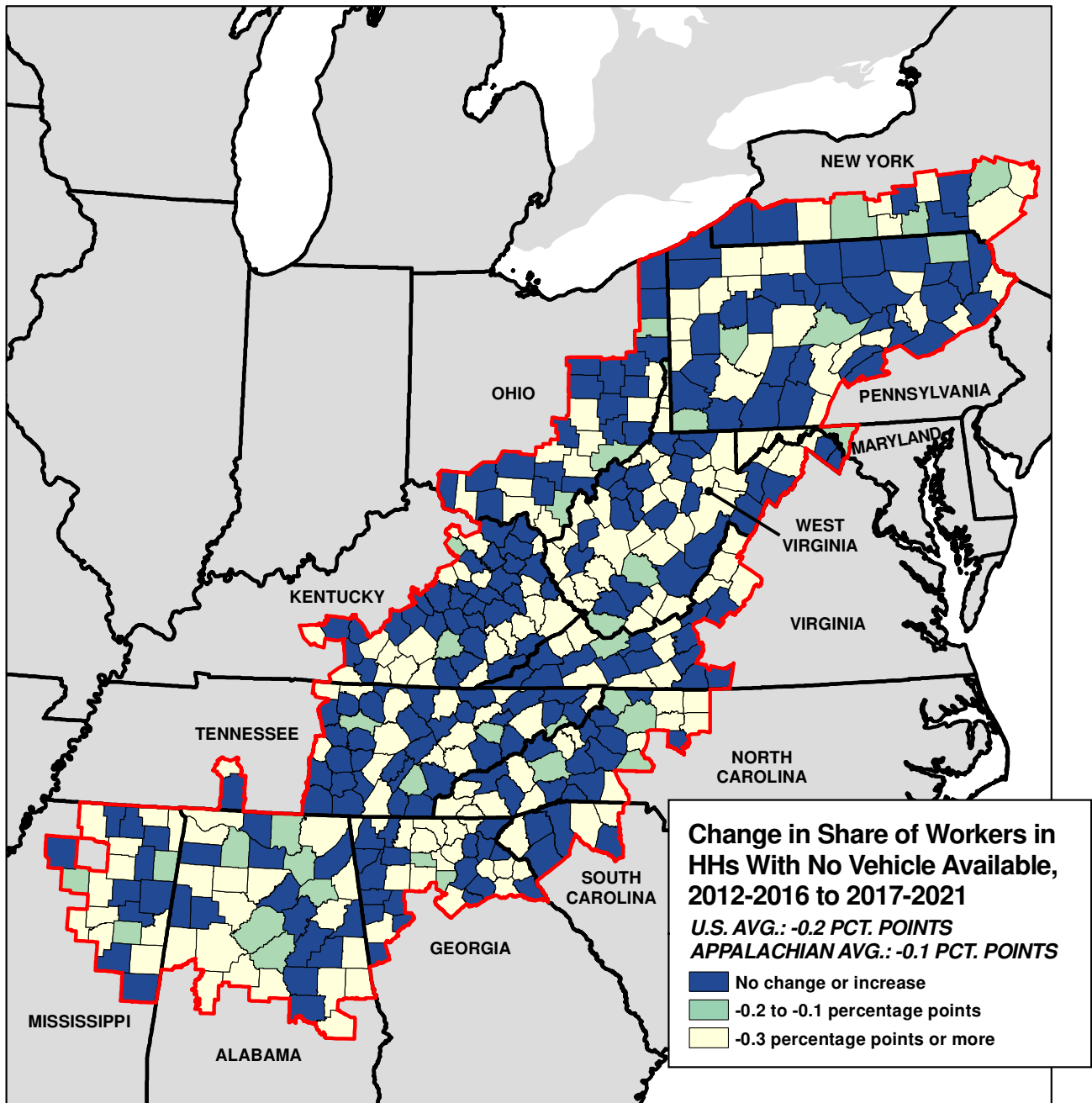


Map Title: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region Who Drove Alone to Work, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian workers who drove alone to work fell by 2.4 percentage points between 2012-2016 and 2017-2021, compared with a decrease of 3.2 points nationwide. Although more than three years of the latter period pre-date the onset of the COVID-19 pandemic, early mitigation efforts (such as lockdown measures) may have had a minor impact on the change. Within the Region, the decrease between the two periods was greater than the national average of 3.2 points in 101 of Appalachia’s 423 counties. Yet in 150 other counties, the percentage driving alone remained constant or increased between the two periods. Counties in both groups were scattered throughout the Region and across all rural-urban county types. Among the states, the Appalachian sections of Georgia and South Carolina had the largest declines (at least four percentage points), while the share of workers driving alone increased in Appalachian Mississippi.

Figure 7.9: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, 2012-2016 to 2017-2021

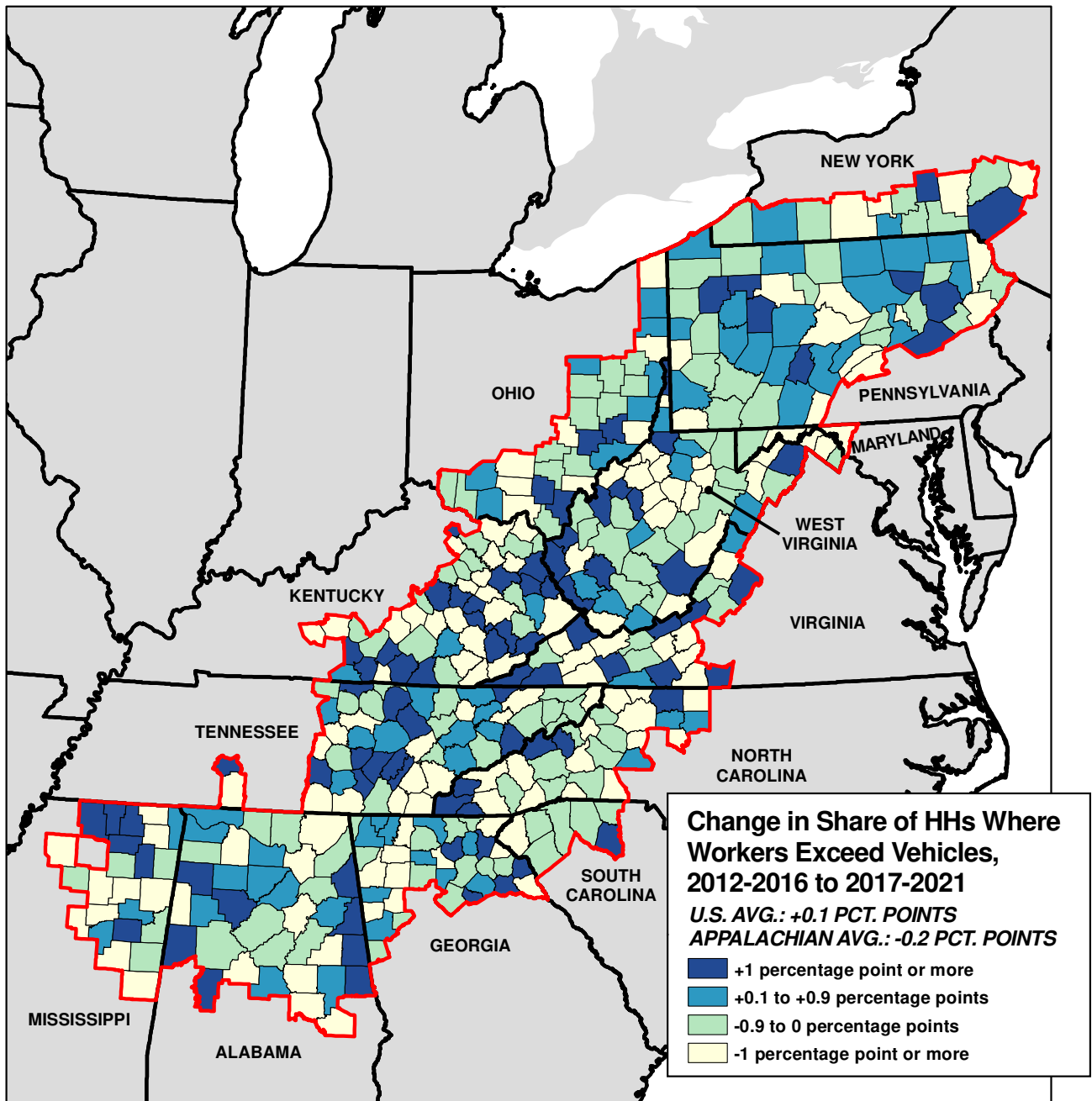


Map Title: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region Who Live in Households With No Vehicle Available, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Between the 2012-2016 and 2017-2021 periods, the share of workers in households with no vehicle available barely declined in either Appalachia (0.1 percentage points) or the nation as a whole (0.2 points). Yet in 178 of the Region's 423 counties, the decrease was greater than the national average. By contrast, the percentage remained constant or increased in another 209 counties throughout the Region, as well as in the Appalachian portions of New York, Ohio, Pennsylvania, South Carolina, and Virginia. The share also increased slightly in Northern Appalachia and two of the three county types outside metropolitan areas.

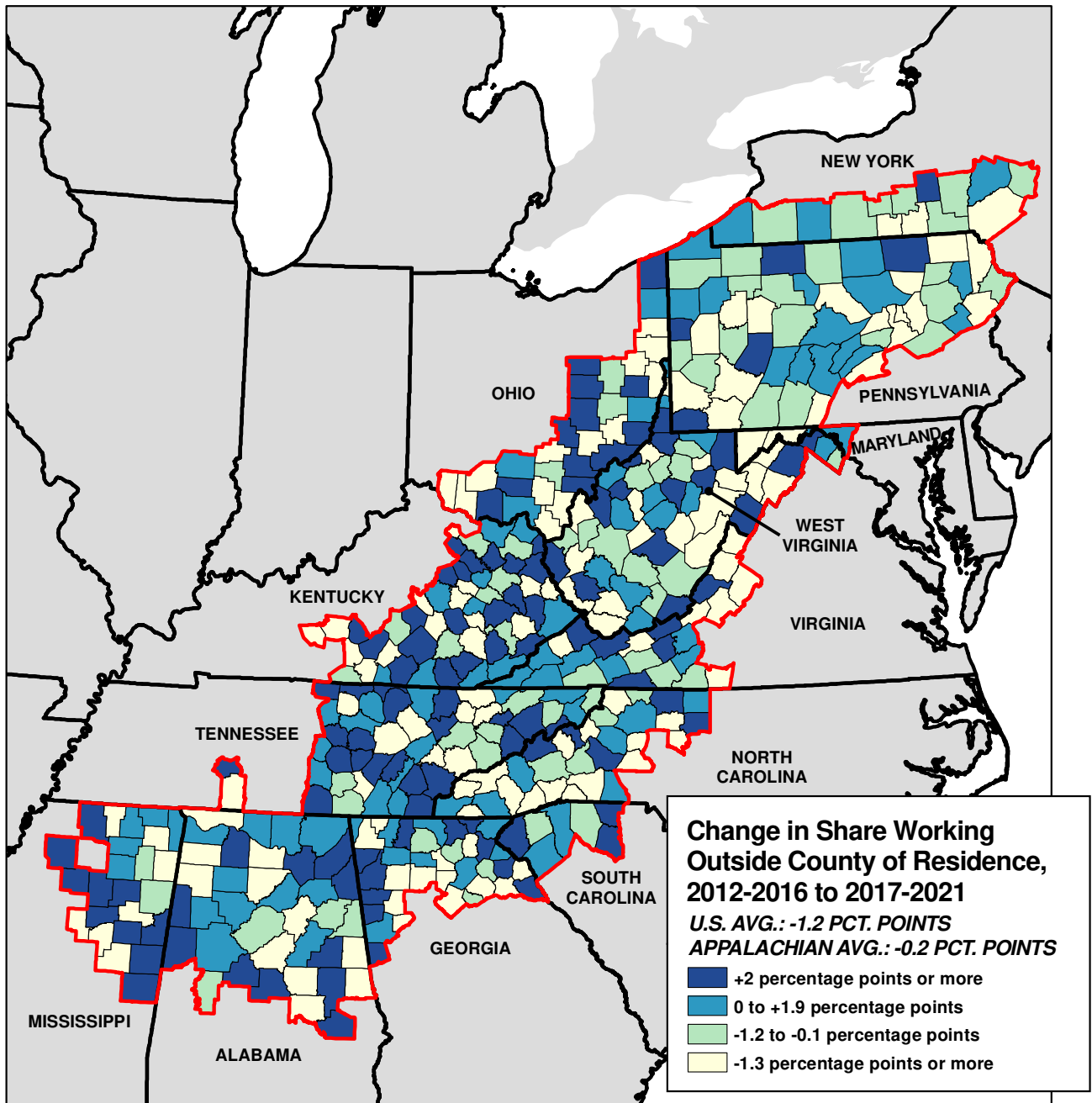
Figure 7.10: Percentage Point Change in Share of Households With One or More Workers in the Appalachian Region Where the Number of Workers Exceeds the Number of Vehicles Available, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in Share of Households With One or More Workers in the Appalachian Region Where the Number of Workers Exceeds the Number of Vehicles Available, 2012-2016 to 2017-2021
 Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Between 2012-2016 and 2017-2021, the percentage of Appalachian households where the number of workers exceeded the number of available vehicles decreased slightly in Appalachia (0.2 percentage points), compared with a miniscule increase of 0.1 points nationwide. Within the Region, however, changes were more noticeable. In 135 of the Region's 423 counties, for example, the share of households where workers exceeded vehicles decreased by at least a full percentage point. Meanwhile, the share increased by a full point or more in another 89 Appalachian counties.

Figure 7.11: Percentage Point Change in the Share of Workers Ages 16 and Over in the Appalachian Region Who Worked Outside Their County of Residence, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Workers Ages 16 and Over in the Appalachian Region Who Worked Outside Their County of Residence, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian residents working outside their county of residence was 0.2 percentage points lower in 2017-2021 than in 2012-2016. And the decrease was even greater in much of the Region: In 131 of Appalachia's 423 counties, the share fell more than the national average of 1.2 percentage points. On the other hand, there were 219 Appalachian counties where the share working outside their residential county was the same or higher in 2017-2021. In 121 of these counties, the increase was at least two percentage points.

TRENDS IN TRANSPORTATION AND COMMUTING PATTERNS

- At just under 80 percent, the share of Appalachian workers who drove alone to work in 2017-2021 was 2.4 percentage points lower than it was in 2012-2016 (see Tables 7.1 and 7.9), and likewise decreased in most parts of the Region. The decreases were greatest in Southern Appalachia (3.2 points), counties in large metropolitan areas (4.3 points), and the Appalachian sections of Georgia and South Carolina (4.4 and 4.0 points, respectively). Conversely, only Appalachian Mississippi showed an increase (1.4 percentage points). Decreases were similarly felt in the percentage of Appalachian workers carpooling to their jobs; that share fell 0.6 percentage points between 2012-2016 and 2017-2021. The growth of telework and home-based businesses was also evident, as the share of workers who worked at home increased 3.5 percentage points between the two periods. And although much of the 2017-2021 period pre-dated the COVID-19 pandemic, it likely had some effect on this commuting trend.
- The share of Appalachian workers below the poverty level (\$27,479 for a family of two adults and two children in 2021) who drove alone to their jobs (70.4 percent in 2017-2021) was lower than it was for all workers, and the change from 2012-2016 was not as pronounced (see Tables 7.2 and 7.10). Still, the general patterns between the two periods were similar to that found for all workers—decreases in workers driving alone and carpooling (1.0 and 0.9 percentage points, respectively), increases in working from home (two points). However, the share of workers in poverty who drove alone did rise in some parts of the Region, such as the Appalachian parts of Alabama, Maryland, and Pennsylvania.
- In 2017-2021, 6.8 percent of Appalachian households lacked an available vehicle to get to current and/or potential employment, down 0.7 points from 2012-2016 (see Tables 7.3 and 7.11). Within the Region, the decline occurred among every subregion, every urban-rural county type, and in the Appalachian portions of every state. The decline was largest in Appalachian Kentucky and Virginia, where the share fell by 1.3 and 1.0 percentage points, respectively.
- The share of workers in households with no vehicle available (2.6 percent) was virtually unchanged in Appalachia between the 2012-2016 and the 2017-2021 periods, falling just 0.1 percentage points (see Tables 7.5 and 7.12). And among the subregions, county types, and states, the share generally neither rose nor fell more than 0.3 percentage points. (Appalachian Maryland was an exception, as the share there fell 0.5 points.) In contrast, the share of workers lacking a vehicle rose noticeably in Appalachia among workers who used modes of transport where a private vehicle is more of a convenience than a necessity, such as public transportation, taxicabs, motorcycles, or bicycles.
- In 2017-2021, the number of workers exceeded the number of vehicles available in 4.5 percent of Appalachian households—a figure that fell just 0.2 percentage points from its 2012-2016 level (see Tables 7.6 and 7.13). And the change was slight in most of Appalachia: In virtually every subregion, urban-rural county type, and state, the share of households with more workers than vehicles changed no more than 0.4 percentage points. The only exceptions within the Region were in the Appalachian sections of Maryland (decrease of 2.2 percentage points) and Virginia (decrease of 0.5 points).
- On average, Appalachian workers traveled 25.7 minutes to their jobs in 2017-2021, 0.7 minutes longer than they did in 2012-2016 (see Tables 7.7 and 7.14), and the average commute was longer throughout the Region—in every subregion, every county type, and every state's Appalachian section. Moreover, a greater percentage of workers had longer commutes: The share of workers taking between 30 minutes and 59 minutes to get to their jobs rose 0.9 percentage points between the 2012-2016 and 2017-2021 periods. And the share who took at least an hour to get to work rose half a percentage point in Appalachia—as well as 1.3 points in the Central subregion and 1.4 points in Kentucky's Appalachian section.
- A little more than 31 percent of employed Appalachian residents ages 16 and over worked outside their county of residence in 2017-2021, representing a decrease of 0.2 percentage points from the 2012-2016 period (see Tables 7.8 and 7.15). There was considerable variation within the Region, however: for example, the share decreased 1.4 points in large metros while increasing 1.3 points in Central Appalachia. Among the states, the share working outside their home county decreased two points in Appalachian Georgia and nearly a point in Appalachian New York. Meanwhile, it increased more than two points in Mississippi's Appalachian section and more than a point in Appalachian Kentucky.

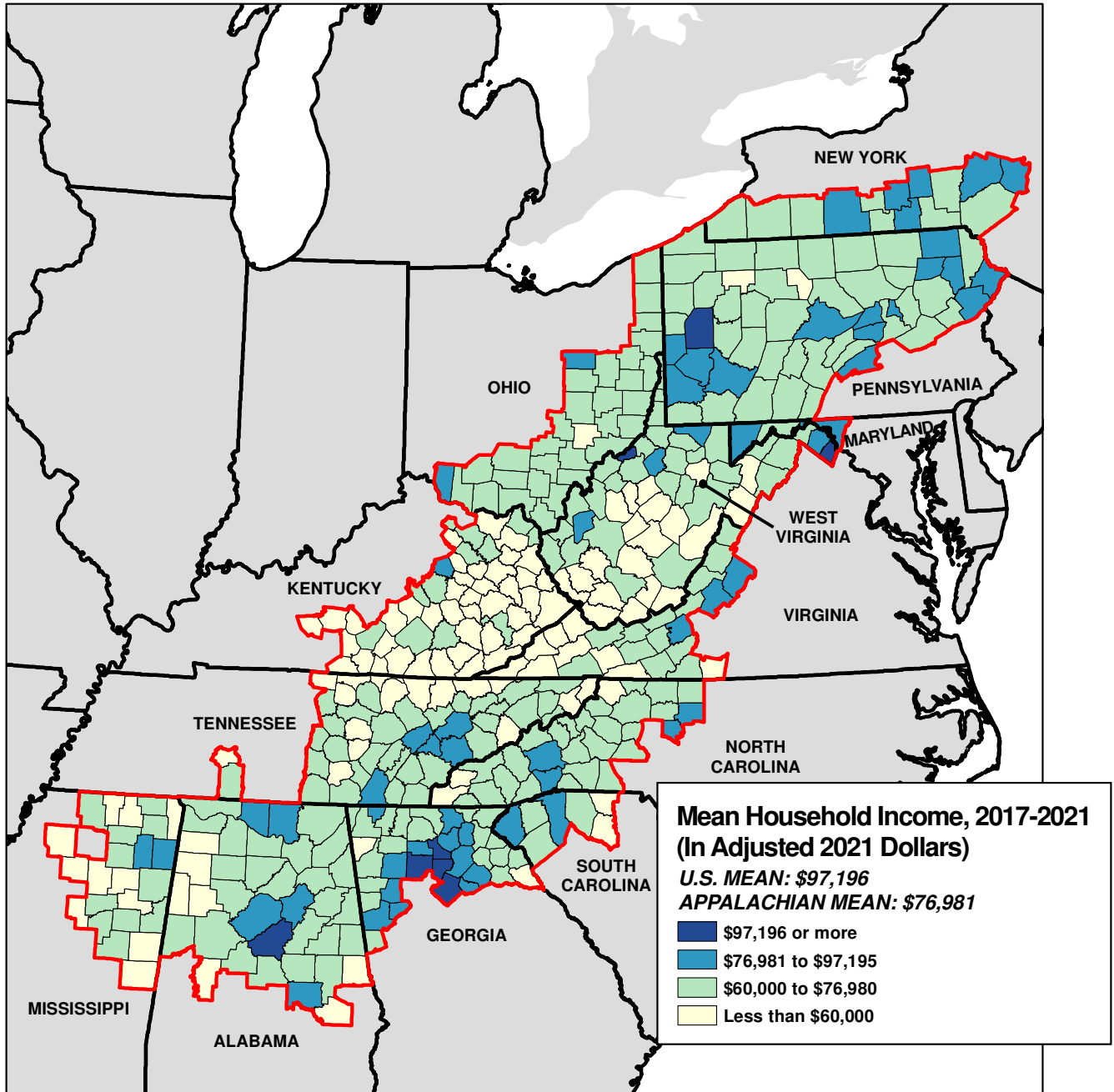
CHAPTER 8: INCOME AND POVERTY

Table 8.1: Household, Family, and Per Capita Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021

Income	Household Income, 2017-2021 (2021 Dollars)		Family Income, 2017-2021 (2021 Dollars)		Per Capita Income, 2017-2021 (2021 Dollars)
	Mean HH Income	Median HH Income	Mean Family Income	Median Family Income	
United States	97,196	69,021	114,099	85,028	37,638
Appalachian Region	76,981	56,780	91,816	72,113	31,098
Subregions					
Northern Appalachia	78,660	58,926	95,310	76,418	32,908
North Central Appalachia	71,722	53,216	86,145	68,589	29,374
Central Appalachia	58,898	42,697	69,543	54,683	23,511
South Central Appalachia	73,922	53,823	89,003	68,934	30,644
Southern Appalachia	82,965	61,316	96,812	75,472	31,822
County Types					
Large Metros (pop. 1 million +)	92,333	69,231	109,530	87,477	36,543
Small Metros (pop. <1 million)	77,330	57,049	92,958	73,065	31,577
Nonmetro, Adjacent to Large Metros	67,778	51,508	80,439	65,784	27,357
Nonmetro, Adjacent to Small Metros	66,654	50,218	78,623	63,192	27,143
Rural (nonmetro, not adj. to a metro)	61,837	44,902	73,444	58,083	24,971
Alabama	76,150	54,943	91,751	70,878	30,458
Appalachian Alabama	79,030	57,422	94,517	73,271	31,578
Non-Appalachian Alabama	70,880	50,864	86,513	66,745	28,434
Georgia	91,082	65,030	106,071	78,834	34,516
Appalachian Georgia	91,900	70,235	102,965	82,155	32,943
Non-Appalachian Georgia	90,735	63,172	107,600	77,561	35,232
Kentucky	76,511	55,454	90,939	70,178	30,634
Appalachian Kentucky	58,972	42,295	69,015	54,291	23,227
Non-Appalachian Kentucky	82,433	60,468	98,723	76,745	33,233
Maryland	120,234	91,431	141,430	111,378	45,915
Appalachian Maryland	80,669	60,596	95,544	77,344	32,094
Non-Appalachian Maryland	122,010	93,419	143,441	113,800	46,505
Mississippi	68,636	49,111	81,636	62,802	26,807
Appalachian Mississippi	63,783	45,739	76,350	60,585	25,604
Non-Appalachian Mississippi	69,942	50,075	83,033	63,555	27,122
New York	111,583	75,157	131,094	92,731	43,208
Appalachian New York	75,514	57,045	91,127	73,590	31,252
Non-Appalachian New York	113,696	76,775	133,330	94,665	43,853
North Carolina	84,888	60,516	101,094	75,815	34,209
Appalachian North Carolina	73,380	53,238	87,841	68,141	30,555
Non-Appalachian North Carolina	87,768	62,701	104,365	78,434	35,092
Ohio	83,820	61,938	101,540	79,470	34,526
Appalachian Ohio	70,754	53,499	84,488	68,342	28,842
Non-Appalachian Ohio	86,412	63,940	105,069	82,704	35,682
Pennsylvania	92,849	67,587	111,872	86,142	37,725
Appalachian Pennsylvania	81,054	60,734	98,590	79,189	34,084
Non-Appalachian Pennsylvania	102,656	74,363	122,424	93,465	40,592
South Carolina	81,142	58,234	96,108	72,899	32,823
Appalachian South Carolina	81,066	58,841	96,043	73,508	32,478
Non-Appalachian South Carolina	81,169	58,299	96,132	72,967	32,946
Tennessee	82,012	58,516	97,441	73,248	32,908
Appalachian Tennessee	73,929	53,706	88,780	68,374	30,442
Non-Appalachian Tennessee	88,372	63,030	104,302	77,861	34,757
Virginia	111,013	80,615	130,284	98,771	43,267
Appalachian Virginia	65,448	48,478	80,338	64,324	27,431
Non-Appalachian Virginia	115,516	85,417	134,942	103,350	44,759
West Virginia (entire state)	69,436	50,884	83,583	65,845	28,761

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

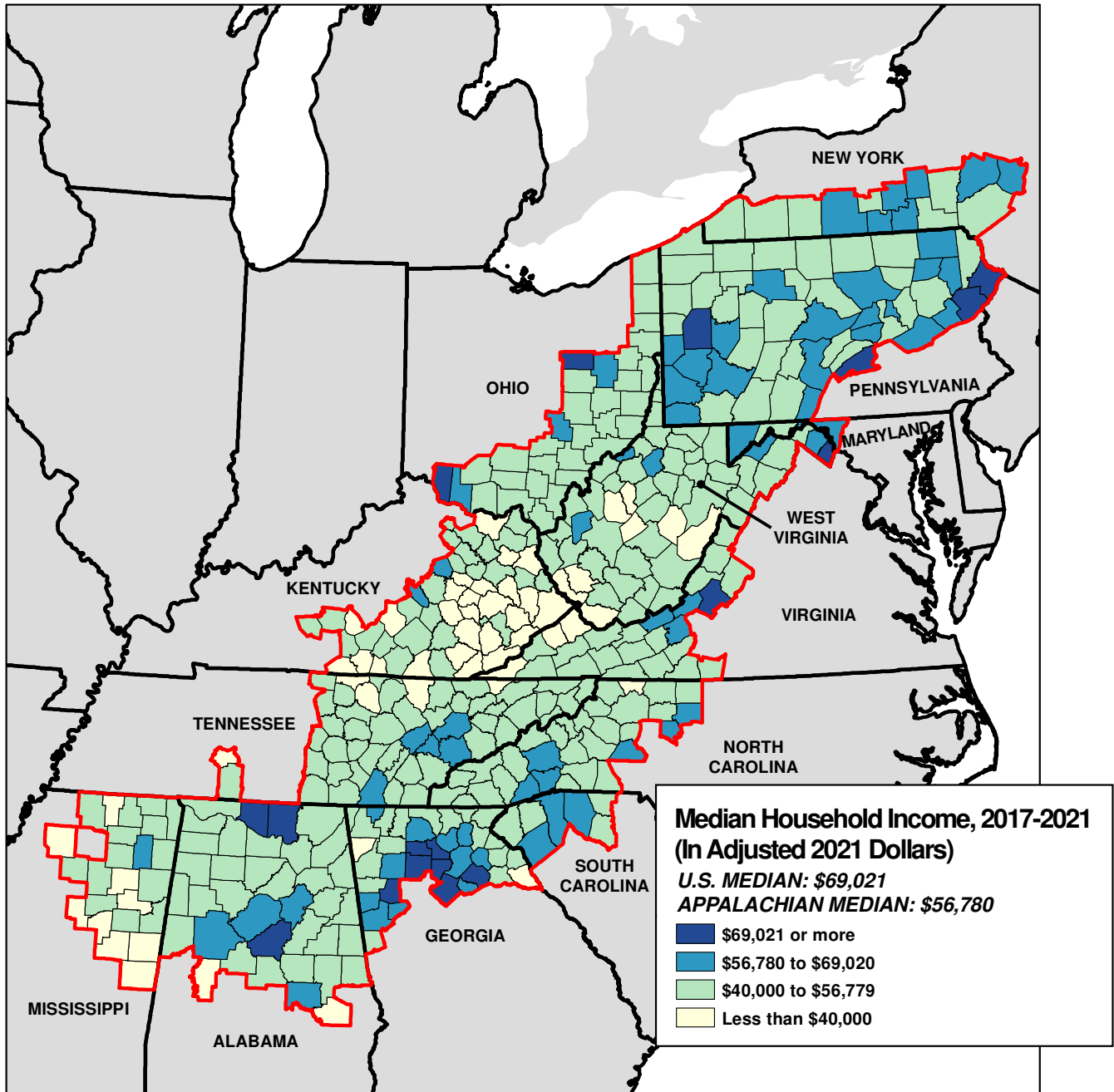
Figure 8.1: Mean Household Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021



Map Title: Mean Household Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the 2017-2021 period, the mean income of Appalachian households was \$76,981, just 79 percent of the U.S. average (\$97,196). In only eight of the Region's counties (all but one of which were in metropolitan areas), average household income matched or exceeded the national mean. And in only 62 additional counties (45 of which were in metros), mean household income matched or surpassed the Appalachian average. In contrast, mean household income was less than \$60,000 in 114 counties—103 of which were outside metro areas, and 61 of which were in Central Appalachia (41 in Kentucky alone).

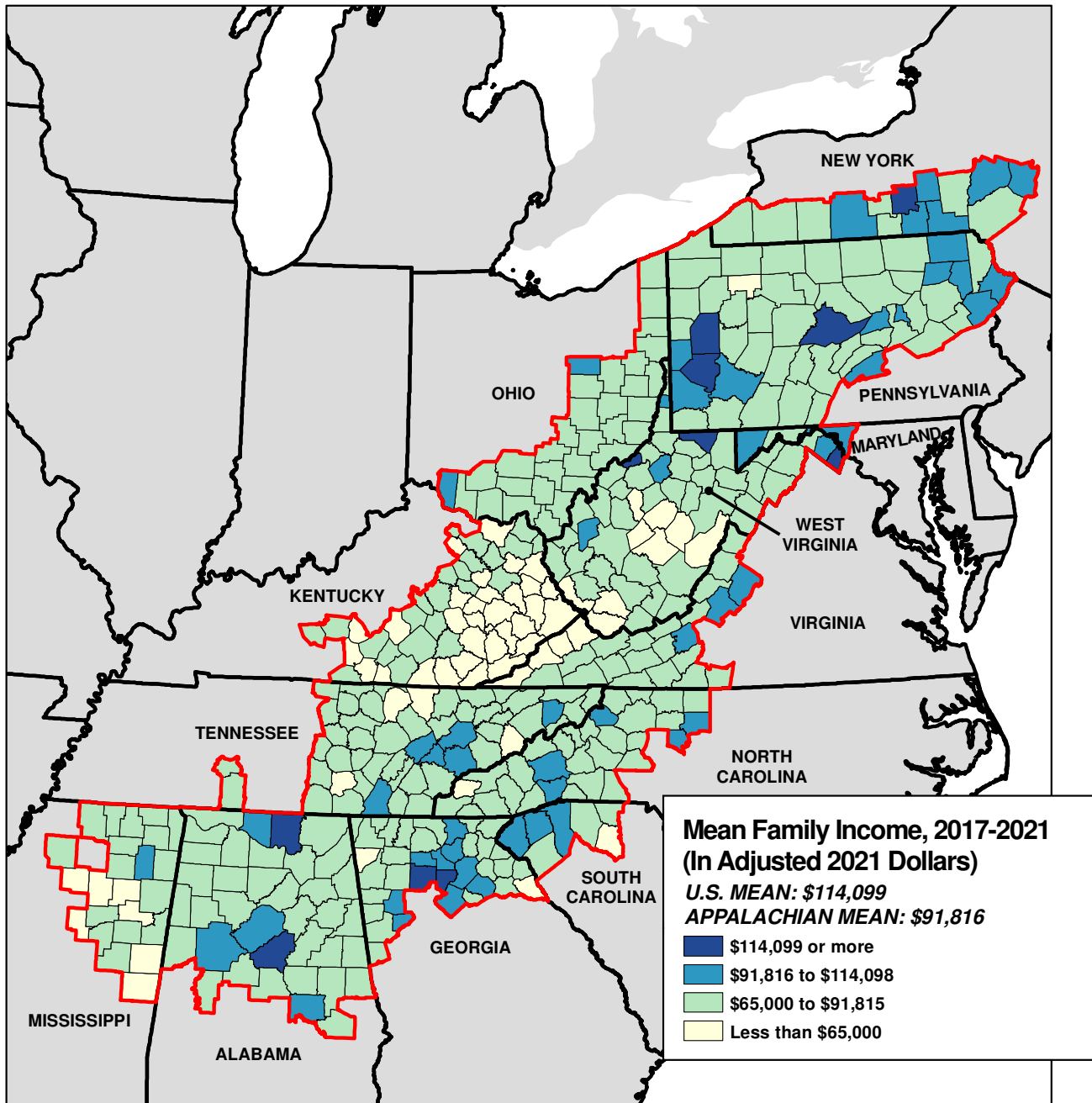
Figure 8.2: Median Household Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021



Map Title: Median Household Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

At \$56,780, median household income in Appalachia (the level at which half the households have higher incomes and the other half have lower incomes) was 82 percent that of the United States (\$69,021) during the 2017-2021 period. There were 18 counties in the Region (16 of which were in metropolitan areas) that had household incomes at or above the national median, while another 71 had incomes at or above the regional median. On the other hand, 56 counties in the Region had median household incomes below \$40,000—53 of which were outside metro areas and 36 of which were in Central Appalachia. This distribution is not surprising: median household income was \$44,902 for the most rural counties and \$42,697 for Central Appalachia. It is useful to note that the income levels displayed here reflect income received during a five-year period that includes the first 22 months of the coronavirus pandemic in 2020 and 2021.

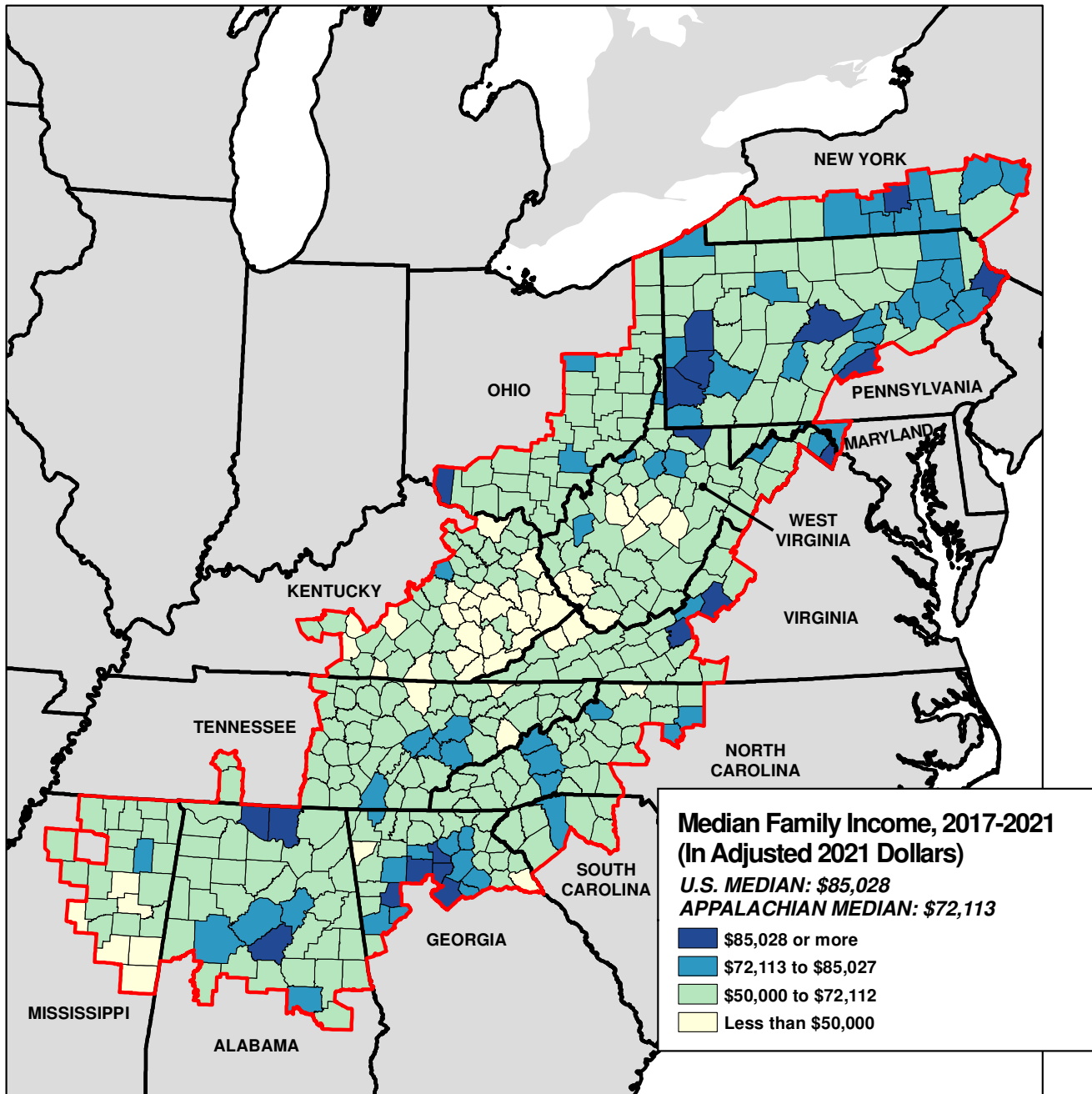
Figure 8.3: Mean Family Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021



Map Title: Mean Family Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021
Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Average family income in Appalachia was just 80 percent of the national average of \$114,099 in 2017-2021. In only 11 Appalachian counties (10 of which were in metropolitan areas), the average income of families matched or surpassed the U.S. mean for the 2017-2021 period. And there were just an additional 56 counties (41 of which were part of metro areas) where mean family income was equal to or greater than the average for the Appalachian Region (\$91,816). In contrast, mean family income was less than \$65,000 in 60 Appalachian counties. All but two of these counties were outside metropolitan areas; 43 of them did not border any metro. Additionally, 40 of the counties in the lowest income group were in Central Appalachia and 31 were in Kentucky alone. Overall, mean family income over the 2017-2021 period was just \$73,444 for the most rural counties, \$69,543 for Central Appalachia, and \$69,015 for Appalachian Kentucky.

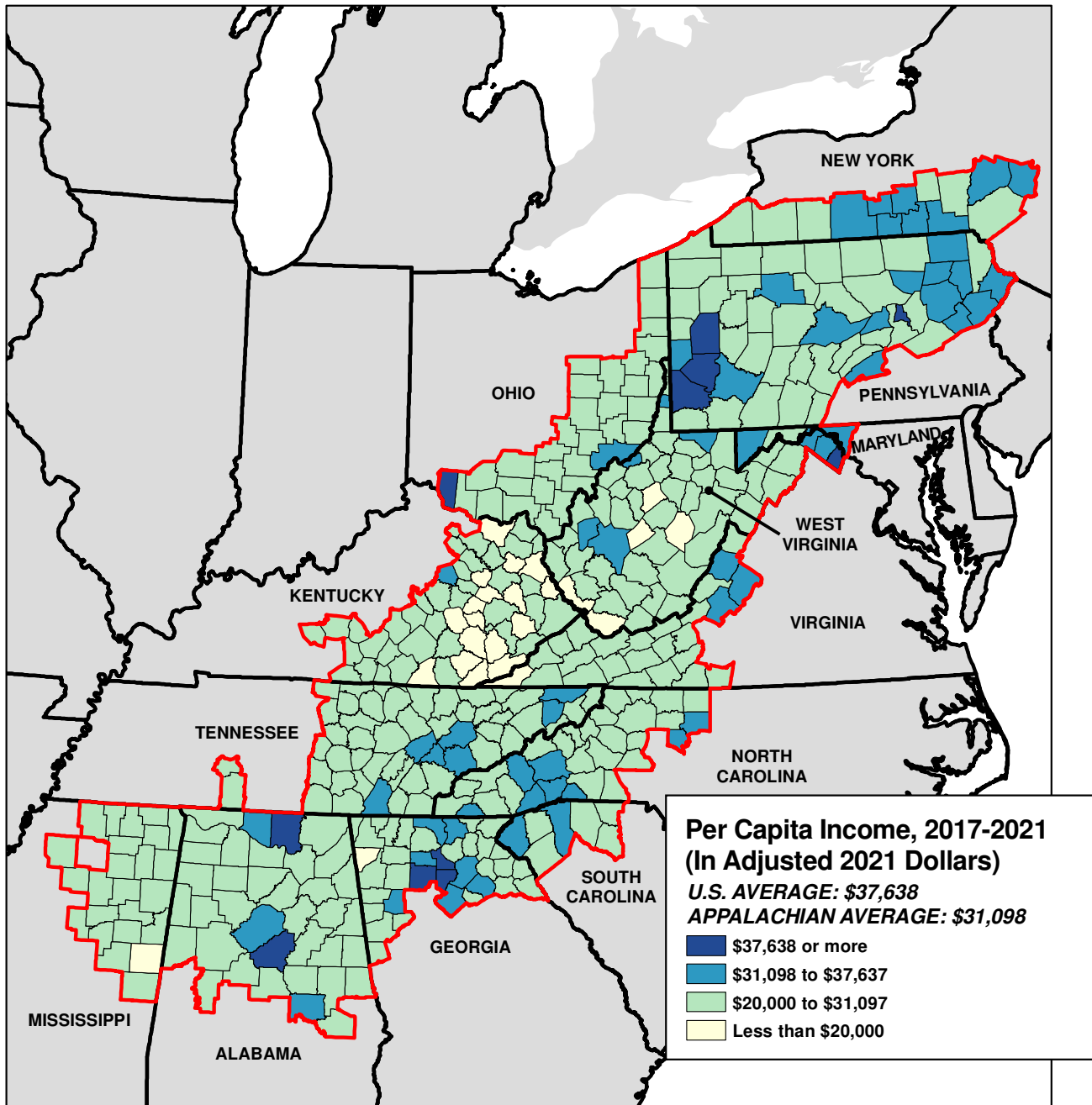
Figure 8.4: Median Family Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021



Map Title: Median Family Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021
Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Median family income in Appalachia was 85 percent of the U.S. median of \$85,028 during the 2017-2021 period. Yet in 20 Appalachian counties—all of which were in metro areas—median family income (the level where half of all families have higher incomes while the other half have lower incomes) matched or exceeded the U.S. median. In another 64 counties (44 of which were in metros), median income was at or above the median for families in the Appalachian Region (\$72,113). In contrast, median family income was less than \$50,000 in 46 counties. More than half of the counties in this latter group were rural counties not adjacent to a metro area (median family income in those counties as a whole was \$58,083), and 24 were in Appalachian Kentucky (where median family income was \$54,291).

