

**THE APPALACHIAN REGION:
A DATA OVERVIEW FROM THE
2012-2016 AMERICAN COMMUNITY SURVEY
Chartbook**

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FOREWORD

Most of the data contained in this chartbook come from the 2012-2016 American Community Survey. While the types of demographic and housing data included in Chapters 1 through 4 were also collected in the 2010 decennial census, the types of social and economic data included in Chapters 5 through 11 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 census 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The decennial long form has been replaced by the American Community Survey (ACS), a nationwide study collected continuously every year in every county in the United States.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 2012-2016 ACS data to have comparable statistics for all 420 counties in the Region.

The ACS five-year estimates for 2012-2016 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 2012 through December 2016. 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 (2012-2016 and 2007-2011), 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. And in some years, the ACS has added or removed certain questions. For example, the ACS added a new question on health insurance in 2008, which was the same year that a new set of questions on disability status replaced the ones asked in previous years. As a result, 2007-2011 data for these two items are not available to measure trends. More information about comparing the 2007-2011 and 2012-2016 ACS data is available on the Web page, ["Comparing 2007-2011 ACS 5-year and 2012-2016 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 2007-2011 ACS data illustrate this problem, as they are for a time period that covers three distinct periods of economic activity: the 11 months immediately preceding the “Great Recession” of December 2007 through June 2009; the recession itself, and the 30 months of economic recovery that followed the downturn. Since the 2007-2011 ACS pools data from all three periods, it smooths out the extreme variations in economic measures that would be evident in annual data from this five-year period.

Beginning with this year’s chartbook, 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 do the vintage 2016 estimates reflect more timely data than the five-year ACS estimates, these are deemed 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.

This year's chartbook also includes data for several new subject areas. In addition to information on housing occupancy and tenure, Chapter 4 now also includes tables and maps on the type of housing units (such as single- or multiple-unit dwellings) and types of living arrangements (family households, nonfamily households, and group quarters) for residents in the Appalachian Region. Chapter 6 now includes information on commuting patterns (that is, travel time to and place of work) as well as labor force, employment, and unemployment patterns. Finally, in addition to tables and maps on income and poverty, Chapter 7 now also includes data on income-to-poverty ratios, which measure how closely Appalachian residents' incomes compare to the federal poverty threshold.

The chartbook also includes 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. These maps are in Appendix A.