Figure 8.5: Per Capita Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021



Map Title: Per Capita Income in the Appalachian Region (In Adjusted 2021 Dollars), 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

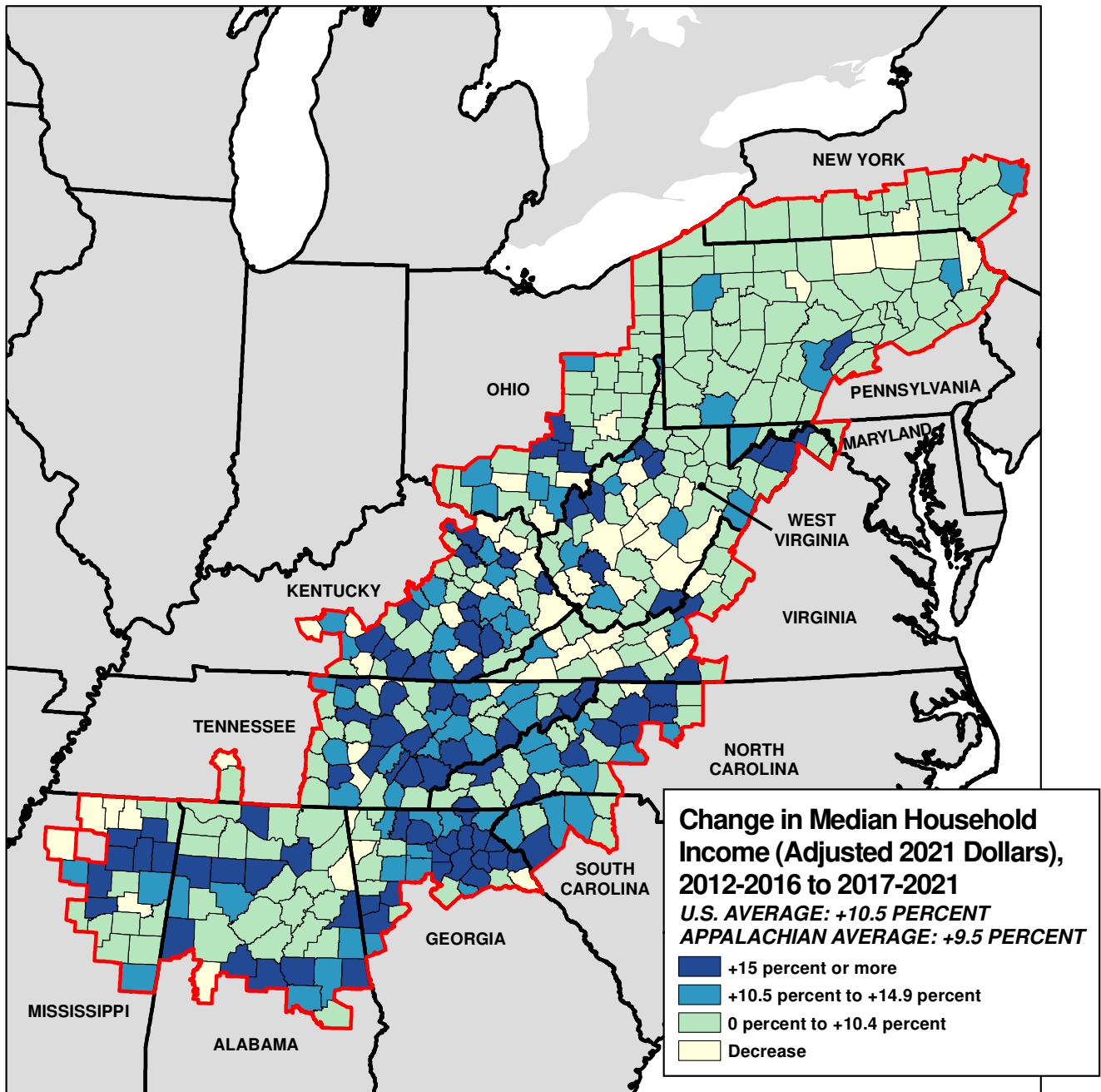
At \$31,098, per capita income in the Appalachian Region was 83 percent that of the U.S. average of \$37,638 during the 2017-2021 period. And there was considerable variation within the Region. Per capita income was the same or higher than the national average in 11 Appalachian counties, including Pittsburgh, suburban Atlanta, and Clermont County, Ohio (which is part of metropolitan Cincinnati). In 63 other counties, per capita income was at or above the regional average; while more than a third of these were in Northern Appalachia, there were pockets in the South Central and Southern subregions as well. Yet in 25 Appalachian counties, per capita income was less than \$20,000. As with other income measures, most of the counties with the highest per capita incomes were in metro areas, while those with the lowest were disproportionately in rural areas, particularly in Central Appalachia. Indeed, per capita income in 2017-2021 was only \$24,971 in the most rural Appalachian counties as a whole, and just \$23,511 in Central Appalachia.

Table 8.2: Change in Household, Family, and Per Capita Income in the Appalachian Region (In Adjusted 2021 Dollars), 2012-2016 to 2017-2021

Income	Percent Change in Household Income (In 2021 Dollars)		Percent Change in Family Income (in 2021 Dollars)		Percent Change in Per Capita Income (In 2021 Dollars)
	Mean HH Income	Median HH Income	Mean Family Income	Median Family Income	
United States	+ 10.6	+ 10.5	+ 11.1	+ 11.0	+ 11.8
Appalachian Region	+ 9.6	+ 9.5	+ 10.1	+ 10.3	+ 10.2
Subregions					
Northern Appalachia	+ 7.3	+ 6.3	+ 7.9	+ 7.6	+ 8.8
North Central Appalachia	+ 7.3	+ 6.8	+ 8.4	+ 7.7	+ 7.8
Central Appalachia	+ 7.1	+ 9.3	+ 7.4	+ 9.5	+ 5.8
South Central Appalachia	+ 10.2	+ 10.9	+ 11.4	+ 11.9	+ 10.8
Southern Appalachia	+ 12.0	+ 11.7	+ 12.1	+ 12.6	+ 12.7
County Types					
Large Metros (pop. 1 million +)	+ 9.9	+ 9.5	+ 10.5	+ 11.5	+ 11.0
Small Metros (pop. <1 million)	+ 9.0	+ 8.7	+ 9.5	+ 9.5	+ 9.9
Nonmetro, Adjacent to Large Metros	+ 8.2	+ 8.5	+ 8.7	+ 10.2	+ 9.1
Nonmetro, Adjacent to Small Metros	+ 8.9	+ 8.5	+ 9.6	+ 9.4	+ 8.9
Rural (nonmetro, not adj. to a metro)	+ 9.1	+ 8.8	+ 9.5	+ 10.7	+ 8.9
Alabama	+ 8.7	+ 8.7	+ 9.5	+ 10.5	+ 9.1
Appalachian Alabama	+ 9.3	+ 9.5	+ 9.8	+ 10.6	+ 9.6
Non-Appalachian Alabama	+ 7.4	+ 6.8	+ 8.8	+ 8.2	+ 7.9
Georgia	+ 13.0	+ 12.9	+ 13.7	+ 13.9	+ 14.6
Appalachian Georgia	+ 13.4	+ 13.2	+ 12.8	+ 14.2	+ 14.2
Non-Appalachian Georgia	+ 12.8	+ 12.8	+ 14.1	+ 13.8	+ 14.8
Kentucky	+ 9.7	+ 9.6	+ 10.0	+ 10.0	+ 9.4
Appalachian Kentucky	+ 9.0	+ 10.2	+ 8.5	+ 10.6	+ 7.1
Non-Appalachian Kentucky	+ 9.3	+ 8.3	+ 9.9	+ 8.5	+ 9.7
Maryland	+ 6.4	+ 6.5	+ 7.6	+ 7.2	+ 7.7
Appalachian Maryland	+ 8.5	+ 6.4	+ 8.0	+ 8.4	+ 10.7
Non-Appalachian Maryland	+ 6.3	+ 6.3	+ 7.5	+ 7.0	+ 7.6
Mississippi	+ 7.9	+ 7.3	+ 9.2	+ 9.9	+ 9.7
Appalachian Mississippi	+ 10.5	+ 8.0	+ 12.4	+ 14.1	+ 12.8
Non-Appalachian Mississippi	+ 7.2	+ 6.9	+ 8.4	+ 8.6	+ 8.9
New York	+ 10.6	+ 9.6	+ 11.4	+ 10.9	+ 11.9
Appalachian New York	+ 6.7	+ 5.1	+ 6.9	+ 5.4	+ 8.8
Non-Appalachian New York	+ 10.6	+ 9.8	+ 11.5	+ 11.7	+ 11.9
North Carolina	+ 11.6	+ 11.1	+ 12.7	+ 12.5	+ 13.1
Appalachian North Carolina	+ 11.3	+ 11.0	+ 12.2	+ 12.1	+ 11.9
Non-Appalachian North Carolina	+ 11.5	+ 11.0	+ 12.7	+ 12.7	+ 13.4
Ohio	+ 8.6	+ 8.3	+ 9.3	+ 9.2	+ 10.0
Appalachian Ohio	+ 7.7	+ 6.8	+ 8.8	+ 7.3	+ 8.9
Non-Appalachian Ohio	+ 8.6	+ 8.3	+ 9.2	+ 9.4	+ 10.1
Pennsylvania	+ 9.3	+ 9.0	+ 9.6	+ 9.1	+ 10.9
Appalachian Pennsylvania	+ 7.5	+ 6.8	+ 8.0	+ 8.4	+ 8.8
Non-Appalachian Pennsylvania	+ 10.0	+ 9.5	+ 9.9	+ 9.4	+ 12.0
South Carolina	+ 12.1	+ 10.0	+ 12.9	+ 11.0	+ 13.9
Appalachian South Carolina	+ 13.9	+ 12.9	+ 14.0	+ 12.1	+ 15.2
Non-Appalachian South Carolina	+ 11.5	+ 9.3	+ 12.5	+ 10.6	+ 13.5
Tennessee	+ 11.1	+ 11.3	+ 11.9	+ 12.3	+ 12.0
Appalachian Tennessee	+ 10.1	+ 11.7	+ 11.5	+ 12.6	+ 10.8
Non-Appalachian Tennessee	+ 11.6	+ 10.7	+ 12.0	+ 11.4	+ 12.7
Virginia	+ 8.2	+ 7.9	+ 9.4	+ 9.3	+ 9.6
Appalachian Virginia	+ 3.6	+ 4.9	+ 5.1	+ 7.1	+ 4.1
Non-Appalachian Virginia	+ 8.0	+ 7.6	+ 9.2	+ 8.4	+ 9.7
West Virginia (entire state)	+ 6.4	+ 5.7	+ 7.5	+ 7.2	+ 6.1

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 8.6: Percent Change in Median Household Income in the Appalachian Region (In Adjusted 2021 Dollars), 2012-2016 to 2017-2021



Map Title: Percent Change in Median Household Income in the Appalachian Region (In Adjusted 2021 Dollars), 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Adjusting for inflation, the median income for Appalachian households (the level where half of all households have higher incomes while the other half have lower incomes) was 9.5 percent higher in 2017-2021 than it was in 2012-2016, suggesting that incomes have fully recovered from the 2007-2009 economic downturn. While this was slightly less than the national increase of 10.5 percent, household income rose at or above the national average in nearly two-fifths of Appalachia’s 423 counties. Moreover, median household income rose at least 15 percent in 93 Appalachian counties between the two periods. But not all the news was positive: In 57 Appalachian counties (24 of which were in Kentucky or West Virginia), real median household income fell between 2012-2016 and 2017-2021. And it is important to note that the overall income improvements in 2017-2021 include the economic impact resulting from the first months of the coronavirus pandemic (from March 2020 through December 2021).

Table 8.3: Number of Persons in the Appalachian Region in Poverty, by Age Group, 2017-2021

Poverty Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	40,661,636	12,443,424	23,280,096	5,330,115	17,949,981	4,938,116
Appalachian Region	3,669,790	1,078,787	2,141,717	468,500	1,673,217	449,286
Subregions						
Northern Appalachia	1,016,442	287,025	598,018	142,066	455,952	131,399
North Central Appalachia	392,238	107,920	237,534	51,186	186,348	46,784
Central Appalachia	396,364	111,306	235,352	36,861	198,491	49,706
South Central Appalachia	742,447	210,548	438,677	102,214	336,463	93,222
Southern Appalachia	1,122,299	361,988	632,136	136,173	495,963	128,175
County Types						
Large Metros (pop. 1 million +)	680,186	206,515	388,549	78,987	309,562	85,122
Small Metros (pop. <1 million)	1,556,007	452,749	925,142	231,961	693,181	178,116
Nonmetro, Adjacent to Large Metros	349,776	104,210	202,300	41,670	160,630	43,266
Nonmetro, Adjacent to Small Metros	614,372	183,764	349,186	61,606	287,580	81,422
Rural (nonmetro, not adj. to a metro)	469,449	131,549	276,540	54,276	222,264	61,360
Alabama	769,819	245,896	437,112	98,576	338,536	86,811
Appalachian Alabama	456,280	142,487	260,163	55,085	205,078	53,630
Non-Appalachian Alabama	313,539	103,409	176,949	43,491	133,458	33,181
Georgia	1,441,351	488,233	805,811	179,588	626,223	147,307
Appalachian Georgia	376,338	131,043	204,997	39,294	165,703	40,298
Non-Appalachian Georgia	1,065,013	357,190	600,814	140,294	460,520	107,009
Kentucky	709,140	213,946	415,288	86,873	328,415	79,906
Appalachian Kentucky	260,909	75,248	154,924	26,034	128,890	30,737
Non-Appalachian Kentucky	448,231	138,698	260,364	60,839	199,525	49,169
Maryland	550,074	160,878	315,165	65,345	249,820	74,031
Appalachian Maryland	30,467	8,802	18,044	3,747	14,297	3,621
Non-Appalachian Maryland	519,607	152,076	297,121	61,598	235,523	70,410
Mississippi	557,111	187,964	308,349	69,404	238,945	60,798
Appalachian Mississippi	112,452	34,318	64,587	17,447	47,140	13,547
Non-Appalachian Mississippi	444,659	153,646	243,762	51,957	191,805	47,251
New York	2,636,823	760,862	1,498,416	299,916	1,198,500	377,545
Appalachian New York	150,228	39,186	95,141	29,572	65,569	15,901
Non-Appalachian New York	2,486,595	721,676	1,403,275	270,344	1,132,931	361,644
North Carolina	1,379,672	436,892	787,766	177,005	610,761	155,014
Appalachian North Carolina	287,842	84,390	165,556	33,845	131,711	37,896
Non-Appalachian North Carolina	1,091,830	352,502	622,210	143,160	479,050	117,118
Ohio	1,528,963	480,341	883,142	193,929	689,213	165,480
Appalachian Ohio	306,809	93,553	177,757	32,961	144,796	35,499
Non-Appalachian Ohio	1,222,154	386,788	705,385	160,968	544,417	129,981
Pennsylvania	1,482,811	435,602	852,050	187,425	664,625	195,159
Appalachian Pennsylvania	665,978	184,324	389,671	92,616	297,055	91,983
Non-Appalachian Pennsylvania	816,833	251,278	462,379	94,809	367,570	103,176
South Carolina	718,345	226,691	402,750	87,256	315,494	88,904
Appalachian South Carolina	177,229	54,140	102,389	24,347	78,042	20,700
Non-Appalachian South Carolina	541,116	172,551	300,361	62,909	237,452	68,204
Tennessee	955,929	299,021	550,175	114,020	436,155	106,733
Appalachian Tennessee	426,905	123,282	250,450	50,392	200,058	53,173
Non-Appalachian Tennessee	529,024	175,739	299,725	63,628	236,097	53,560
Virginia	828,664	242,702	486,505	124,665	361,840	99,457
Appalachian Virginia	122,721	28,290	78,406	25,584	52,822	16,025
Non-Appalachian Virginia	705,943	214,412	408,099	99,081	309,018	83,432
West Virginia (entire state)	295,632	79,724	179,632	37,576	142,056	36,276

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

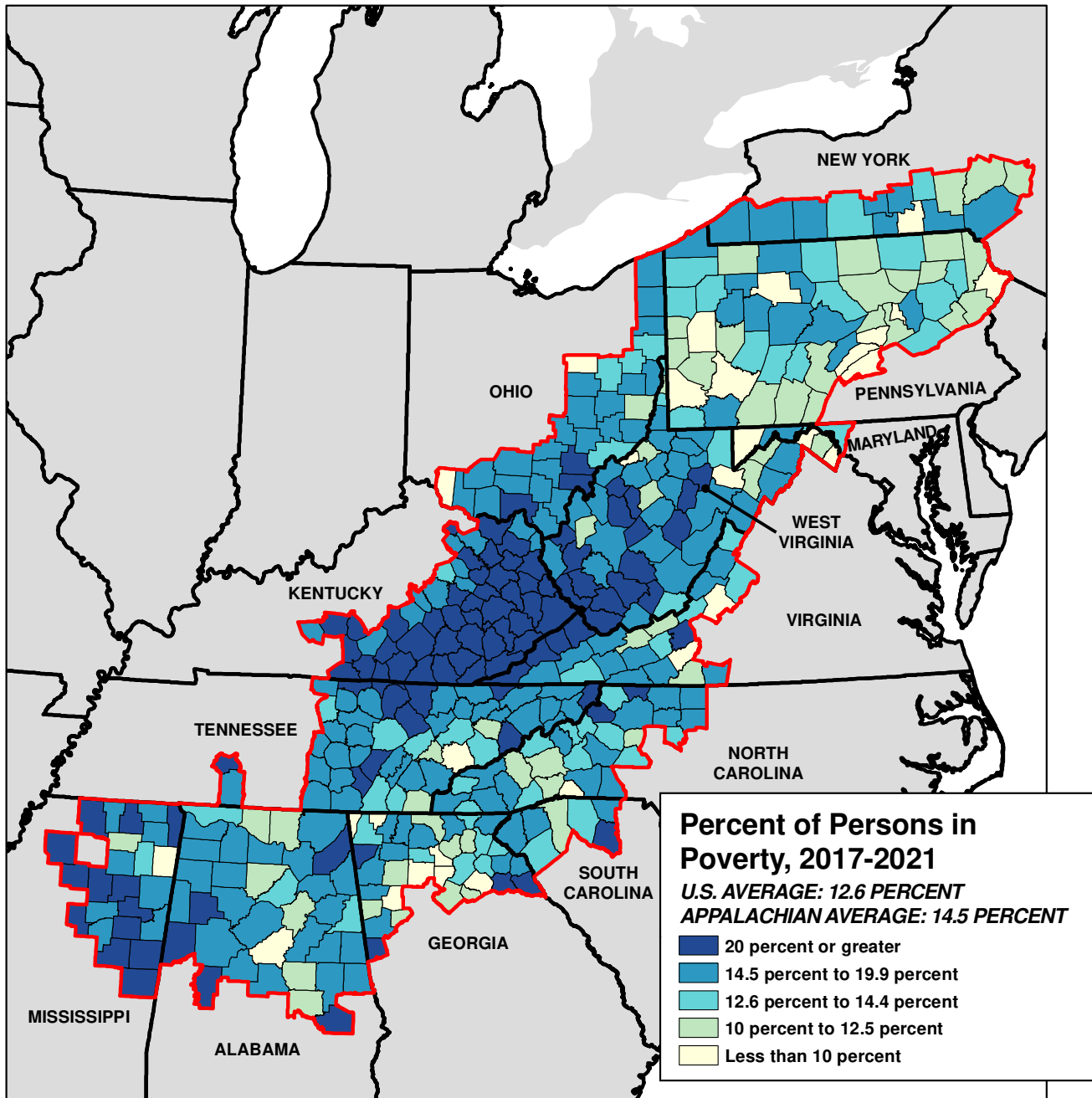
Table 8.4: Percent of Persons in the Appalachian Region in Poverty, by Age Group, 2017-2021

Poverty Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	12.6	17.0	11.8	19.6	10.6	9.6
Appalachian Region	14.5	19.8	14.0	22.6	12.7	9.6
Subregions						
Northern Appalachia	13.1	18.3	12.8	23.0	11.3	8.4
North Central Appalachia	16.2	21.2	16.3	25.9	14.8	10.0
Central Appalachia	22.0	28.4	22.0	26.6	21.3	14.7
South Central Appalachia	14.7	20.6	14.5	24.8	12.9	9.3
Southern Appalachia	13.5	18.5	12.5	19.3	11.4	9.8
County Types						
Large Metros (pop. 1 million +)	11.1	14.9	10.3	16.4	9.4	8.6
Small Metros (pop. <1 million)	14.4	19.8	14.1	25.2	12.3	8.9
Nonmetro, Adjacent to Large Metros	15.7	21.7	15.3	22.8	14.1	10.3
Nonmetro, Adjacent to Small Metros	16.1	23.2	15.7	21.2	14.9	10.4
Rural (nonmetro, not adj. to a metro)	19.7	25.8	19.7	27.8	18.4	13.1
Alabama	15.8	22.3	14.8	23.7	13.4	10.5
Appalachian Alabama	14.5	20.2	13.7	21.2	12.5	10.1
Non-Appalachian Alabama	18.0	26.0	17.0	28.0	15.0	11.1
Georgia	13.9	19.6	12.6	19.8	11.4	10.1
Appalachian Georgia	11.5	16.1	10.2	14.0	9.6	8.8
Non-Appalachian Georgia	15.1	21.3	13.7	22.4	12.2	10.7
Kentucky	16.3	21.4	15.7	23.6	14.4	11.2
Appalachian Kentucky	23.1	29.8	23.0	29.0	22.0	15.4
Non-Appalachian Kentucky	13.9	18.6	13.2	21.9	11.8	9.6
Maryland	9.2	11.9	8.5	13.8	7.7	8.0
Appalachian Maryland	13.1	17.7	12.9	19.4	11.9	8.2
Non-Appalachian Maryland	9.0	11.7	8.3	13.6	7.5	8.0
Mississippi	19.4	27.1	17.9	27.4	16.3	13.2
Appalachian Mississippi	18.9	24.6	18.1	31.0	15.7	13.5
Non-Appalachian Mississippi	19.5	27.8	17.9	26.3	16.4	13.1
New York	13.5	18.4	12.3	19.0	11.3	11.7
Appalachian New York	15.5	20.2	16.2	32.4	13.3	8.3
Non-Appalachian New York	13.3	18.3	12.1	18.2	11.2	11.9
North Carolina	13.7	19.3	12.8	21.1	11.4	9.4
Appalachian North Carolina	14.6	21.3	14.2	22.2	13.0	9.4
Non-Appalachian North Carolina	13.4	18.9	12.4	20.9	11.1	9.4
Ohio	13.4	18.6	12.7	20.7	11.5	8.5
Appalachian Ohio	15.9	22.2	15.6	21.6	14.6	9.7
Non-Appalachian Ohio	12.8	17.9	12.2	20.5	10.9	8.2
Pennsylvania	11.8	16.4	11.2	19.3	10.0	8.5
Appalachian Pennsylvania	12.1	16.9	11.8	21.9	10.3	8.3
Non-Appalachian Pennsylvania	11.6	16.0	10.7	17.2	9.7	8.7
South Carolina	14.5	20.8	13.6	22.0	12.3	10.0
Appalachian South Carolina	13.6	18.3	13.0	22.4	11.5	9.4
Non-Appalachian South Carolina	14.9	21.7	13.8	21.9	12.5	10.2
Tennessee	14.3	19.9	13.4	20.5	12.3	9.8
Appalachian Tennessee	14.9	20.7	14.6	21.8	13.4	9.7
Non-Appalachian Tennessee	13.8	19.4	12.6	19.6	11.5	9.8
Virginia	9.9	13.0	9.4	18.3	8.1	7.6
Appalachian Virginia	17.4	21.5	18.6	39.0	14.8	10.7
Non-Appalachian Virginia	9.2	12.4	8.6	16.1	7.5	7.2
West Virginia (entire state)	16.9	22.4	17.2	26.8	15.7	10.3

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

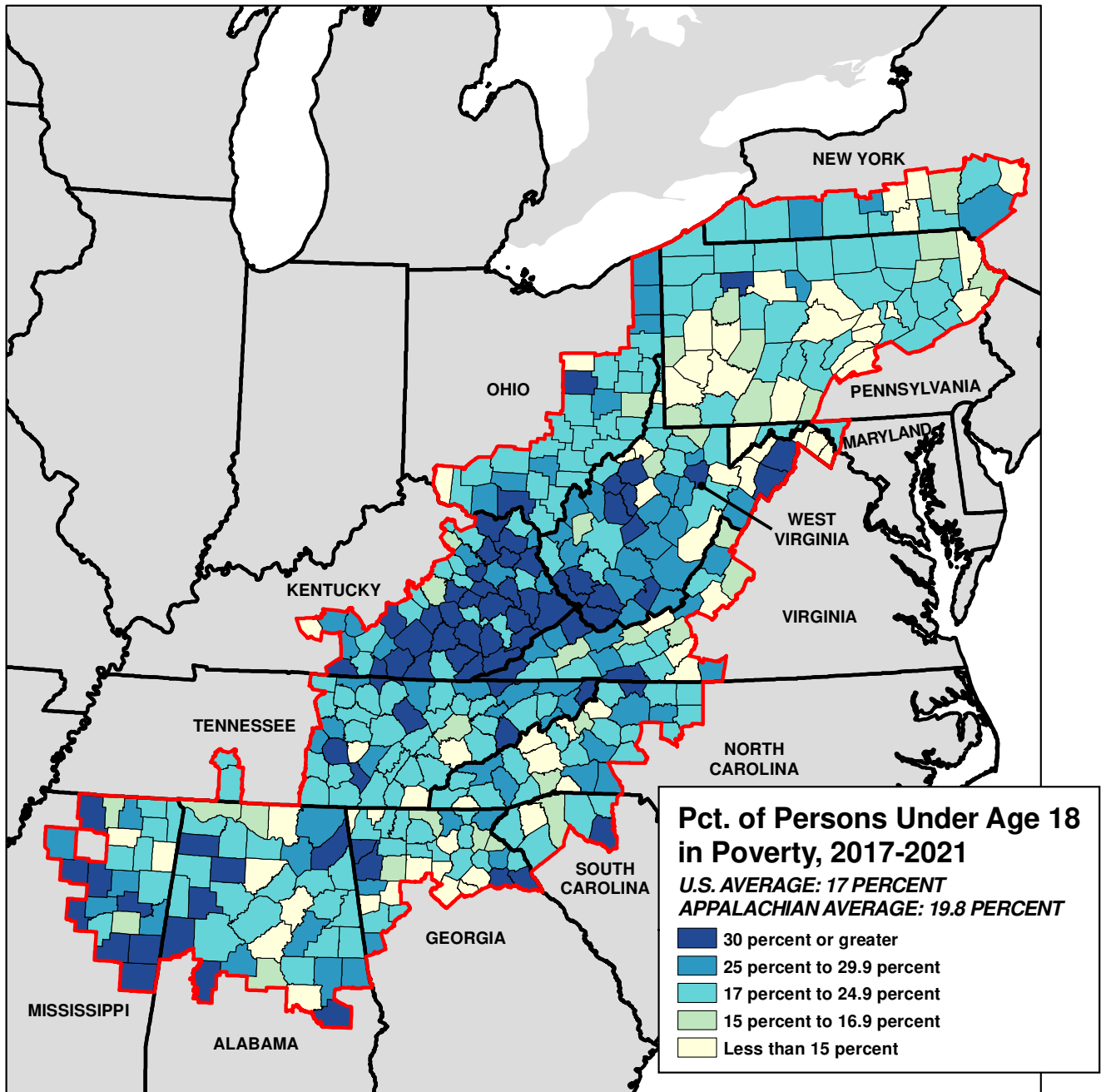
Figure 8.7: Percent of Persons in the Appalachian Region in Poverty, 2017-2021



Map Title: Percent of Persons in the Appalachian Region in Poverty, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Over the 2017-2021 period, 14.5 percent of Appalachian residents lived below the poverty level (income below \$27,479 for a family of two adults and two children in 2021)—nearly two percentage points above the U.S. average. But there is a great deal of variation within the Region: In 102 counties, at least 20 percent of persons were poor, yet in another 86 counties the poverty rate was lower than the national average of 12.6 percent. And there was a geographic and urban/rural pattern: All but 15 of the counties with poverty rates at or above 20 percent were outside metropolitan areas, and most of them were in Central Appalachia which had a poverty rate of 22 percent. (With a poverty rate of 23 percent, Appalachian Kentucky alone had 42 of these counties, and West Virginia, Tennessee, and Mississippi also had high poverty clusters.) In contrast, the counties where poverty was below the U.S. rate were mostly in Northern Appalachia and/or in metropolitan areas.

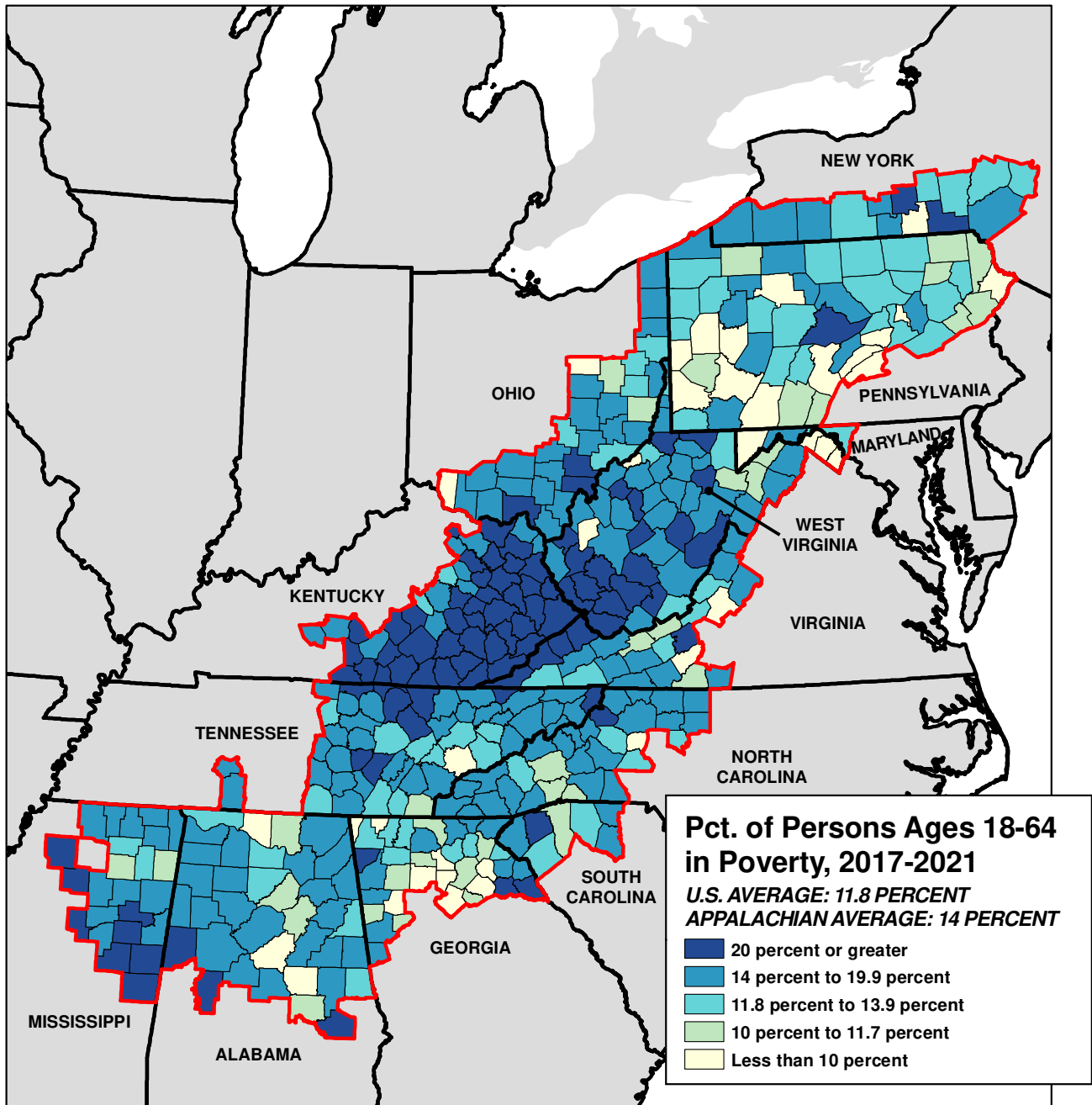
Figure 8.8: Percent of Persons Under Age 18 in the Appalachian Region in Poverty, 2017-2021



Map Title: Percent of Persons Under Age 18 in the Appalachian Region in Poverty, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Child poverty in the Appalachian Region was 19.8 percent in 2017-2021—almost three percentage points above the national rate of 17 percent. And the problem is even more acute in some parts of Appalachia. In 76 counties, at least 30 percent of children under age 18 lived below the poverty level (income below \$27,479 for a family of two adults and two children in 2021). All but 11 of these counties were outside metropolitan areas and half were in the most isolated rural areas. Central Appalachia was home to 38 of the counties with the highest child poverty rates, while another 20 were in Southern Appalachia. However, there were 100 counties (primarily in Northern Appalachia and in metropolitan areas) where child poverty rates were below the national average. Indeed, 38 of the 66 Appalachian counties where child poverty was less than 15 percent were in metro areas, and 22 were in Northern Appalachia.

Figure 8.9: Percent of Persons Ages 18 to 64 in the Appalachian Region in Poverty, 2017-2021

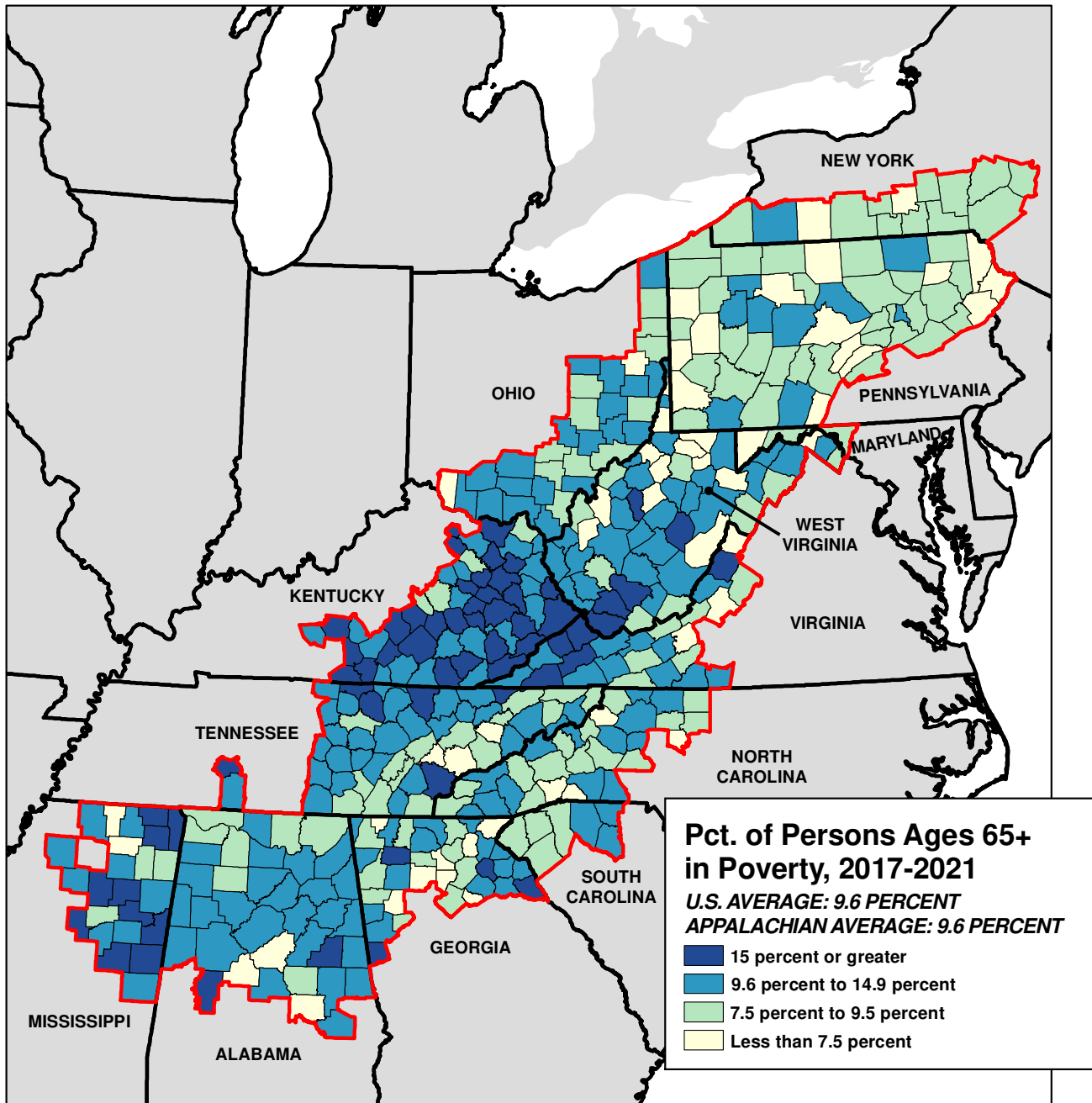


Map Title: Percent of Persons Ages 18 to 64 in the Appalachian Region in Poverty, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Though at slightly lower levels, the poverty pattern among adults ages 18 to 64 in the Appalachian Region mirrored that for the overall population in the 2017-2021 period. The share of Appalachian residents in this age group with incomes below the poverty level (income of less than \$27,479 for a family of two adults and two children in 2021) was 14 percent, more than two percentage points above the U.S. average of 11.8 percent. Within the Region, there were rural/urban and geographic patterns of poverty concentration. Of the 95 counties where at least one in five 18-to-64-year-olds were poor, 78 were outside metropolitan areas; 77 were in Central, South Central, and Southern Appalachia; and 41 were in Kentucky alone. Conversely, 60 of the 74 counties with rates below the national average were in metro areas and/or in Northern Appalachia.

Figure 8.10: Percent of Persons Ages 65 and Over in the Appalachian Region in Poverty, 2017-2021



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region in Poverty, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

The poverty rate for the oldest residents of Appalachia was 9.6 percent in 2017-2021, the same as the national rate. Yet poverty among the 65-plus population was below the U.S. average in 180 counties, 66 of which were in Northern Appalachia alone. But as with other age groups, poverty was especially prevalent among the senior population in Appalachian Kentucky, where more than 15 percent of residents ages 65 and over were poor in 2017-2021. Moreover, the state had 31 of the 63 Appalachian counties where the poverty rate among seniors was 15 percent or higher. (Determined by a series of income thresholds based on family size and composition, the poverty level in 2021 was \$16,379 for a family of two adults headed by someone age 65 or older.)

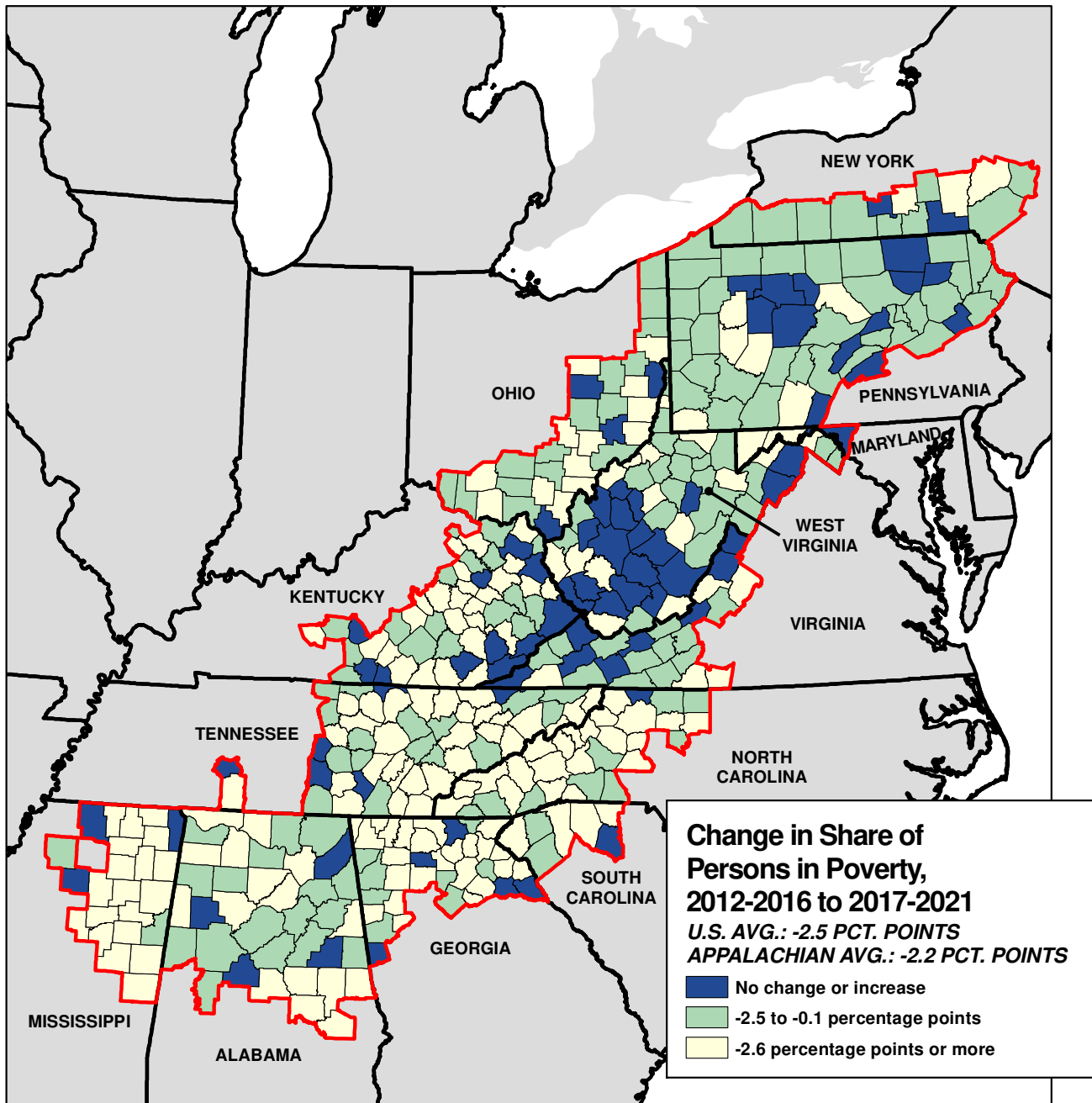
Table 8.5: Percentage Point Change in the Share of Persons in the Appalachian Region in Poverty, by Age Group, 2012-2016 to 2017-2021

Poverty Status	Percentage Point Change in Share of Persons in Poverty					
	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	- 2.5	- 4.2	- 2.4	- 4.7	- 1.9	+ 0.3
Appalachian Region	- 2.2	- 3.9	- 2.2	- 4.8	- 1.7	+ 0.2
Subregions						
Northern Appalachia	- 1.3	- 2.6	- 1.3	- 3.7	- 0.7	+ 0.4
North Central Appalachia	- 1.3	- 2.6	- 1.3	- 4.6	- 0.8	+ 0.8
Central Appalachia	- 2.4	- 4.8	- 2.0	- 5.3	- 1.5	+ 0.2
South Central Appalachia	- 3.1	- 4.6	- 3.2	- 6.5	- 2.5	- 0.2
Southern Appalachia	- 2.9	- 4.6	- 2.8	- 4.4	- 2.5	- 0.1
County Types						
Large Metros (pop. 1 million +)	- 2.0	- 3.5	- 2.0	- 3.8	- 1.7	+ 0.2
Small Metros (pop. <1 million)	- 2.1	- 3.7	- 2.1	- 4.0	- 1.7	+ 0.1
Nonmetro, Adjacent to Large Metros	- 2.9	- 5.0	- 2.9	- 7.3	- 2.1	+ 0.4
Nonmetro, Adjacent to Small Metros	- 2.1	- 3.2	- 2.0	- 5.4	- 1.5	+ 0.2
Rural (nonmetro, not adj. to a metro)	- 2.7	- 5.0	- 2.5	- 6.4	- 1.8	+ 0.4
Alabama	- 2.6	- 4.2	- 2.5	- 4.4	- 2.0	- 0.1
Appalachian Alabama	- 2.6	- 4.5	- 2.3	- 3.7	- 2.0	+ 0.1
Non-Appalachian Alabama	- 2.7	- 3.7	- 2.6	- 5.1	- 2.1	- 0.5
Georgia	- 3.9	- 5.8	- 3.6	- 6.3	- 3.1	- 0.3
Appalachian Georgia	- 3.1	- 4.0	- 3.2	- 4.4	- 2.9	- 0.4
Non-Appalachian Georgia	- 4.1	- 6.6	- 3.7	- 6.9	- 3.1	- 0.3
Kentucky	- 2.5	- 4.3	- 2.3	- 5.2	- 1.8	- 0.2
Appalachian Kentucky	- 2.8	- 4.6	- 2.5	- 5.6	- 2.0	- 0.5
Non-Appalachian Kentucky	- 2.3	- 4.1	- 2.1	- 4.9	- 1.6	+ 0.1
Maryland	- 0.7	- 1.4	- 0.7	- 2.5	- 0.4	+ 0.3
Appalachian Maryland	- 1.0	- 2.9	- 0.4	- 3.4	+ 0.2	- 0.7
Non-Appalachian Maryland	- 0.7	- 1.3	- 0.7	- 2.4	- 0.4	+ 0.4
Mississippi	- 2.9	- 4.4	- 2.7	- 4.5	- 2.3	- 0.2
Appalachian Mississippi	- 3.6	- 7.0	- 3.0	- 4.0	- 2.7	- 0.1
Non-Appalachian Mississippi	- 2.8	- 3.7	- 2.6	- 4.8	- 2.2	- 0.2
New York	- 2.0	- 3.5	- 1.9	- 3.4	- 1.5	+ 0.3
Appalachian New York	- 1.2	- 2.7	- 1.0	- 1.8	- 0.6	+ 0.7
Non-Appalachian New York	- 2.1	- 3.6	- 1.9	- 3.5	- 1.6	+ 0.2
North Carolina	- 3.1	- 4.6	- 3.1	- 6.5	- 2.6	- 0.3
Appalachian North Carolina	- 3.5	- 5.1	- 3.6	- 7.9	- 2.9	- 0.2
Non-Appalachian North Carolina	- 3.1	- 4.5	- 3.0	- 6.1	- 2.4	- 0.3
Ohio	- 2.0	- 3.5	- 2.0	- 5.4	- 1.4	+ 0.4
Appalachian Ohio	- 1.7	- 3.2	- 1.5	- 5.0	- 1.0	+ 0.7
Non-Appalachian Ohio	- 2.1	- 3.5	- 2.0	- 5.4	- 1.4	+ 0.4
Pennsylvania	- 1.5	- 2.7	- 1.5	- 4.4	- 1.0	+ 0.4
Appalachian Pennsylvania	- 1.4	- 2.5	- 1.4	- 4.1	- 0.8	+ 0.3
Non-Appalachian Pennsylvania	- 1.6	- 2.8	- 1.7	- 4.7	- 1.2	+ 0.5
South Carolina	- 2.7	- 4.5	- 2.6	- 5.2	- 2.0	+ 0.5
Appalachian South Carolina	- 2.8	- 4.8	- 2.7	- 5.1	- 2.2	+ 0.2
Non-Appalachian South Carolina	- 2.6	- 4.4	- 2.5	- 5.2	- 2.0	+ 0.6
Tennessee	- 2.9	- 5.2	- 2.7	- 5.7	- 2.2	+ 0.1
Appalachian Tennessee	- 3.0	- 4.7	- 3.0	- 6.4	- 2.4	- 0.2
Non-Appalachian Tennessee	- 2.9	- 5.5	- 2.5	- 5.1	- 1.9	+ 0.4
Virginia	- 1.5	- 2.1	- 1.5	- 3.6	- 1.1	+ 0.0
Appalachian Virginia	- 1.4	- 2.6	- 1.1	- 2.4	- 0.9	+ 0.2
Non-Appalachian Virginia	- 1.5	- 2.0	- 1.5	- 3.6	- 1.1	+ 0.0
West Virginia (entire state)	- 0.8	- 2.3	- 0.7	- 3.4	- 0.3	+ 1.3

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 8.11: Percentage Point Change in the Share of Persons in the Appalachian Region in Poverty, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region in Poverty, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian residents living below the poverty level (income of less than \$27,479 for a family of two adults and two children in 2020) decreased by 2.2 percentage points between the 2012-2016 and 2017-2021 periods, slightly lower than the 2.5 point decline nationally. Yet the decrease in the poverty rate was even greater than the national average in 184 of Appalachia’s 423 counties (most of which were in South Central and Southern Appalachia). Conversely, there were 77 counties—42 of which were in either Kentucky, Pennsylvania, or West Virginia—where poverty rates either stayed the same or increased between the two periods. Although the overall picture suggests an improved economic climate in much of Appalachia, economic concerns that emerged in 2022 may ultimately negate much of this improvement in future years.

Table 8.6: Income-to-Poverty Ratio for Persons in the Appalachian Region, 2017-2021

Income-to-Poverty Ratio	Persons for Whom Poverty Status Is Determined	Percent of Persons for Whom Poverty Status is Determined			
		Below 50% of Poverty Level	50% to 99% of Poverty Level	100% to 199% of Poverty Level	200% of Poverty Level and Greater
United States	321,897,703	5.8	6.9	16.6	70.8
Appalachian Region	25,370,261	6.4	8.1	19.0	66.5
Subregions					
Northern Appalachia	7,779,934	5.9	7.1	17.4	69.6
North Central Appalachia	2,428,685	7.1	9.0	19.2	64.6
Central Appalachia	1,802,107	9.5	12.5	23.2	54.8
South Central Appalachia	5,037,642	6.5	8.2	20.3	65.0
Southern Appalachia	8,321,893	5.9	7.6	18.8	67.7
County Types					
Large Metros (pop. 1 million +)	6,138,265	5.1	6.0	15.5	73.5
Small Metros (pop. <1 million)	10,820,771	6.5	7.9	18.6	67.1
Nonmetro, Adjacent to Large Metros	2,220,872	6.8	9.0	21.4	62.8
Nonmetro, Adjacent to Small Metros	3,804,860	6.6	9.5	22.1	61.7
Rural (nonmetro, not adj. to a metro)	2,385,493	8.5	11.2	22.9	57.4
Alabama	4,876,863	7.1	8.7	19.4	64.9
Appalachian Alabama	3,139,192	6.4	8.2	18.8	66.6
Non-Appalachian Alabama	1,737,671	8.4	9.7	20.3	61.6
Georgia	10,356,895	6.3	7.6	18.3	67.8
Appalachian Georgia	3,281,750	4.9	6.6	17.9	70.6
Non-Appalachian Georgia	7,075,145	7.0	8.0	18.5	66.5
Kentucky	4,359,181	7.3	8.9	18.9	64.9
Appalachian Kentucky	1,127,645	10.1	13.0	22.9	54.0
Non-Appalachian Kentucky	3,231,536	6.4	7.5	17.5	68.7
Maryland	6,006,777	4.6	4.6	11.7	79.1
Appalachian Maryland	233,428	5.2	7.8	17.3	69.7
Non-Appalachian Maryland	5,773,349	4.5	4.5	11.5	79.5
Mississippi	2,874,132	8.8	10.6	21.5	59.1
Appalachian Mississippi	596,150	8.1	10.8	23.3	57.9
Non-Appalachian Mississippi	2,277,982	9.0	10.6	21.0	59.5
New York	19,604,130	6.3	7.2	15.0	71.6
Appalachian New York	971,955	7.5	7.9	18.6	66.0
Non-Appalachian New York	18,632,175	6.2	7.1	14.8	71.9
North Carolina	10,092,759	6.1	7.5	18.6	67.7
Appalachian North Carolina	1,966,747	6.4	8.2	20.7	64.7
Non-Appalachian North Carolina	8,126,012	6.1	7.4	18.1	68.5
Ohio	11,451,346	6.1	7.3	16.5	70.1
Appalachian Ohio	1,928,530	7.0	8.9	19.2	64.9
Non-Appalachian Ohio	9,522,816	5.9	6.9	16.0	71.2
Pennsylvania	12,568,252	5.4	6.4	15.3	72.9
Appalachian Pennsylvania	5,500,167	5.5	6.6	16.7	71.2
Non-Appalachian Pennsylvania	7,068,085	5.4	6.1	14.2	74.2
South Carolina	4,946,116	6.6	7.9	19.0	66.5
Appalachian South Carolina	1,304,801	6.1	7.5	19.0	67.4
Non-Appalachian South Carolina	3,641,315	6.8	8.1	19.0	66.1
Tennessee	6,692,912	6.3	8.0	18.9	66.8
Appalachian Tennessee	2,864,240	6.3	8.6	20.4	64.7
Non-Appalachian Tennessee	3,828,672	6.4	7.5	17.8	68.4
Virginia	8,337,068	4.8	5.1	13.7	76.4
Appalachian Virginia	704,607	8.7	8.7	20.8	61.7
Non-Appalachian Virginia	7,632,461	4.4	4.8	13.0	77.8
West Virginia (entire state)	1,751,049	7.4	9.5	19.9	63.2

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Table 8.7: Number of Persons in the Appalachian Region Below 50% of Poverty Level, by Age Group, 2017-2021

Income-to-Poverty Ratio (Below 50%)	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	18,597,269	5,614,649	11,303,030	2,948,859	8,354,171	1,679,590
Appalachian Region	1,621,983	488,139	996,552	271,964	724,588	137,292
Subregions						
Northern Appalachia	460,937	131,448	285,916	86,152	199,764	43,573
North Central Appalachia	173,486	51,244	109,126	29,998	79,128	13,116
Central Appalachia	170,379	55,637	102,467	18,980	83,487	12,275
South Central Appalachia	329,467	93,797	208,767	61,131	147,636	26,903
Southern Appalachia	487,714	156,013	290,276	75,703	214,573	41,425
County Types						
Large Metros (pop. 1 million +)	313,556	97,040	186,570	44,363	142,207	29,946
Small Metros (pop. <1 million)	703,541	203,739	443,983	141,537	302,446	55,819
Nonmetro, Adjacent to Large Metros	150,934	44,903	92,201	24,412	67,789	13,830
Nonmetro, Adjacent to Small Metros	252,274	80,242	150,749	30,658	120,091	21,283
Rural (nonmetro, not adj. to a metro)	201,678	62,215	123,049	30,994	92,055	16,414
Alabama	345,151	114,770	203,428	56,438	146,990	26,953
Appalachian Alabama	200,028	64,268	118,747	31,219	87,528	17,013
Non-Appalachian Alabama	145,123	50,502	84,681	25,219	59,462	9,940
Georgia	654,975	214,207	391,503	98,166	293,337	49,265
Appalachian Georgia	159,417	53,286	92,548	19,923	72,625	13,583
Non-Appalachian Georgia	495,558	160,921	298,955	78,243	220,712	35,682
Kentucky	319,945	104,789	191,985	46,278	145,707	23,171
Appalachian Kentucky	114,291	37,896	68,516	13,863	54,653	7,879
Non-Appalachian Kentucky	205,654	66,893	123,469	32,415	91,054	15,292
Maryland	273,414	79,642	163,253	36,428	126,825	30,519
Appalachian Maryland	12,166	3,188	7,805	2,164	5,641	1,173
Non-Appalachian Maryland	261,248	76,454	155,448	34,264	121,184	29,346
Mississippi	252,512	92,522	142,536	37,976	104,560	17,454
Appalachian Mississippi	48,346	15,139	29,174	10,338	18,836	4,033
Non-Appalachian Mississippi	204,166	77,383	113,362	27,638	85,724	13,421
New York	1,232,162	354,322	755,032	169,183	585,849	122,808
Appalachian New York	73,175	18,159	49,727	20,178	29,549	5,289
Non-Appalachian New York	1,158,987	336,163	705,305	149,005	556,300	117,519
North Carolina	618,442	196,754	374,287	98,662	275,625	47,401
Appalachian North Carolina	125,926	37,218	77,601	19,217	58,384	11,107
Non-Appalachian North Carolina	492,516	159,536	296,686	79,445	217,241	36,294
Ohio	697,860	225,975	415,850	106,729	309,121	56,035
Appalachian Ohio	135,228	43,917	79,326	17,552	61,774	11,985
Non-Appalachian Ohio	562,632	182,058	336,524	89,177	247,347	44,050
Pennsylvania	684,284	205,431	411,368	109,733	301,635	67,485
Appalachian Pennsylvania	301,885	85,241	186,687	56,442	130,245	29,957
Non-Appalachian Pennsylvania	382,399	120,190	224,681	53,291	171,390	37,528
South Carolina	327,756	100,817	197,171	49,744	147,427	29,768
Appalachian South Carolina	79,923	23,320	49,807	14,223	35,584	6,796
Non-Appalachian South Carolina	247,833	77,497	147,364	35,521	111,843	22,972
Tennessee	423,669	135,789	254,605	60,362	194,243	33,275
Appalachian Tennessee	180,330	54,337	111,261	26,261	85,000	14,732
Non-Appalachian Tennessee	243,339	81,452	143,344	34,101	109,243	18,543
Virginia	400,154	115,256	249,741	77,688	172,053	35,157
Appalachian Virginia	61,188	13,854	42,947	19,081	23,866	4,387
Non-Appalachian Virginia	338,966	101,402	206,794	58,607	148,187	30,770
West Virginia (entire state)	130,080	38,316	82,406	21,503	60,903	9,358

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

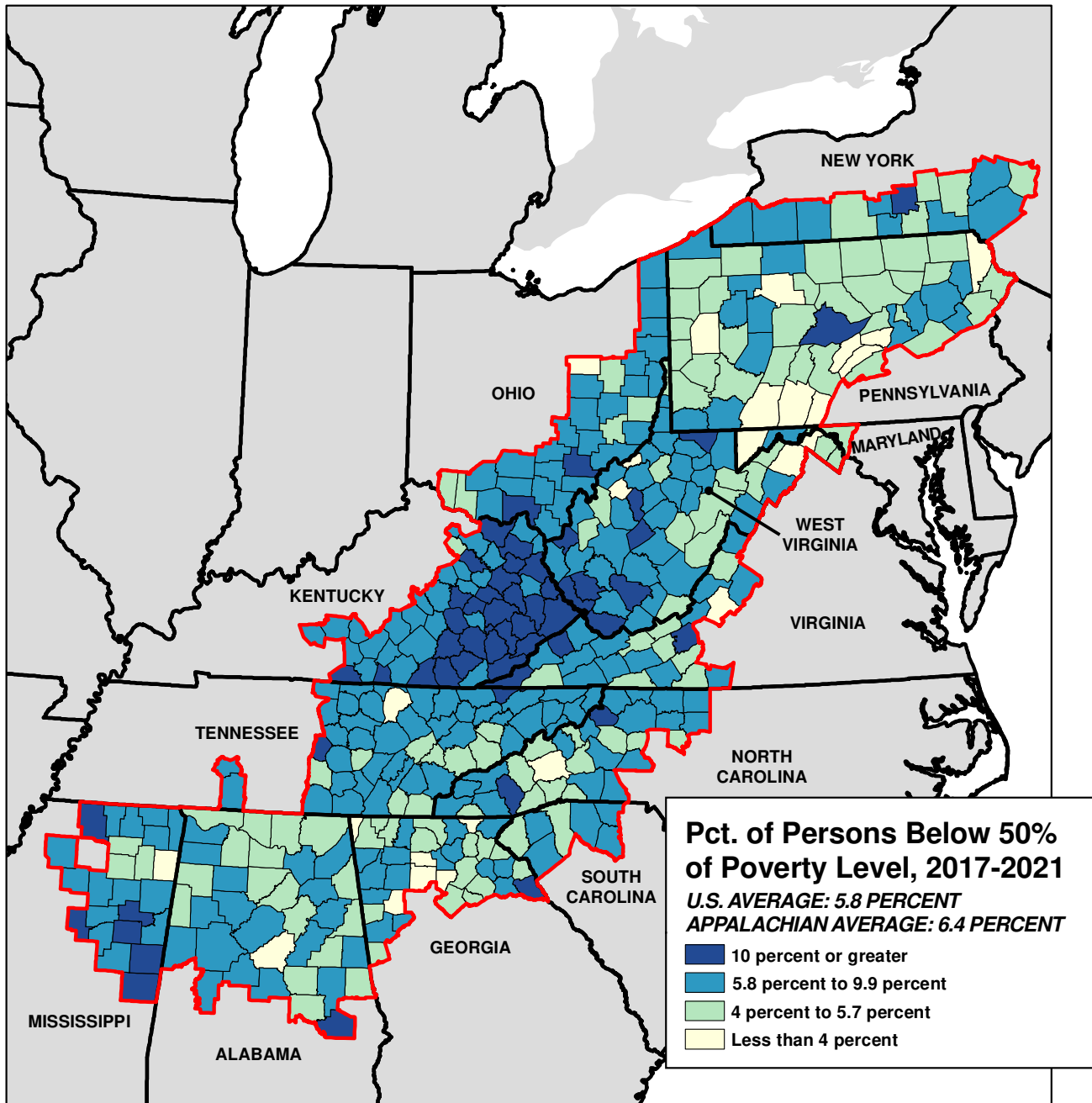
Table 8.8: Percent of Persons in the Appalachian Region Below 50% of Poverty Level, by Age Group, 2017-2021

Income-to-Poverty Ratio (Below 50%)	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	5.8	7.7	5.7	10.9	4.9	3.2
Appalachian Region	6.4	9.0	6.5	13.1	5.5	2.9
Subregions						
Northern Appalachia	5.9	8.4	6.1	14.0	4.9	2.8
North Central Appalachia	7.1	10.1	7.5	15.2	6.3	2.8
Central Appalachia	9.5	14.2	9.6	13.7	8.9	3.6
South Central Appalachia	6.5	9.2	6.9	14.8	5.7	2.7
Southern Appalachia	5.9	8.0	5.7	10.7	4.9	3.2
County Types						
Large Metros (pop. 1 million +)	5.1	7.0	5.0	9.2	4.3	3.0
Small Metros (pop. <1 million)	6.5	8.9	6.8	15.4	5.4	2.8
Nonmetro, Adjacent to Large Metros	6.8	9.4	7.0	13.4	6.0	3.3
Nonmetro, Adjacent to Small Metros	6.6	10.1	6.8	10.6	6.2	2.7
Rural (nonmetro, not adj. to a metro)	8.5	12.2	8.8	15.9	7.6	3.5
Alabama	7.1	10.4	6.9	13.6	5.8	3.3
Appalachian Alabama	6.4	9.1	6.2	12.0	5.3	3.2
Non-Appalachian Alabama	8.4	12.7	8.1	16.2	6.7	3.3
Georgia	6.3	8.6	6.1	10.8	5.3	3.4
Appalachian Georgia	4.9	6.5	4.6	7.1	4.2	3.0
Non-Appalachian Georgia	7.0	9.6	6.8	12.5	5.8	3.6
Kentucky	7.3	10.5	7.3	12.6	6.4	3.2
Appalachian Kentucky	10.1	15.0	10.2	15.4	9.3	3.9
Non-Appalachian Kentucky	6.4	9.0	6.3	11.7	5.4	3.0
Maryland	4.6	5.9	4.4	7.7	3.9	3.3
Appalachian Maryland	5.2	6.4	5.6	11.2	4.7	2.7
Non-Appalachian Maryland	4.5	5.9	4.3	7.6	3.9	3.3
Mississippi	8.8	13.4	8.3	15.0	7.1	3.8
Appalachian Mississippi	8.1	10.8	8.2	18.4	6.3	4.0
Non-Appalachian Mississippi	9.0	14.0	8.3	14.0	7.4	3.7
New York	6.3	8.6	6.2	10.7	5.5	3.8
Appalachian New York	7.5	9.4	8.5	22.1	6.0	2.8
Non-Appalachian New York	6.2	8.5	6.1	10.0	5.5	3.9
North Carolina	6.1	8.7	6.1	11.8	5.2	2.9
Appalachian North Carolina	6.4	9.4	6.6	12.6	5.7	2.8
Non-Appalachian North Carolina	6.1	8.5	5.9	11.6	5.0	2.9
Ohio	6.1	8.8	6.0	11.4	5.2	2.9
Appalachian Ohio	7.0	10.4	6.9	11.5	6.2	3.3
Non-Appalachian Ohio	5.9	8.4	5.8	11.4	4.9	2.8
Pennsylvania	5.4	7.7	5.4	11.3	4.5	3.0
Appalachian Pennsylvania	5.5	7.8	5.6	13.3	4.5	2.7
Non-Appalachian Pennsylvania	5.4	7.7	5.2	9.7	4.5	3.2
South Carolina	6.6	9.2	6.6	12.5	5.7	3.4
Appalachian South Carolina	6.1	7.9	6.3	13.1	5.2	3.1
Non-Appalachian South Carolina	6.8	9.7	6.8	12.3	5.9	3.4
Tennessee	6.3	9.0	6.2	10.9	5.5	3.0
Appalachian Tennessee	6.3	9.1	6.5	11.4	5.7	2.7
Non-Appalachian Tennessee	6.4	9.0	6.0	10.5	5.3	3.4
Virginia	4.8	6.2	4.8	11.4	3.8	2.7
Appalachian Virginia	8.7	10.5	10.2	29.1	6.7	2.9
Non-Appalachian Virginia	4.4	5.9	4.4	9.5	3.6	2.7
West Virginia (entire state)	7.4	10.8	7.9	15.3	6.7	2.7

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 8.12: Percent of Persons in the Appalachian Region Below 50% of Poverty Level, 2017-2021

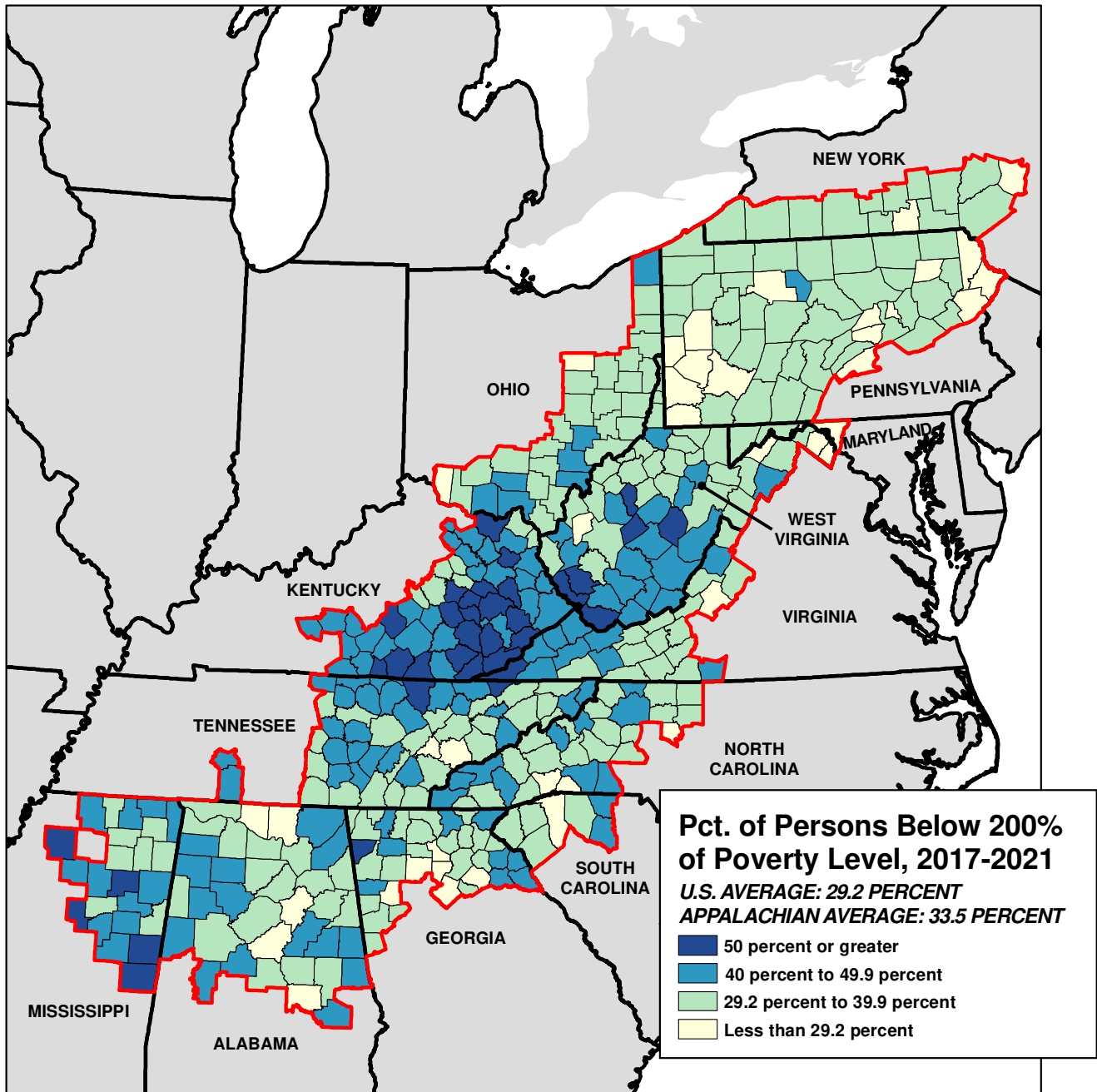


Map Title: Percent of Persons in the Appalachian Region Below 50% of Poverty Level, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the 2017-2021 period, 6.4 percent of Appalachian residents were in extreme poverty (incomes below 50 percent of the poverty level, or less than \$13,740 for a family of two adults and two children in 2021). While this was slightly higher than the national average of 5.8 percent, the situation was even worse in much of the Region. For example, at least one in 10 residents were extremely poor in 54 Appalachian counties. All but nine of these counties were outside metropolitan areas, and 33 of them were in Central Appalachia. (Kentucky alone had 27 counties in this group.) In contrast, there were 26 counties in the Region where less than 4 percent of the population had incomes below 50 percent of the poverty level. Northern Appalachia had 11 of these counties, although the group also included Buncombe County, North Carolina (Asheville), and suburban counties outside Atlanta and Birmingham.

Figure 8.13: Percent of Persons in the Appalachian Region Below 200% of Poverty Level, 2017-2021



Map Title: Percent of Persons in the Appalachian Region Below 200% of Poverty Level, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

More than one-third (33.5 percent) of persons in the Appalachian Region had incomes less than twice the poverty level in 2017-2021, more than four percentage points higher than the national rate of 29.2 percent. (In 2021, a family of two adults and two children fell in this category if their income was less than \$54,958.) The share of persons who were poor (below 100% of poverty) and low-income (between 100% and 199% of poverty) was 40 percent or more in 168 of Appalachia's 423 counties; these were overwhelmingly in the Central, South Central, and Southern subregions. And in 35 Appalachian counties, at least half of residents had incomes below 200 percent of poverty; 26 of these counties were in Central Appalachia and 20 were in Kentucky alone. In contrast, there were 42 counties in the Region where the share of persons who were poor and low-income was below the national average. Almost half of the counties in the latter group were in Northern Appalachia, although several were also outside Atlanta and Birmingham.

Table 8.9: Percentage Point Change in Share of Persons in the Appalachian Region, by Income-to-Poverty Ratio, 2012-2016 to 2017-2021

Income-to-Poverty Ratio	Percentage Point Change in Share of Poverty Universe			
	Below 50% of Poverty Level	50% to 99% of Poverty Level	100% to 199% of Poverty Level	200% of Poverty Level and Greater
United States	- 0.9	- 1.5	- 1.9	+ 4.4
Appalachian Region	- 0.8	- 1.4	- 1.8	+ 4.0
Subregions				
Northern Appalachia	- 0.5	- 0.9	- 1.4	+ 2.8
North Central Appalachia	- 0.7	- 0.7	- 1.9	+ 3.2
Central Appalachia	- 0.6	- 1.8	- 1.0	+ 3.4
South Central Appalachia	- 1.1	- 1.9	- 1.9	+ 5.0
Southern Appalachia	- 1.0	- 1.9	- 2.3	+ 5.2
County Types				
Large Metros (pop. 1 million +)	- 0.6	- 1.4	- 1.9	+ 4.0
Small Metros (pop. <1 million)	- 0.8	- 1.3	- 1.8	+ 4.0
Nonmetro, Adjacent to Large Metros	- 1.1	- 1.7	- 1.5	+ 4.4
Nonmetro, Adjacent to Small Metros	- 0.8	- 1.2	- 1.6	+ 3.5
Rural (nonmetro, not adj. to a metro)	- 0.9	- 1.8	- 1.4	+ 4.1
Alabama	- 1.0	- 1.6	- 1.4	+ 4.1
Appalachian Alabama	- 0.8	- 1.7	- 1.7	+ 4.2
Non-Appalachian Alabama	- 1.2	- 1.4	- 1.1	+ 3.7
Georgia	- 1.8	- 2.1	- 1.9	+ 5.7
Appalachian Georgia	- 1.0	- 2.1	- 2.7	+ 5.8
Non-Appalachian Georgia	- 2.1	- 2.1	- 1.5	+ 5.7
Kentucky	- 0.7	- 1.9	- 1.4	+ 4.0
Appalachian Kentucky	- 0.7	- 2.2	- 1.3	+ 4.1
Non-Appalachian Kentucky	- 0.6	- 1.8	- 1.4	+ 3.8
Maryland	- 0.1	- 0.6	- 1.4	+ 2.1
Appalachian Maryland	- 1.0	- 0.1	- 1.2	+ 2.3
Non-Appalachian Maryland	- 0.2	- 0.5	- 1.3	+ 2.1
Mississippi	- 1.2	- 1.7	- 1.3	+ 4.3
Appalachian Mississippi	- 0.7	- 2.9	- 1.6	+ 5.3
Non-Appalachian Mississippi	- 1.4	- 1.3	- 1.3	+ 4.1
New York	- 0.6	- 1.4	- 1.6	+ 3.6
Appalachian New York	+ 0.0	- 1.3	- 1.1	+ 2.4
Non-Appalachian New York	- 0.6	- 1.5	- 1.6	+ 3.7
North Carolina	- 1.2	- 2.0	- 2.2	+ 5.4
Appalachian North Carolina	- 1.3	- 2.2	- 1.9	+ 5.4
Non-Appalachian North Carolina	- 1.1	- 1.9	- 2.3	+ 5.4
Ohio	- 1.0	- 0.9	- 1.4	+ 3.4
Appalachian Ohio	- 0.9	- 0.8	- 1.6	+ 3.2
Non-Appalachian Ohio	- 1.1	- 1.0	- 1.3	+ 3.4
Pennsylvania	- 0.6	- 1.0	- 1.6	+ 3.1
Appalachian Pennsylvania	- 0.4	- 0.9	- 1.5	+ 2.8
Non-Appalachian Pennsylvania	- 0.6	- 1.1	- 1.7	+ 3.3
South Carolina	- 1.2	- 1.5	- 2.1	+ 4.8
Appalachian South Carolina	- 1.5	- 1.3	- 2.5	+ 5.3
Non-Appalachian South Carolina	- 1.1	- 1.5	- 1.9	+ 4.5
Tennessee	- 1.2	- 1.7	- 2.1	+ 5.0
Appalachian Tennessee	- 1.2	- 1.8	- 2.1	+ 5.1
Non-Appalachian Tennessee	- 1.1	- 1.7	- 2.0	+ 5.0
Virginia	- 0.6	- 1.0	- 1.4	+ 3.0
Appalachian Virginia	+ 0.1	- 1.5	- 1.1	+ 2.4
Non-Appalachian Virginia	- 0.7	- 0.9	- 1.5	+ 3.0
West Virginia (entire state)	- 0.5	- 0.4	- 1.7	+ 2.6

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

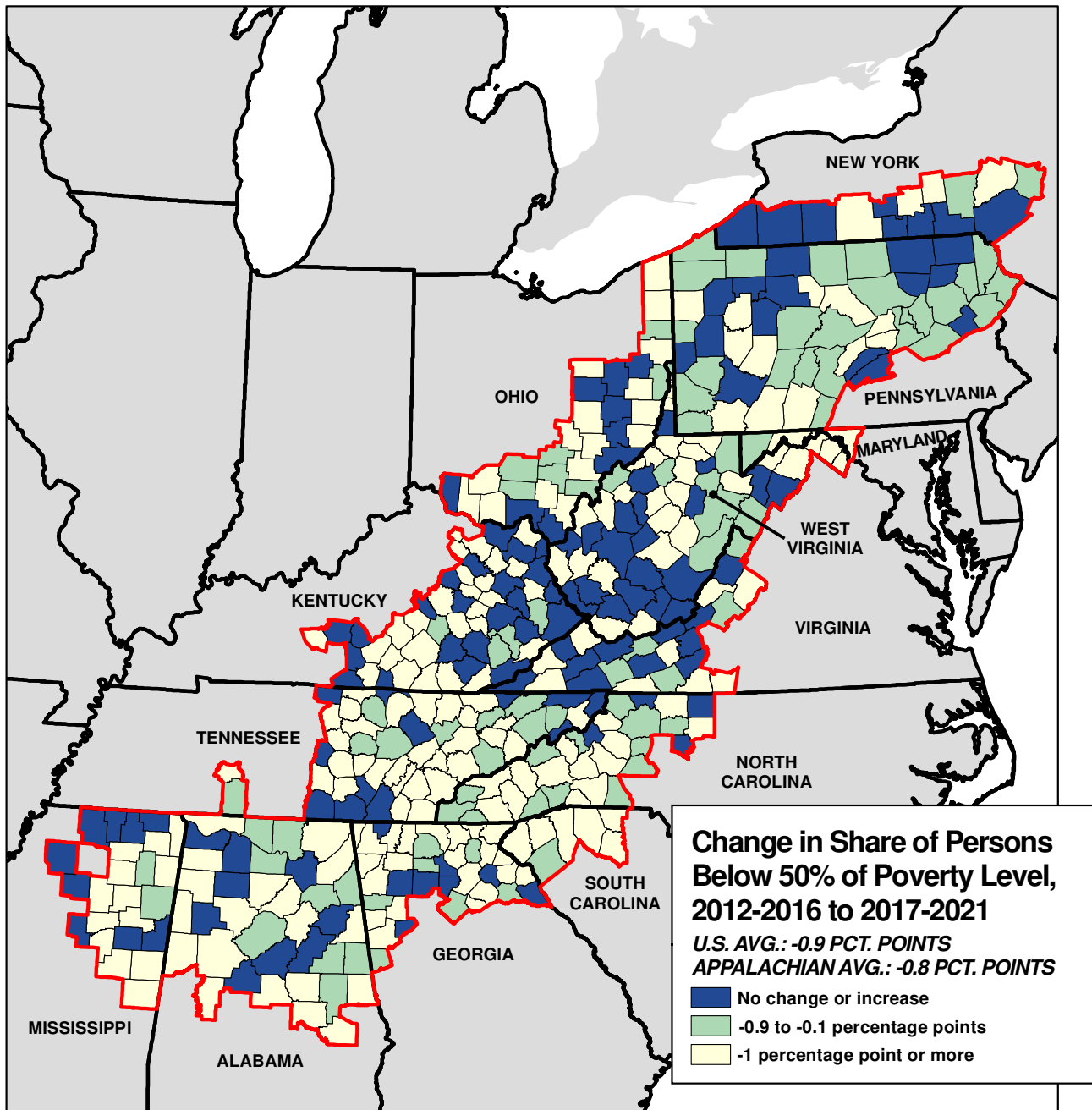
Table 8.10: Percentage Point Change in the Share of Persons in the Appalachian Region Below 50% of Poverty Level, by Age Group, 2012-2016 to 2017-2021

Income-to-Poverty Ratio (Below 50%)	Percentage Point Change in Share of Persons Below 50% of Poverty Level					
	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	- 0.9	- 1.7	- 0.9	- 2.3	- 0.6	+ 0.5
Appalachian Region	- 0.8	- 1.6	- 0.8	- 2.6	- 0.4	+ 0.5
Subregions						
Northern Appalachia	- 0.5	- 1.2	- 0.4	- 2.1	- 0.1	+ 0.5
North Central Appalachia	- 0.7	- 1.3	- 0.5	- 2.8	- 0.1	+ 0.6
Central Appalachia	- 0.6	- 2.1	- 0.3	- 2.7	+ 0.0	+ 0.8
South Central Appalachia	- 1.1	- 1.9	- 1.1	- 3.8	- 0.6	+ 0.3
Southern Appalachia	- 1.0	- 1.8	- 1.0	- 2.1	- 0.8	+ 0.6
County Types						
Large Metros (pop. 1 million +)	- 0.6	- 1.0	- 0.5	- 1.7	- 0.4	+ 0.5
Small Metros (pop. <1 million)	- 0.8	- 1.7	- 0.7	- 2.1	- 0.4	+ 0.5
Nonmetro, Adjacent to Large Metros	- 1.1	- 2.4	- 1.1	- 3.6	- 0.6	+ 0.9
Nonmetro, Adjacent to Small Metros	- 0.8	- 1.5	- 0.7	- 3.4	- 0.3	+ 0.3
Rural (nonmetro, not adj. to a metro)	- 0.9	- 2.2	- 0.8	- 3.8	- 0.3	+ 0.8
Alabama	- 1.0	- 2.2	- 0.8	- 1.6	- 0.6	+ 0.7
Appalachian Alabama	- 0.8	- 2.0	- 0.7	- 1.2	- 0.6	+ 0.6
Non-Appalachian Alabama	- 1.2	- 2.5	- 1.1	- 2.3	- 0.8	+ 0.5
Georgia	- 1.8	- 3.0	- 1.6	- 3.8	- 1.2	+ 0.4
Appalachian Georgia	- 1.0	- 1.1	- 1.2	- 2.2	- 1.1	+ 0.3
Non-Appalachian Georgia	- 2.1	- 3.9	- 1.7	- 4.2	- 1.2	+ 0.4
Kentucky	- 0.7	- 1.4	- 0.5	- 2.6	- 0.2	+ 0.6
Appalachian Kentucky	- 0.7	- 1.9	- 0.3	- 2.5	- 0.1	+ 0.8
Non-Appalachian Kentucky	- 0.6	- 1.2	- 0.5	- 2.6	- 0.2	+ 0.6
Maryland	- 0.1	- 0.4	- 0.2	- 1.6	+ 0.0	+ 0.5
Appalachian Maryland	- 1.0	- 3.0	- 0.5	- 1.4	- 0.3	- 0.1
Non-Appalachian Maryland	- 0.2	- 0.2	- 0.3	- 1.5	+ 0.0	+ 0.5
Mississippi	- 1.2	- 2.3	- 1.0	- 2.4	- 0.8	+ 0.6
Appalachian Mississippi	- 0.7	- 1.8	- 0.6	- 0.7	- 0.5	+ 1.1
Non-Appalachian Mississippi	- 1.4	- 2.5	- 1.2	- 2.9	- 0.8	+ 0.4
New York	- 0.6	- 1.4	- 0.5	- 1.2	- 0.3	+ 0.6
Appalachian New York	+ 0.0	- 0.5	+ 0.2	+ 0.3	+ 0.3	+ 0.9
Non-Appalachian New York	- 0.6	- 1.5	- 0.5	- 1.3	- 0.3	+ 0.6
North Carolina	- 1.2	- 2.0	- 1.1	- 3.2	- 0.7	+ 0.4
Appalachian North Carolina	- 1.3	- 2.2	- 1.3	- 5.0	- 0.7	+ 0.3
Non-Appalachian North Carolina	- 1.1	- 2.0	- 1.1	- 2.9	- 0.8	+ 0.5
Ohio	- 1.0	- 1.9	- 1.0	- 3.0	- 0.6	+ 0.5
Appalachian Ohio	- 0.9	- 2.1	- 0.8	- 3.0	- 0.4	+ 0.9
Non-Appalachian Ohio	- 1.1	- 2.0	- 1.0	- 3.0	- 0.7	+ 0.4
Pennsylvania	- 0.6	- 1.0	- 0.6	- 2.6	- 0.2	+ 0.6
Appalachian Pennsylvania	- 0.4	- 1.0	- 0.5	- 2.5	- 0.1	+ 0.4
Non-Appalachian Pennsylvania	- 0.6	- 0.9	- 0.7	- 2.7	- 0.3	+ 0.7
South Carolina	- 1.2	- 2.9	- 1.0	- 2.3	- 0.7	+ 0.8
Appalachian South Carolina	- 1.5	- 3.0	- 1.3	- 3.6	- 0.9	+ 0.6
Non-Appalachian South Carolina	- 1.1	- 2.8	- 0.8	- 1.9	- 0.5	+ 0.8
Tennessee	- 1.2	- 2.4	- 1.1	- 2.9	- 0.7	+ 0.6
Appalachian Tennessee	- 1.2	- 2.1	- 1.2	- 3.9	- 0.8	+ 0.4
Non-Appalachian Tennessee	- 1.1	- 2.6	- 0.9	- 2.3	- 0.6	+ 0.8
Virginia	- 0.6	- 0.8	- 0.7	- 1.9	- 0.4	+ 0.5
Appalachian Virginia	+ 0.1	- 0.7	+ 0.5	+ 0.3	+ 0.5	+ 0.6
Non-Appalachian Virginia	- 0.7	- 0.8	- 0.7	- 2.1	- 0.5	+ 0.6
West Virginia (entire state)	- 0.5	- 1.3	- 0.3	- 2.8	+ 0.1	+ 0.6

Note: Poverty status is determined by a series of income thresholds that are based on family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 8.14: Percentage Point Change in the Share of Persons in the Appalachian Region Below 50% of Poverty Level, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region Below 50% of Poverty Level, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian residents living in extreme poverty (50 percent of the poverty level, or earning less than \$13,123 for a family of two adults and two children in 2020) fell 0.8 percentage points between the 2012-2016 and 2017-2021 periods, slightly below the national rate of 0.9 points. But there was much variation within the Region. On one hand, the rate of extreme poverty went down by at least a full percentage point in 201 counties. Yet in 128 other counties, extreme poverty rates either remained constant or increased. While Northern, North Central, and Central Appalachia had smaller decreases than the South Central and Southern subregions, there were pockets with constant or increased shares throughout the Region.