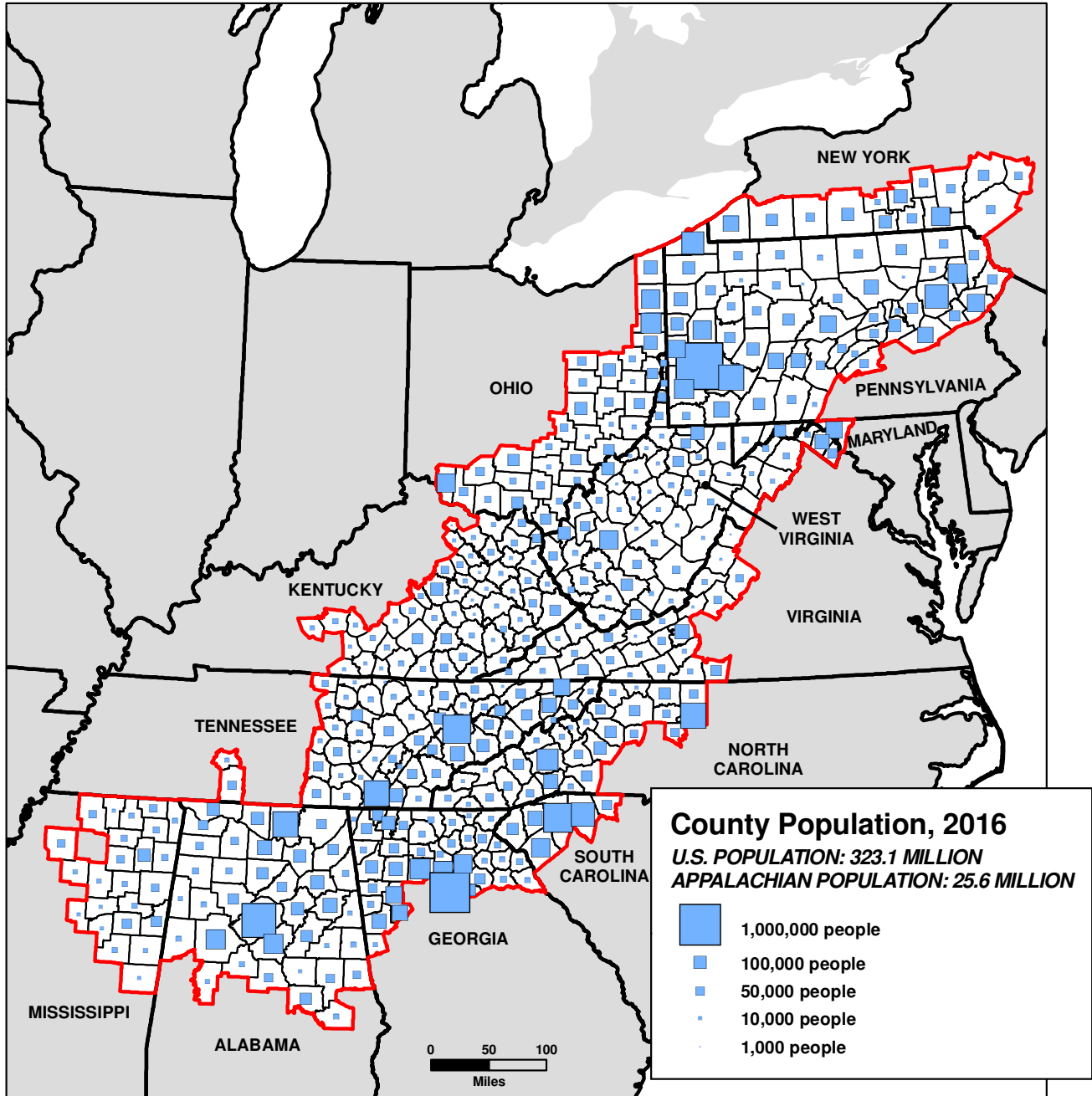
CHAPTER 1: POPULATION BASICS

Table 1.1: Population, Land Area, and Population Density in the Appalachian Region, July 1, 2016