Table 8.11: Number and Percent of Households in the Appalachian Region Receiving Food Stamps/SNAP, by Poverty Status, 2017-2021

Receipt of Food Stamps/SNAP	ALL HOUSEHOLDS		Households With Income Below Poverty Level		Households With Income At or Above Poverty Level	
	Number Receiving Food Stamps/SNAP	Percent Receiving Food Stamps/SNAP	Number Receiving Food Stamps/SNAP	Percent Receiving Food Stamps/SNAP	Number Receiving Food Stamps/SNAP	Percent Receiving Food Stamps/SNAP
United States	14,105,231	11.4	6,300,621	41.0	7,804,610	7.2
Appalachian Region	1,346,778	13.2	682,574	46.2	664,204	7.6
Subregions						
Northern Appalachia	473,217	14.3	221,198	51.3	252,019	8.8
North Central Appalachia	154,723	15.7	83,906	52.3	70,817	8.6
Central Appalachia	142,906	20.2	85,440	53.3	57,466	10.5
South Central Appalachia	243,592	11.8	124,613	41.4	118,979	6.7
Southern Appalachia	332,340	10.6	167,417	39.3	164,923	6.1
County Types						
Large Metros (pop. 1 million +)	259,379	10.8	116,139	42.7	143,240	6.7
Small Metros (pop. <1 million)	558,747	12.7	283,792	45.2	274,955	7.3
Nonmetro, Adjacent to Large Metros	134,296	15.0	67,962	48.7	66,334	8.8
Nonmetro, Adjacent to Small Metros	235,638	15.3	122,311	49.5	113,327	8.8
Rural (nonmetro, not adj. to a metro)	158,718	16.7	92,370	47.9	66,348	8.7
Alabama	252,371	13.3	133,633	44.5	118,738	7.4
Appalachian Alabama	150,472	12.2	79,292	44.0	71,180	6.8
Non-Appalachian Alabama	101,899	15.2	54,341	45.1	47,558	8.6
Georgia	463,135	11.9	211,109	40.6	252,026	7.5
Appalachian Georgia	100,968	8.7	43,321	33.7	57,647	5.6
Non-Appalachian Georgia	362,167	13.3	167,788	42.9	194,379	8.3
Kentucky	222,089	12.7	126,659	44.7	95,430	6.5
Appalachian Kentucky	89,548	20.3	55,774	53.3	33,774	10.0
Non-Appalachian Kentucky	132,541	10.1	70,885	39.7	61,656	5.5
Maryland	238,288	10.4	86,383	41.2	151,905	7.3
Appalachian Maryland	16,679	16.9	7,922	59.2	8,757	10.3
Non-Appalachian Maryland	221,609	10.1	78,461	40.0	143,148	7.2
Mississippi	155,434	14.0	89,612	42.3	65,822	7.3
Appalachian Mississippi	31,156	13.3	18,681	40.3	12,475	6.6
Non-Appalachian Mississippi	124,278	14.2	70,931	42.9	53,347	7.5
New York	1,075,247	14.3	506,919	50.1	568,328	8.7
Appalachian New York	59,552	14.3	30,064	48.2	29,488	8.3
Non-Appalachian New York	1,015,695	14.3	476,855	50.2	538,840	8.7
North Carolina	486,376	12.1	222,987	41.6	263,389	7.5
Appalachian North Carolina	93,790	11.6	45,833	39.7	47,957	6.9
Non-Appalachian North Carolina	392,586	12.2	177,154	42.1	215,432	7.7
Ohio	587,542	12.4	302,282	48.3	285,260	6.9
Appalachian Ohio	123,068	15.6	66,834	54.0	56,234	8.5
Non-Appalachian Ohio	464,474	11.7	235,448	46.9	229,026	6.6
Pennsylvania	689,731	13.4	303,154	50.2	386,577	8.5
Appalachian Pennsylvania	328,972	14.1	146,793	51.4	182,179	8.9
Non-Appalachian Pennsylvania	360,759	12.8	156,361	49.2	204,398	8.2
South Carolina	211,210	10.7	107,417	37.8	103,793	6.1
Appalachian South Carolina	49,744	9.6	26,123	36.7	23,621	5.3
Non-Appalachian South Carolina	161,466	11.1	81,294	38.2	80,172	6.4
Tennessee	323,488	12.1	165,877	44.1	157,611	6.9
Appalachian Tennessee	150,107	12.8	79,957	45.5	70,150	7.0
Non-Appalachian Tennessee	173,381	11.6	85,920	42.9	87,461	6.8
Virginia	260,305	8.0	116,411	36.2	143,894	4.9
Appalachian Virginia	36,022	12.3	19,237	38.3	16,785	6.9
Non-Appalachian Virginia	224,283	7.6	97,174	35.8	127,109	4.7
West Virginia (entire state)	116,700	16.4	62,743	51.8	53,957	9.1

Note: SNAP is an acronym for the federal Supplemental Nutrition Assistance Program (formerly known as the Food Stamp Program). Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data source: U.S. Census Bureau, 2017-2021 American Community Survey.

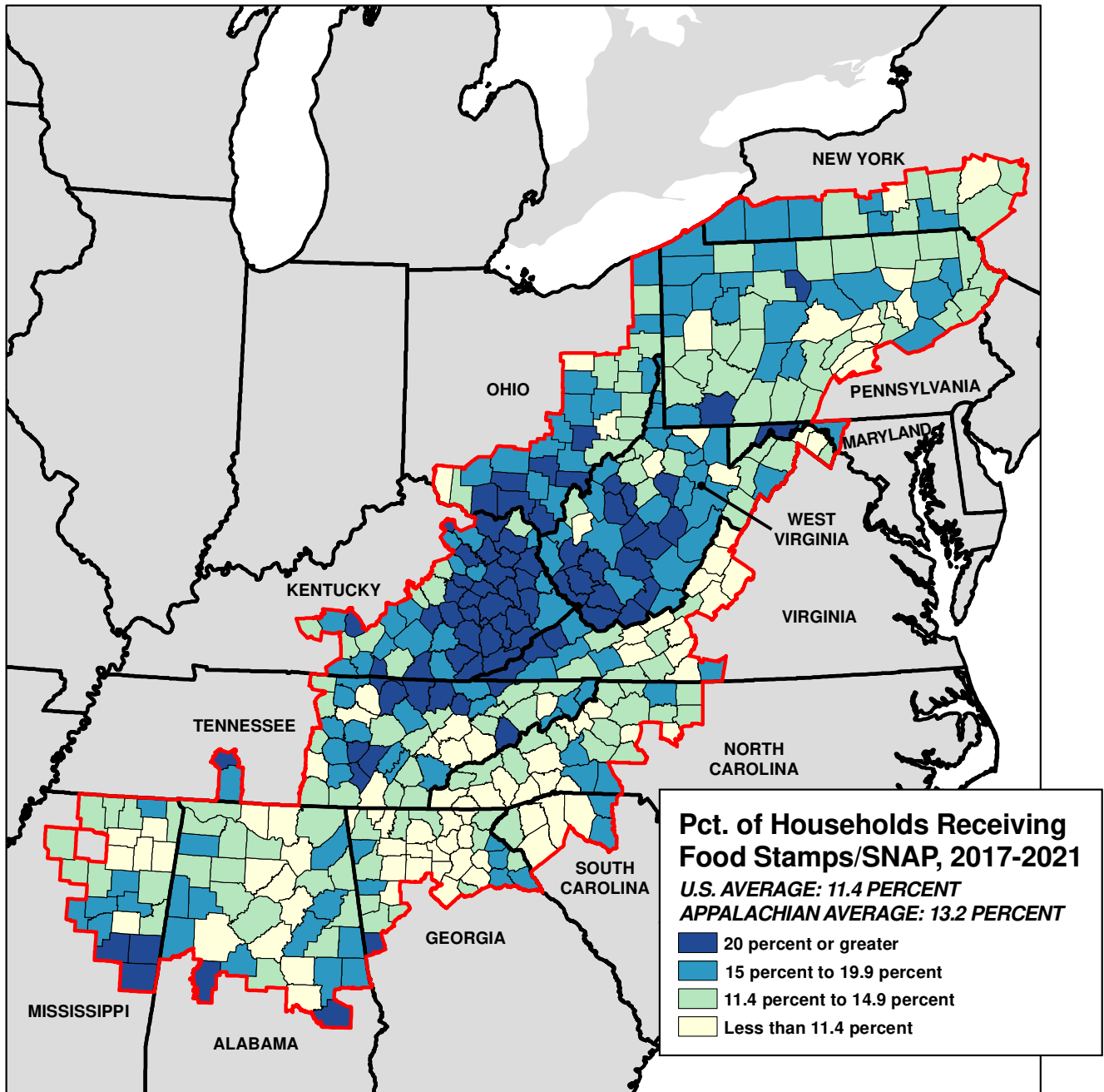
Table 8.12: Number and Percent of Households in the Appalachian Region Receiving Food Stamps/SNAP, by Presence of Children Under Age 18, 2017-2021

Receipt of Food Stamps/SNAP	ALL HOUSEHOLDS		Households With Children Under Age 18		Households Without Children Under Age 18	
	Number Receiving Food Stamps/SNAP	Percent Receiving Food Stamps/SNAP	Number Receiving Food Stamps/SNAP	Percent Receiving Food Stamps/SNAP	Number Receiving Food Stamps/SNAP	Percent Receiving Food Stamps/SNAP
United States	14,105,231	11.4	6,860,455	18.1	7,244,776	8.4
Appalachian Region	1,346,778	13.2	608,390	20.9	738,388	10.1
Subregions						
Northern Appalachia	473,217	14.3	187,165	22.1	286,052	11.7
North Central Appalachia	154,723	15.7	67,102	24.8	87,621	12.3
Central Appalachia	142,906	20.2	64,666	30.4	78,240	15.8
South Central Appalachia	243,592	11.8	116,281	21.0	127,311	8.4
Southern Appalachia	332,340	10.6	173,176	17.0	159,164	7.5
County Types						
Large Metros (pop. 1 million +)	259,379	10.8	116,821	15.8	142,558	8.5
Small Metros (pop. <1 million)	558,747	12.7	261,346	21.2	297,401	9.4
Nonmetro, Adjacent to Large Metros	134,296	15.0	58,506	23.2	75,790	11.8
Nonmetro, Adjacent to Small Metros	235,638	15.3	102,651	24.7	132,987	11.8
Rural (nonmetro, not adj. to a metro)	158,718	16.7	69,066	26.1	89,652	13.0
Alabama	252,371	13.3	125,693	22.4	126,678	9.4
Appalachian Alabama	150,472	12.2	74,587	20.4	75,885	8.8
Non-Appalachian Alabama	101,899	15.2	51,106	26.1	50,793	10.6
Georgia	463,135	11.9	242,165	19.0	220,970	8.5
Appalachian Georgia	100,968	8.7	57,589	13.5	43,379	5.9
Non-Appalachian Georgia	362,167	13.3	184,576	21.8	177,591	9.4
Kentucky	222,089	12.7	112,299	20.9	109,790	9.1
Appalachian Kentucky	89,548	20.3	41,517	30.3	48,031	15.8
Non-Appalachian Kentucky	132,541	10.1	70,782	17.7	61,759	6.8
Maryland	238,288	10.4	115,367	16.0	122,921	7.8
Appalachian Maryland	16,679	16.9	7,622	26.5	9,057	13.0
Non-Appalachian Maryland	221,609	10.1	107,745	15.6	113,864	7.6
Mississippi	155,434	14.0	81,676	23.0	73,758	9.8
Appalachian Mississippi	31,156	13.3	15,019	21.4	16,137	9.8
Non-Appalachian Mississippi	124,278	14.2	66,657	23.5	57,621	9.8
New York	1,075,247	14.3	418,172	19.4	657,075	12.2
Appalachian New York	59,552	14.3	21,839	20.5	37,713	12.2
Non-Appalachian New York	1,015,695	14.3	396,333	19.4	619,362	12.2
North Carolina	486,376	12.1	244,359	20.2	242,017	8.6
Appalachian North Carolina	93,790	11.6	43,850	20.9	49,940	8.4
Non-Appalachian North Carolina	392,586	12.2	200,509	20.0	192,077	8.6
Ohio	587,542	12.4	267,049	19.5	320,493	9.5
Appalachian Ohio	123,068	15.6	53,540	24.2	69,528	12.3
Non-Appalachian Ohio	464,474	11.7	213,509	18.6	250,965	8.9
Pennsylvania	689,731	13.4	293,539	20.5	396,192	10.7
Appalachian Pennsylvania	328,972	14.1	128,054	21.7	200,918	11.5
Non-Appalachian Pennsylvania	360,759	12.8	165,485	19.7	195,274	9.9
South Carolina	211,210	10.7	109,031	19.1	102,179	7.3
Appalachian South Carolina	49,744	9.6	25,981	16.4	23,763	6.6
Non-Appalachian South Carolina	161,466	11.1	83,050	20.1	78,416	7.5
Tennessee	323,488	12.1	161,441	20.2	162,047	8.7
Appalachian Tennessee	150,107	12.8	72,814	22.0	77,293	9.2
Non-Appalachian Tennessee	173,381	11.6	88,627	18.9	84,754	8.3
Virginia	260,305	8.0	134,633	13.3	125,672	5.6
Appalachian Virginia	36,022	12.3	15,935	22.3	20,087	9.1
Non-Appalachian Virginia	224,283	7.6	118,698	12.7	105,585	5.2
West Virginia (entire state)	116,700	16.4	50,043	26.6	66,657	12.7

Note: SNAP is an acronym for the federal Supplemental Nutrition Assistance Program (formerly known as the Food Stamp Program).

Data source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 8.15: Percent of Households in the Appalachian Region Receiving Food Stamps/SNAP, 2017-2021



Map Title: Percent of Households in the Appalachian Region Receiving Food Stamps/SNAP, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, 13.2 percent of Appalachian households received payments from the federal Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp Program. While the share for the Region is almost two percentage points higher than the national share (11.4 percent), there were 92 Appalachian counties with Food Stamps/SNAP participation rates below the U.S. average. More than three-fourths of these counties were in Southern and South Central Appalachia—the subregions with the lowest prevalence rates. Conversely, the Food Stamps/SNAP prevalence rate matched or exceeded 20 percent in 76 other Appalachian counties. Most of the counties in the latter group were in Central Appalachia and 36 were in the most rural areas—both of which had the highest Food Stamps/SNAP participation rates among Appalachia’s subregions and urban-rural county types.

Table 8.13: Percentage Point Change in Share of Households in the Appalachian Region Receiving Food Stamps/SNAP, by Poverty Status, 2012-2016 to 2017-2021

Receipt of Food Stamps/SNAP	ALL HOUSEHOLDS	Households With Income Below Poverty Level	Households With Income At or Above Poverty Level
United States	-1.6	-5.4	-0.4
Appalachian Region	-2.2	-5.7	-0.7
Subregions			
Northern Appalachia	+0.1	-1.0	+0.8
North Central Appalachia	-0.8	-2.6	+0.0
Central Appalachia	-3.8	-9.5	-0.9
South Central Appalachia	-3.6	-8.3	-1.6
Southern Appalachia	-3.5	-8.3	-1.7
County Types			
Large Metros (pop. 1 million +)	-1.7	-5.8	-0.6
Small Metros (pop. <1 million)	-1.9	-5.2	-0.6
Nonmetro, Adjacent to Large Metros	-2.3	-5.1	-0.7
Nonmetro, Adjacent to Small Metros	-2.1	-5.1	-0.7
Rural (nonmetro, not adj. to a metro)	-3.4	-8.2	-1.1
Alabama	-2.3	-5.1	-0.8
Appalachian Alabama	-2.3	-4.9	-0.8
Non-Appalachian Alabama	-2.3	-5.4	-0.6
Georgia	-3.4	-7.8	-1.3
Appalachian Georgia	-4.4	-11.3	-2.4
Non-Appalachian Georgia	-2.9	-6.6	-0.9
Kentucky	-4.2	-10.8	-1.7
Appalachian Kentucky	-4.7	-10.3	-1.4
Non-Appalachian Kentucky	-3.9	-10.9	-1.6
Maryland	-0.7	-5.5	-0.1
Appalachian Maryland	+0.8	+4.1	+0.5
Non-Appalachian Maryland	-0.8	-6.1	-0.1
Mississippi	-4.0	-8.5	-2.0
Appalachian Mississippi	-5.0	-10.4	-2.5
Non-Appalachian Mississippi	-3.8	-7.9	-1.8
New York	-1.1	-2.5	-0.2
Appalachian New York	-0.9	-2.7	-0.3
Non-Appalachian New York	-1.1	-2.5	-0.2
North Carolina	-2.3	-6.8	-0.6
Appalachian North Carolina	-3.0	-7.2	-1.1
Non-Appalachian North Carolina	-2.1	-6.7	-0.4
Ohio	-2.4	-6.9	-0.9
Appalachian Ohio	-2.0	-5.3	-0.7
Non-Appalachian Ohio	-2.5	-7.3	-1.0
Pennsylvania	+0.4	-0.3	+1.0
Appalachian Pennsylvania	+0.7	+0.5	+1.2
Non-Appalachian Pennsylvania	+0.2	-0.9	+0.9
South Carolina	-4.1	-11.1	-2.1
Appalachian South Carolina	-3.8	-10.4	-1.8
Non-Appalachian South Carolina	-4.2	-11.3	-2.1
Tennessee	-4.4	-9.8	-2.4
Appalachian Tennessee	-4.4	-9.3	-2.3
Non-Appalachian Tennessee	-4.4	-10.2	-2.5
Virginia	-1.4	-5.7	-0.5
Appalachian Virginia	-2.6	-7.9	-0.8
Non-Appalachian Virginia	-1.2	-5.3	-0.5
West Virginia (entire state)	+0.0	-2.6	+0.7

Note: SNAP is an acronym for the federal Supplemental Nutrition Assistance Program (formerly known as the Food Stamp Program). Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2021, the poverty threshold for a family of two adults and two children was \$27,479. The poverty universe does not include unrelated individuals under age 15, people living in college dormitories, and people living in institutional group quarters.

Data source: U.S. Census Bureau, 2017-2021 American Community Survey.

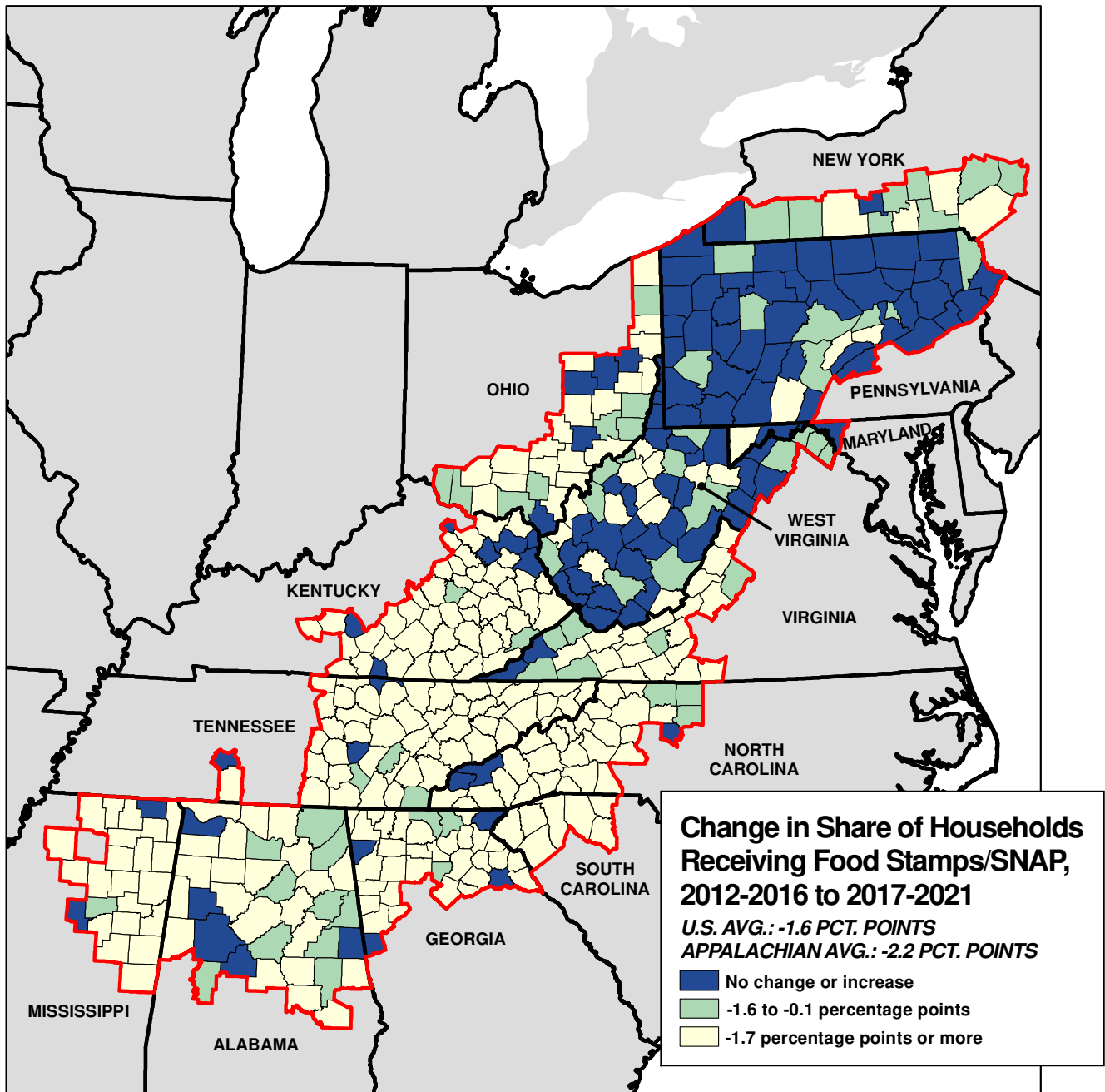
Table 8.14: Percentage Point Change in Share of Households in the Appalachian Region Receiving Food Stamps/SNAP Payments, by Presence of Children Under Age 18, 2012-2016 to 2017-2021

Receipt of Food Stamps/SNAP	ALL HOUSEHOLDS	Households With Children Under Age 18	Households Without Children Under Age 18
United States	-1.6	-3.5	-0.6
Appalachian Region	-2.2	-4.3	-1.1
Subregions			
Northern Appalachia	+0.1	-1.4	+0.9
North Central Appalachia	-0.8	-2.3	+0.0
Central Appalachia	-3.8	-4.6	-3.3
South Central Appalachia	-3.6	-5.7	-2.5
Southern Appalachia	-3.5	-6.1	-2.0
County Types			
Large Metros (pop. 1 million +)	-1.7	-4.4	-0.4
Small Metros (pop. <1 million)	-1.9	-3.5	-1.1
Nonmetro, Adjacent to Large Metros	-2.3	-5.2	-0.9
Nonmetro, Adjacent to Small Metros	-2.1	-4.4	-1.1
Rural (nonmetro, not adj. to a metro)	-3.4	-5.3	-2.4
Alabama	-2.3	-4.3	-1.2
Appalachian Alabama	-2.3	-4.5	-1.0
Non-Appalachian Alabama	-2.3	-3.8	-1.4
Georgia	-3.4	-5.9	-1.7
Appalachian Georgia	-4.4	-7.0	-2.4
Non-Appalachian Georgia	-2.9	-5.2	-1.5
Kentucky	-4.2	-5.4	-3.5
Appalachian Kentucky	-4.7	-5.0	-4.4
Non-Appalachian Kentucky	-3.9	-5.2	-3.0
Maryland	-0.7	-1.7	+0.0
Appalachian Maryland	+0.8	-0.3	+1.4
Non-Appalachian Maryland	-0.8	-1.7	-0.1
Mississippi	-4.0	-6.8	-2.2
Appalachian Mississippi	-5.0	-8.3	-2.9
Non-Appalachian Mississippi	-3.8	-6.3	-2.0
New York	-1.1	-2.9	-0.2
Appalachian New York	-0.9	-2.7	-0.1
Non-Appalachian New York	-1.1	-2.8	-0.2
North Carolina	-2.3	-3.6	-1.4
Appalachian North Carolina	-3.0	-5.2	-1.8
Non-Appalachian North Carolina	-2.1	-3.4	-1.3
Ohio	-2.4	-4.9	-1.2
Appalachian Ohio	-2.0	-3.8	-1.0
Non-Appalachian Ohio	-2.5	-5.0	-1.2
Pennsylvania	+0.4	-0.8	+1.0
Appalachian Pennsylvania	+0.7	-0.7	+1.3
Non-Appalachian Pennsylvania	+0.2	-0.7	+0.7
South Carolina	-4.1	-6.7	-2.7
Appalachian South Carolina	-3.8	-6.0	-2.6
Non-Appalachian South Carolina	-4.2	-6.9	-2.7
Tennessee	-4.4	-6.7	-3.1
Appalachian Tennessee	-4.4	-6.4	-3.4
Non-Appalachian Tennessee	-4.4	-7.0	-2.9
Virginia	-1.4	-2.5	-0.7
Appalachian Virginia	-2.6	-4.0	-1.7
Non-Appalachian Virginia	-1.2	-2.2	-0.6
West Virginia (entire state)	+0.0	-1.3	+0.6

Note: SNAP is an acronym for the federal Supplemental Nutrition Assistance Program (formerly known as the Food Stamp Program).

Data source: U.S. Census Bureau, 2017-2021 American Community Survey.

Figure 8.16: Percentage Point Change in the Share of Households Receiving Food Stamps/SNAP, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Households in the Appalachian Region Receiving Food Stamps/SNAP, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian households participating in the federal Supplemental Nutrition Assistance Program (SNAP)—formerly the Food Stamps Program—fell 2.2 percentage points between 2012-2016 and 2017-2021, greater than the national decrease of 1.6 points. The decline in Food Stamps/SNAP prevalence likewise was greater than the U.S. decrease in 252 of Appalachia’s 423 counties. All but 38 of these were in Central, South Central, and Southern Appalachia—the subregions that had the greatest declines. Yet Food Stamps/SNAP participation remained the same or increased in 106 Appalachian counties—71 of which were in Pennsylvania and West Virginia. There may be a correlation between the decrease in Food Stamps/SNAP prevalence and the decline in poverty between the two periods. For example, most of the counties that had the greatest declines in participation had poverty declines of at least a full percentage point.

TRENDS IN INCOME AND POVERTY

- Adjusting for inflation, income trends in the Appalachian Region were positive between the 2012-2016 and 2017-2021 periods (see Tables 8.1 and 8.2).
 - The mean income measures all increased noticeably between the two periods. Mean household income, for example, rose 9.6 percent to \$76,981 in 2017-2021. Mean family and per capita income had even greater increases (more than 10 percent each), reaching \$91,816 and \$31,098, respectively. (All monetary figures are in 2021 Dollars.)
 - Although not affected by extreme values, the two median income measures likewise have registered healthy increases since 2012-2016. Median household income (the level where half of all households have higher incomes while the other half have lower incomes) rose 9.5 percent to \$56,780 in 2017-2021. Median family income increased 10.3 percent to \$72,113.
- Despite these increases, the post 2012-2016 income gains were not quite as great in Appalachia as they were nationally. Appalachia's growth in each of the four household and family income measures, however, was within a percentage point of the national average.
- Within the Appalachian Region, all income measures increased for the subregions, county types, and states—even after adjusting for inflation. Among the subregions, income growth was highest in Southern and South Central Appalachia and lowest in Northern or Central Appalachia, depending on the measure. Among the county types, the increases were largest for counties in large metropolitan areas. Income gains among the states generally were largest in the Appalachian portions of Georgia, the Carolinas, and Tennessee, and smallest in New York, Virginia, and West Virginia. Yet despite the overall increases, there were still counties throughout the Region that experienced income declines between 2012-2016 and 2017-2021.
- Since 2012-2016, the share of Appalachian residents in poverty (incomes below \$27,479 for a family of two adults and two children in 2020) has fallen 2.2 percentage points to 14.5 percent in 2017-2021 (see Tables 8.4 and 8.5). Poverty decreased in all subregions, county types, and states. The decline in poverty was greatest in the Appalachian portions of Georgia, Mississippi, North Carolina, and Tennessee: Poverty fell by at least three percentage points in each case. In contrast, poverty rates decreased by just 0.8 points in West Virginia, one point in Appalachian Maryland, and 1.2 points in Appalachian New York.
- Both child poverty and poverty among young adults (ages 18 to 24) have fallen noticeably in Appalachia since 2012-2016: Child poverty dropped 3.9 percentage points to 19.8 percent in 2017-2021, while poverty among 18-to-24-year-olds fell 4.8 points to 22.6 percent. Despite these decreases, nearly one-fifth of children and more than one-fifth of young adults were still in poverty. And while Appalachian Mississippi had the largest decrease in child poverty (seven points), Appalachian North Carolina had the largest decrease for young adults (7.9 points). Poverty rates among working-age adults (ages 25 to 64) in Appalachia had a more modest decline of only 1.7 points to 12.7 percent. As with the other two age groups, this decrease was present almost throughout the Region—the exception was in Appalachian Maryland, where the rate among working-age adults rose slightly (0.2 percentage points). The Appalachian sections of Georgia and North Carolina had the largest poverty declines among 25-to-64-year-olds, at 2.9 percentage points each.
- Poverty increased 0.2 percentage points for older residents (ages 65 and over) between 2012-2016 and 2017-2021 in Appalachia, although it did decline slightly in South Central and Southern Appalachia. Among the states, the rates increased 1.3 percentage points in West Virginia and 0.7 points in the Appalachian sections of New York and Ohio. Conversely, the poverty rate among older Appalachian residents fell by 0.4 points in Georgia, 0.5 points in Kentucky, and 0.7 points in Maryland.
- In 2017-2021, the share of Appalachian residents with incomes below 50 percent of poverty (income below \$13,740 for a family of two adults and two children in 2021) was 6.4 percent, 0.8 percentage points lower than it was in 2012-2016 (see Tables 8.6 through 8.10). Within the Region, however, some areas including South Central Appalachia, nonmetropolitan counties adjacent to large metro areas, and the Appalachian portions of the Carolinas, and Tennessee had even greater decreases (1.1 points or more). And the share decreased noticeably among children and young adults ages 18-24 in Appalachia, while increasing 0.5 points among adults ages 65 and over.

TRENDS IN INCOME AND POVERTY (continued)

- The share of Appalachian households participating in the federal Supplemental Nutrition Assistance Program (SNAP)—formerly the Food Stamps Program—was 13.2 percent in 2017-2021, a decrease of 2.2 percentage points from the Region's share in 2012-2016 (Tables 8.11 and 8.13). Several parts of Appalachia registered even greater decreases: For example, the decrease was greater than three points in three of the five subregions, the most rural counties, and the Appalachian portions of six states. (In four of those states—Georgia, Kentucky, Mississippi, and Tennessee—the decline exceeded four percentage points.) However, Food Stamps/SNAP prevalence did increase in some parts of Appalachia—most notably in Maryland and Pennsylvania.
- Among households with income below the poverty level (\$27,479 for a family of two adults and two children in 2020), Food Stamps/SNAP prevalence rates fell 5.7 percentage points between 2012-2016 and 2017-2021 (Tables 8.11 and 8.13), to 46.2 percent in the latter period. The decrease was far more modest for households at or above poverty (0.7 points to 7.6 percent in 2017-2021). While the decrease in participation among poor households was present throughout most of Appalachia (with the Appalachian sections of Georgia, Mississippi, and South Carolina showing the greatest declines), prevalence did increase in the Appalachian sections of Maryland and Pennsylvania. Similarly, prevalence among non-poor households decreased in most of Appalachia, although it increased in some areas, such as Northern Appalachia, West Virginia, and the Appalachian sections of Maryland and Pennsylvania.
- Food Stamps/SNAP prevalence among Appalachian households with children under age 18 was 20.9 percent in 2017-2021, 4.3 percentage points lower than in 2012-2016 (Tables 8.12 and 8.14). Participation for Appalachian households without children, meanwhile, fell 1.1 points to 10.1 percent. The decline in participation for households with children occurred throughout the Region, with Southern Appalachia and the Appalachian sections of Georgia, Mississippi, South Carolina, and Tennessee all showing decreases of at least six percentage points. Conversely, the Food Stamps/SNAP prevalence among childless households increased in Northern Appalachia, West Virginia, and the Appalachian sections of Maryland and Pennsylvania—the states that showed the smallest decreases among households with children.
- Overall, the income and poverty trends in the Appalachian Region since 2012-2016 show that, for the most part, poverty levels have fallen while incomes have risen, suggesting that much—if not most—of Appalachia has recovered economically from the 2007-2009 recession. However, the economic impact of the COVID-19 pandemic—plus other economic concerns—may end up reversing some of these gains.

CHAPTER 9: HEALTH INSURANCE COVERAGE

Table 9.1: Number of Persons in the Appalachian Region Not Covered by Health Insurance, by Age Group, 2017-2021

Health Insurance Status	All Ages	Under Age 35				Ages 35-64	Ages 65 and Over
		Total	Under Age 19	Ages 19-25	Ages 26-34		
United States	28,489,142	14,528,599	4,168,731	4,227,371	6,132,497	13,546,036	414,507
Appalachian Region	2,216,448	1,093,231	299,941	330,667	462,623	1,102,676	20,541
Subregions							
Northern Appalachia	428,383	229,281	81,790	60,884	86,607	193,777	5,325
North Central Appalachia	159,803	76,700	19,429	23,973	33,298	81,517	1,586
Central Appalachia	128,943	61,555	18,022	19,003	24,530	66,558	830
South Central Appalachia	534,275	247,237	54,810	76,502	115,925	282,890	4,148
Southern Appalachia	965,044	478,458	125,890	150,305	202,263	477,934	8,652
County Types							
Large Metros (pop. 1 million +)	516,835	257,334	74,261	75,975	107,098	253,446	6,055
Small Metros (pop. <1 million)	926,398	452,749	108,623	142,021	202,105	466,333	7,316
Nonmetro, Adjacent to Large Metros	203,553	103,462	33,887	28,371	41,204	98,224	1,867
Nonmetro, Adjacent to Small Metros	351,045	168,505	47,717	51,427	69,361	179,321	3,219
Rural (nonmetro, not adj. to a metro)	218,617	111,181	35,453	32,873	42,855	105,352	2,084
Alabama	477,303	234,363	40,628	84,396	109,339	239,179	3,761
Appalachian Alabama	296,008	143,857	26,020	49,513	68,324	150,154	1,997
Non-Appalachian Alabama	181,295	90,506	14,608	34,883	41,015	89,025	1,764
Georgia	1,371,027	708,752	200,677	217,777	290,298	648,806	13,469
Appalachian Georgia	461,375	230,469	74,138	67,046	89,285	225,507	5,399
Non-Appalachian Georgia	909,652	478,283	126,539	150,731	201,013	423,299	8,070
Kentucky	257,226	137,524	44,450	39,411	53,663	117,705	1,997
Appalachian Kentucky	70,251	35,953	12,585	10,911	12,457	33,837	461
Non-Appalachian Kentucky	186,975	101,571	31,865	28,500	41,206	83,868	1,536
Maryland	360,098	180,177	53,265	46,999	79,913	171,165	8,756
Appalachian Maryland	11,338	5,593	1,921	1,363	2,309	5,556	189
Non-Appalachian Maryland	348,760	174,584	51,344	45,636	77,604	165,609	8,567
Mississippi	350,775	181,462	40,925	62,446	78,091	167,658	1,655
Appalachian Mississippi	70,651	37,375	8,302	12,644	16,429	32,871	405
Non-Appalachian Mississippi	280,124	144,087	32,623	49,802	61,662	134,787	1,250
New York	1,059,370	509,174	110,456	131,359	267,359	522,196	28,000
Appalachian New York	46,044	25,949	8,572	8,100	9,277	19,701	394
Non-Appalachian New York	1,013,326	483,225	101,884	123,259	258,082	502,495	27,606
North Carolina	1,092,162	529,462	134,661	156,842	237,959	553,385	9,315
Appalachian North Carolina	235,489	110,648	24,117	34,345	52,186	123,320	1,521
Non-Appalachian North Carolina	856,673	418,814	110,544	122,497	185,773	430,065	7,794
Ohio	735,559	395,320	128,927	107,101	159,292	330,547	9,692
Appalachian Ohio	148,727	78,462	31,641	19,777	27,044	68,278	1,987
Non-Appalachian Ohio	586,832	316,858	97,286	87,324	132,248	262,269	7,705
Pennsylvania	717,759	387,353	132,019	99,706	155,628	320,335	10,071
Appalachian Pennsylvania	279,690	147,662	48,995	39,442	59,225	128,752	3,276
Non-Appalachian Pennsylvania	438,069	239,691	83,024	60,264	96,403	191,583	6,795
South Carolina	521,410	251,513	61,212	77,332	112,969	266,331	3,566
Appalachian South Carolina	137,010	66,757	17,430	21,102	28,225	69,402	851
Non-Appalachian South Carolina	384,400	184,756	43,782	56,230	84,744	196,929	2,715
Tennessee	680,094	330,071	83,726	96,435	149,910	344,066	5,957
Appalachian Tennessee	288,728	130,270	28,387	40,001	61,882	156,233	2,225
Non-Appalachian Tennessee	391,366	199,801	55,339	56,434	88,028	187,833	3,732
Virginia	658,732	331,615	98,197	96,226	137,192	314,563	12,554
Appalachian Virginia	57,297	26,212	6,204	8,476	11,532	30,410	675
Non-Appalachian Virginia	601,435	305,403	91,993	87,750	125,660	284,153	11,879
West Virginia (entire state)	113,840	54,024	11,629	17,947	24,448	58,655	1,161

Note: The health insurance universe consists of the civilian noninstitutional population.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

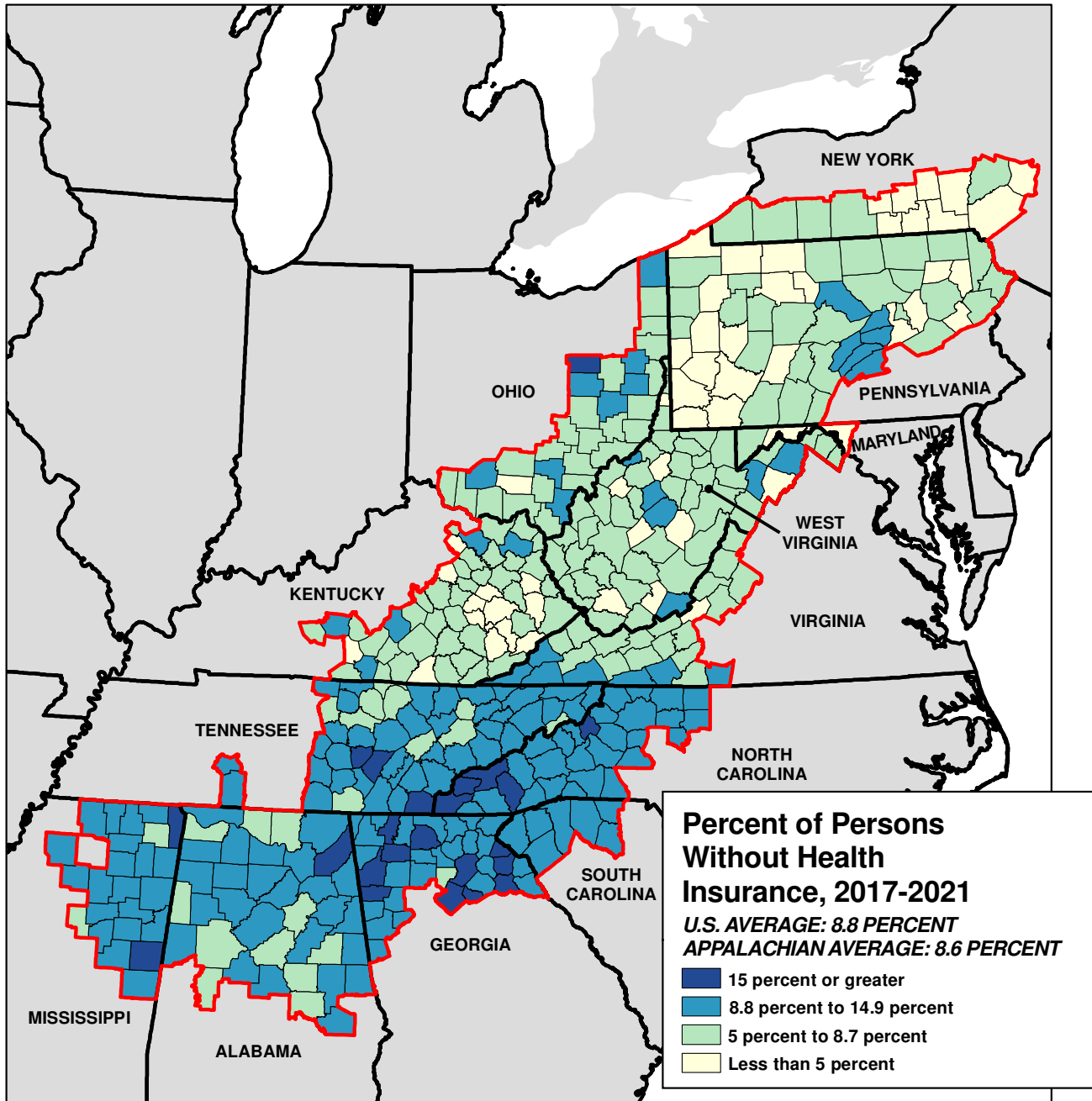
Table 9.2: Percent of Persons in the Appalachian Region Not Covered by Health Insurance, by Age Group, 2017-2021

Health Insurance Status	All Ages	Under Age 35				Ages 35-64	Ages 65 and Over
		Total	Under Age 19	Ages 19-25	Ages 26-34		
United States	8.8	9.8	5.3	14.3	15.4	10.8	0.8
Appalachian Region	8.6	9.9	5.1	14.3	16.5	11.0	0.4
Subregions							
Northern Appalachia	5.4	7.0	4.8	8.5	10.2	6.3	0.3
North Central Appalachia	6.5	7.4	3.5	11.0	12.9	8.4	0.3
Central Appalachia	7.1	8.1	4.2	12.6	13.1	9.2	0.2
South Central Appalachia	10.4	11.6	4.9	16.3	21.2	14.2	0.4
Southern Appalachia	11.5	12.5	6.0	19.8	21.2	14.6	0.7
County Types							
Large Metros (pop. 1 million +)	8.3	9.5	5.0	14.7	14.9	10.2	0.6
Small Metros (pop. <1 million)	8.4	9.5	4.4	13.5	16.6	11.0	0.4
Nonmetro, Adjacent to Large Metros	9.0	10.8	6.5	14.1	17.6	11.2	0.4
Nonmetro, Adjacent to Small Metros	9.1	10.8	5.5	16.0	18.1	11.9	0.4
Rural (nonmetro, not adj. to a metro)	9.0	10.8	6.4	14.9	17.3	11.3	0.4
Alabama	9.7	10.6	3.4	18.6	19.5	12.7	0.5
Appalachian Alabama	9.3	10.2	3.4	17.3	18.7	12.2	0.4
Non-Appalachian Alabama	10.4	11.4	3.4	20.8	21.0	13.5	0.6
Georgia	13.1	14.4	7.5	22.5	22.9	16.0	0.9
Appalachian Georgia	14.0	15.1	8.5	23.5	24.5	17.1	1.2
Non-Appalachian Georgia	12.7	14.1	7.0	22.1	22.3	15.4	0.8
Kentucky	5.8	6.9	4.1	9.6	10.7	6.9	0.3
Appalachian Kentucky	6.1	7.3	4.6	11.0	10.3	7.5	0.2
Non-Appalachian Kentucky	5.7	6.8	4.0	9.2	10.8	6.7	0.3
Maryland	6.0	6.7	3.7	9.2	11.0	7.1	0.9
Appalachian Maryland	4.8	5.6	3.5	6.5	9.4	6.0	0.4
Non-Appalachian Maryland	6.0	6.7	3.7	9.3	11.0	7.1	1.0
Mississippi	12.1	13.5	5.5	22.9	24.0	15.3	0.4
Appalachian Mississippi	11.7	13.3	5.5	20.5	24.2	14.7	0.4
Non-Appalachian Mississippi	12.2	13.5	5.5	23.6	23.9	15.5	0.3
New York	5.3	5.7	2.5	7.2	10.4	6.7	0.9
Appalachian New York	4.5	5.9	3.9	6.8	9.2	5.2	0.2
Non-Appalachian New York	5.4	5.7	2.4	7.2	10.4	6.8	0.9
North Carolina	10.7	11.6	5.5	17.2	20.0	14.0	0.6
Appalachian North Carolina	11.8	13.6	5.6	19.9	25.0	15.8	0.4
Non-Appalachian North Carolina	10.5	11.2	5.5	16.6	18.9	13.5	0.6
Ohio	6.3	7.6	4.6	10.2	11.7	7.4	0.5
Appalachian Ohio	7.6	9.5	6.9	12.0	13.3	9.0	0.5
Non-Appalachian Ohio	6.1	7.3	4.2	9.9	11.5	7.1	0.5
Pennsylvania	5.6	7.0	4.6	8.9	10.3	6.4	0.4
Appalachian Pennsylvania	5.0	6.4	4.1	8.0	9.6	5.9	0.3
Non-Appalachian Pennsylvania	6.1	7.5	4.9	9.6	10.8	6.9	0.6
South Carolina	10.5	11.5	5.2	17.8	19.7	13.9	0.4
Appalachian South Carolina	10.3	11.1	5.5	16.9	18.2	13.7	0.4
Non-Appalachian South Carolina	10.5	11.7	5.1	18.1	20.3	14.0	0.4
Tennessee	10.1	10.8	5.2	15.8	18.3	13.2	0.5
Appalachian Tennessee	10.0	10.7	4.4	15.6	19.3	13.8	0.4
Non-Appalachian Tennessee	10.2	10.9	5.7	15.9	17.7	12.7	0.7
Virginia	7.9	8.8	4.9	12.8	13.8	9.5	1.0
Appalachian Virginia	7.9	8.9	4.2	10.9	16.5	11.0	0.4
Non-Appalachian Virginia	7.9	8.8	4.9	13.1	13.6	9.4	1.0
West Virginia (entire state)	6.4	7.4	3.0	11.7	13.4	8.4	0.3

Note: The health insurance universe consists of the civilian noninstitutional population.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

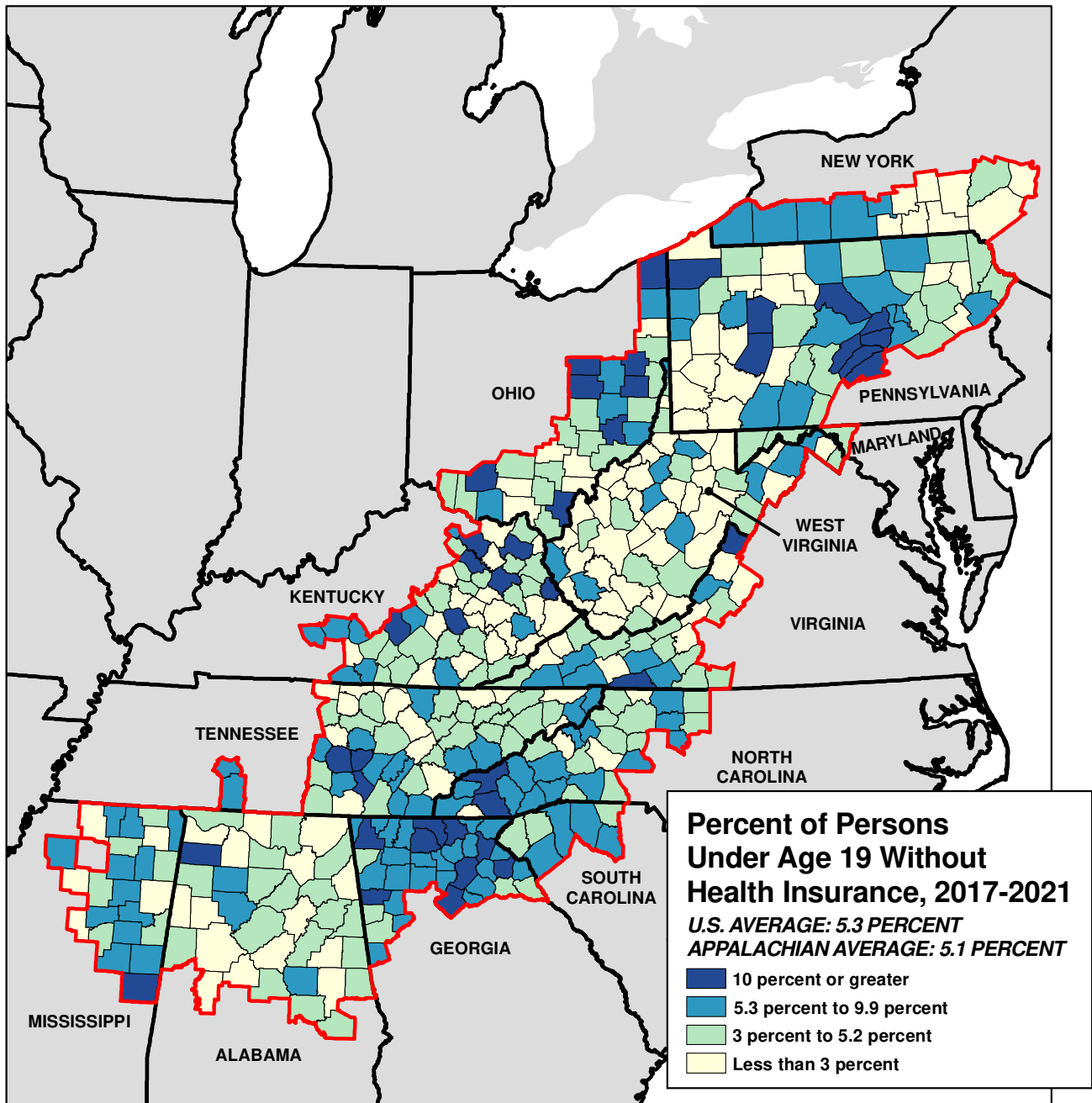
Figure 9.1: Percent of Persons in the Appalachian Region Not Covered by Health Insurance, 2017-2021



Map Title: Percent of Persons in the Appalachian Region Not Covered by Health Insurance, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

About 2.2 million persons in the Appalachian Region lacked any kind of health insurance coverage in the 2017-2021 period—a figure representing 8.6 percent of Appalachia’s residents. Although the percentage for the Region is slightly lower than the U.S. share of 8.8 percent, 197 of the 423 Appalachian counties had non-coverage rates that matched or exceeded the national average. In 23 Appalachian counties—11 of which were in Georgia—at least 15 percent of residents were not covered by insurance. (Indeed, 14 percent of residents in Georgia’s Appalachian section were not covered by health insurance.) In contrast, 54 counties had uninsured rates below 5 percent, and all but two of these were either in Kentucky, Maryland, New York, Pennsylvania, or West Virginia—the states with the lowest shares of uninsured residents in Appalachia (each below 6.5 percent).

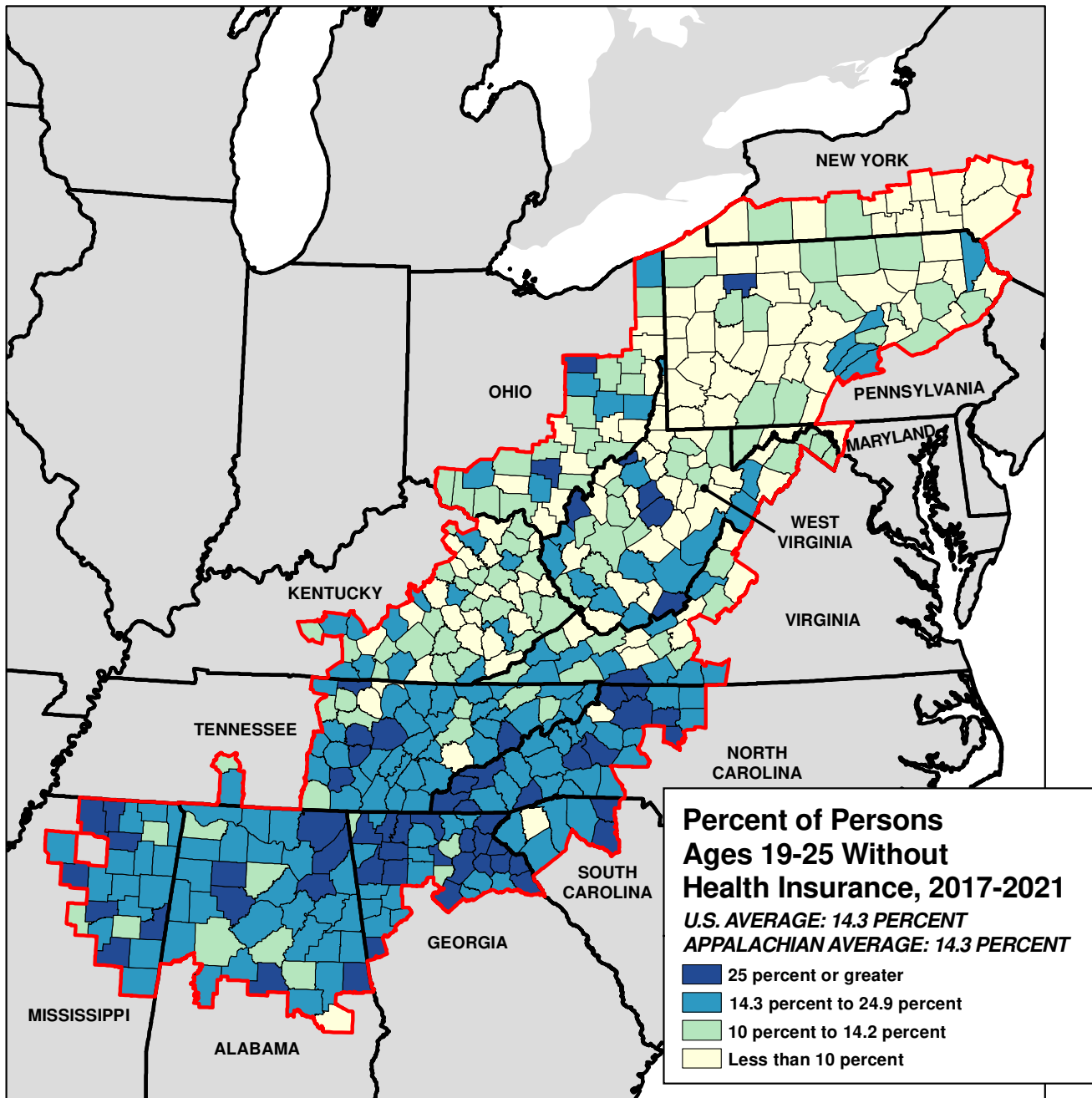
Figure 9.2: Percent of Persons Under Age 19 in the Appalachian Region Not Covered by Health Insurance, 2017-2021



Map Title: Percent of Persons Under Age 19 in the Appalachian Region Not Covered by Health Insurance, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Just 5.1 percent of Appalachia’s children and youth under age 19 were uninsured during 2017-2021, slightly below the national average of 5.3 percent. But the rate varied throughout the Region. On one hand, 128 counties had non-coverage rates under 3 percent; 57 were in either Alabama, New York, or West Virginia—three states in the Region where less than 4 percent of children and youth lacked health insurance. Conversely, at least one in 10 persons under age 19 were without health insurance in 42 other counties. While the counties in the latter group were scattered throughout various parts of Appalachia (most noticeably in Georgia, Kentucky, Pennsylvania, and Ohio), all but six of them were outside metropolitan areas. In Appalachian Georgia, the uninsured rate for children and youth was 8.5 percent—more than three percentage points above the national average.

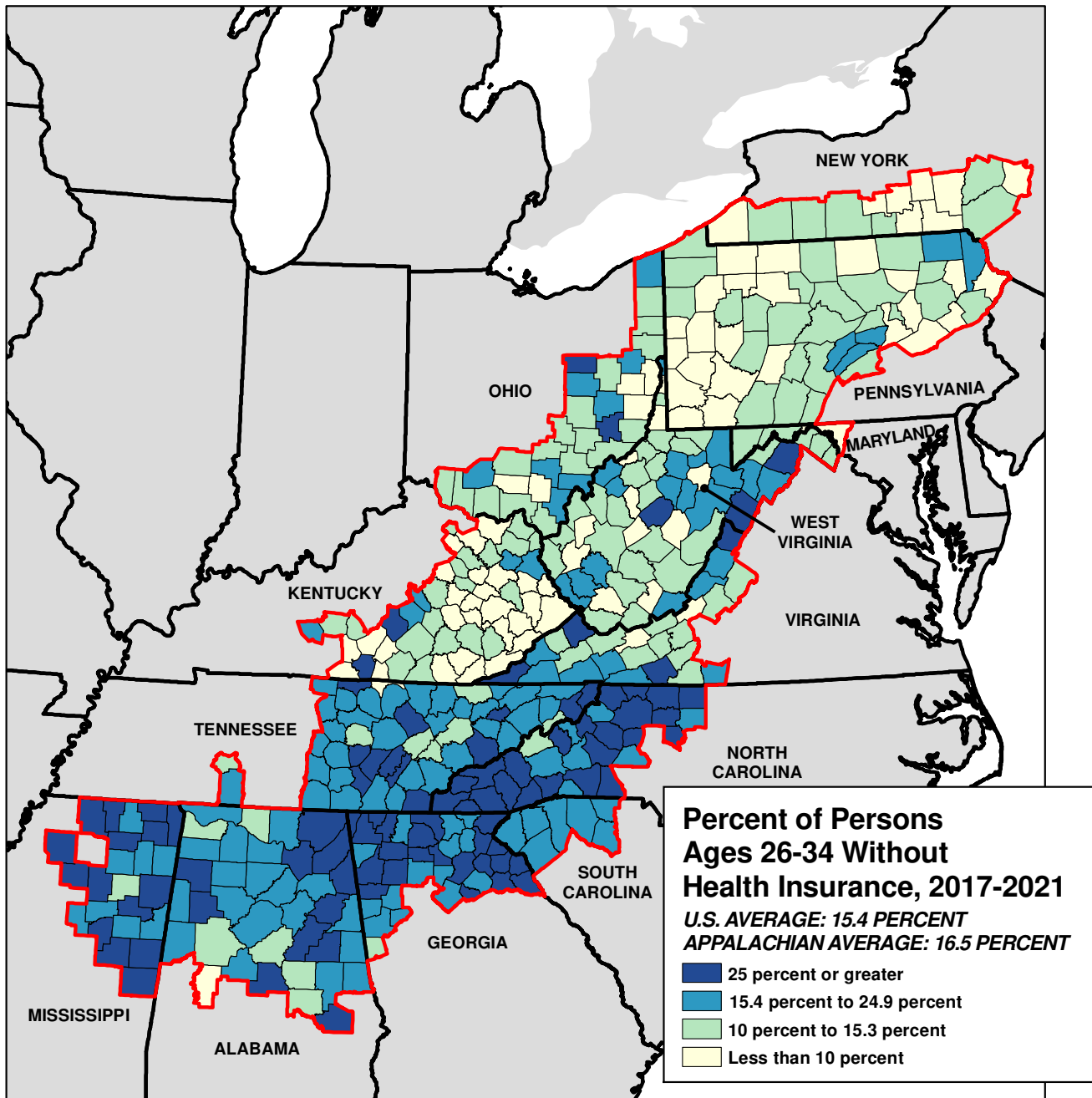
Figure 9.3: Percent of Persons Ages 19 to 25 in the Appalachian Region Not Covered by Health Insurance, 2017-2021



Map Title: Percent of Persons Ages 19 to 25 in the Appalachian Region Not Covered by Health Insurance, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

During the 2017-2021 period, one in seven Appalachian residents ages 19 to 25 did not have health insurance coverage. Although Appalachia’s rate for these young adults matched the national average of 14.3 percent, the non-coverage problem was especially prevalent in much of Southern Appalachia; in that subregion, close to one-fifth of 19-to-25-year-olds did not have coverage. This situation was especially dire in 62 counties, where non-coverage rates reached at least 25 percent. Among these counties, 26 were in either Georgia or Mississippi—the two states where the uninsured rate for young adults was more than 20 percent. (An additional 12 counties were in North Carolina, where 19.9 percent of 19-to-25-year-olds lacked insurance.) Moreover, 44 of those 62 counties were outside metropolitan areas. In contrast, 112 Appalachian counties had less than 10 percent of persons ages 19 to 25 without health insurance; most counties in this group were in Northern or North Central Appalachia, in metro areas, and/or had a four-year college or university within their boundaries.

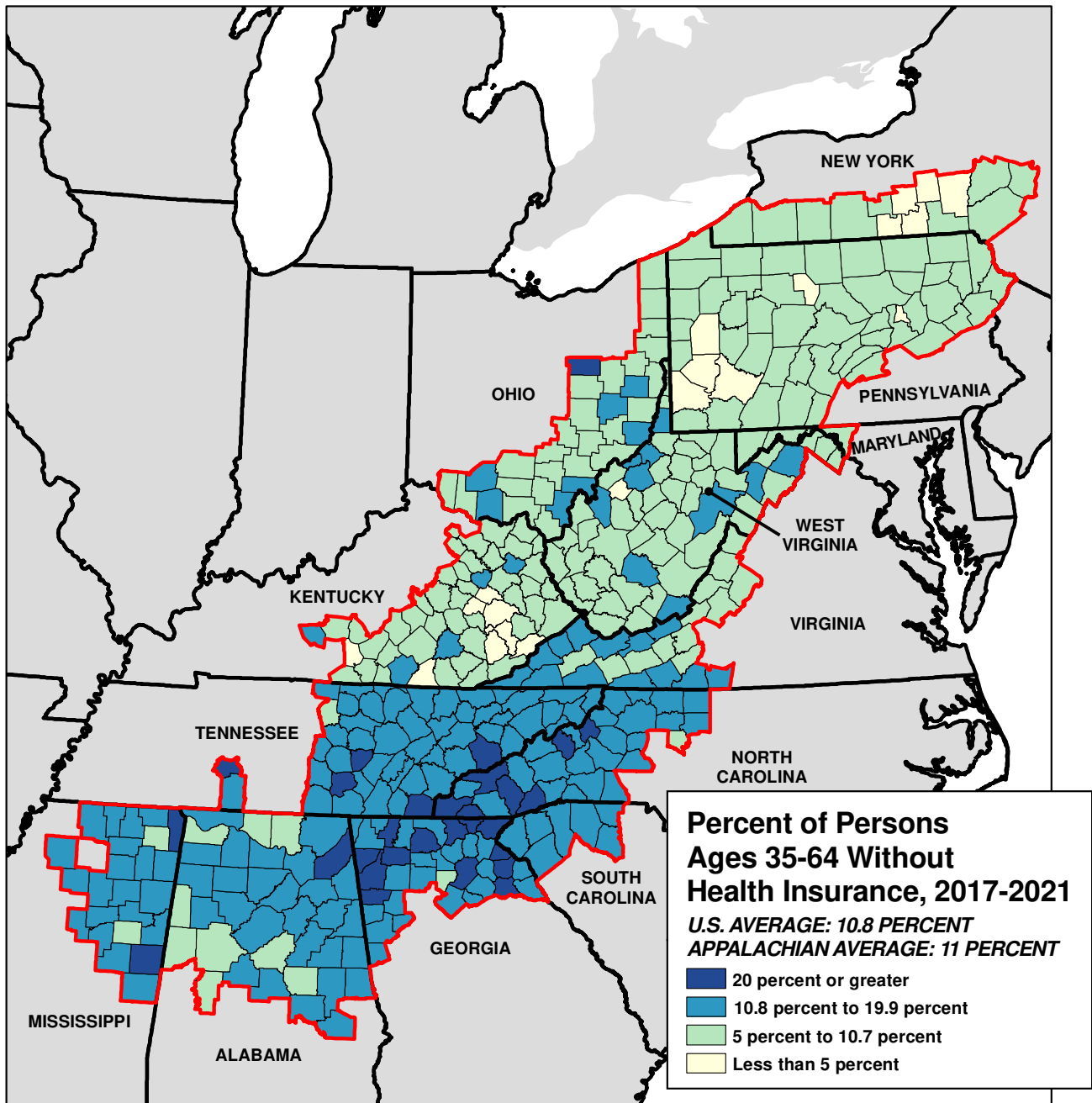
Figure 9.4: Percent of Persons Ages 26 to 34 in the Appalachian Region Not Covered by Health Insurance, 2017-2021



Map Title: Percent of Persons Ages 26 to 34 in the Appalachian Region Not Covered by Health Insurance, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Lack of health insurance coverage was highest among young adults ages 26 to 34—16.5 percent of Appalachian residents in this group were uninsured during the 2017-2021 period. This was the one age group where non-coverage was more prevalent in Appalachia than in the nation as a whole. And the situation was even worse in South Central and Southern Appalachia, where more than one in five 26-to-34-year-olds were without insurance. Indeed, these two subregions had 83 of the 94 counties where at least 25 percent of residents ages 26 to 34 lacked health insurance. However, 200 of Appalachia’s 423 counties did have non-coverage rates below the national average of 15.4 percent; these were overwhelmingly in the Northern, North Central, and Central subregions. And there were 80 Appalachian counties where less than 10 percent of young adults ages 26 to 34 were without health insurance.

Figure 9.5: Percent of Persons Ages 35 to 64 in the Appalachian Region Not Covered by Health Insurance, 2017-2021



Map Title: Percent of Persons Ages 35 to 64 in the Appalachian Region Not Covered by Health Insurance, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, 11 percent of Appalachia’s working-age population ages 35 to 64 were not covered by health insurance, slightly above the national rate of 10.8 percent. Yet there was great variation within the Region. For example, more than 15 percent of 35-to-64-year-olds in the Appalachian sections of Georgia and North Carolina were uninsured; these two states accounted for 20 of the 29 counties with non-coverage rates of at least 20 percent for this age group. (Georgia alone had 13 of these counties.) By comparison, there were 20 Appalachian counties where less than 5 percent of working-age residents were not insured; all but one of the counties in this latter group were in New York, Pennsylvania, or Kentucky. (The rate was less than 6 percent in the Appalachian sections of New York and Pennsylvania and just 7.5 percent in Appalachian Kentucky.)

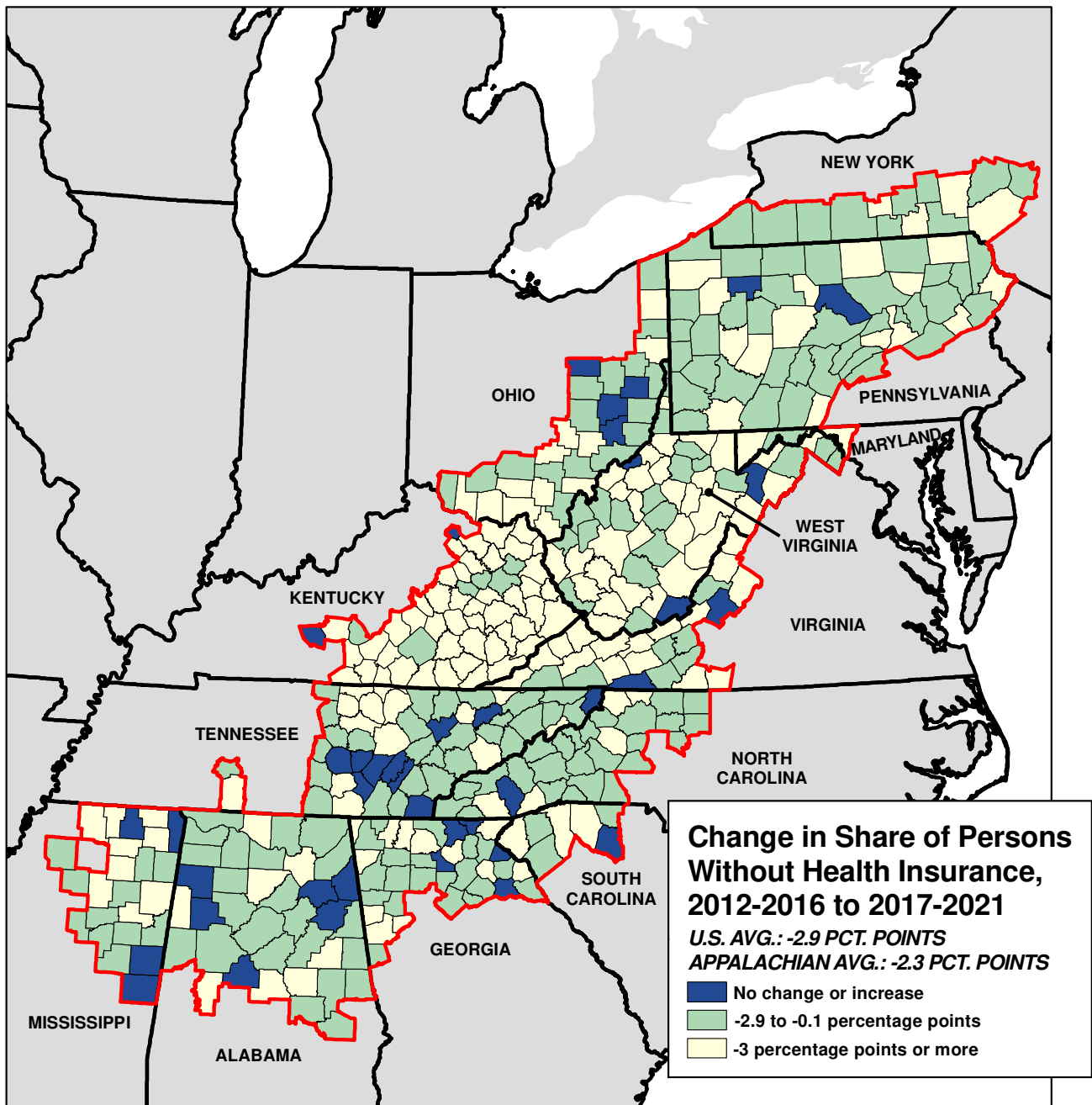
Table 9.3: Percentage Point Change in the Share of Persons in the Appalachian Region Not Covered by Health Insurance, by Age Group, 2012-2016 to 2017-2021

Health Insurance Status	All Ages	Under Age 35	Ages 35-64	Ages 65 and Over
United States	- 2.9	- 3.3	- 3.1	- 0.1
Appalachian Region	- 2.3	- 2.7	- 2.3	+ 0.0
Subregions				
Northern Appalachia	- 2.3	- 2.5	- 2.7	- 0.1
North Central Appalachia	- 2.9	- 3.5	- 3.3	+ 0.1
Central Appalachia	- 4.1	- 4.9	- 4.5	- 0.1
South Central Appalachia	- 1.9	- 2.2	- 1.9	+ 0.1
Southern Appalachia	- 2.1	- 2.8	- 1.8	+ 0.0
County Types				
Large Metros (pop. 1 million +)	- 2.0	- 2.3	- 1.9	+ 0.0
Small Metros (pop. <1 million)	- 2.1	- 2.6	- 2.0	+ 0.0
Nonmetro, Adjacent to Large Metros	- 2.2	- 2.5	- 2.5	+ 0.1
Nonmetro, Adjacent to Small Metros	- 2.5	- 3.0	- 2.6	+ 0.0
Rural (nonmetro, not adj. to a metro)	- 3.4	- 3.9	- 3.9	+ 0.0
Alabama	- 1.9	- 2.5	- 1.5	+ 0.1
Appalachian Alabama	- 1.8	- 2.4	- 1.4	+ 0.0
Non-Appalachian Alabama	- 2.1	- 2.6	- 1.9	+ 0.2
Georgia	- 2.7	- 3.0	- 2.4	- 0.1
Appalachian Georgia	- 2.2	- 2.8	- 1.7	+ 0.0
Non-Appalachian Georgia	- 2.9	- 3.1	- 2.8	- 0.1
Kentucky	- 3.8	- 4.4	- 4.2	+ 0.0
Appalachian Kentucky	- 4.8	- 5.4	- 5.6	- 0.1
Non-Appalachian Kentucky	- 3.4	- 4.0	- 3.6	+ 0.0
Maryland	- 2.1	- 2.4	- 2.2	- 0.3
Appalachian Maryland	- 2.9	- 3.5	- 3.3	- 0.2
Non-Appalachian Maryland	- 2.1	- 2.4	- 2.2	- 0.2
Mississippi	- 2.5	- 2.6	- 2.8	+ 0.1
Appalachian Mississippi	- 2.4	- 2.1	- 3.3	+ 0.3
Non-Appalachian Mississippi	- 2.6	- 2.7	- 2.7	- 0.1
New York	- 3.3	- 3.8	- 3.6	+ 0.0
Appalachian New York	- 2.3	- 2.6	- 2.6	- 0.1
Non-Appalachian New York	- 3.3	- 3.9	- 3.6	+ 0.0
North Carolina	- 2.5	- 3.0	- 2.4	+ 0.1
Appalachian North Carolina	- 1.9	- 2.0	- 2.1	+ 0.0
Non-Appalachian North Carolina	- 2.6	- 3.1	- 2.5	+ 0.0
Ohio	- 2.2	- 2.1	- 2.8	+ 0.0
Appalachian Ohio	- 2.5	- 2.7	- 2.8	+ 0.0
Non-Appalachian Ohio	- 2.1	- 1.9	- 2.7	+ 0.0
Pennsylvania	- 2.4	- 2.7	- 2.7	- 0.1
Appalachian Pennsylvania	- 2.2	- 2.5	- 2.7	+ 0.0
Non-Appalachian Pennsylvania	- 2.4	- 2.8	- 2.6	- 0.1
South Carolina	- 2.8	- 3.3	- 2.7	- 0.1
Appalachian South Carolina	- 2.9	- 3.8	- 2.5	+ 0.0
Non-Appalachian South Carolina	- 2.8	- 3.0	- 2.7	- 0.2
Tennessee	- 1.7	- 1.9	- 1.7	+ 0.0
Appalachian Tennessee	- 1.6	- 2.1	- 1.4	+ 0.1
Non-Appalachian Tennessee	- 1.7	- 1.7	- 2.0	+ 0.0
Virginia	- 2.8	- 3.1	- 3.1	+ 0.0
Appalachian Virginia	- 3.3	- 4.1	- 3.4	+ 0.1
Non-Appalachian Virginia	- 2.7	- 3.0	- 3.0	- 0.1
West Virginia (entire state)	- 3.2	- 3.9	- 3.5	+ 0.1

Note: The health insurance universe consists of the civilian noninstitutional population.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 9.6: Percentage Point Change in the Share of Persons in the Appalachian Region Not Covered by Health Insurance, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region Not Covered by Health Insurance, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian residents not covered by health insurance fell 2.3 percentage points between the 2012-2016 and 2017-2021 periods. While the improvement is slightly less than in the nation as a whole, it was above the national average in many parts of the Region: Non-coverage rates fell more than four percentage points in Central Appalachia, for example, and nearly five points in Appalachian Kentucky. Indeed, Kentucky alone accounted for more than a quarter of the 177 Appalachian counties where the decrease in non-coverage was greater than the U.S. average. But this did not happen everywhere in Appalachia: In fact, there were 40 counties where the share of residents who lacked health insurance in 2017-2021 matched or exceeded the share without insurance in 2012-2016. Analysts cite programs designed to increase coverage, including expansion of the Children’s Health Insurance Program (CHIP) and provisions of the Affordable Care Act, including Medicaid expansion, as factors in the decreased share of persons—particularly those under age 65—without health insurance.

TRENDS IN HEALTH INSURANCE COVERAGE

- Between the 2012-2016 and 2017-2021 periods, the share of Appalachian residents not covered by health insurance fell 2.3 percentage points to 8.6 percent (see Tables 9.2 and 9.3). And this improvement was even greater in many parts of the Region: Non-coverage rates fell four percentage points in Central Appalachia and more than three points in the Region's most rural counties. As for the Appalachian sections of states, uninsured rates fell nearly five points in Kentucky, and more than three points in Virginia and West Virginia. Indeed, non-coverage rates fell by at least two percentage points in four of the five subregions, every county type, and the Appalachian sections of all but three states in the Region.
- The decline in health insurance non-coverage was greatest among children and younger adults under age 35. The uninsured rate in the under-35 population was 2.7 percentage points lower in 2017-2021 than in 2012-2016. Provisions to expand health insurance coverage, particularly among children and adults under age 26, have been cited as factors for this decline. As with the general population, declines in non-coverage among children and young adults were the greatest in North Central and Central Appalachia, rural counties, West Virginia, and the Appalachian section of Kentucky. (The uninsured rate among persons under age 35 fell by more than five percentage points in Kentucky.)
- In most cases, the decline in health insurance coverage was more modest among the older working-age population (ages 35-64). In Appalachia, the uninsured rate in this age group fell 2.3 percentage points, compared with 3.1 points nationwide. Yet in every major part of the Region—each subregion, each county type, and each state's Appalachian section—the non-coverage prevalence among residents in this age group was lower in 2017-2021 than in 2012-2016. And most of the areas with the largest declines for the younger age groups (North Central and Central Appalachia, rural counties, and Kentucky's Appalachian section) also had the largest declines for 35-to-64-year-olds. Although the share of adults ages 65 and over who lacked health insurance decreased slightly (0.1 percentage points) in the nation, the share remained unchanged in Appalachia. There was also little to no change across subregions and urban-rural county types for this age group.
- Analysts cite programs designed to increase coverage, including expansion of the Children's Health Insurance Program (CHIP) and provisions of the Affordable Care Act, including Medicaid expansion, as factors in the decreased share of persons under age 65—particularly younger persons—lacking health insurance in 2017-2021. But recent economic concerns in 2022 and 2023—which ultimately could result in job losses and the resulting loss of employer-based health insurance—may lead to a reversal of some of these improvements in future years.

CHAPTER 10: DISABILITY STATUS

Table 10.1: Number of Persons in the Appalachian Region With a Disability, by Age Group, 2017-2021

Disability Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-34	Ages 35-64	
United States	41,055,492	3,270,678	20,537,729	5,048,681	15,489,048	17,247,085
Appalachian Region	4,149,379	295,079	2,144,282	460,879	1,683,403	1,710,018
Subregions						
Northern Appalachia	1,228,365	94,308	611,351	144,222	467,129	522,706
North Central Appalachia	453,714	29,657	240,201	49,493	190,708	183,856
Central Appalachia	434,218	28,866	245,671	44,018	201,653	159,681
South Central Appalachia	843,755	53,903	424,575	85,532	339,043	365,277
Southern Appalachia	1,189,327	88,345	622,484	137,614	484,870	478,498
County Types						
Large Metros (pop. 1 million +)	813,341	67,200	414,205	95,764	318,441	331,936
Small Metros (pop. <1 million)	1,724,734	124,447	886,338	197,631	688,707	713,949
Nonmetro, Adjacent to Large Metros	393,838	26,087	207,634	45,923	161,711	160,117
Nonmetro, Adjacent to Small Metros	732,374	47,426	376,352	73,416	302,936	308,596
Rural (nonmetro, not adj. to a metro)	485,092	29,919	259,753	48,145	211,608	195,420
Alabama	792,519	50,908	420,466	88,546	331,920	321,145
Appalachian Alabama	510,705	33,791	271,211	57,008	214,203	205,703
Non-Appalachian Alabama	281,814	17,117	149,255	31,538	117,717	115,442
Georgia	1,297,020	112,511	683,665	161,970	521,695	500,844
Appalachian Georgia	383,202	31,542	198,220	46,377	151,843	153,440
Non-Appalachian Georgia	913,818	80,969	485,445	115,593	369,852	347,404
Kentucky	768,360	60,607	426,523	94,669	331,854	281,230
Appalachian Kentucky	260,067	17,874	149,066	27,667	121,399	93,127
Non-Appalachian Kentucky	508,293	42,733	277,457	67,002	210,455	188,103
Maryland	669,324	56,801	335,747	86,152	249,595	276,776
Appalachian Maryland	38,444	3,338	19,742	4,348	15,394	15,364
Non-Appalachian Maryland	630,880	53,463	316,005	81,804	234,201	261,412
Mississippi	487,068	36,783	262,580	57,318	205,262	187,705
Appalachian Mississippi	102,796	7,273	55,404	12,576	42,828	40,119
Non-Appalachian Mississippi	384,272	29,510	207,176	44,742	162,434	147,586
New York	2,296,516	170,480	1,108,163	267,886	840,277	1,017,873
Appalachian New York	156,652	13,259	80,531	20,828	59,703	62,862
Non-Appalachian New York	2,139,864	157,221	1,027,632	247,058	780,574	955,011
North Carolina	1,344,612	100,794	685,029	150,990	534,039	558,789
Appalachian North Carolina	309,401	18,291	153,068	31,250	121,818	138,042
Non-Appalachian North Carolina	1,035,211	82,503	531,961	119,740	412,221	420,747
Ohio	1,615,264	134,573	834,849	205,761	629,088	645,842
Appalachian Ohio	335,382	23,907	177,360	39,249	138,111	134,115
Non-Appalachian Ohio	1,279,882	110,666	657,489	166,512	490,977	511,727
Pennsylvania	1,778,737	150,837	885,140	218,693	666,447	742,760
Appalachian Pennsylvania	860,115	65,473	423,182	99,469	323,713	371,460
Non-Appalachian Pennsylvania	918,622	85,364	461,958	119,224	342,734	371,300
South Carolina	712,699	51,148	359,036	75,762	283,274	302,515
Appalachian South Carolina	192,624	15,739	97,649	21,653	75,996	79,236
Non-Appalachian South Carolina	520,075	35,409	261,387	54,109	207,278	223,279
Tennessee	1,034,825	79,459	543,454	117,359	426,095	411,912
Appalachian Tennessee	517,074	35,210	266,827	52,185	214,642	215,037
Non-Appalachian Tennessee	517,751	44,249	276,627	65,174	211,453	196,875
Virginia	994,331	82,651	494,241	121,456	372,785	417,439
Appalachian Virginia	140,316	8,409	72,705	13,627	59,078	59,202
Non-Appalachian Virginia	854,015	74,242	421,536	107,829	313,707	358,237
West Virginia (entire state)	342,601	20,973	179,317	34,642	144,675	142,311

Note: The ACS defines persons with a disability as those having difficulty in at least one of the following six areas: hearing, vision, cognition, walking or climbing, self-care, or attending to the functions of independent living. The disability universe consists of the civilian noninstitutional population.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

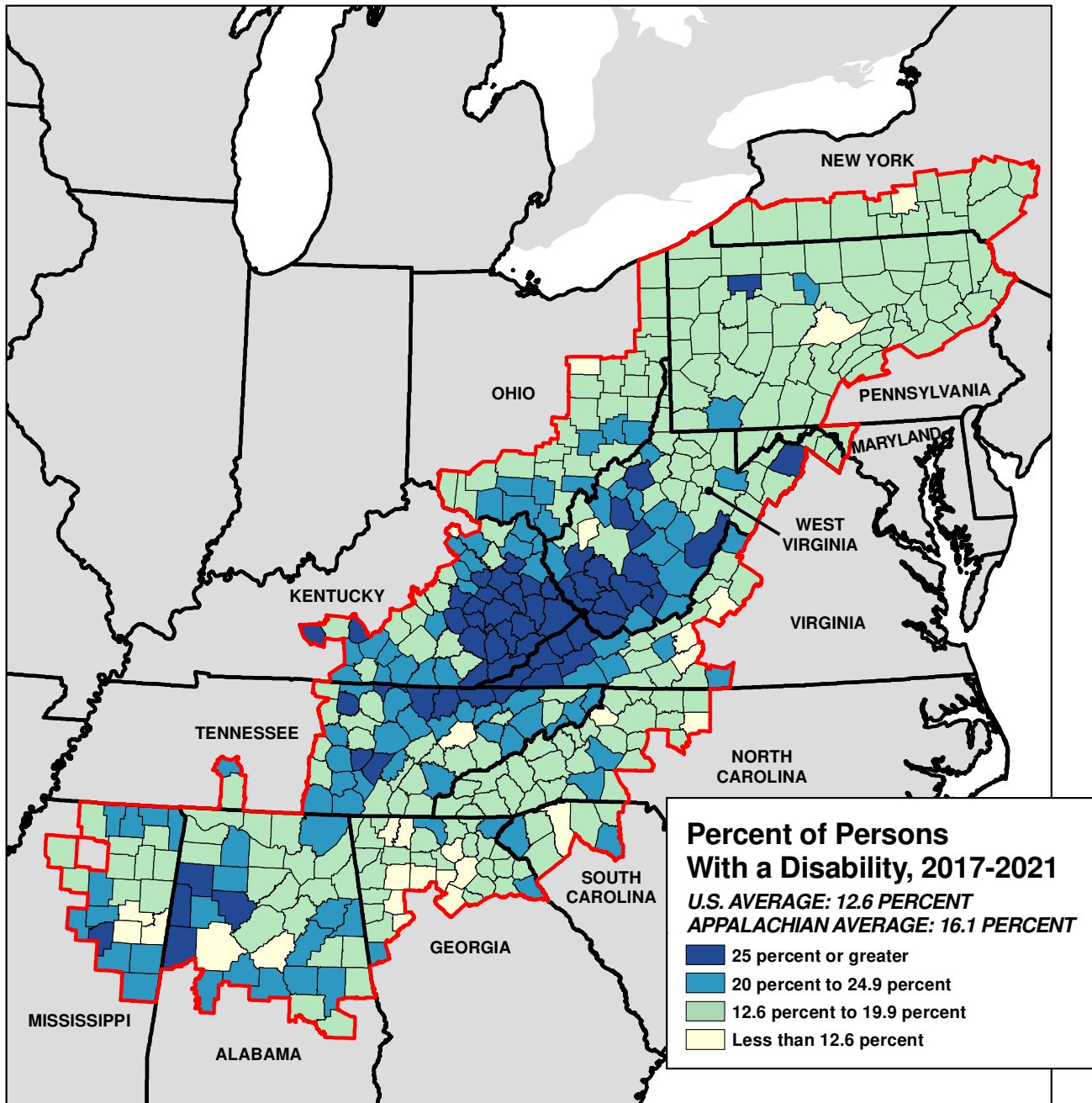
Table 10.2: Percent of Persons in the Appalachian Region With a Disability, by Age Group, 2017-2021