Population, Land Area, and Density	Population, July 1, 2016	Change Since July 1, 2010		Land Area (Square Miles)	Population per Square Mile of Land Area, July 1, 2016
		Number	Percent		
United States	323,127,513	+ 13,779,320	+ 4.5	3,531,905	91.5
Appalachian Region	25,552,573	+ 288,680	+ 1.1	204,452	125.0
Subregions					
Northern Appalachia	8,235,997	- 148,021	- 1.8	56,980	144.5
North Central Appalachia	2,413,170	- 12,624	- 0.5	29,337	82.3
Central Appalachia	1,877,400	- 42,259	- 2.2	29,773	63.1
South Central Appalachia	4,845,592	+ 122,782	+ 2.6	34,997	138.5
Southern Appalachia	8,180,414	+ 368,802	+ 4.7	53,365	153.3
County Types					
Large Metros (pop. 1 million +)	6,073,724	+ 219,194	+ 3.7	18,815	322.8
Small Metros (pop. <1 million)	10,811,590	+ 168,232	+ 1.6	54,302	199.1
Nonmetro, Adjacent to Large Metros	2,194,785	- 21,079	- 1.0	25,382	86.5
Nonmetro, Adjacent to Small Metros	3,959,266	- 35,131	- 0.9	58,591	67.6
Rural (nonmetro, not adj. to a metro)	2,513,208	- 42,536	- 1.7	47,363	53.1
Alabama	4,863,300	+ 77,808	+ 1.6	50,645	96.0
Appalachian Alabama	3,113,850	+ 46,191	+ 1.5	25,763	120.9
Non-Appalachian Alabama	1,749,450	+ 31,617	+ 1.8	24,882	70.3
Georgia	10,310,371	+ 596,850	+ 6.1	57,513	179.3
Appalachian Georgia	3,185,886	+ 244,781	+ 8.3	11,378	280.0
Non-Appalachian Georgia	7,124,485	+ 352,069	+ 5.2	46,135	154.4
Kentucky	4,436,974	+ 88,312	+ 2.0	39,486	112.4
Appalachian Kentucky	1,170,012	- 15,775	- 1.3	18,231	64.2
Non-Appalachian Kentucky	3,266,962	+ 104,087	+ 3.3	21,256	153.7
Maryland	6,016,447	+ 227,863	+ 3.9	9,707	619.8
Appalachian Maryland	251,847	- 993	- 0.4	1,529	164.7
Non-Appalachian Maryland	5,764,600	+ 228,856	+ 4.1	8,178	704.9
Mississippi	2,988,726	+ 18,404	+ 0.6	46,923	63.7
Appalachian Mississippi	628,016	- 885	- 0.1	12,400	50.6
Non-Appalachian Mississippi	2,360,710	+ 19,289	+ 0.8	34,523	68.4
New York	19,745,289	+ 342,649	+ 1.8	47,126	419.0
Appalachian New York	1,038,170	- 27,675	- 2.6	11,681	88.9
Non-Appalachian New York	18,707,119	+ 370,324	+ 2.0	35,445	527.8
North Carolina	10,146,788	+ 587,873	+ 6.1	48,618	208.7
Appalachian North Carolina	1,743,720	+ 44,044	+ 2.6	11,887	146.7
Non-Appalachian North Carolina	8,403,068	+ 543,829	+ 6.9	36,731	228.8
Ohio	11,614,373	+ 73,390	+ 0.6	40,861	284.2
Appalachian Ohio	2,002,965	- 39,192	- 1.9	15,978	125.4
Non-Appalachian Ohio	9,611,408	+ 112,582	+ 1.2	24,882	386.3
Pennsylvania	12,784,227	+ 71,884	+ 0.6	44,743	285.7
Appalachian Pennsylvania	5,708,913	- 83,814	- 1.4	36,444	156.6
Non-Appalachian Pennsylvania	7,075,314	+ 155,698	+ 2.3	8,298	852.7
South Carolina	4,961,119	+ 325,176	+ 7.0	30,061	165.0
Appalachian South Carolina	1,252,662	+ 78,715	+ 6.7	3,824	327.6
Non-Appalachian South Carolina	3,708,457	+ 246,461	+ 7.1	26,237	141.3
Tennessee	6,651,194	+ 294,523	+ 4.6	41,235	161.3
Appalachian Tennessee	2,872,613	+ 83,712	+ 3.0	20,119	142.8
Non-Appalachian Tennessee	3,778,581	+ 210,811	+ 5.9	21,116	178.9
Virginia	8,411,808	+ 386,035	+ 4.8	39,490	213.0
Appalachian Virginia	752,817	- 17,301	- 2.2	11,179	67.3
Non-Appalachian Virginia	7,658,991	+ 403,336	+ 5.6	28,311	270.5
West Virginia (entire state)	1,831,102	- 23,128	- 1.2	24,038	76.2

Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

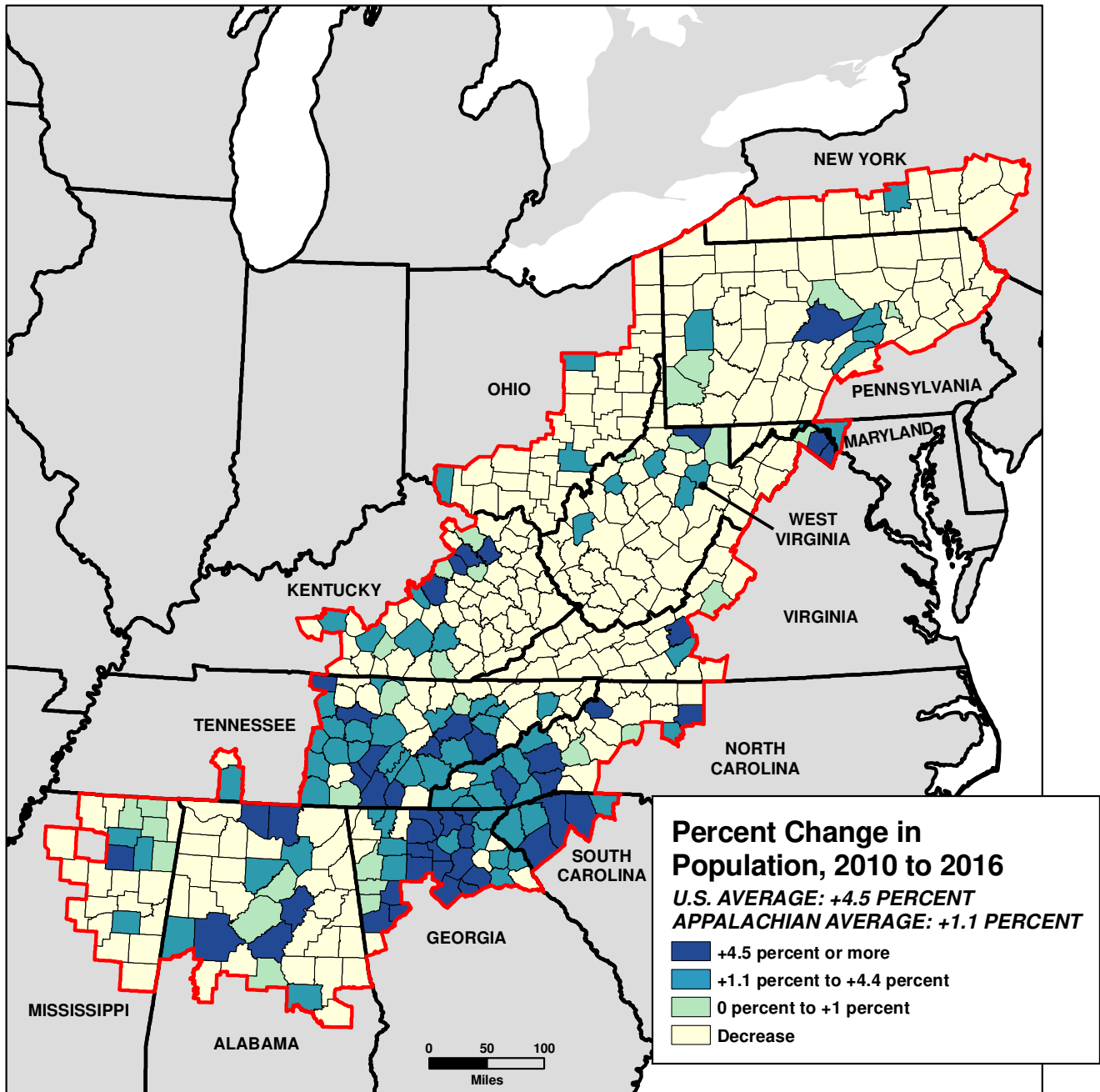
Figure 1.1: Population Distribution in the Appalachian Region, July 1, 2016



Map Title: Population Distribution in the Appalachian Region, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

Of the 323.1 million persons in the United States as of July 1, 2016, 25.6 million lived in the Appalachian Region—289,000 more than in July 1, 2010. Yet the population of the Region’s 420 counties varied greatly. On one hand, two-thirds of the counties had populations of fewer than 50,000 people, and 128 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 2016.