Disability Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-34	Ages 35-64	
United States	12.6	4.4	10.3	6.8	12.4	33.4
Appalachian Region	16.1	5.3	13.8	8.4	16.7	36.7
Subregions						
Northern Appalachia	15.5	5.9	12.8	8.5	15.1	33.6
North Central Appalachia	18.4	5.7	16.3	9.7	19.7	39.4
Central Appalachia	23.8	7.2	22.6	12.2	27.9	47.1
South Central Appalachia	16.5	5.2	13.8	7.9	17.0	36.6
Southern Appalachia	14.2	4.5	12.2	7.5	14.8	36.7
County Types						
Large Metros (pop. 1 million +)	13.1	4.8	10.9	7.3	12.8	33.4
Small Metros (pop. <1 million)	15.7	5.4	13.2	8.1	16.2	35.8
Nonmetro, Adjacent to Large Metros	17.5	5.3	15.5	9.8	18.5	37.9
Nonmetro, Adjacent to Small Metros	19.0	5.9	16.6	9.7	20.1	39.2
Rural (nonmetro, not adj. to a metro)	20.0	5.7	18.1	9.6	22.7	41.6
Alabama	16.1	4.5	14.1	8.2	17.6	38.9
Appalachian Alabama	16.1	4.7	14.1	8.2	17.4	38.9
Non-Appalachian Alabama	16.1	4.2	14.3	8.1	17.9	38.8
Georgia	12.4	4.4	10.6	6.8	12.8	34.5
Appalachian Georgia	11.6	3.8	9.8	6.7	11.5	33.6
Non-Appalachian Georgia	12.8	4.8	10.9	6.8	13.5	34.8
Kentucky	17.4	5.9	15.9	9.7	19.4	39.3
Appalachian Kentucky	22.7	6.9	21.7	11.7	26.9	46.5
Non-Appalachian Kentucky	15.5	5.6	13.9	9.1	16.7	36.5
Maryland	11.1	4.1	9.0	6.5	10.3	29.8
Appalachian Maryland	16.2	6.6	13.9	8.8	16.6	34.8
Non-Appalachian Maryland	10.9	4.0	8.8	6.4	10.0	29.6
Mississippi	16.8	5.2	15.1	8.9	18.8	40.7
Appalachian Mississippi	17.0	5.1	15.3	9.1	19.1	40.0
Non-Appalachian Mississippi	16.7	5.3	15.1	8.9	18.7	40.9
New York	11.6	4.1	8.9	5.8	10.8	31.4
Appalachian New York	15.4	6.7	12.9	8.6	15.6	32.7
Non-Appalachian New York	11.3	3.9	8.7	5.6	10.6	31.4
North Carolina	13.2	4.4	11.0	6.7	13.5	33.8
Appalachian North Carolina	15.5	4.5	12.9	7.6	15.6	34.3
Non-Appalachian North Carolina	12.7	4.4	10.6	6.5	12.9	33.7
Ohio	13.9	5.1	11.9	8.0	14.1	33.3
Appalachian Ohio	17.2	5.6	15.4	10.0	18.1	36.8
Non-Appalachian Ohio	13.3	5.0	11.2	7.7	13.2	32.5
Pennsylvania	13.9	5.6	11.4	7.8	13.4	32.5
Appalachian Pennsylvania	15.4	5.9	12.5	8.4	14.7	33.5
Non-Appalachian Pennsylvania	12.8	5.4	10.5	7.4	12.3	31.5
South Carolina	14.3	4.6	12.0	7.0	14.8	34.1
Appalachian South Carolina	14.6	5.2	12.2	7.3	15.1	36.0
Non-Appalachian South Carolina	14.2	4.4	11.9	7.0	14.7	33.5
Tennessee	15.3	5.2	13.2	7.7	16.3	37.7
Appalachian Tennessee	17.8	5.8	15.3	8.5	19.0	39.3
Non-Appalachian Tennessee	13.4	4.8	11.6	7.2	14.3	36.1
Virginia	11.9	4.4	9.6	6.5	11.3	32.0
Appalachian Virginia	19.4	6.3	16.6	8.5	21.3	39.4
Non-Appalachian Virginia	11.2	4.2	8.9	6.3	10.4	31.0
West Virginia (entire state)	19.3	5.7	17.0	9.6	20.8	40.5

Note: The ACS defines persons with a disability as those having difficulty in at least one of the following six areas: hearing, vision, cognition, walking or climbing, self-care, or attending to the functions of independent living. The disability universe consists of the civilian noninstitutional population.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

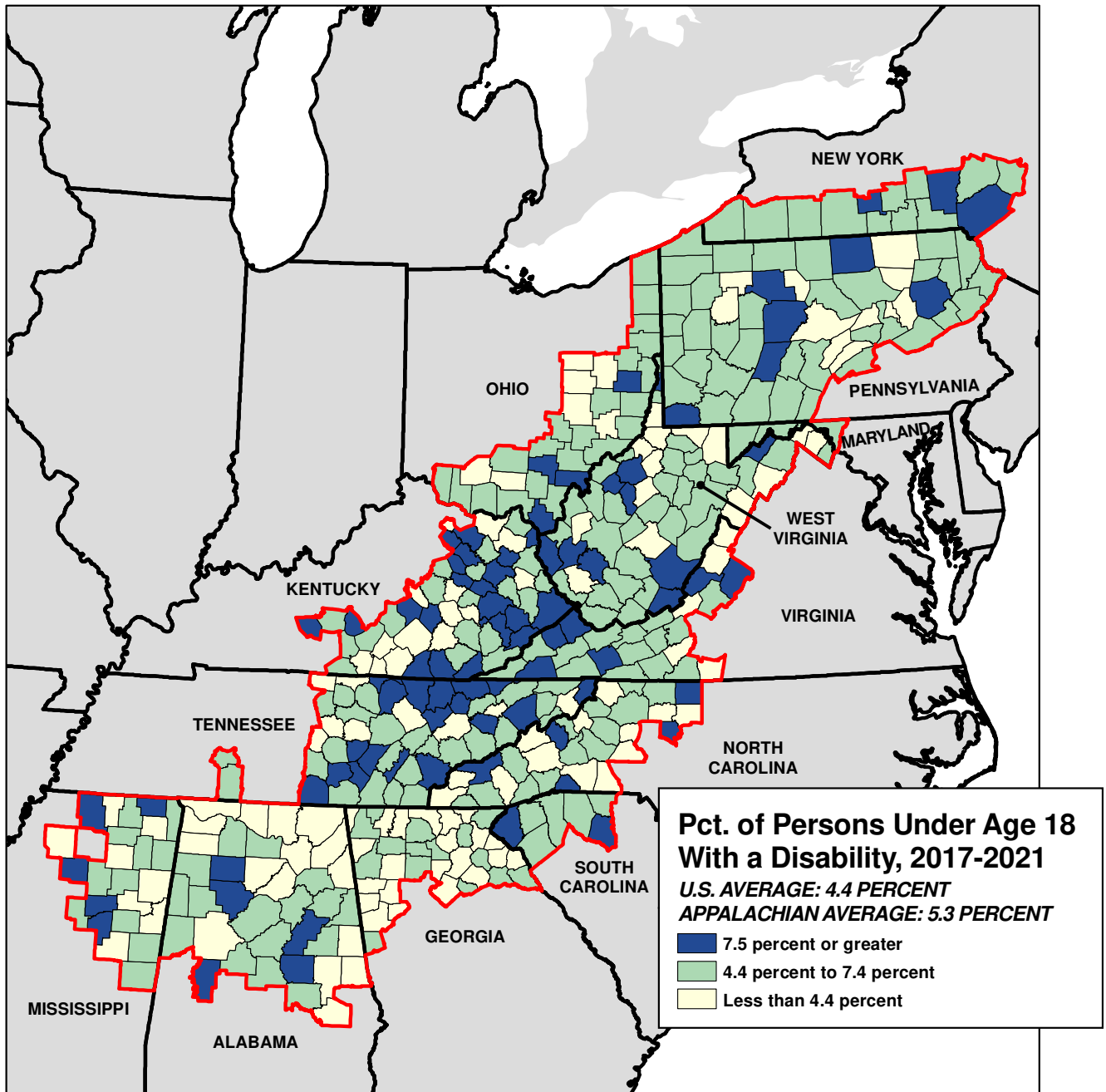
Figure 10.1: Percent of Persons in the Appalachian Region With a Disability, 2017-2021



Map Title: Percent of Persons in the Appalachian Region With a Disability, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the 2017-2021 period, almost one in six Appalachian residents reported having a disability, which the ACS defines as having difficulty in at least one of the following six areas: hearing, vision, cognition, walking or climbing, self-care, or attending to the functions of independent living. Disability prevalence is particularly high in some parts of the Region; the rate was 25 percent or more in 57 counties, 32 of which were in Appalachia’s most rural counties (where the overall disability rate was 20 percent). Kentucky, Virginia, and West Virginia—the three states with the highest levels of disability in the Region—combined for 43 of these counties. By contrast, there were only 27 counties in Appalachia with a disability rate below the national average. Appalachia’s relatively high disability rate corresponds to the population’s older age structure: Among the 57 counties with the highest disability prevalence levels, the share of residents age 65 or older exceeded the national average (16.8 percent in mid-2021) in all but one of them. And in 36 of these counties, the share of older persons was at least 20 percent.

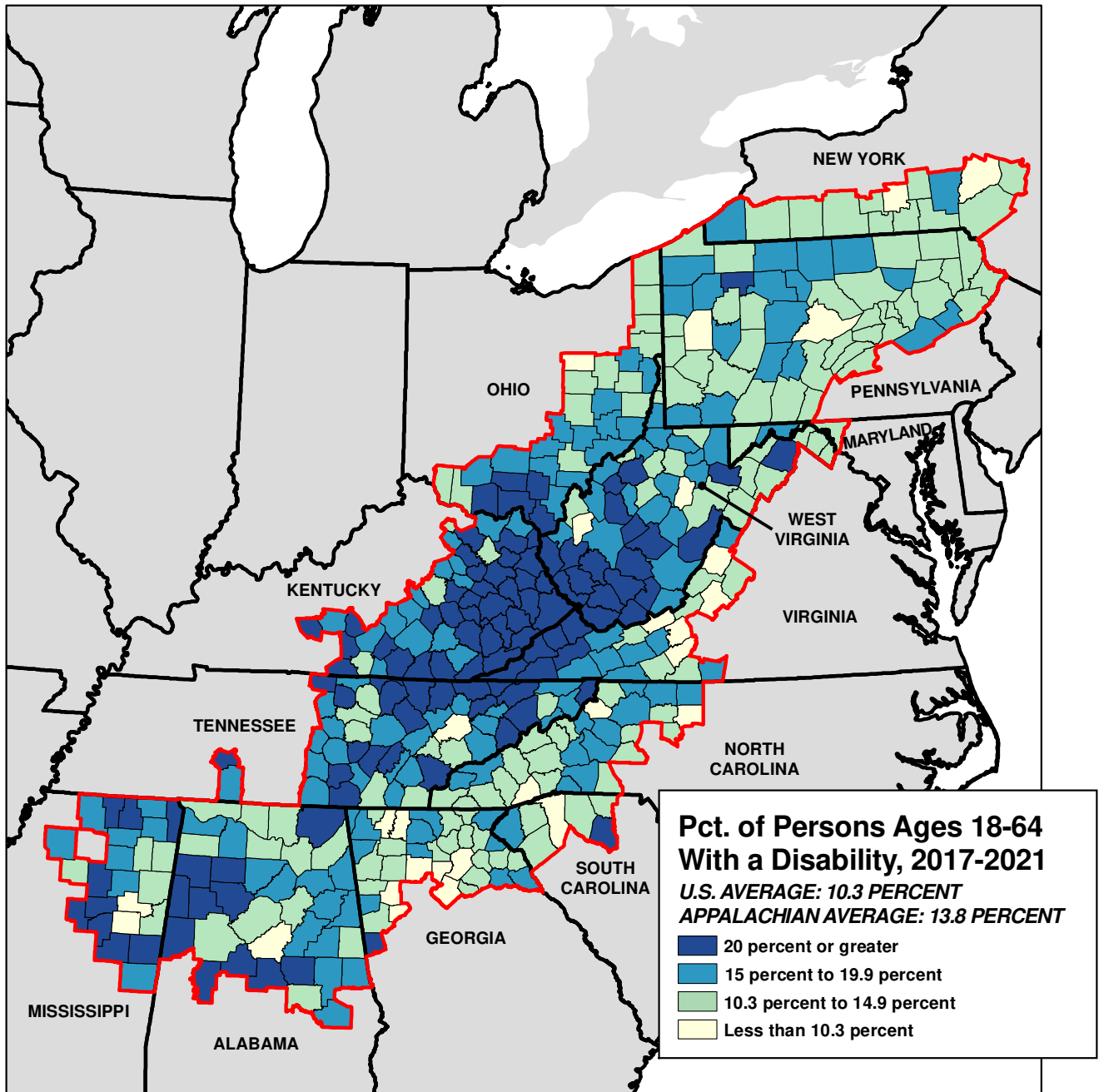
Figure 10.2: Percent of Persons Under Age 18 in the Appalachian Region With a Disability, 2017-2021



Map Title: Percent of Persons Under Age 18 in the Appalachian Region With a Disability, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

At 5.3 percent, the prevalence of disability among children under age 18 in Appalachia was higher than the national average during the 2017-2021 period. But there was variation within the Region. For example, the rate was at least 7.5 percent in 85 counties, 62 of which were outside metropolitan areas. In 119 other counties, however, the disability prevalence was below the national average of 4.4 percent. Almost two-fifths of the counties in the latter group were in Southern Appalachia—the only subregion where the disability rate among the under-18 population (4.5 percent) was less than 5 percent.

Figure 10.3: Percent of Persons Ages 18 to 64 in the Appalachian Region With a Disability, 2017-2021

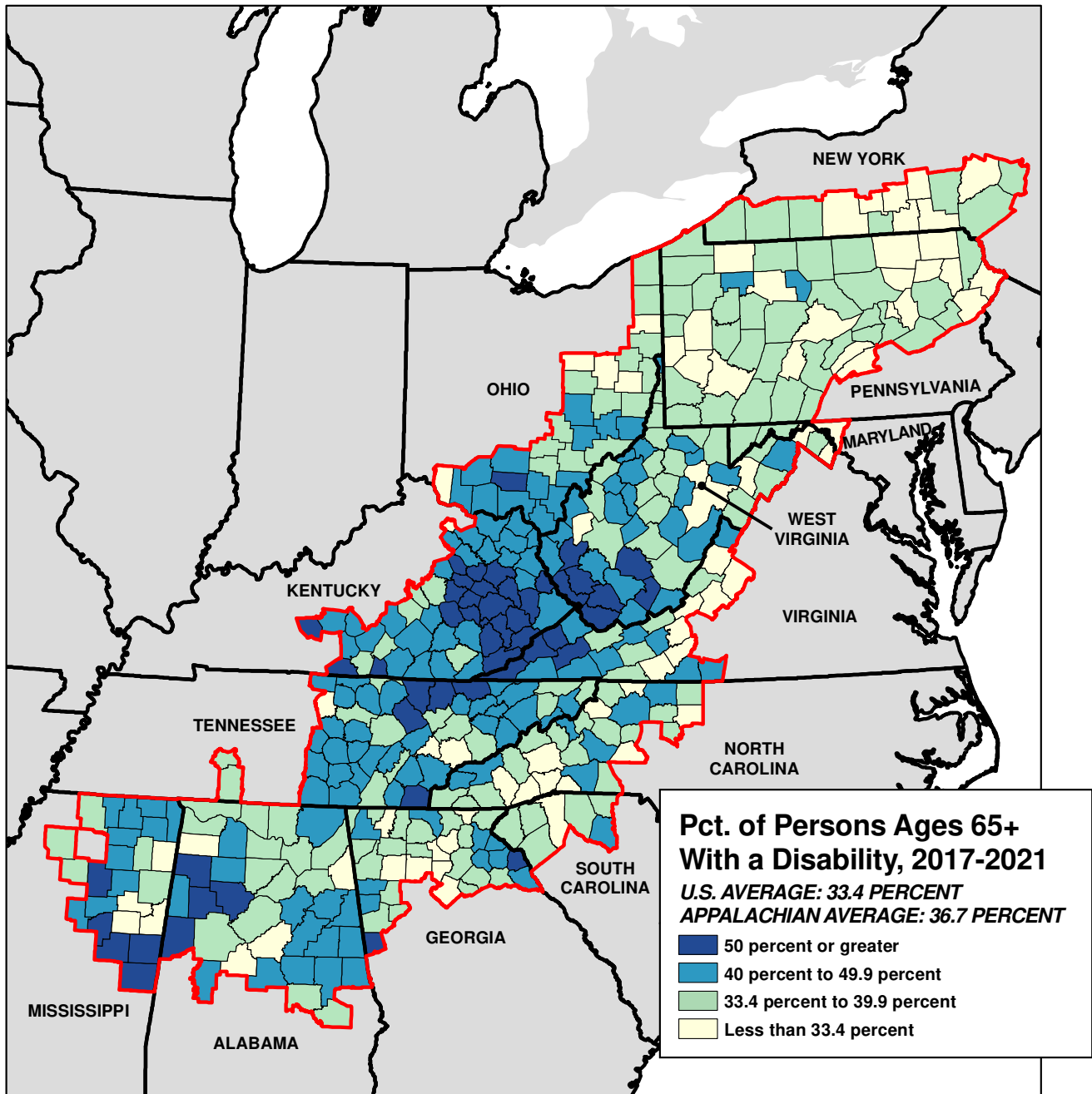


Map Title: Percent of Persons Ages 18 to 64 in the Appalachian Region With a Disability, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the 2017-2021 period, 13.8 percent of adults ages 18 to 64 in Appalachia reported a disability, compared with 10.3 percent nationally. Disability prevalence was particularly high in some parts of the Region: In Central Appalachia, for example, 22.6 percent of adults ages 18 to 64 had a disability. Indeed, Central Appalachia had 58 of the 109 Appalachian counties where the disability rate among 18-to-64-year-olds was 20 percent or higher. Almost a third of these 109 counties were in Kentucky alone. Central Appalachia’s historic reliance on mining and related resource-based industries, as well as Appalachia’s relatively high rates of cancer, heart disease, and diabetes, may be associated with the subregion’s high disability prevalence for this age group.

Figure 10.4: Percent of Persons Ages 65 and Over in the Appalachian Region With a Disability, 2017-2021



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region With a Disability, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Almost 37 percent of adults ages 65 and over in the Appalachian Region reported a disability in the 2017-2021 period, more than three percentage points above the national share. And the prevalence was even greater in some parts of the Region: Nearly half of the older residents in Central Appalachia—and in Appalachian Kentucky—had at least one disability. Indeed, Central Appalachia had 34 of the 49 counties where at least half of older residents reported a disability. (Kentucky alone had 21 of these counties.) And there are signs that disabled adults in the Region may be aging in place: In 27 of these 49 counties, the share of 18-to-64-year-olds with a disability was at or above 25 percent—almost 2.5 times the national average for that age group. In 75 other Appalachian counties, however, the disability rate for the older population was actually lower than the national average. Among these low-prevalence counties, 31 were in Northern Appalachia—the only subregion where the disability prevalence rate for older residents, at 33.6 percent, was not at least three percentage points above the national average.

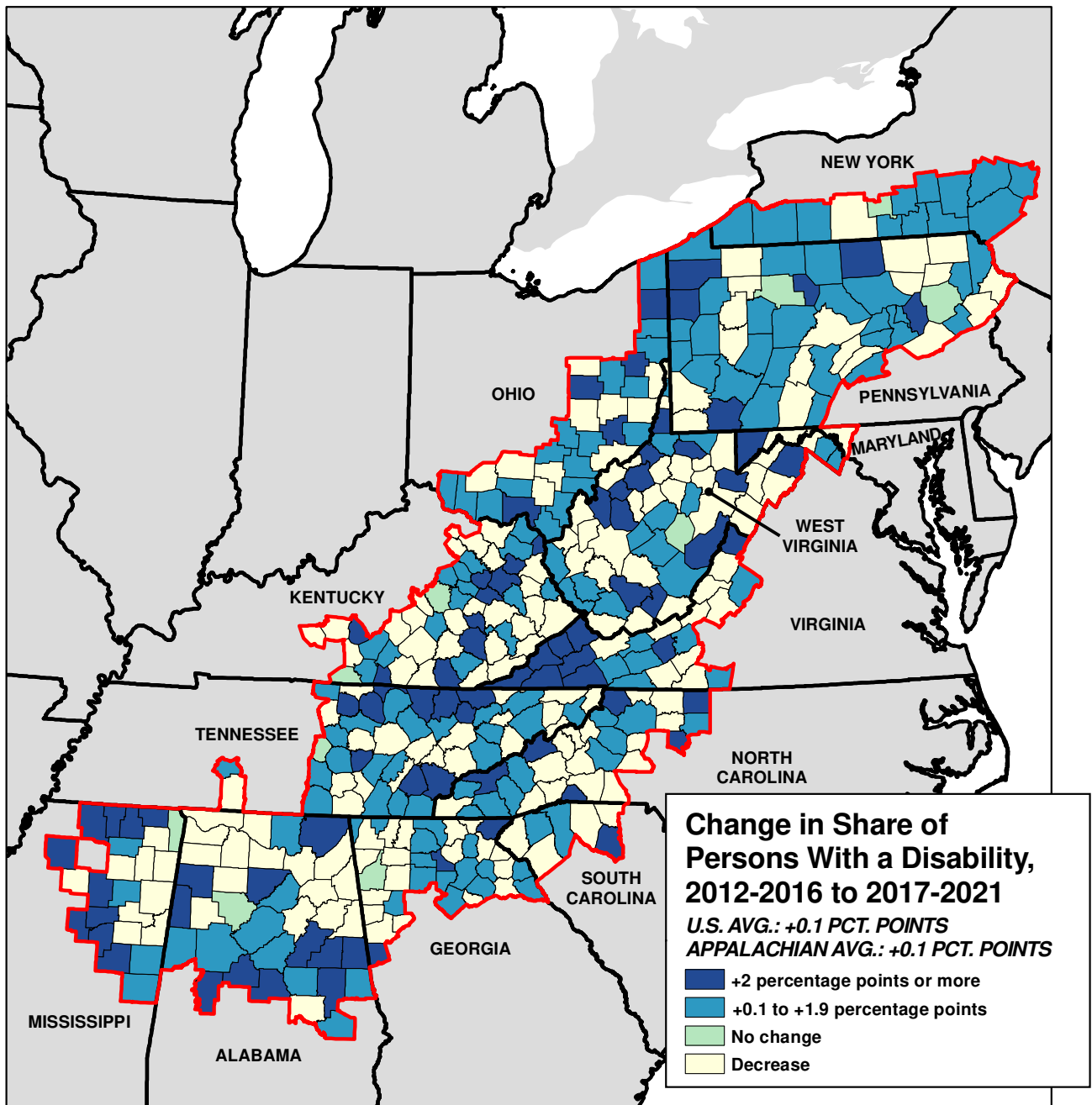
Table 10.3: Percentage Point Change in the Share of Persons in the Appalachian Region With a Disability, by Age Group, 2012-2016 to 2017-2021

Disability Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-34	Ages 35-64	
United States	+ 0.1	+ 0.3	+ 0.0	+ 0.8	- 0.5	- 2.3
Appalachian Region	+ 0.1	+ 0.4	- 0.1	+ 0.8	- 0.6	- 2.1
Subregions						
Northern Appalachia	+ 0.5	+ 0.4	+ 0.5	+ 1.2	+ 0.1	- 1.8
North Central Appalachia	+ 0.1	+ 0.1	+ 0.0	+ 0.6	- 0.5	- 1.9
Central Appalachia	+ 0.3	+ 1.0	+ 0.0	+ 1.0	- 0.3	- 2.5
South Central Appalachia	- 0.1	+ 0.5	- 0.5	+ 0.4	- 0.9	- 1.6
Southern Appalachia	- 0.1	+ 0.4	- 0.4	+ 0.8	- 1.1	- 2.7
County Types						
Large Metros (pop. 1 million +)	+ 0.3	+ 0.7	+ 0.1	+ 1.0	- 0.5	- 2.0
Small Metros (pop. <1 million)	+ 0.1	+ 0.4	- 0.2	+ 0.8	- 0.6	- 2.3
Nonmetro, Adjacent to Large Metros	+ 0.6	+ 0.1	+ 0.4	+ 1.6	- 0.2	- 0.7
Nonmetro, Adjacent to Small Metros	+ 0.2	+ 0.4	+ 0.0	+ 0.6	- 0.2	- 1.6
Rural (nonmetro, not adj. to a metro)	- 0.4	+ 0.1	- 0.6	+ 0.5	- 1.1	- 3.0
Alabama	- 0.2	- 0.2	- 0.4	+ 0.6	- 0.8	- 2.7
Appalachian Alabama	+ 0.0	+ 0.2	- 0.2	+ 0.7	- 0.7	- 2.4
Non-Appalachian Alabama	- 0.6	- 0.8	- 0.5	+ 0.2	- 1.1	- 3.4
Georgia	+ 0.1	+ 0.5	- 0.2	+ 0.8	- 0.9	- 2.9
Appalachian Georgia	- 0.1	+ 0.3	- 0.4	+ 0.8	- 1.0	- 2.8
Non-Appalachian Georgia	+ 0.2	+ 0.6	- 0.2	+ 0.8	- 0.7	- 3.1
Kentucky	+ 0.2	+ 0.4	+ 0.1	+ 1.1	- 0.5	- 2.8
Appalachian Kentucky	- 0.6	+ 0.6	- 0.8	+ 0.5	- 1.5	- 3.7
Non-Appalachian Kentucky	+ 0.4	+ 0.4	+ 0.5	+ 1.4	+ 0.0	- 2.3
Maryland	+ 0.4	+ 0.3	+ 0.4	+ 1.2	- 0.1	- 2.3
Appalachian Maryland	- 0.3	- 0.3	- 0.5	- 0.7	- 0.4	- 1.2
Non-Appalachian Maryland	+ 0.5	+ 0.3	+ 0.5	+ 1.3	- 0.1	- 2.3
Mississippi	+ 0.4	+ 0.5	+ 0.3	+ 1.5	- 0.5	- 2.8
Appalachian Mississippi	- 0.5	+ 0.5	- 0.6	+ 2.0	- 2.1	- 4.6
Non-Appalachian Mississippi	+ 0.7	+ 0.6	+ 0.6	+ 1.4	- 0.1	- 2.3
New York	+ 0.4	+ 0.3	+ 0.2	+ 0.8	- 0.2	- 2.3
Appalachian New York	+ 0.9	+ 0.8	+ 0.9	+ 1.3	+ 0.6	- 1.5
Non-Appalachian New York	+ 0.2	+ 0.2	+ 0.2	+ 0.8	- 0.2	- 2.3
North Carolina	- 0.5	+ 0.0	- 0.7	+ 0.2	- 1.1	- 3.2
Appalachian North Carolina	+ 0.0	+ 0.1	- 0.2	+ 0.7	- 0.6	- 2.1
Non-Appalachian North Carolina	- 0.5	+ 0.0	- 0.7	+ 0.1	- 1.3	- 3.4
Ohio	+ 0.1	+ 0.2	+ 0.0	+ 1.1	- 0.5	- 1.8
Appalachian Ohio	+ 0.7	+ 0.4	+ 0.4	+ 1.4	+ 0.0	- 0.4
Non-Appalachian Ohio	+ 0.1	+ 0.1	+ 0.0	+ 1.1	- 0.7	- 2.1
Pennsylvania	+ 0.2	+ 0.4	+ 0.3	+ 1.0	- 0.1	- 2.0
Appalachian Pennsylvania	+ 0.4	+ 0.3	+ 0.4	+ 1.2	+ 0.0	- 2.1
Non-Appalachian Pennsylvania	+ 0.2	+ 0.5	+ 0.1	+ 0.9	- 0.3	- 1.8
South Carolina	- 0.3	+ 0.1	- 0.6	+ 0.3	- 1.3	- 2.9
Appalachian South Carolina	- 0.1	+ 0.7	- 0.5	+ 0.8	- 1.1	- 2.1
Non-Appalachian South Carolina	- 0.4	- 0.1	- 0.7	+ 0.3	- 1.3	- 3.1
Tennessee	- 0.1	+ 0.7	- 0.4	+ 0.4	- 0.9	- 1.7
Appalachian Tennessee	+ 0.0	+ 0.8	- 0.5	+ 0.4	- 0.9	- 0.9
Non-Appalachian Tennessee	- 0.1	+ 0.6	- 0.4	+ 0.4	- 0.9	- 2.4
Virginia	+ 0.6	+ 0.6	+ 0.4	+ 1.0	- 0.1	- 1.3
Appalachian Virginia	+ 0.9	+ 1.4	+ 0.7	+ 0.4	+ 1.0	- 1.7
Non-Appalachian Virginia	+ 0.6	+ 0.5	+ 0.3	+ 1.1	- 0.1	- 1.2
West Virginia (entire state)	- 0.2	+ 0.0	- 0.4	+ 0.4	- 0.7	- 3.1

Note: The ACS defines persons with a disability as those having difficulty in at least one of the following six areas: hearing, vision, cognition, walking or climbing, self-care, or attending to the functions of independent living. The disability universe consists of the civilian noninstitutional population.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 10.5: Percentage Point Change in the Share of Persons in the Appalachian Region With a Disability, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region With a Disability, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachian residents reporting a disability was 0.1 percentage points higher in 2017-2021 than it was in 2012-2016, matching the national average. However, the increase in disability prevalence between the two periods was higher in much of the Region, rising at least two percentage points in 84 of Appalachia’s 423 counties. The counties in this group were scattered throughout Appalachia, and at least one in five residents were age 65 or older in 61 of them—another sign of the link between the increased prevalence of disability and the aging of the Region’s population. But the increase in disability in Appalachia was not universal: The share of persons with a disability actually fell in 177 of the Region’s counties, as well as in West Virginia and the Appalachian sections of Georgia, Kentucky, Maryland, Mississippi, and South Carolina.

TRENDS IN DISABILITY STATUS

- At 16.1 percent in 2017-2021, the share of Appalachian residents reporting a disability was 0.1 percentage points higher than it was in 2012-2016 (see Tables 10.2 and 10.3). Within the Region, the greatest increases in disability prevalence (at least 0.5 percentage points) occurred in Northern Appalachia, nonmetropolitan counties adjacent to large metro areas, and the Appalachian sections of New York, Ohio, and Virginia. But disability prevalence did not increase everywhere in Appalachia: The disability share remained the same in the Appalachian sections of Alabama, North Carolina, and Tennessee and fell in South Central and Southern Appalachia, the most rural counties, West Virginia, and the Appalachian sections of Georgia, Kentucky, Maryland, Mississippi, and South Carolina.
- Disability prevalence in Appalachia increased among both children under age 18 and young adults ages 18-34, but decreased among persons ages 35-64. And there were variations within the Region in each case. In Tennessee's Appalachian section, for example, disability rates rose 0.8 percentage points for children and 0.4 points for adults ages 18-34, but fell 0.9 percentage points among 35-to-64-year-olds. Conversely, disability prevalence rose among all three age groups in Appalachian Virginia: 1.4 points among children, 0.4 points for young adults ages 18-34, and a full point for adults ages 35-64. Disability prevalence rose by at least one percentage point for children in Central Appalachia and the Appalachian section of Virginia. Among young adults ages 18 to 34, the disability rate increased by one percentage point or more in Northern and Central Appalachia, counties in large metropolitan areas, nonmetro counties adjacent to large metros, and the Appalachian portions of Mississippi, New York, Ohio, and Pennsylvania.
- In contrast to the age groups under 35, the prevalence of disability fell 2.1 percentage points among persons ages 65 and over. The decline was greatest in the Southern and Central subregions (2.7 and 2.5 points, respectively) and in the Region's most rural counties (three points), while the decrease was much more modest in nonmetropolitan counties bordering large metros (0.7 points). Among the states, Appalachian Georgia, Kentucky, Mississippi, and West Virginia had the largest decreases among older persons (more than 2.5 percentage points in each case), while the rate fell just 0.4 points in Appalachian Ohio. All subregions and county types showed decreases in the disability rate among persons age 65 or older, as did the Appalachian sections of every state.
- The aging of Appalachia's population has long been linked to the increase in disability prevalence in the Region—similar to what has been occurring nationally. Yet the movement of younger (and likely healthier) age cohorts into the older age groups has produced a paradoxical effect of noticeably reducing the disability prevalence among older Appalachian residents in recent years. As these younger groups continue to move into the older ages, it will be interesting to see if this pattern continues.

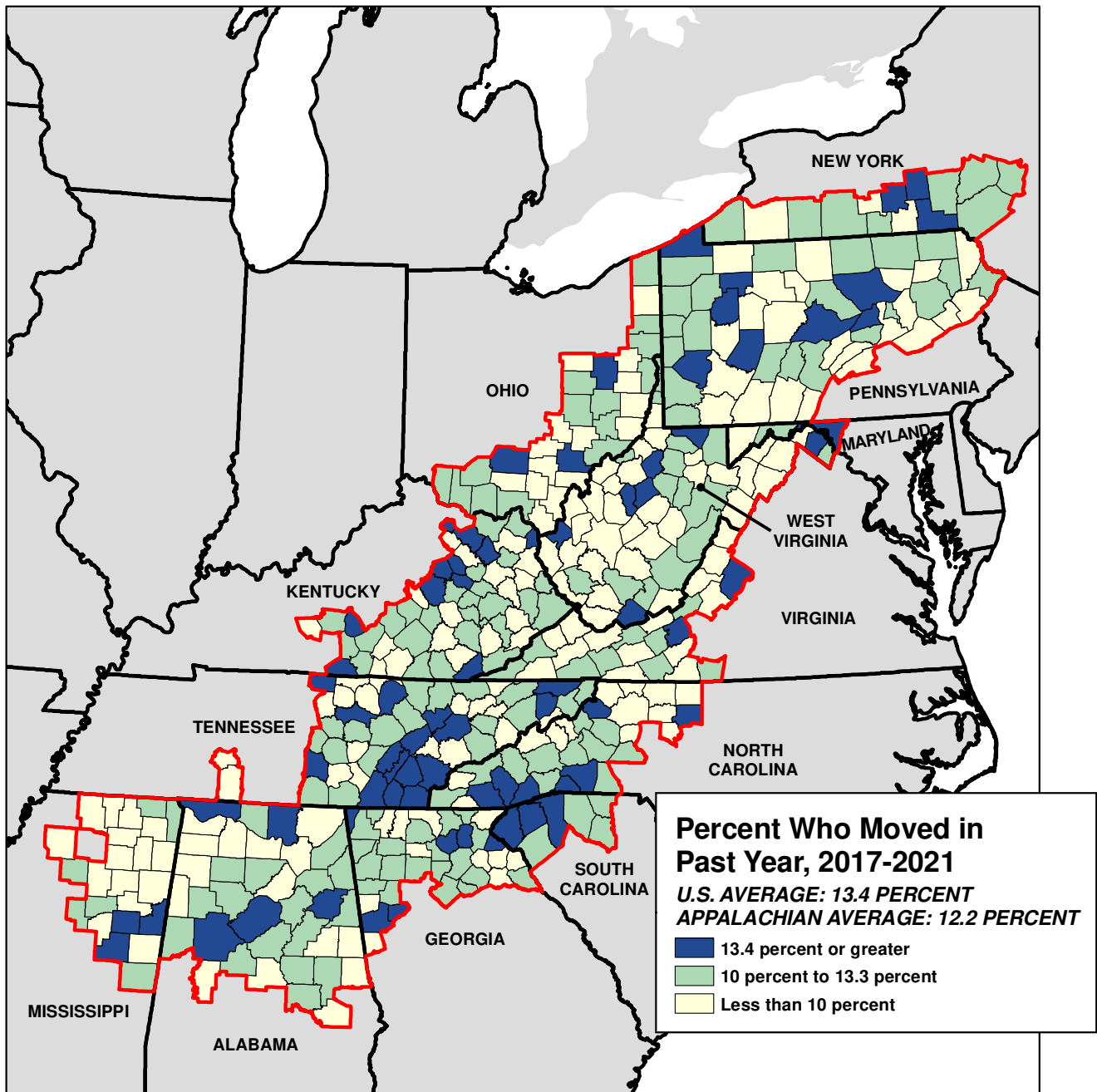
CHAPTER 11: MIGRATION

Table 11.1: Mobility Status of Persons Ages 1 and Over in the Appalachian Region, 2017-2021

Mobility Status in the Last Year	Total Population Ages 1 and Over, 2017-2021	Percent of Population Ages 1 and Over					
		Did Not Move in Past Year	Moved from a Different Residence in the Past Year				
			Within the County	Outside the County			
					Within the State	Outside the State	
United States	326,169,561	86.6	13.4	7.4	6.1	3.2	2.9
Appalachian Region	25,877,676	87.8	12.2	6.4	5.7	3.3	2.4
Subregions							
Northern Appalachia	8,020,711	88.3	11.7	6.7	5.1	2.9	2.2
North Central Appalachia	2,479,526	88.2	11.8	6.2	5.5	3.2	2.3
Central Appalachia	1,844,220	88.7	11.3	6.0	5.3	3.5	1.8
South Central Appalachia	5,130,515	87.1	12.9	6.5	6.4	3.5	2.9
Southern Appalachia	8,402,704	87.5	12.5	6.4	6.1	3.6	2.4
County Types							
Large Metros (pop. 1 million +)	6,182,421	88.0	12.0	6.5	5.6	3.3	2.3
Small Metros (pop. <1 million)	11,068,350	87.0	13.0	6.9	6.1	3.2	2.8
Nonmetro, Adjacent to Large Metros	2,276,442	88.2	11.8	6.1	5.7	3.9	1.8
Nonmetro, Adjacent to Small Metros	3,893,431	88.9	11.1	5.7	5.3	3.2	2.1
Rural (nonmetro, not adj. to a metro)	2,457,032	88.9	11.1	5.7	5.4	3.6	1.8
Alabama	4,941,984	87.2	12.8	7.4	5.5	2.9	2.5
Appalachian Alabama	3,181,105	87.3	12.7	7.3	5.4	3.2	2.2
Non-Appalachian Alabama	1,760,879	87.0	13.0	7.4	5.6	2.4	3.1
Georgia	10,509,834	86.0	14.0	6.2	7.8	4.7	3.1
Appalachian Georgia	3,292,939	88.1	11.9	5.2	6.7	4.2	2.4
Non-Appalachian Georgia	7,216,895	85.0	15.0	6.7	8.3	4.9	3.4
Kentucky	4,445,549	86.0	14.0	7.7	6.3	3.6	2.7
Appalachian Kentucky	1,155,839	88.1	11.9	6.2	5.7	3.9	1.8
Non-Appalachian Kentucky	3,289,710	85.3	14.7	8.2	6.5	3.5	3.0
Maryland	6,083,016	87.2	12.8	6.5	6.3	3.0	3.3
Appalachian Maryland	249,329	86.8	13.2	7.6	5.6	3.1	2.6
Non-Appalachian Maryland	5,833,687	87.2	12.8	6.5	6.3	3.0	3.4
Mississippi	2,934,901	87.9	12.1	6.3	5.7	3.3	2.4
Appalachian Mississippi	607,970	89.2	10.8	5.6	5.1	3.4	1.7
Non-Appalachian Mississippi	2,326,931	87.6	12.4	6.5	5.9	3.3	2.6
New York	19,896,340	89.7	10.3	5.7	4.6	2.6	2.0
Appalachian New York	1,020,272	86.4	13.6	7.2	6.4	3.7	2.7
Non-Appalachian New York	18,876,068	89.9	10.1	5.7	4.5	2.5	2.0
North Carolina	10,258,736	85.9	14.1	6.9	7.2	3.7	3.6
Appalachian North Carolina	2,000,134	88.1	11.9	5.7	6.3	3.4	2.8
Non-Appalachian North Carolina	8,258,602	85.3	14.7	7.2	7.5	3.7	3.8
Ohio	11,637,531	86.5	13.5	8.1	5.4	3.3	2.0
Appalachian Ohio	1,968,706	88.5	11.5	6.4	5.0	3.4	1.7
Non-Appalachian Ohio	9,668,825	86.1	13.9	8.5	5.4	3.3	2.1
Pennsylvania	12,838,708	88.2	11.8	6.6	5.2	2.8	2.4
Appalachian Pennsylvania	5,658,748	88.5	11.5	6.6	4.9	2.8	2.2
Non-Appalachian Pennsylvania	7,179,960	88.0	12.0	6.6	5.4	2.8	2.5
South Carolina	5,025,575	86.4	13.6	6.4	7.1	3.2	3.9
Appalachian South Carolina	1,320,690	85.9	14.1	7.4	6.7	3.2	3.5
Non-Appalachian South Carolina	3,704,885	86.6	13.4	6.1	7.3	3.2	4.1
Tennessee	6,779,177	85.9	14.1	7.5	6.6	3.3	3.3
Appalachian Tennessee	2,908,689	86.5	13.5	7.1	6.4	3.4	3.0
Non-Appalachian Tennessee	3,870,488	85.4	14.6	7.8	6.8	3.2	3.6
Virginia	8,490,183	85.6	14.4	5.7	8.7	4.8	3.8
Appalachian Virginia	732,415	88.1	11.9	5.6	6.3	4.0	2.3
Non-Appalachian Virginia	7,757,768	85.4	14.6	5.7	8.9	4.9	4.0
West Virginia (entire state)	1,780,840	88.9	11.1	5.9	5.1	2.7	2.5

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

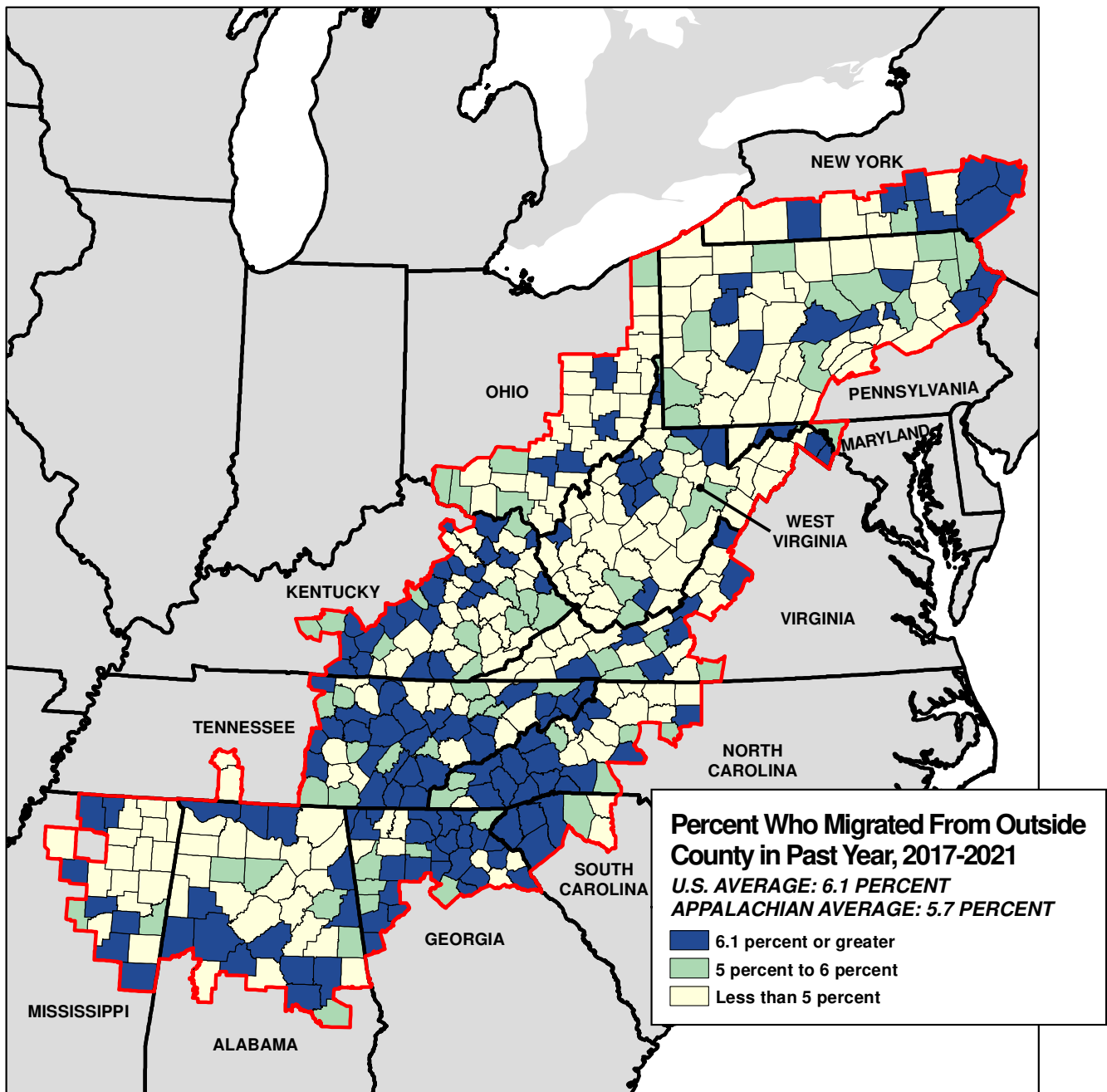
Figure 11.1: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Moved in the Past Year, 2017-2021



Map Title: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Moved in the Past Year, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Residential mobility in the Appalachian Region was lower than the national average, including in all subregions and county types. In fact, the percentage of residents ages 1 and over who moved in the past year only matched or exceeded the U.S. average in 75 of the Region’s counties. Most of these counties were in metropolitan areas, housed a four-year college or university, or were rural counties that were likely retirement or recreational destinations. Yet in 178 Appalachian counties, less than 10 percent of the residents had moved in the previous 12 months. Among these counties with low mobility rates, 119 were outside metro areas and 124 had older population age structures (at least 20 percent of the residents were ages 65 and over).