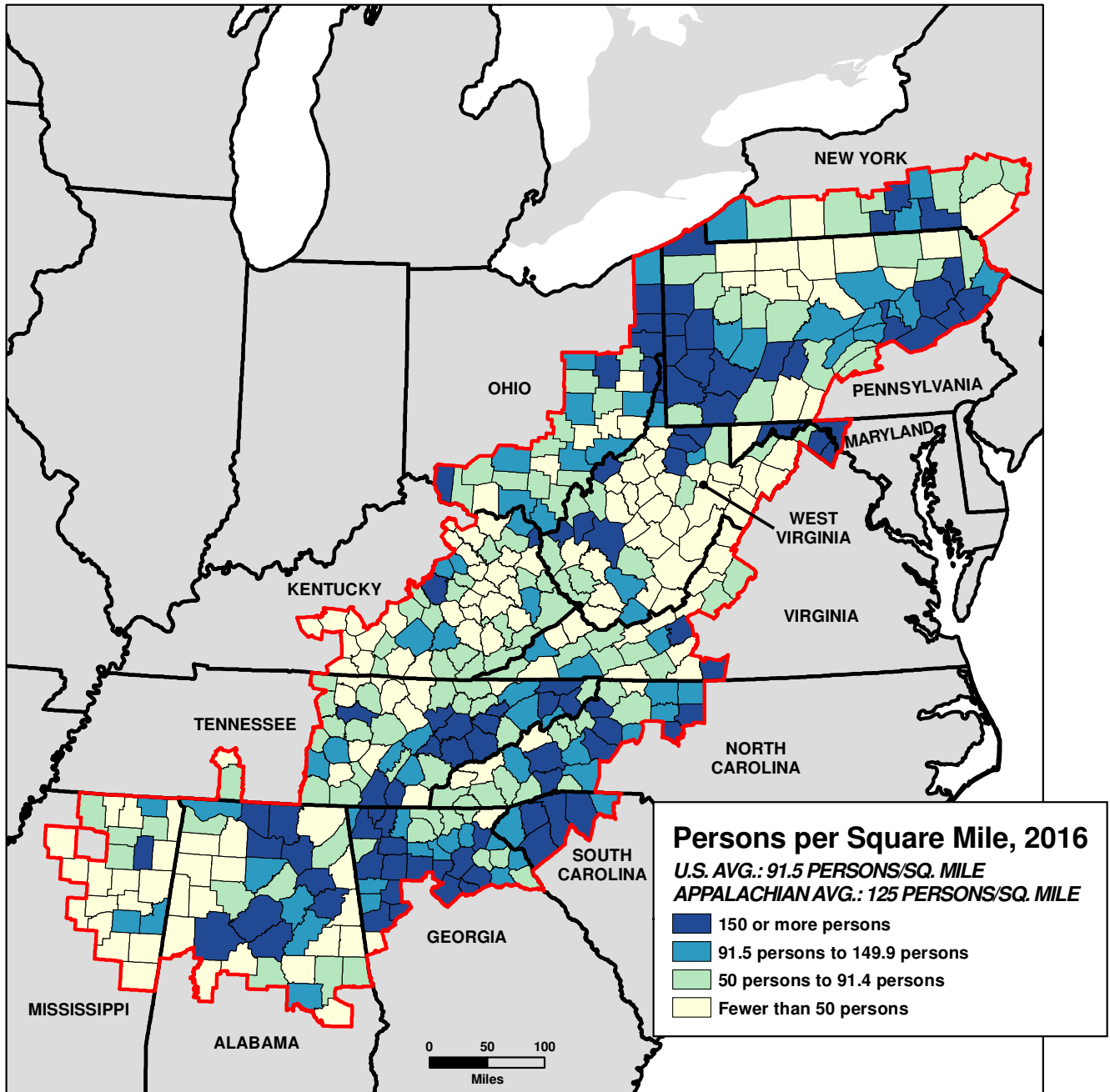
Figure 1.2: Population Change in the Appalachian Region, July 1, 2010 to July 1, 2016



Map Title: Population Change in the Appalachian Region, July 1, 2010 to July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

The Appalachian Region’s population grew just over 1 percent between 2010 and 2016, less than one-fourth the national average of 4.5 percent. And demographic change in this decade has been even slower in much of Appalachia—in fact, the Appalachian sections of eight states (including West Virginia, all of which lies in Appalachia) have actually lost population since mid-2010. Indeed, those eight states had 208 of the 274 Appalachian counties that lost residents since mid-2010. On the other hand, 48 counties in Appalachia grew at or above the national rate during this period. Of these counties, 38 were in the five Southern states (Alabama, Georgia, the Carolinas, and Tennessee) whose Appalachian sections gained population. Indeed, Southern Appalachia was the only subregion where the rate of population growth exceeded the national average. Population growth was particularly high in the Appalachian parts of Georgia and South Carolina, with increases of 8.3 percent and 6.7 percent, respectively. Many counties with college towns—such as Centre County, Pennsylvania (State College); Monongalia County, West Virginia (Morgantown); and Montgomery County, Virginia (Blacksburg)—also had rapid growth since 2010.

Figure 1.3: Population per Square Mile of Land Area in the Appalachian Region, July 1, 2016



Map Title: Population per Square Mile of Land Area in the Appalachian Region, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

While Appalachia’s population density was noticeably greater than the United States as a whole in 2016, just 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, Birmingham, suburban Atlanta) and small (Winston-Salem, North Carolina; Knoxville, Tennessee).

BASIC POPULATION TRENDS

- Appalachia had a population of almost 25.6 million in 2016—roughly 289,000 more residents than it had in mid-2010 (see Table 1.1). Yet growth in the Region has been slow at just 1 percent; by comparison, the United States as a whole has grown 4.5 percent between 2010 and 2016.
- Most of Appalachia, in fact, has lost population since 2010. West Virginia and the Appalachian portions of seven other states have fewer residents in 2016 than they did six years earlier. And in six of those states—Kentucky, New York, Ohio, Pennsylvania, Virginia, and West Virginia—the population loss exceeded 1 percent. Appalachian counties outside metropolitan areas also lost people between 2010 and 2016—indeed, 193 of the 268 counties classified in one of the three nonmetropolitan county types suffered population declines. And as a group, the most rural Appalachian counties lost nearly 2 percent of their 2010 population. In many counties, population losses since 2010 have continued longstanding demographic trends going back several decades.
- In contrast to the other three subregions, South Central and Southern Appalachia have added residents between 2010 and 2016. Population growth in Southern Appalachia, in fact, was 4.7 percent—slightly 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 exceeding 6 percent in both cases.
- Several possible factors account for the rapid growth in some parts of Appalachia. For example, nearly half of the 48 counties whose 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 Pennsylvania State University (Centre County), the University of Tennessee (Knox County), or West Virginia University (Monongalia County). Yet the major single factor may well be a diversified economy. Of the 48 rapid-growth Appalachian counties, 32 are part of metropolitan areas, and 19 (including 18 of the 32 in metros) have been classified as “nonspecialized” by ERS—meaning that they weren’t dependent on a single economic sector.