Figure 11.2: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their County of Residence in the Past Year, 2017-2021

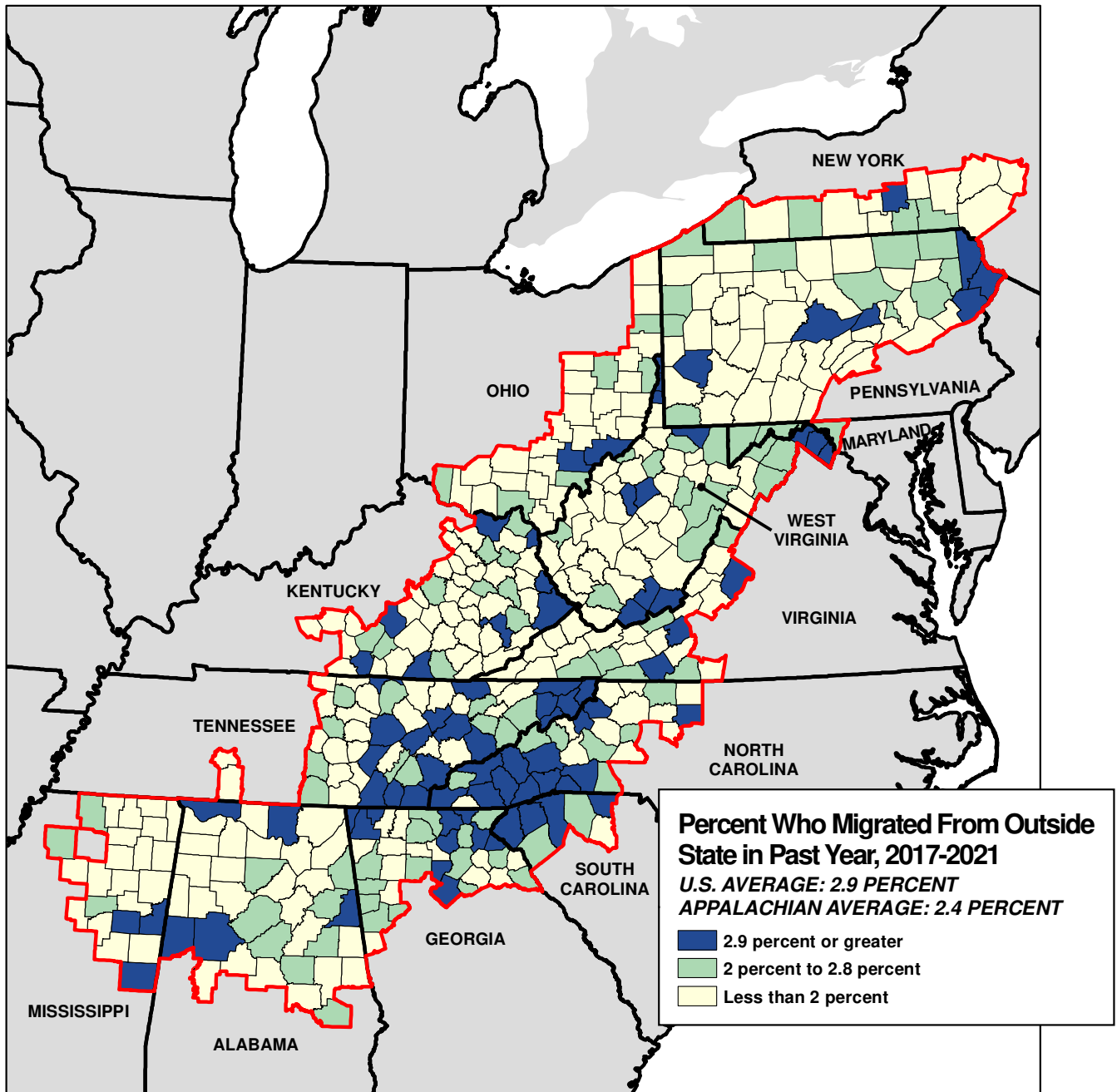


Map Title: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their County of Residence in the Past Year, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

While people in Appalachia were slightly less likely to have migrated from outside their county of residence in the 2017-2021 period than Americans as a whole, residents in more than one-third of the Region’s 423 counties had migration rates at or above the national average of 6.1 percent. These counties were scattered throughout Appalachia (although most were in the Southern and South Central subregions) and were distributed across all urban/rural types. Migration rates also exceeded the national average in the Appalachian sections of Georgia, New York, the Carolinas, Tennessee, and Virginia. In 201 counties, however, less than 5 percent of the residents had migrated from another county. More than two-thirds of these counties were outside metropolitan areas, and 55 of them were rural counties not adjacent to a metro area.

Figure 11.3: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their State of Residence in the Past Year, 2017-2021



Map Title: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their State of Residence in the Past Year, 2017-2021

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

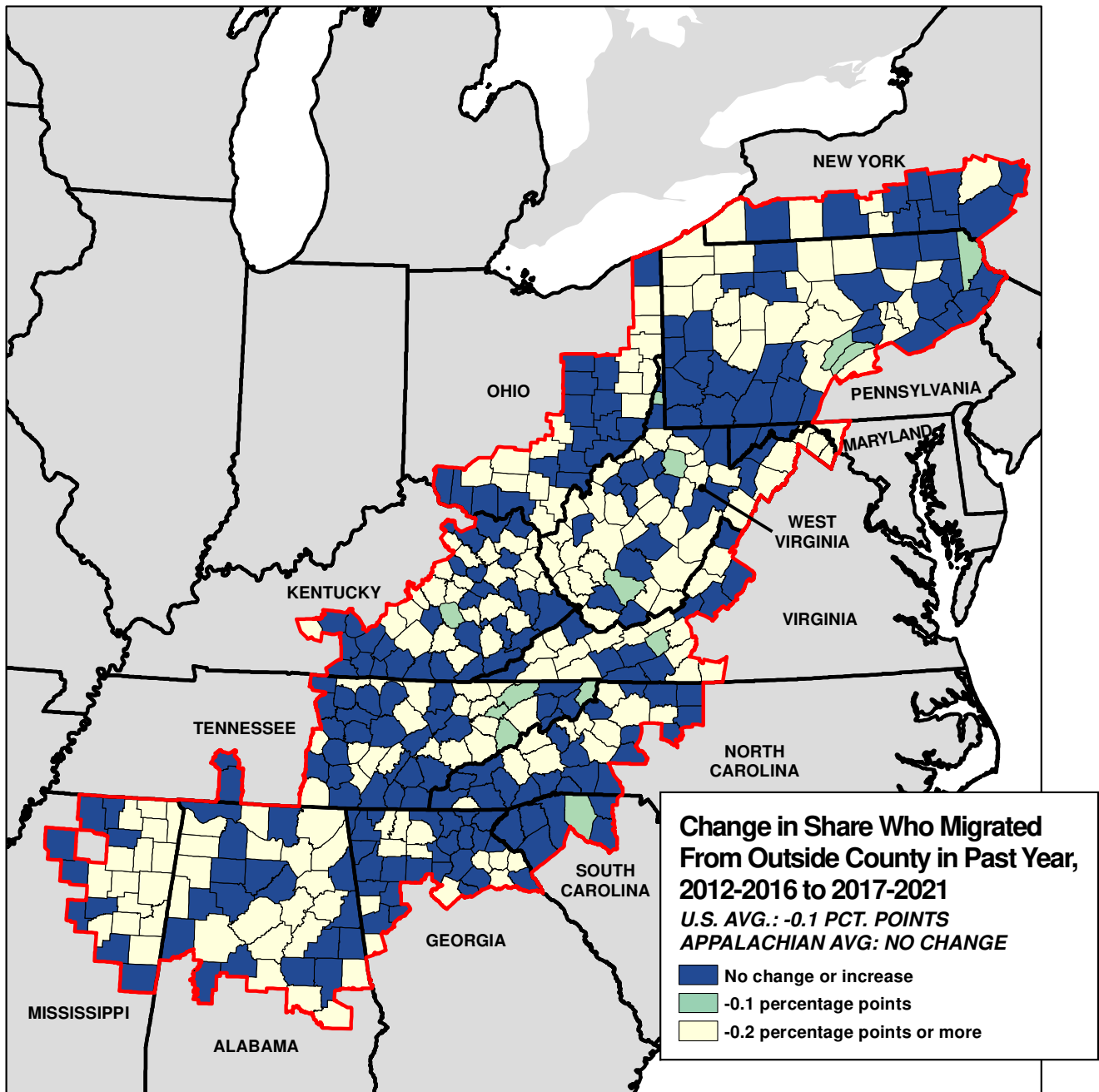
The share of people in the Appalachian Region who had migrated from outside their state of residence was 2.4 percent in the 2017-2021 period, compared with 2.9 percent of all Americans. Yet in 84 of Appalachia’s 423 counties, out-of-state migration levels were at or above the U.S. average. Most of these counties were in South Central and Southern Appalachia, and almost half were in metropolitan areas. Some of these counties are also home to four-year colleges or universities, such as Tompkins County, New York (Cornell University, Ithaca College); Monongalia County, West Virginia (West Virginia University); and Rockbridge County, Virginia (Washington and Lee University, Virginia Military Institute). In contrast, there were 242 counties in the Region where less than 2 percent of residents had come from out of state. More than two-thirds of the counties in this latter group were outside metropolitan areas.

Table 11.2: Percentage Point Change in Mobility Status of Persons Ages 1 and Over in the Appalachian Region, 2012-2016 to 2017-2021

Mobility Status in the Last Year	Percentage Point Change in Share of Population Ages 1 and Over					
	Did Not Move in Past Year	Moved from a Different Residence in the Past Year				
		Within the County	Outside the County			
				Within the State	Outside the State	
United States	+ 1.4	- 1.4	- 1.2	- 0.1	+ 0.0	- 0.1
Appalachian Region	+ 1.0	- 1.0	- 1.1	+ 0.0	+ 0.0	+ 0.0
Subregions						
Northern Appalachia	+ 0.8	- 0.8	- 0.9	+ 0.1	+ 0.0	+ 0.1
North Central Appalachia	+ 0.7	- 0.7	- 0.7	- 0.1	+ 0.1	- 0.2
Central Appalachia	+ 1.0	- 1.0	- 0.7	- 0.3	- 0.2	- 0.1
South Central Appalachia	+ 0.9	- 0.9	- 1.1	+ 0.1	+ 0.0	+ 0.2
Southern Appalachia	+ 1.3	- 1.3	- 1.3	+ 0.0	+ 0.0	- 0.1
County Types						
Large Metros (pop. 1 million +)	+ 0.8	- 0.8	- 0.7	+ 0.0	+ 0.1	- 0.1
Small Metros (pop. <1 million)	+ 1.1	- 1.1	- 1.1	+ 0.0	- 0.1	+ 0.0
Nonmetro, Adjacent to Large Metros	+ 0.9	- 0.9	- 1.5	+ 0.6	+ 0.3	+ 0.2
Nonmetro, Adjacent to Small Metros	+ 0.7	- 0.7	- 0.9	+ 0.1	- 0.1	+ 0.2
Rural (nonmetro, not adj. to a metro)	+ 1.4	- 1.4	- 1.2	- 0.3	- 0.2	- 0.1
Alabama	+ 1.7	- 1.7	- 1.3	- 0.3	- 0.3	- 0.1
Appalachian Alabama	+ 1.5	- 1.5	- 1.2	- 0.3	- 0.2	- 0.1
Non-Appalachian Alabama	+ 1.9	- 1.9	- 1.6	- 0.3	- 0.4	+ 0.0
Georgia	+ 2.0	- 2.0	- 1.7	- 0.3	+ 0.0	- 0.3
Appalachian Georgia	+ 1.0	- 1.0	- 1.1	+ 0.1	+ 0.2	- 0.2
Non-Appalachian Georgia	+ 2.3	- 2.3	- 1.9	- 0.4	- 0.1	- 0.3
Kentucky	+ 1.5	- 1.5	- 1.0	- 0.5	- 0.3	- 0.2
Appalachian Kentucky	+ 1.2	- 1.2	- 1.1	- 0.2	- 0.1	+ 0.0
Non-Appalachian Kentucky	+ 1.6	- 1.6	- 1.1	- 0.6	- 0.3	- 0.3
Maryland	+ 0.7	- 0.7	- 0.8	+ 0.1	+ 0.2	- 0.1
Appalachian Maryland	+ 0.5	- 0.5	- 0.5	+ 0.0	- 0.1	+ 0.1
Non-Appalachian Maryland	+ 0.7	- 0.7	- 0.7	+ 0.1	+ 0.3	- 0.1
Mississippi	+ 1.8	- 1.8	- 1.3	- 0.6	- 0.4	- 0.2
Appalachian Mississippi	+ 3.4	- 3.4	- 2.7	- 0.8	- 0.4	- 0.4
Non-Appalachian Mississippi	+ 1.4	- 1.4	- 0.9	- 0.5	- 0.3	- 0.2
New York	+ 0.4	- 0.4	- 0.5	+ 0.0	+ 0.2	- 0.1
Appalachian New York	+ 0.9	- 0.9	- 1.3	+ 0.4	+ 0.1	+ 0.3
Non-Appalachian New York	+ 0.4	- 0.4	- 0.3	+ 0.0	+ 0.1	- 0.1
North Carolina	+ 1.2	- 1.2	- 1.3	+ 0.2	+ 0.1	+ 0.1
Appalachian North Carolina	+ 1.0	- 1.0	- 1.3	+ 0.4	+ 0.0	+ 0.3
Non-Appalachian North Carolina	+ 1.2	- 1.2	- 1.4	+ 0.2	+ 0.1	+ 0.1
Ohio	+ 1.4	- 1.4	- 1.3	- 0.1	- 0.1	- 0.1
Appalachian Ohio	+ 1.1	- 1.1	- 1.3	+ 0.1	+ 0.2	+ 0.0
Non-Appalachian Ohio	+ 1.5	- 1.5	- 1.3	- 0.2	- 0.1	- 0.1
Pennsylvania	+ 0.4	- 0.4	- 0.7	+ 0.3	+ 0.2	+ 0.1
Appalachian Pennsylvania	+ 0.7	- 0.7	- 0.7	+ 0.0	+ 0.0	+ 0.1
Non-Appalachian Pennsylvania	+ 0.2	- 0.2	- 0.6	+ 0.4	+ 0.3	+ 0.0
South Carolina	+ 1.5	- 1.5	- 1.7	+ 0.1	+ 0.0	+ 0.1
Appalachian South Carolina	+ 0.9	- 0.9	- 1.4	+ 0.5	+ 0.0	+ 0.4
Non-Appalachian South Carolina	+ 1.7	- 1.7	- 1.8	+ 0.0	+ 0.0	+ 0.0
Tennessee	+ 1.0	- 1.0	- 1.3	+ 0.3	+ 0.2	+ 0.1
Appalachian Tennessee	+ 0.4	- 0.4	- 0.8	+ 0.4	+ 0.1	+ 0.3
Non-Appalachian Tennessee	+ 1.4	- 1.4	- 1.8	+ 0.4	+ 0.3	+ 0.0
Virginia	+ 1.3	- 1.3	- 1.0	- 0.3	- 0.2	- 0.2
Appalachian Virginia	+ 2.2	- 2.2	- 1.0	- 1.2	- 0.7	- 0.5
Non-Appalachian Virginia	+ 1.3	- 1.3	- 1.0	- 0.3	- 0.1	- 0.2
West Virginia (entire state)	+ 0.7	- 0.7	- 0.5	- 0.3	+ 0.1	- 0.3

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 11.4: Percentage Point Change in the Share of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their County of Residence in the Past Year, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their County of Residence in the Past Year, 2012-2016 to 2017-2021
 Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

In Appalachia, the share of individuals migrating from outside their county of residence did not change between 2012-2016 and 2017-2021. (In comparison, the share barely decreased by 0.1 percentage points nationwide.) The share likewise stayed the same or increased in 217 of Appalachia’s 423 counties. Yet in 193 other counties, the share of migrants from another county decreased more than the national average between the two periods. The Appalachian sections of New York, the Carolinas, and Tennessee had increases of at least 0.4 percentage points, while the share migrating from another county declined by at least 0.3 points in West Virginia and the Appalachian portions of Alabama, Mississippi, and Virginia.

TRENDS IN MIGRATION

- Like Americans as a whole, Appalachian residents were slightly less mobile in 2017-2021 than they were in 2012-2016. Between the two periods, the share of persons in the Region who had moved from a different residence in the past year decreased by a full percentage point to 12.2 percent in 2017-2021 (see Tables 11.1 and 11.2). However, this decline only involved within-county movement; the share of residents who migrated from outside their county of residence remained the same between the two periods. The share of Appalachian residents migrating from out-of-state likewise remained constant.
- Within the Region, the decline in residential mobility was greatest in Appalachian Mississippi, where the share moving in the previous year fell 3.4 percentage points. Other parts of the Region showing noticeable declines (at least a full percentage point) included Central and Southern Appalachia, counties in small metropolitan areas, the most rural counties, and the Appalachian sections of Alabama, Georgia, Kentucky, North Carolina, Ohio, and Virginia.
- Although the percentage of Appalachian residents migrating from outside their county of residence remained constant between 2012-2016 and 2017-2021, there were nevertheless changes within the Region. For example, the share fell 0.3 percentage points in Central Appalachia and the most rural counties while rising 0.6 points in nonmetropolitan counties adjacent to large metro areas. As for the states, the Appalachian sections of New York, the Carolinas, and Tennessee had increases of at least 0.4 percentage points, while the share migrating from another county declined by at least 0.3 points in West Virginia and the Appalachian portions of Alabama, Mississippi, and Virginia. (In Virginia, the share fell by 1.2 percentage points between the two periods.)
- Vintage 2021 population estimates from the U.S. Census Bureau showed that despite declines in international migration between 2020 and 2021, many counties saw higher net domestic in-migration than they did between 2019 and 2020, often at the expense of more populous locales. Yet newly released estimates for 2022 suggest that population and migration trends may be reverting back to patterns found prior to the COVID-19 pandemic. Given any residual impact of the pandemic and other factors (such as job opportunities and cost of living) on domestic migration preferences, these developments could have implications for future migration prevalence in Appalachia—depending on what happens beyond 2022.

CHAPTER 12: VETERAN STATUS

Table 12.1: Number of Adult Civilians in the Appalachian Region Who Are Veterans, by Age Group and Gender, 2017-2021

Veteran Status	Total, Ages 18 and Over	By Age Group			By Gender	
		Ages 18-34	Ages 35-64	Ages 65 and Over	Males	Females
United States	17,431,290	1,508,193	7,340,744	8,582,353	15,794,025	1,637,265
Appalachian Region	1,588,949	112,453	637,965	838,531	1,466,658	122,291
Subregions						
Northern Appalachia	516,179	32,735	194,392	289,052	482,306	33,873
North Central Appalachia	165,728	11,915	66,941	86,872	154,610	11,118
Central Appalachia	98,862	6,141	37,872	54,849	92,408	6,454
South Central Appalachia	334,598	23,109	127,682	183,807	308,185	26,413
Southern Appalachia	473,582	38,553	211,078	223,951	429,149	44,433
County Types						
Large Metros (pop. 1 million +)	342,090	25,732	143,203	173,155	313,695	28,395
Small Metros (pop. <1 million)	704,529	53,012	285,834	365,683	647,549	56,980
Nonmetro, Adjacent to Large Metros	148,217	10,234	60,187	77,796	137,626	10,591
Nonmetro, Adjacent to Small Metros	255,272	14,424	98,395	142,453	238,182	17,090
Rural (nonmetro, not adj. to a metro)	138,841	9,051	50,346	79,444	129,606	9,235
Alabama	324,845	25,155	149,859	149,831	290,505	34,340
Appalachian Alabama	196,686	15,020	89,937	91,729	176,700	19,986
Non-Appalachian Alabama	128,159	10,135	59,922	58,102	113,805	14,354
Georgia	613,810	55,997	302,903	254,910	539,004	74,806
Appalachian Georgia	169,385	13,991	76,404	78,990	153,960	15,425
Non-Appalachian Georgia	444,425	42,006	226,499	175,920	385,044	59,381
Kentucky	250,427	19,503	109,509	121,415	228,394	22,033
Appalachian Kentucky	58,317	4,026	22,549	31,742	54,220	4,097
Non-Appalachian Kentucky	192,110	15,477	86,960	89,673	174,174	17,936
Maryland	352,738	29,022	172,391	151,325	305,302	47,436
Appalachian Maryland	16,074	1,271	6,827	7,976	14,763	1,311
Non-Appalachian Maryland	336,664	27,751	165,564	143,349	290,539	46,125
Mississippi	159,142	13,428	73,592	72,122	143,424	15,718
Appalachian Mississippi	28,798	2,679	11,832	14,287	26,543	2,255
Non-Appalachian Mississippi	130,344	10,749	61,760	57,835	116,881	13,463
New York	665,257	49,283	244,441	371,533	616,194	49,063
Appalachian New York	64,259	4,178	25,059	35,022	59,544	4,715
Non-Appalachian New York	600,998	45,105	219,382	336,511	556,650	44,348
North Carolina	637,790	63,350	286,391	288,049	568,807	68,983
Appalachian North Carolina	123,602	8,374	43,734	71,494	114,045	9,557
Non-Appalachian North Carolina	514,188	54,976	242,657	216,555	454,762	59,426
Ohio	666,320	50,688	274,593	341,039	614,283	52,037
Appalachian Ohio	128,497	8,824	51,284	68,389	120,456	8,041
Non-Appalachian Ohio	537,823	41,864	223,309	272,650	493,827	43,996
Pennsylvania	703,580	45,308	264,056	394,216	654,019	49,561
Appalachian Pennsylvania	363,796	22,787	134,782	206,227	340,417	23,379
Non-Appalachian Pennsylvania	339,784	22,521	129,274	187,989	313,602	26,182
South Carolina	350,822	29,412	153,867	167,543	314,659	36,163
Appalachian South Carolina	78,713	6,863	32,905	38,945	71,946	6,767
Non-Appalachian South Carolina	272,109	22,549	120,962	128,598	242,713	29,396
Tennessee	423,042	36,643	185,896	200,503	381,953	41,089
Appalachian Tennessee	198,114	14,293	78,672	105,149	182,553	15,561
Non-Appalachian Tennessee	224,928	22,350	107,224	95,354	199,400	25,528
Virginia	671,519	68,517	351,242	251,760	576,412	95,107
Appalachian Virginia	44,110	2,198	17,525	24,387	40,828	3,282
Non-Appalachian Virginia	627,409	66,319	333,717	227,373	535,584	91,825
West Virginia (entire state)	118,598	7,949	46,455	64,194	110,683	7,915

Note: The ACS defines veterans as men and women who have served on active duty in the U.S. Armed Forces, the National Guard or Reserves, or in the U.S. Merchant Marine during World War II.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

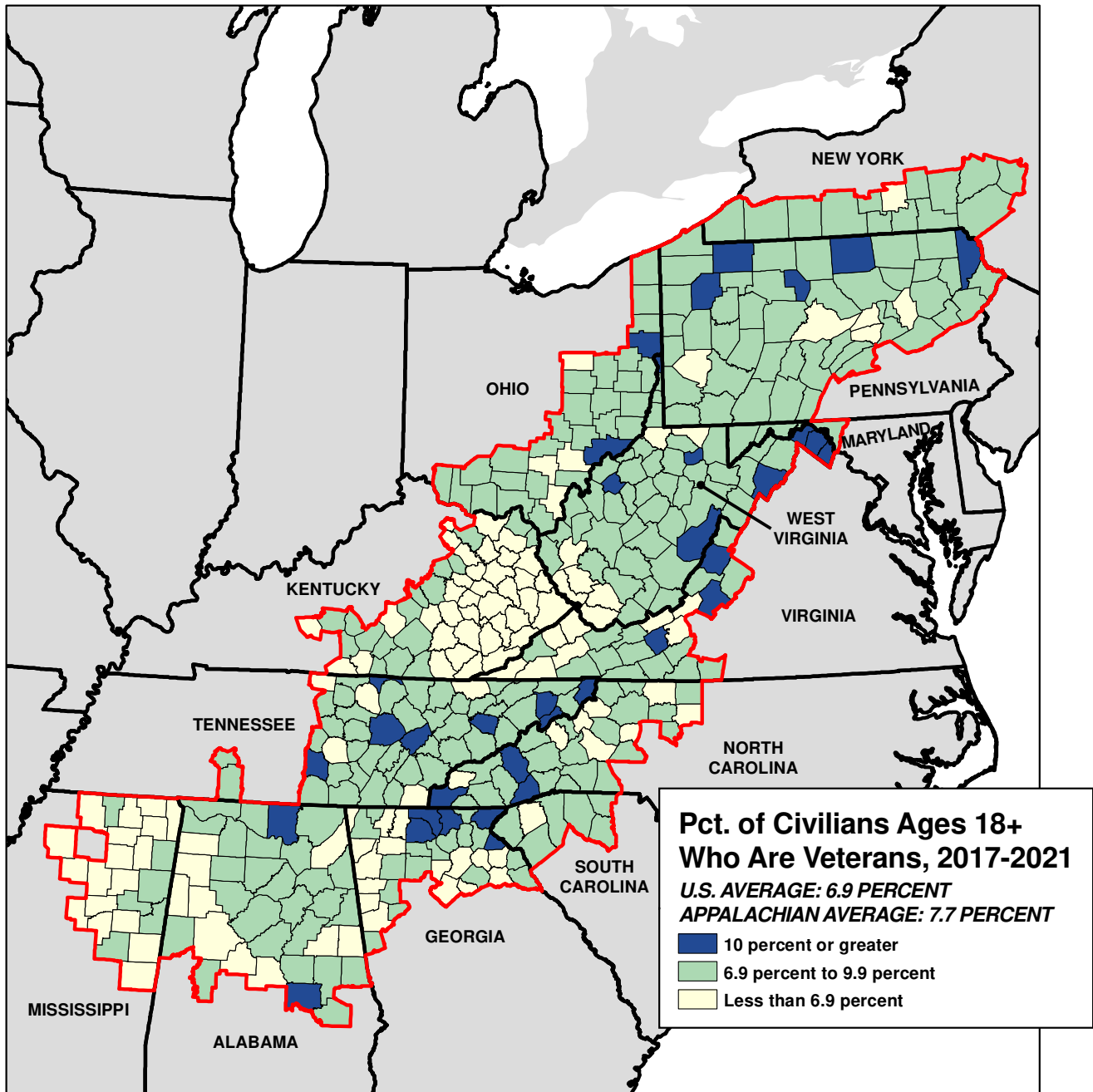
Table 12.2: Percent of Adult Civilians in the Appalachian Region Who Are Veterans, by Age Group and Gender, 2017-2021

Veteran Status	Total, Ages 18 and Over	By Age Group			By Gender	
		Ages 18-34	Ages 35-64	Ages 65 and Over	Males	Females
United States	6.9	2.0	5.8	16.2	12.7	1.3
Appalachian Region	7.7	2.0	6.3	17.5	14.6	1.2
Subregions						
Northern Appalachia	7.9	1.9	6.2	18.0	15.0	1.0
North Central Appalachia	8.4	2.3	6.8	18.2	15.8	1.1
Central Appalachia	6.8	1.6	5.1	15.7	12.8	0.9
South Central Appalachia	8.1	2.1	6.4	18.0	15.4	1.2
Southern Appalachia	7.3	2.1	6.4	16.8	13.7	1.3
County Types						
Large Metros (pop. 1 million +)	7.1	1.9	5.7	17.1	13.4	1.1
Small Metros (pop. <1 million)	8.0	2.1	6.6	17.9	15.0	1.3
Nonmetro, Adjacent to Large Metros	8.2	2.1	6.7	17.9	15.4	1.2
Nonmetro, Adjacent to Small Metros	8.2	1.9	6.4	17.6	15.4	1.1
Rural (nonmetro, not adj. to a metro)	7.1	1.7	5.3	16.4	13.5	0.9
Alabama	8.4	2.3	7.8	17.7	15.8	1.7
Appalachian Alabama	7.9	2.1	7.2	17.0	14.8	1.5
Non-Appalachian Alabama	9.4	2.6	9.0	19.1	17.7	2.0
Georgia	7.6	2.3	7.4	17.2	14.0	1.8
Appalachian Georgia	6.8	2.0	5.7	17.1	12.7	1.2
Non-Appalachian Georgia	8.0	2.4	8.1	17.3	14.6	2.0
Kentucky	7.2	2.0	6.3	16.5	13.5	1.2
Appalachian Kentucky	6.4	1.7	4.9	15.4	12.2	0.9
Non-Appalachian Kentucky	7.5	2.1	6.8	17.0	14.0	1.4
Maryland	7.4	2.2	7.0	15.9	13.5	1.9
Appalachian Maryland	8.0	2.3	6.9	17.2	14.3	1.3
Non-Appalachian Maryland	7.4	2.2	7.0	15.9	13.4	1.9
Mississippi	7.1	2.0	6.6	15.3	13.4	1.3
Appalachian Mississippi	6.1	1.9	5.2	13.9	11.8	0.9
Non-Appalachian Mississippi	7.3	2.1	6.9	15.6	13.8	1.4
New York	4.2	1.0	3.1	11.2	8.1	0.6
Appalachian New York	7.8	1.7	6.5	17.7	14.6	1.1
Non-Appalachian New York	4.0	1.0	2.9	10.7	7.7	0.6
North Carolina	8.0	2.8	7.2	17.1	15.0	1.7
Appalachian North Carolina	7.7	2.0	5.6	17.4	14.7	1.1
Non-Appalachian North Carolina	8.1	3.0	7.5	17.0	15.0	1.8
Ohio	7.3	2.0	6.1	17.0	13.8	1.1
Appalachian Ohio	8.3	2.2	6.6	18.1	15.6	1.0
Non-Appalachian Ohio	7.1	1.9	6.0	16.8	13.4	1.1
Pennsylvania	6.9	1.6	5.2	16.7	13.1	0.9
Appalachian Pennsylvania	7.9	1.9	6.0	18.0	15.0	1.0
Non-Appalachian Pennsylvania	6.0	1.4	4.6	15.4	11.5	0.9
South Carolina	8.9	2.7	7.9	18.6	16.7	1.8
Appalachian South Carolina	7.6	2.3	6.5	17.4	14.4	1.3
Non-Appalachian South Carolina	9.4	2.8	8.5	19.0	17.6	1.9
Tennessee	8.0	2.4	7.0	17.9	14.9	1.5
Appalachian Tennessee	8.5	2.3	6.9	18.8	16.1	1.3
Non-Appalachian Tennessee	7.5	2.4	7.1	17.1	14.0	1.6
Virginia	10.2	3.6	10.5	18.9	18.2	2.8
Appalachian Virginia	7.3	1.3	6.2	15.8	13.6	1.1
Non-Appalachian Virginia	10.5	3.8	10.9	19.4	18.7	3.0
West Virginia (entire state)	8.3	2.2	6.6	17.9	15.7	1.1

Note: The ACS defines veterans as men and women who have served on active duty in the U.S. Armed Forces, the National Guard or Reserves, or in the U.S. Merchant Marine during World War II.

Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

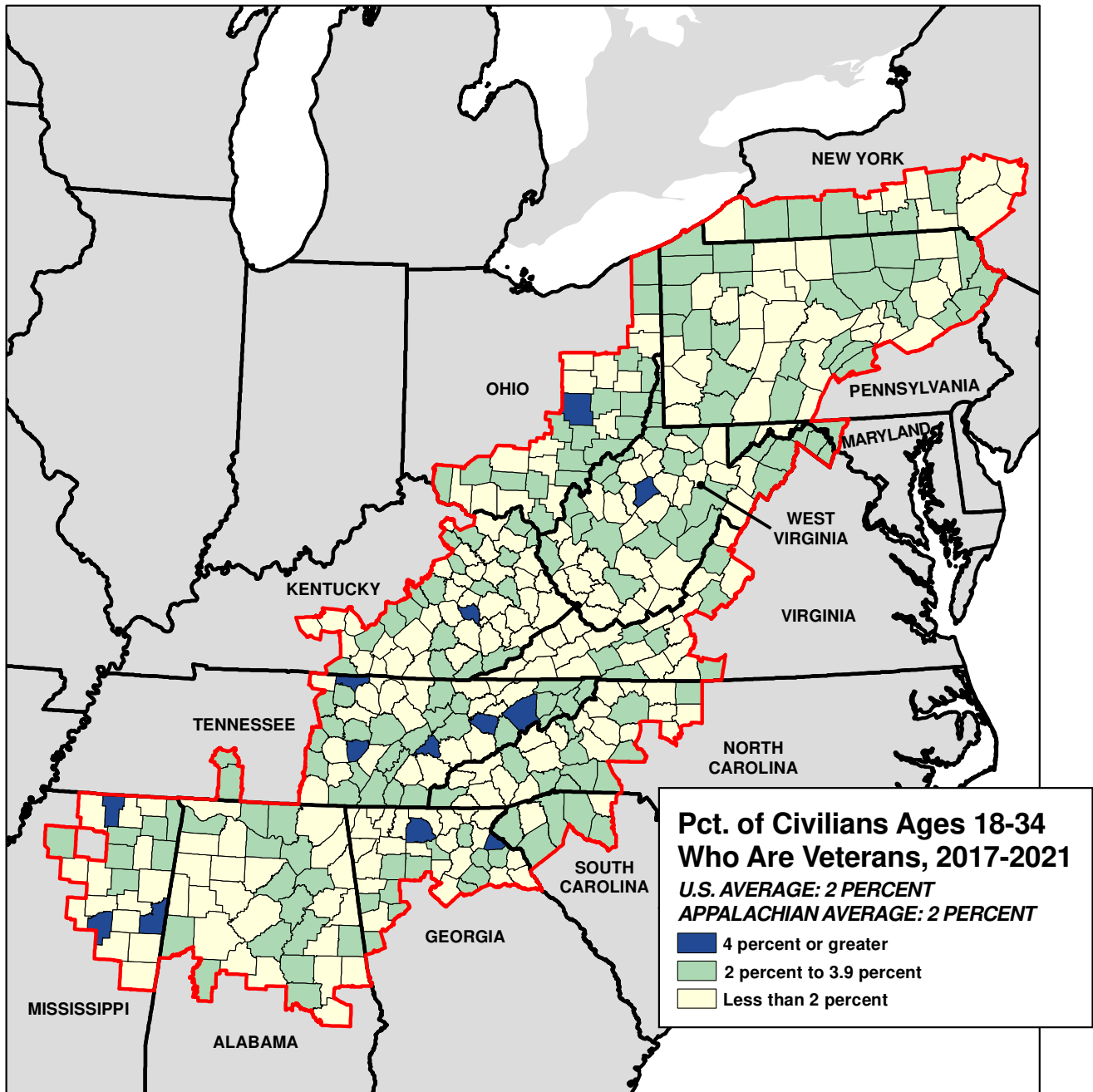
Figure 12.1: Percent of Adult Civilians in the Appalachian Region Who Are Veterans, 2017-2021



Map Title: Percent of Adult Civilians in the Appalachian Region Who Are Veterans, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, nearly 1.6 million adult civilians ages 18 and over in the Appalachian Region (7.7 percent of the total) were veterans—men and women who have served on active duty in the U.S. Armed Forces, the National Guard or Reserves, or in the U.S. Merchant Marine during World War II. While the percentage is slightly higher than the national share of 6.9 percent, there was considerable variation throughout the Region. In 36 Appalachian counties, for example, at least one in 10 civilian residents were veterans. Most of the counties with the highest share of veterans were in North Central and South Central Appalachia; veterans were more than 8 percent of adult civilians in both subregions. In contrast, the veteran prevalence rate was lower than the national average in 120 counties; more than half the counties in this group were in the Appalachian portions of Georgia, Kentucky, and Mississippi—the only three states where the share of veterans among adult civilians was less than 7 percent.

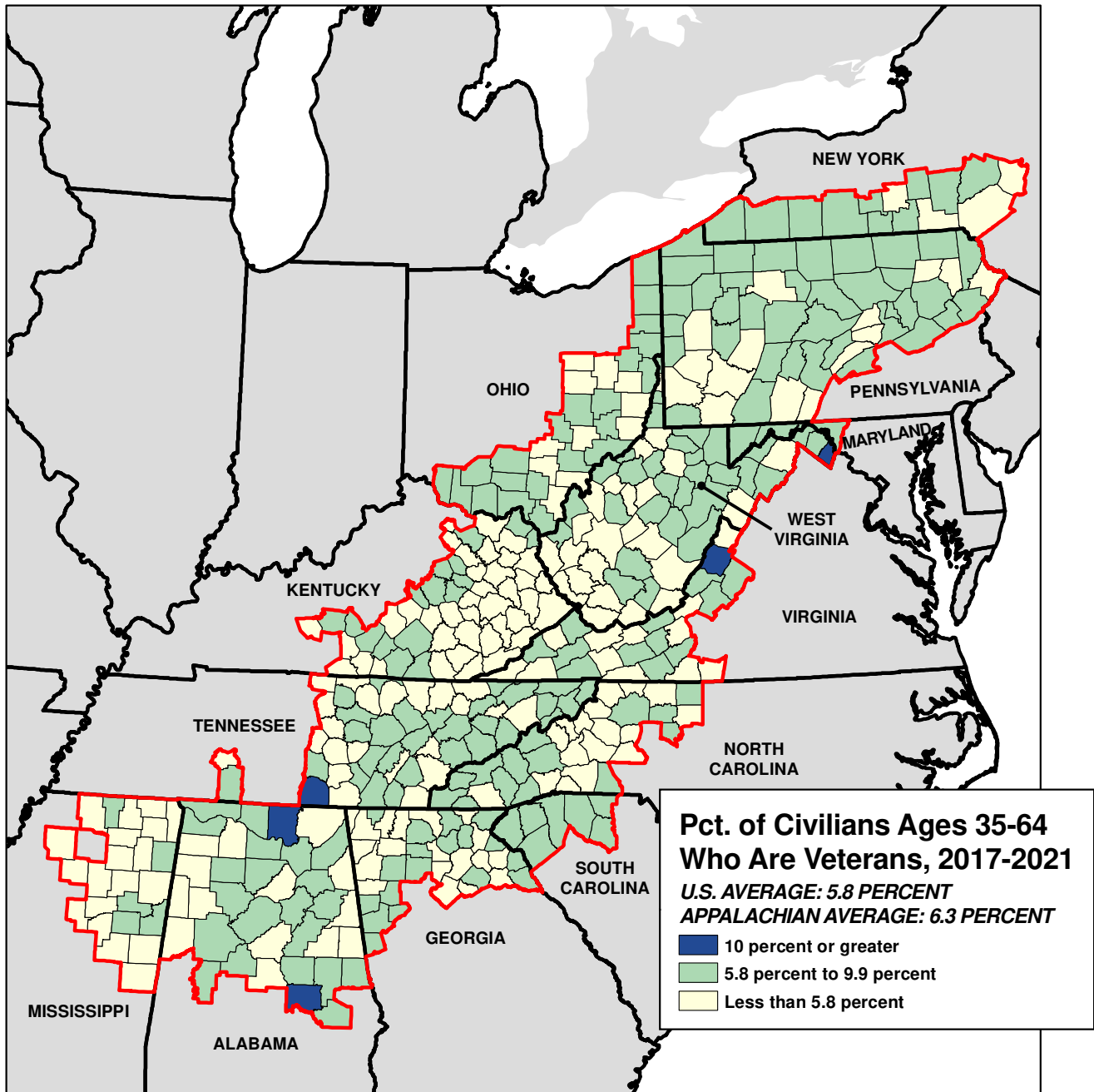
Figure 12.2: Percent of Civilians Ages 18 to 34 in the Appalachian Region Who Are Veterans, 2017-2021



Map Title: Percent of Civilians Ages 18 to 34 in the Appalachian Region Who Are Veterans, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

Military veterans accounted for just 2 percent of Appalachia’s young adult (ages 18-34) civilian population in the 2017-2021 period, the same share as it was nationally. Yet in 192 of the Region’s 423 counties, the prevalence was at or above the 2 percent level. In fact, there were 13 Appalachian counties where at least 4 percent of 18-to-34-year-old civilians were veterans. Most veterans of the wars in Iraq and Afghanistan fall into this age group.