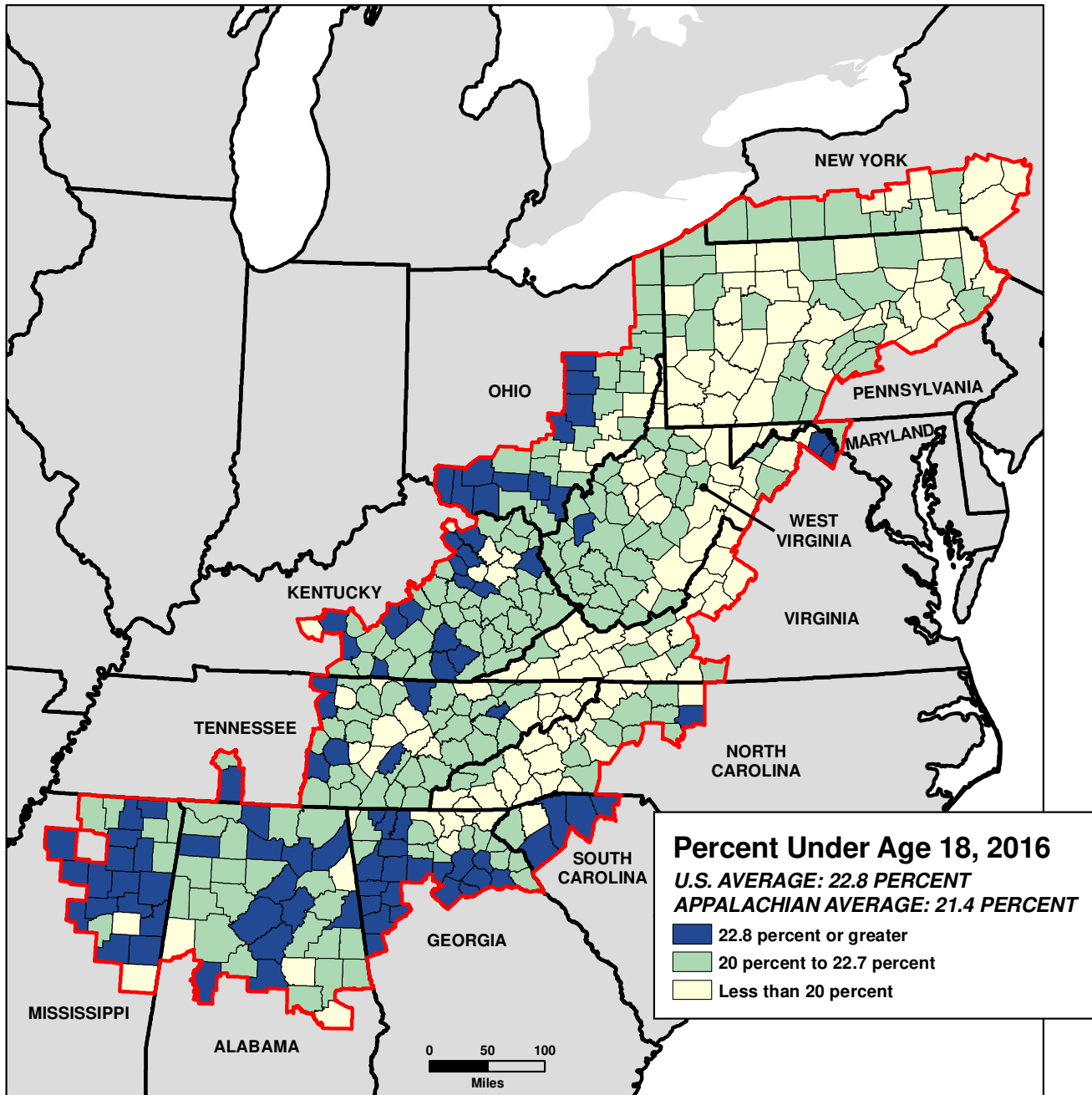
CHAPTER 2: AGE

Table 2.1: Population in the Appalachian Region by Age Group, July 1, 2016

Population by Age Group	Total Population, July 1, 2016	Percent of Population				Median Age (Years)
		Under Age 18	Ages 18-24	Ages 25-64	Ages 65 and over	
United States	323,127,513	22.8	9.5	52.4	15.2	38.0
Appalachian Region	25,552,573	21.4	9.3	51.7	17.6	40.9
Subregions						
Northern Appalachia	8,235,997	19.8	9.6	51.6	19.0	42.6
North Central Appalachia	2,413,170	21.0	9.2	51.8	17.9	41.3
Central Appalachia	1,877,400	21.5	8.4	52.2	17.9	41.8
South Central Appalachia	4,845,592	20.3	9.5	51.1	19.1	42.2
Southern Appalachia	8,180,414	23.7	9.2	52.1	15.0	38.4
County Types						
Large Metros (pop. 1 million +)	6,073,724	22.7	8.5	53.3	15.5	39.5
Small Metros (pop. <1 million)	10,811,590	21.0	10.0	51.5	17.5	40.6
Nonmetro, Adjacent to Large Metros	2,194,785	21.4	9.5	50.9	18.1	41.5
Nonmetro, Adjacent to Small Metros	3,959,266	20.7	8.6	50.9	19.8	43.2
Rural (nonmetro, not adj. to a metro)	2,513,208	21.2	9.5	50.7	18.6	41.6
Alabama	4,863,300	22.6	9.5	51.9	16.1	38.9
Appalachian Alabama	3,113,850	22.4	9.2	52.3	16.1	39.3
Non-Appalachian Alabama	1,749,450	22.8	10.0	51.1	16.1	38.3
Georgia	10,310,371	24.4	9.8	52.8	13.1	36.5
Appalachian Georgia	3,185,886	25.4	8.8	52.5	13.2	37.5
Non-Appalachian Georgia	7,124,485	23.9	10.2	52.9	13.1	36.2