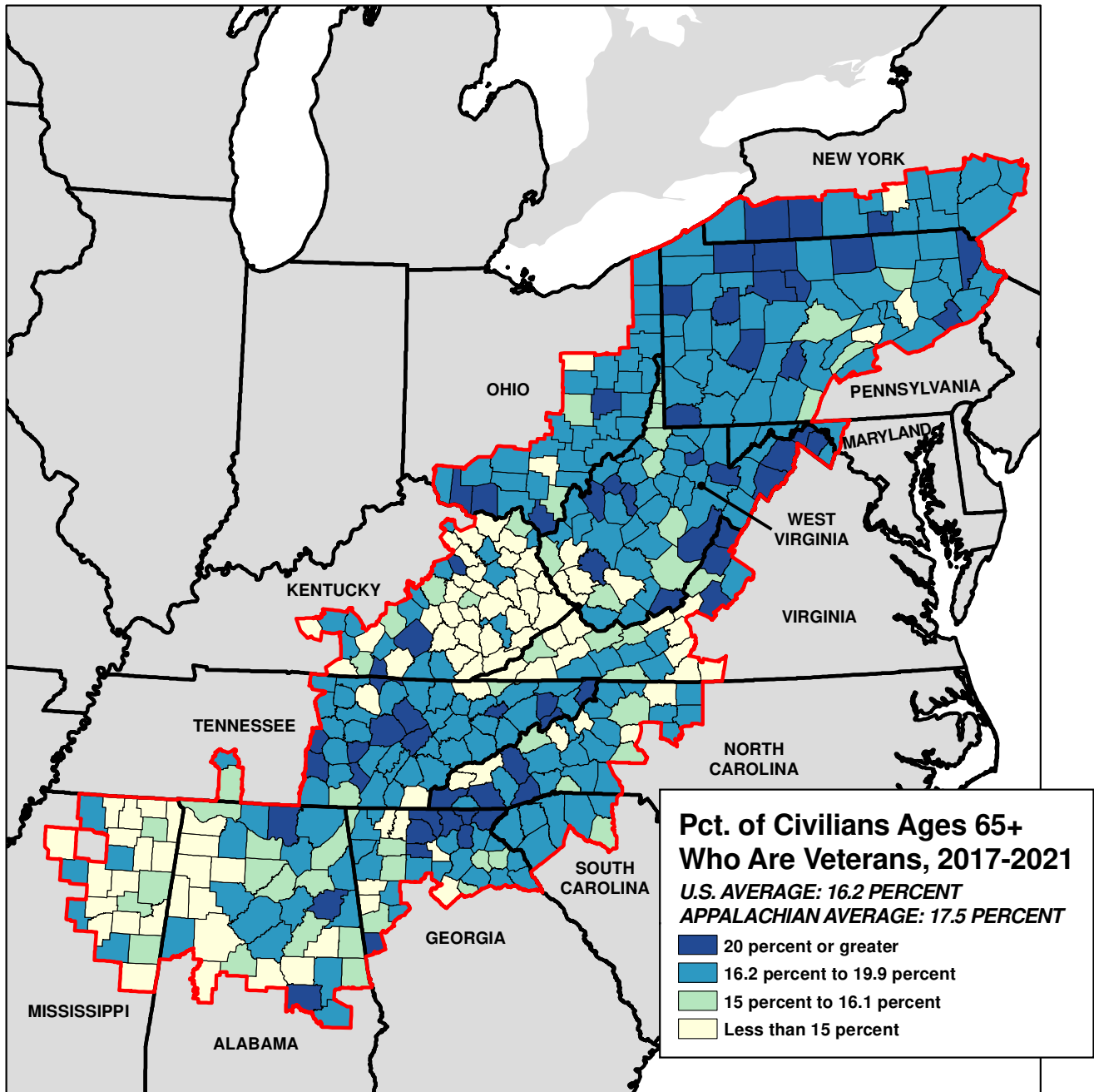
Figure 12.3: Percent of Civilians Ages 35 to 64 in the Appalachian Region Who Are Veterans, 2017-2021



Map Title: Percent of Civilians Ages 35 to 64 in the Appalachian Region Who Are Veterans, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In the Appalachian Region, 6.3 percent of 35-to-64-year-old civilian residents were military veterans in 2017-2021, slightly above the U.S. rate of 5.8 percent. The prevalence was even higher in some counties: In five of them, veterans comprised at least one in 10 civilians ages 35 to 64. Yet in 195 counties, the veteran prevalence rate was lower than the national average; more than one-fourth of the counties in this latter group were in Central Appalachia, where just 5.1 percent of 35-to-64-year-old civilians were veterans—the lowest share among the subregions. Most veterans of the 1991 Gulf War fall into this age group, as do the youngest Vietnam veterans.

Figure 12.4: Percent of Civilians Ages 65 and Over in the Appalachian Region Who Are Veterans, 2017-2021



Map Title: Percent of Civilians Ages 65 and Over in the Appalachian Region Who Are Veterans, 2017-2021
 Data Source: U.S. Census Bureau, 2017-2021 American Community Survey.

In 2017-2021, 17.5 percent of Appalachia’s civilian residents ages 65 and over were military veterans—most of whom served during World War II and the wars in Korea and Vietnam. Yet there is some variation within the Region. For example, at least 20 percent of older civilians were veterans in 64 counties—47 of which were in Northern, North Central, and South Central Appalachia. (In each of these three subregions, at least 18 percent of adult civilians age 65 or older were veterans.) In contrast, there were 93 counties where veterans comprised less than 15 percent of the older civilian residents. Central Appalachia had 42 of the counties in the latter group; 32 were in Kentucky alone. In both places, veterans were less than 16 percent of older civilians. (Only Appalachian Mississippi had a noticeably lower share, at just under 14 percent.)

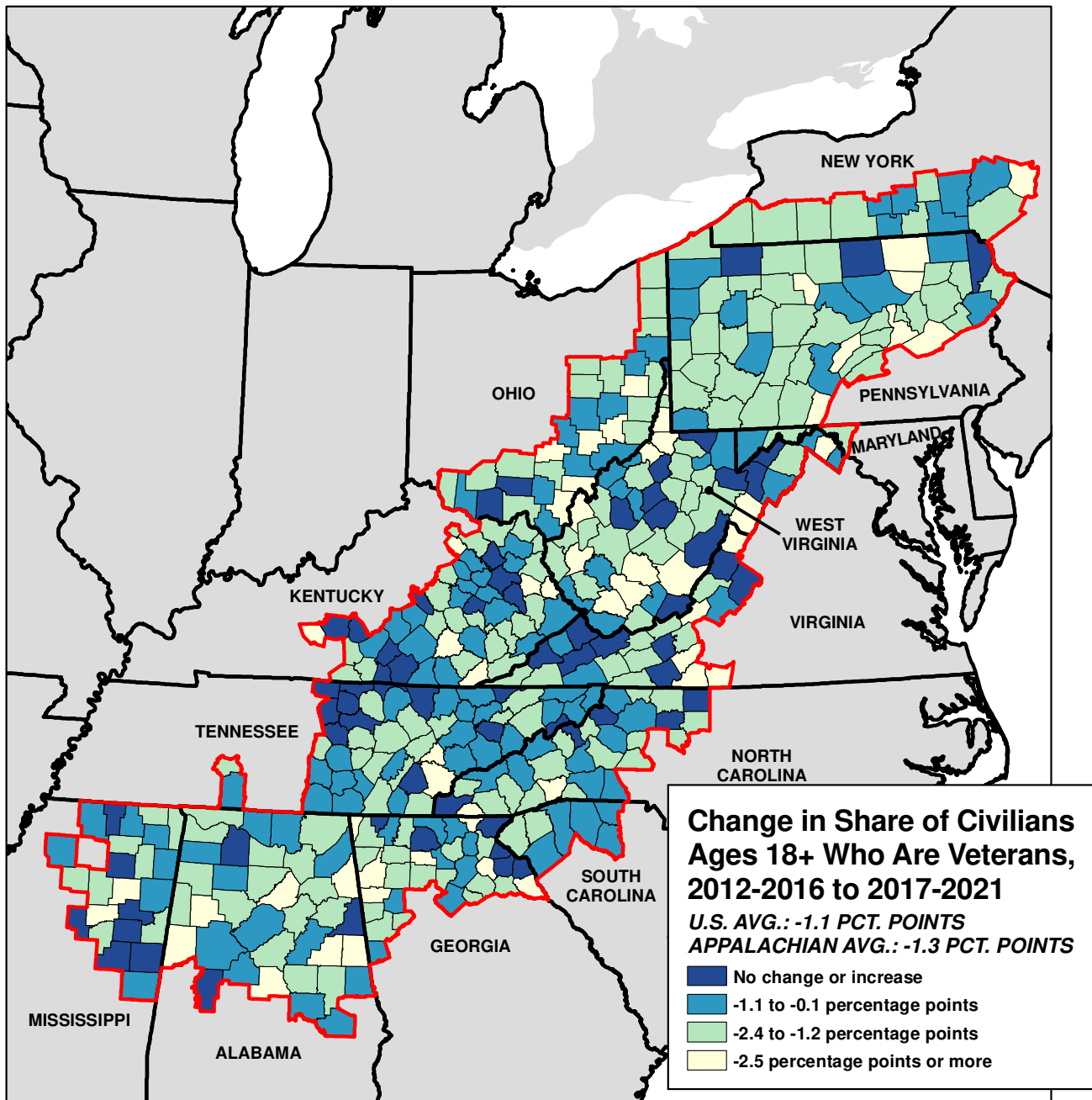
Table 12.3: Percentage Point Change in Veteran Status of Adult Civilians in the Appalachian Region, by Age Group and Gender, 2012-2016 to 2017-2021

Veteran Status	Percentage Point Change in Share of Adults Who Are Veterans					
	Total, Ages 18 and Over	By Age Group			By Gender	
		Ages 18-34	Ages 35-64	Ages 65 and Over	Males	Females
United States	-1.1	-0.3	-1.1	-4.1	-2.5	+0.0
Appalachian Region	-1.3	-0.2	-1.2	-3.9	-2.8	+0.1
Subregions						
Northern Appalachia	-1.6	-0.3	-1.4	-4.6	-3.3	-0.1
North Central Appalachia	-1.5	-0.1	-1.7	-4.2	-3.1	+0.0
Central Appalachia	-0.9	-0.4	-1.2	-2.5	-2.2	+0.1
South Central Appalachia	-1.1	+0.0	-1.1	-3.2	-2.4	+0.0
Southern Appalachia	-1.1	+0.0	-1.0	-3.8	-2.4	+0.1
County Types						
Large Metros (pop. 1 million +)	-1.4	-0.1	-1.4	-4.5	-3.0	+0.0
Small Metros (pop. <1 million)	-1.3	-0.1	-1.3	-3.9	-2.9	+0.1
Nonmetro, Adjacent to Large Metros	-1.1	+0.0	-1.2	-3.3	-2.3	+0.1
Nonmetro, Adjacent to Small Metros	-1.4	-0.5	-1.2	-4.0	-3.1	+0.0
Rural (nonmetro, not adj. to a metro)	-1.0	-0.3	-1.1	-2.8	-2.0	+0.0
Alabama	-1.0	-0.3	-1.0	-3.4	-2.4	+0.2
Appalachian Alabama	-1.1	-0.3	-1.0	-3.8	-2.7	+0.2
Non-Appalachian Alabama	-0.8	-0.4	-0.9	-2.4	-1.7	+0.2
Georgia	-1.2	-0.4	-1.2	-3.6	-2.3	-0.1
Appalachian Georgia	-1.0	+0.2	-1.2	-3.8	-2.2	+0.0
Non-Appalachian Georgia	-1.2	-0.6	-1.3	-3.4	-2.3	-0.1
Kentucky	-1.4	-0.4	-1.4	-3.7	-2.9	+0.0
Appalachian Kentucky	-1.1	-0.3	-1.3	-2.6	-2.3	+0.1
Non-Appalachian Kentucky	-1.5	-0.5	-1.5	-4.0	-3.1	+0.1
Maryland	-1.2	-0.5	-1.0	-4.2	-2.4	+0.0
Appalachian Maryland	-2.0	-0.2	-2.3	-4.4	-3.9	-0.2
Non-Appalachian Maryland	-1.1	-0.5	-0.9	-4.1	-2.4	+0.0
Mississippi	-0.9	-0.4	-0.8	-3.4	-2.0	-0.1
Appalachian Mississippi	-1.0	-0.1	-1.0	-3.2	-2.1	-0.1
Non-Appalachian Mississippi	-1.0	-0.4	-0.9	-3.6	-2.0	-0.1
New York	-0.9	-0.2	-0.7	-3.9	-1.9	+0.0
Appalachian New York	-1.2	-0.4	-1.3	-3.8	-2.6	-0.1
Non-Appalachian New York	-0.9	-0.1	-0.7	-4.0	-1.9	+0.0
North Carolina	-1.0	-0.1	-1.0	-3.3	-2.2	+0.1
Appalachian North Carolina	-1.3	-0.1	-1.4	-3.5	-2.9	+0.0
Non-Appalachian North Carolina	-0.9	-0.1	-1.0	-3.3	-2.1	+0.0
Ohio	-1.4	-0.1	-1.4	-4.3	-3.0	-0.1
Appalachian Ohio	-1.4	+0.0	-1.5	-4.5	-3.2	+0.0
Non-Appalachian Ohio	-1.4	-0.2	-1.4	-4.2	-3.0	-0.1
Pennsylvania	-1.4	-0.3	-1.3	-4.7	-3.1	-0.1
Appalachian Pennsylvania	-1.6	-0.3	-1.4	-4.7	-3.3	-0.1
Non-Appalachian Pennsylvania	-1.4	-0.2	-1.1	-4.7	-2.9	+0.0
South Carolina	-1.2	-0.5	-1.3	-3.2	-2.5	+0.0
Appalachian South Carolina	-1.0	+0.2	-0.8	-3.8	-2.4	+0.3
Non-Appalachian South Carolina	-1.2	-0.8	-1.4	-3.0	-2.4	-0.1
Tennessee	-1.0	-0.2	-1.1	-2.9	-2.3	+0.1
Appalachian Tennessee	-0.9	+0.0	-1.0	-2.5	-2.2	+0.1
Non-Appalachian Tennessee	-1.1	-0.4	-1.1	-3.2	-2.2	+0.0
Virginia	-0.8	-0.6	-0.5	-3.3	-1.8	+0.1
Appalachian Virginia	-0.8	-0.5	-0.2	-3.5	-1.7	+0.2
Non-Appalachian Virginia	-0.8	-0.7	-0.6	-3.3	-1.8	+0.1
West Virginia (entire state)	-1.6	-0.2	-1.8	-4.3	-3.4	+0.0

Note: The ACS defines veterans as men and women who have served on active duty in the U.S. Armed Forces, the National Guard or Reserves, or in the U.S. Merchant Marine during World War II.

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

Figure 12.5: Percentage Point Change in the Share of Adult Civilians in the Appalachian Region Who Are Veterans, 2012-2016 to 2017-2021



Map Title: Percentage Point Change in the Share of Adult Civilians in the Appalachian Region Who Are Veterans, 2012-2016 to 2017-2021

Data Sources: U.S. Census Bureau, 2012-2016 and 2017-2021 American Community Surveys.

The share of Appalachia’s adult civilians ages 18 and over who were military veterans was 1.3 percentage points lower in the 2017-2021 period than it was in 2012-2016—slightly more than the national decrease of 1.1 points. And the magnitude of the decrease varied only slightly among the county types and the Appalachian portions of most of the 13 states. The largest decrease was in Appalachian Maryland (two points). Among the subregions, the decrease was largest in Northern Appalachia (1.6 percentage points) and smallest in Central Appalachia (0.9 points). Yet there was significant variation at the county level. For example, in 57 Appalachian counties (spread throughout the Region), veterans’ share of the population fell by at least 2.5 percentage points. Yet the share actually stayed the same or increased in 67 counties. Veterans were at least 10 percent of the civilian population in 14 of the counties where the share increased or stayed the same, compared with just two of the counties with the largest decreases.

TRENDS IN VETERAN STATUS

- In Appalachia, the share of adult civilians who were military veterans declined 1.3 percentage points between 2012-2016 and 2017-2021, falling to 7.7 percent (see Tables 12.2 and 12.3). There was little difference in the decrease among the county types, and the Appalachian portions of most of the 13 states. (Among the states, the magnitude of the decrease ranged from 0.8 percentage points in the Appalachian section of Virginia to two points in Appalachian Maryland.) And among the subregions, the decline in veteran prevalence ranged from 1.6 percentage points in Northern Appalachia to 0.9 points in Central Appalachia.
- The decrease in veteran status was more pronounced among middle-aged and older civilians than among younger ones. While the share of veterans in Appalachia fell just 0.2 percentage points among younger civilians ages 18 to 34, it declined 1.2 points among civilians ages 35 to 64, and 3.9 points among civilians ages 65 and over. As veteran status is more prevalent among older residents than younger ones, the movement of cohorts with lower prevalence rates into older ages accounts for much of the decline. (Mortality among the oldest veterans is also a factor, particularly in the decline among persons ages 65 and over.)
- Not surprisingly, the decreased share in veteran status among men has fueled the overall decrease. The share of adult men in the Appalachian Region who were veterans fell nearly three percentage points between 2012-2016 and 2017-2021, while the share among women remained virtually unchanged (rising by just one-tenth of a percentage point). Of course, men remain far more likely than women to be military veterans—the respective rates in Appalachia were 14.6 percent and 1.2 percent (see Table 12.2).

APPENDIX A: AN OVERVIEW OF RURAL APPALACHIA AND NON-APPALACHIAN RURAL AREAS

Comparing Rural Appalachia with Rural Areas Outside Appalachia

Of the 423 counties in the Appalachian Region, 107 are classified as rural—counties that are neither part of nor adjacent to a metropolitan area. As shown in Figure A.1, rural counties are found in each of the 13 states in the Appalachian Region except Maryland and South Carolina. However, there are higher concentrations of rural counties in several states including Mississippi, Kentucky, Virginia, West Virginia, and Pennsylvania. There are 841 rural counties located outside the Appalachian Region, and these are scattered across the United States with higher concentrations in midwestern and western states (see Figure A.1). Given the socioeconomic disadvantages often found in rural counties throughout the country, it is instructive to compare the characteristics of rural counties within Appalachia to those of rural counties located outside the Region.

Demographic and Housing Characteristics

Rural counties in Appalachia experienced a much higher rate of population decline between 2010 and 2021 than rural counties outside the Region—3.5 percent versus 0.4 percent (see Table A.1). The population in rural Appalachia is also older with a median age of 42.3 years versus 40.8 years and a smaller share of residents under age 18—20.9 percent versus 22.4 percent. Rural Appalachia is also much less diverse with only 12.5 percent of the population being members of a racial/ethnic minority (defined as anyone who identifies with a racial or ethnic group other than “White alone, not Hispanic”) compared with 25.8 percent in the rest of rural America. However, the comparative shares vary among minority groups. For example, there is a slightly higher concentration of non-Hispanic Blacks in rural Appalachia than in rural counties outside the Region—7.8 percent compared with 6.4 percent, while there is a much smaller share of Hispanics—2.5 percent versus 11.7 percent. There is also a much smaller share of people who are non-Hispanic American Indian or Alaska Native in rural Appalachia than in rural counties outside the Region. However, rural Appalachia is becoming more racially and ethnically diverse, as minorities’ share of the population rose 1.8 percentage points between 2010 and 2021. This compares with an increase of three points in the rest of rural America.

Education levels are lower in rural Appalachia than in rural areas in the rest of the country. Among adults ages 25 to 64, 85.1 percent of rural Appalachian residents have completed high school or more, compared with 89.1 percent of rural residents outside the Region. About 18.5 percent of working-age adults in rural Appalachia have completed a bachelor’s degree or more, compared with 23.1 percent of adults residing in rural counties in the rest of the country. However, the share within the Region whose highest education level is an associate’s degree is much closer to the share outside the Region—10 percent versus 11 percent. Among adults ages 25 and over with a bachelor’s degree, slightly more than one-fourth (26.1 percent) of rural Appalachian residents reported their first major was in a science and engineering field compared with 31.5 percent of rural adults outside Appalachia. These differences in education levels are also reflected in differences in employment and income between rural Appalachia and the rest of rural America.

The share of housing units that are single-dwelling units is almost five percentage points lower in rural Appalachia, but the share of housing units that are mobile homes is much higher—nearly 20 percent compared with only 11.4 percent in rural counties outside the Region. While housing vacancy rates are about the same for both rural Appalachia and the rest of rural America (22.2 percent and 22.6 percent, respectively), rural Appalachia has a noticeably smaller share of these vacant units that are designed for seasonal or recreational use (39 percent versus 52 percent). Rural households within the Region are more likely to experience a digital divide than those outside Appalachia. Within rural counties in the Region, both the share of households with a computer device and the share with a broadband (high-speed) Internet connection are about four percentage points lower than for households in rural counties outside the Region. Almost one-fifth (19.9 percent) of rural Appalachian households had no access to the Internet in 2017-2021, compared with less than one-sixth (15.8 percent) of other rural households.

Labor Force and Commuting

The share of rural Appalachian adults ages 25 to 64 in the civilian labor force is more than eight percentage points lower than in rural counties outside the Region, and the unemployment rate is slightly higher—5.4 percent versus 4.2 percent. Commuting patterns among rural Appalachian residents who do not work at home also differ from those elsewhere in rural America. Although a higher share of rural Appalachian households had no vehicle available, workers ages 16 and over in rural counties were more likely to drive alone to work (more than 81 percent) than workers in rural counties outside the Region (almost 78 percent). Nearly one-third of rural Appalachian workers commuted outside their county of residence compared with only about one-fifth of rural workers in the rest of the

country. More than three in 10 workers in rural Appalachian counties had a travel time to work of at least 30 minutes, with an average travel time of more than 24 minutes. By comparison, slightly more than two in 10 workers in rural counties outside Appalachia took at least a half-hour to get to their jobs, with an average travel time of only 20 minutes. These commuting patterns include the first 22 months of the coronavirus pandemic beginning in March 2020.

Income and Poverty

The lower levels of education and employment among adults in rural Appalachia are reflected in lower levels of income and higher rates of poverty and receipt of SNAP benefits than in rural counties outside the Region. At \$44,902, median household income in rural Appalachian counties is more than \$10,000 below that of households in rural counties in the rest of the country. Almost one-fifth of rural Appalachian residents live in poverty compared with only about 15.1 percent of persons in rural counties outside the Region. This gap is even wider among children and young adults ages 18 to 24 (nearly six percentage points) and among older working-age adults ages 25 to 64 (five percentage points). Although the gap is smaller, even rural Appalachian adults ages 65 and over have a poverty rate that is nearly three percentage points higher than for older adults in other rural counties. A higher share of rural Appalachian residents also have incomes below 50 percent of the poverty level and more than four in 10 are classified as low-income because their income is below 200 percent of poverty. While only one-sixth (16.7 percent) of all rural Appalachian households received Food Stamps/SNAP in 2017-2021, this share rose to nearly half (47.9 percent) among poor households. In rural counties outside Appalachia, both the share of all households and the share of poor households who received Food Stamps/SNAP in 2017-2021 was much lower (roughly four and six percentage points, respectively). In the Region, more than one-fourth (26.1 percent) of rural households with children received Food Stamps/SNAP compared with only 20.5 percent of such households in rural areas outside Appalachia.

Health Insurance and Disability

One of the bright spots in rural Appalachia is the higher level of health insurance coverage compared with the rest of rural America. A smaller share of residents in rural Appalachian counties lacks health insurance coverage, and this gap is present among all age groups from 19 to 64. In addition, the share of rural Appalachian residents without health insurance declined slightly more (3.4 percentage points) between 2012-2016 and 2017-2021 than the share in rural areas in the rest of the country (2.7 percentage points). Although the share of young adults ages 19 to 25 in rural Appalachia who lack health insurance coverage is more than three percentage points lower than for young adults in rural areas outside the Region, it is important to note that about 15 percent of rural Appalachian young adults are still without health insurance. Lack of access to health care among young adults can contribute to the development of chronic conditions and negatively affect health at older ages. It may also have put them at greater risk of not receiving needed medical treatment during the COVID-19 pandemic.

In contrast to health insurance coverage, levels of disability are much higher among rural Appalachian adults ages 18 and older than among adults in other rural areas. One-fifth of rural Appalachian residents have a disability compared with about 16 percent of residents of rural counties outside the Region. However, this gap widens to more than six percentage points among adults ages 35 to 64 and five percentage points among those ages 65 and older. In rural Appalachia, nearly one-quarter (22.7 percent) of working-age adults ages 35 to 64 and 41.6 percent of adults ages 65 and older have a disability. By comparison, the respective shares are only 16.6 percent and 36.7 percent for adults in these two age groups in rural counties in the rest of the country. These higher levels of disability in rural Appalachia—especially among working-age adults—may be related to the older age structure and lower levels of employment and household income compared with rural areas outside the Region.

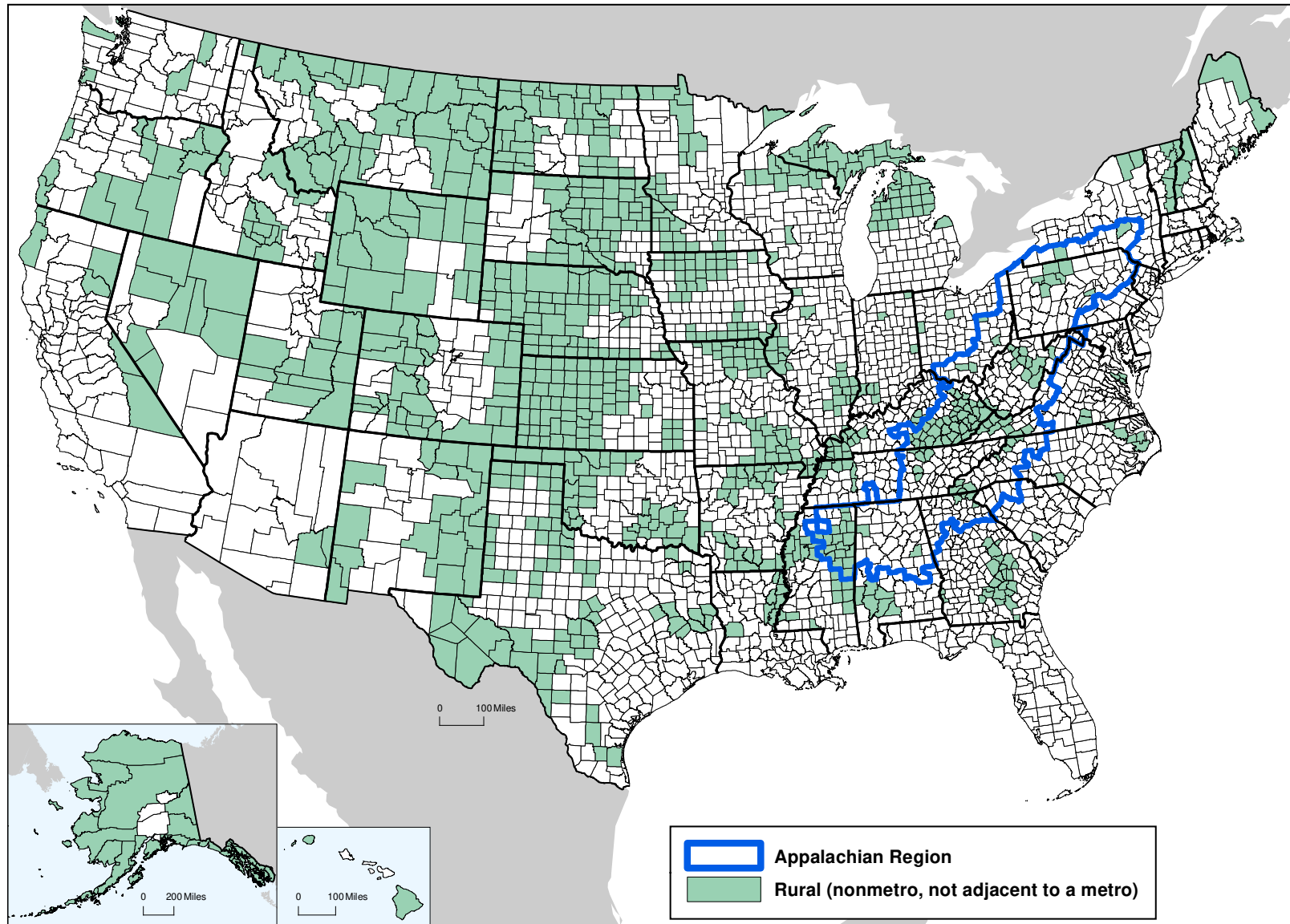
Veteran Status

A slightly smaller share of the civilian population ages 65 and over in rural Appalachia are veterans (16.4 percent) than the share in rural counties in the rest of the country (18.1 percent). This gap is about the same between rural areas within and outside Appalachia among civilian males ages 18 and older. Only 13.5 percent of rural Appalachian adult male civilians are veterans compared with 15.1 percent of male civilians in rural areas outside the Region.

Summary

A comparison of rural counties within the Appalachian Region with those located outside Appalachia reveals some important contrasts in characteristics and overall levels of well-being between these areas. The population in rural Appalachian counties is older and less diverse and has been declining in number faster since 2010 than the population in rural counties in the rest of the country. With the exception of health insurance coverage, rural Appalachian counties continue to lag behind rural counties in the rest of the country. Rural Appalachian residents have lower levels of education, employment, income, and access to the Internet, and higher levels of poverty, SNAP benefit receipt, and disability than rural residents in other areas of the United States.

Figure A.1: Rural Counties in the United States and the Appalachian Region



Map Title: Rural Counties in the United States and the Appalachian Region
Data Source: USDA, Economic Research Service, 2013 Urban Influence Codes condensed by ARC.

Table A.1: Selected Measures for Rural Appalachia and Rural Areas Outside Appalachia

Demographic, Social, or Economic Characteristic	Appalachian, Rural (nonmetro, not adjacent to a metro)	Non-Appalachian, Rural (nonmetro, not adjacent to a metro)
NUMBER OF COUNTIES	107	841
Demographic and Housing Characteristics		
Population, July 1, 2021	2,466,255	13,216,088
Percent change (2010 to 2021), population	-3.5	-0.4
Median age, July 1, 2021	42.3	40.8
Percent of population under age 18, July 1, 2021	20.9	22.4
Percent of population that is minority, July 1, 2021	12.5	25.8
Percent of population that is Black alone, not Hispanic, July 1, 2021	7.8	6.4
Percent of population that is Hispanic or Latino, July 1, 2021	2.5	11.7
Percent of population that is American Indian or Alaska Native alone, not Hispanic, July 1, 2021	0.3	3.3
Percentage point change (2010 to 2021), Percent of population that is minority	+1.8	+3.0
Percent of persons ages 25-64 with a high school diploma or more, 2017-21	85.1	89.1
Percent of persons ages 25-64 with an associate's degree but without a bachelor's degree, 2017-21	10.1	11.1
Percent of persons ages 25-64 with a bachelor's degree or more, 2017-21	18.5	23.1
Among persons ages 25 and over with a bachelor's degree or more, percent whose bachelor's degree field (first major) was science and engineering, 2017-21	26.1	31.5
Percent of all housing units that are single-unit dwellings, 2017-21	70.4	75.2
Percent of all housing units that are mobile homes, 2017-21	19.5	11.4
Percent of housing units that are vacant, 2017-21	22.2	22.6
Percent of vacant housing units that are for seasonal, recreational, or occasional use, 2017-21	39.2	51.7
Percent of households with one or more computer devices (including smartphone and tablet), 2017-21	84.9	89.2
Percent of households with a broadband (high-speed) Internet subscription, 2017-21	76.6	80.6
Percent of households with no access to the Internet, 2017-21	19.9	15.8
Labor Force and Commuting		
Percent of civilian labor force universe ages 25-64 (excludes Armed Forces personnel) in civilian labor force, 2017-21	65.3	73.8
Unemployment rate, persons ages 25-64 (percent of civilian labor force), 2017-21	5.4	4.2
Percent of households with no vehicle available, 2017-21	7.5	6.1
Percent of workers ages 16 and over who drove alone to work, 2017-21	81.4	77.9
Percent of workers ages 16 and over who worked outside their county of residence, 2017-21	31.9	19.5
Percent of workers ages 16 and over (not working at home) whose travel time to work was 30 minutes or more, 2017-21	31.1	22.7
Mean travel time to work in minutes for all workers ages 16 and over who didn't work at home, 2017-21	24.4	20.0
Income and Poverty		
Median household income (in adjusted 2021 dollars), 2017-21	44,902	55,063
Percent of persons in poverty, 2017-21	19.7	15.1
Percent of persons under age 18 in poverty, 2017-21	25.8	20.3
Percent of persons ages 18-24 in poverty, 2017-21	27.8	22.0
Percent of persons ages 25-64 in poverty, 2017-21	18.4	13.3
Percent of persons ages 65 and over in poverty, 2017-21	13.1	10.4
Percent of persons with income below 50 percent of poverty level, 2017-21	8.5	6.6
Percent of persons with income below 200 percent of poverty level, 2017-21	42.6	35.6
Percent of households receiving Food Stamps/SNAP, 2017-21	16.7	12.4
Percent of poor households receiving Food Stamps/SNAP, 2017-21	47.9	42.1
Percent of households with children receiving Food Stamps/SNAP, 2017-21	26.1	20.5
Health Insurance and Disability		
Percent of persons without health insurance coverage, 2017-21	9.0	10.2
Percentage point change (2012-16 to 2017-21), percent of persons without health insurance coverage	-3.4	-2.7
Percent of persons ages 19-25 without health insurance coverage, 2017-21	14.9	18.4
Percent of persons ages 26-34 without health insurance coverage, 2017-21	17.3	19.2
Percent of persons ages 35-64 without health insurance coverage, 2017-21	11.3	13.0

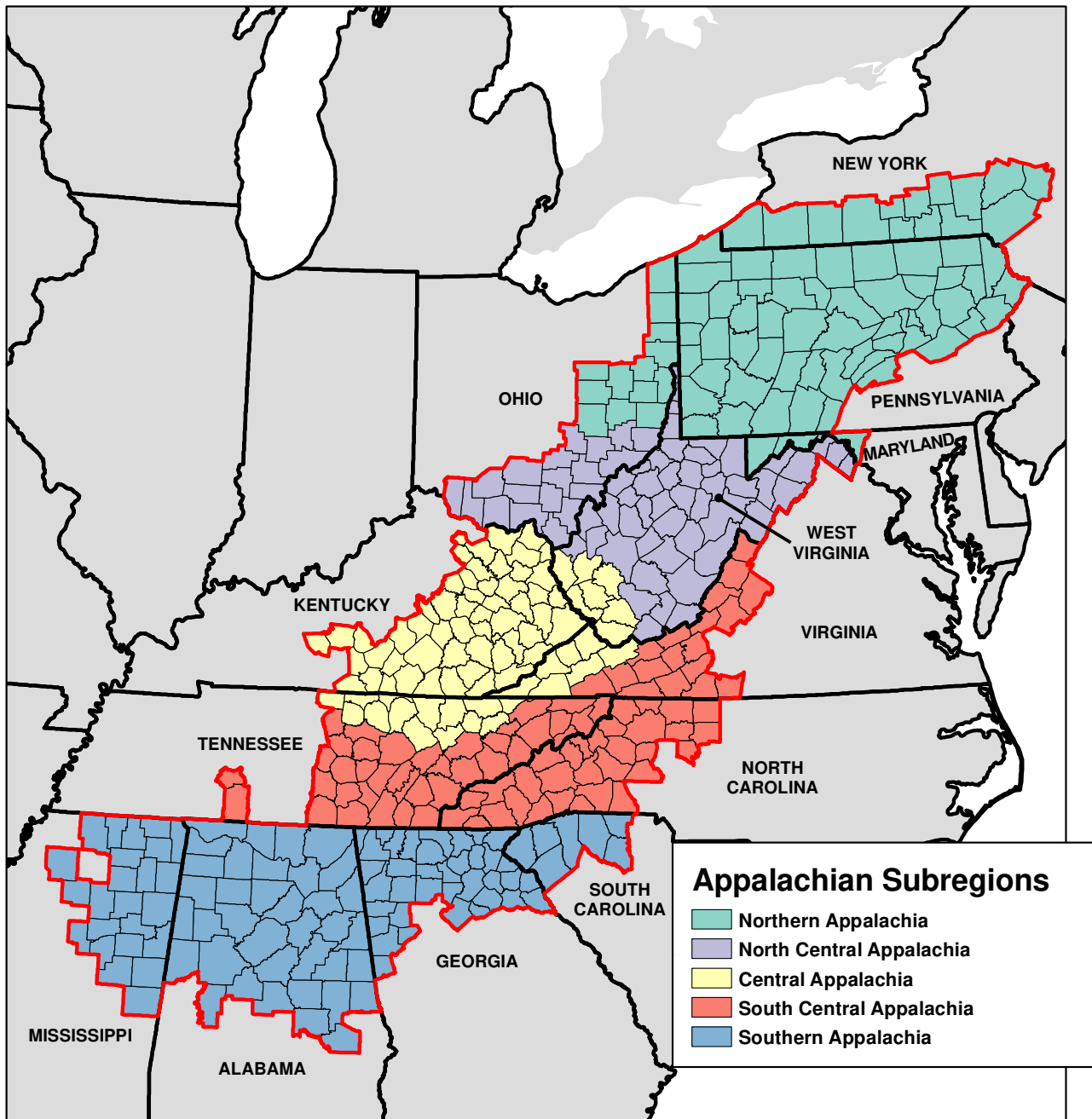
Table A.1: Selected Measures for Rural Appalachia and Rural Areas Outside Appalachia (continued)

Demographic, Social, or Economic Characteristic	Appalachian, Rural (nonmetro, not adjacent to a metro)	Non-Appalachian, Rural (nonmetro, not adjacent to a metro)
<i>Health Insurance and Disability (continued)</i>		
Percent of persons with a disability, 2017-21	20.0	16.2
Percent of persons ages 35-64 with a disability, 2017-21	22.7	16.6
Percent of persons ages 65 and over with a disability, 2017-21	41.6	36.7
<i>Veteran Status</i>		
Percent of civilian population ages 65 and over who are veterans, 2017-21	16.4	18.1
Percent of male civilian population ages 18 and over who are veterans, 2017-21	13.5	15.1

Data Sources: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates; and 2012-2016 and 2017-2021 American Community Surveys.

APPENDIX B: REFERENCE MAPS

Figure B.1: Appalachian Subregions

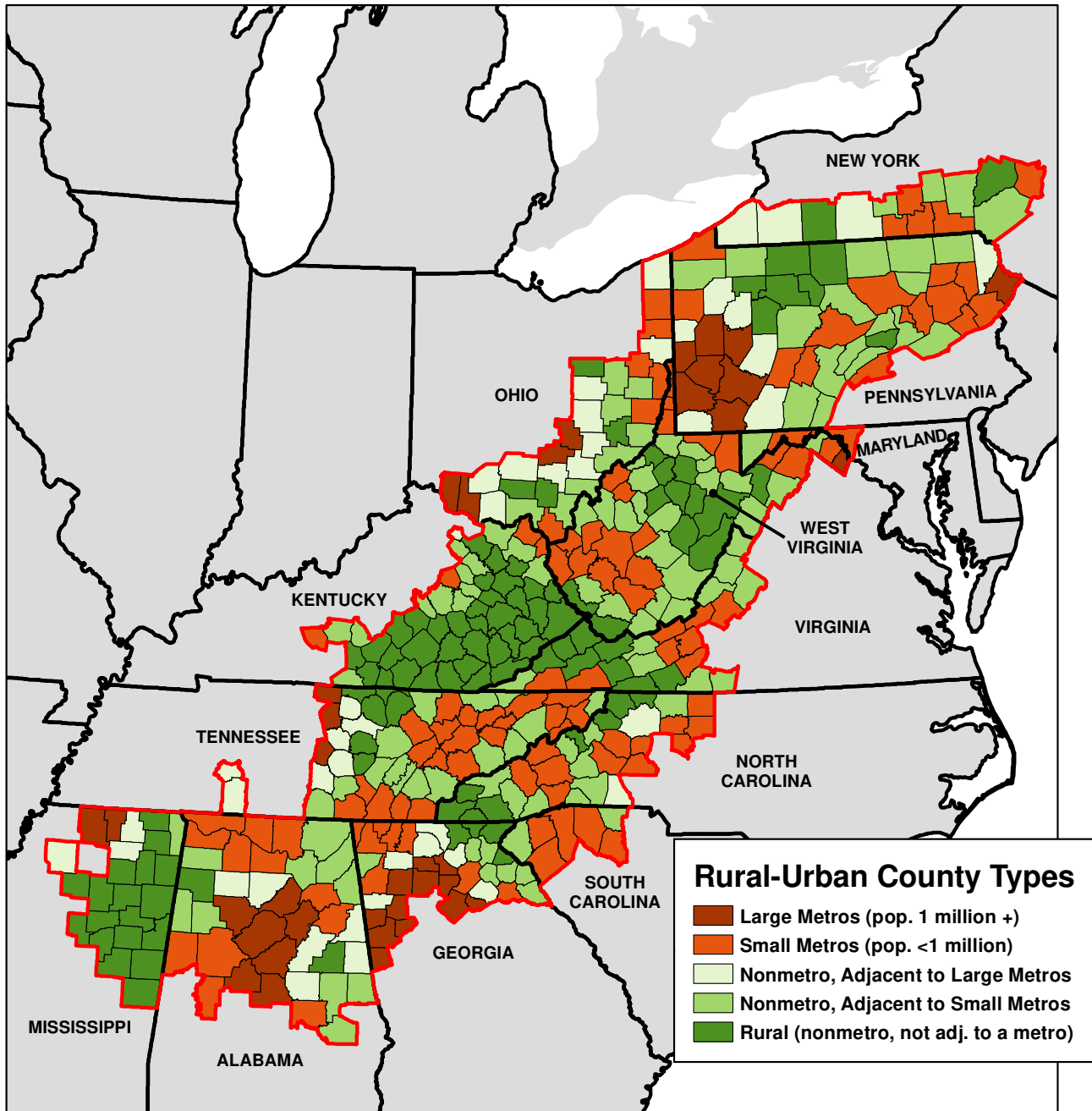


Map Title: Appalachian Subregions

Data Source: Appalachian Regional Commission.

The Appalachian Region covers 206,000 square miles and includes all of West Virginia and portions of 12 other states from New York to Mississippi. The 423 counties of the Region are grouped into five subregions, based on similarities in economic and demographic characteristics and geographic location.

Figure B.2: Rural-Urban County Types in the Appalachian Region



Map Title: Rural-Urban County Types in the Appalachian Region

Data Source: USDA, Economic Research Service, 2013 Urban Influence Codes condensed by ARC.

While Appalachia is a distinct part of the United States, the Region is far from homogeneous, including both rural counties and major metropolitan areas such as Pittsburgh, Birmingham, and parts of suburban Atlanta. This map shows the rural-urban type for each Appalachian county.