Kentucky	4,436,974	22.8	9.5	52.2	15.6	38.7
Appalachian Kentucky	1,170,012	22.0	9.0	52.0	17.0	40.8
Non-Appalachian Kentucky	3,266,962	23.0	9.6	52.3	15.0	38.1
Maryland	6,016,447	22.4	9.1	53.9	14.6	38.5
Appalachian Maryland	251,847	20.5	9.3	52.2	18.0	41.3
Non-Appalachian Maryland	5,764,600	22.5	9.1	54.0	14.4	38.4
Mississippi	2,988,726	24.1	9.9	50.9	15.1	37.1
Appalachian Mississippi	628,016	23.4	10.5	49.9	16.2	37.9
Non-Appalachian Mississippi	2,360,710	24.3	9.7	51.1	14.8	37.0
New York	19,745,289	21.2	9.6	53.8	15.4	38.5
Appalachian New York	1,038,170	19.7	13.1	49.1	18.1	40.7
Non-Appalachian New York	18,707,119	21.3	9.5	54.1	15.2	38.4
North Carolina	10,146,788	22.7	9.5	52.4	15.5	38.7
Appalachian North Carolina	1,743,720	20.1	8.9	51.1	19.8	43.1
Non-Appalachian North Carolina	8,403,068	23.2	9.6	52.6	14.6	37.8
Ohio	11,614,373	22.5	9.3	52.0	16.2	39.3
Appalachian Ohio	2,002,965	21.8	8.7	51.4	18.1	41.7
Non-Appalachian Ohio	9,611,408	22.6	9.4	52.1	15.9	38.9
Pennsylvania	12,784,227	20.9	9.3	52.4	17.4	40.7
Appalachian Pennsylvania	5,708,913	19.5	9.3	52.1	19.1	42.9
Non-Appalachian Pennsylvania	7,075,314	22.1	9.2	52.6	16.0	39.0
South Carolina	4,961,119	22.1	9.4	51.7	16.7	39.2
Appalachian South Carolina	1,252,662	22.7	9.7	51.5	16.2	38.9
Non-Appalachian South Carolina	3,708,457	21.9	9.4	51.8	16.9	39.4
Tennessee	6,651,194	22.6	9.3	52.4	15.7	38.7
Appalachian Tennessee	2,872,613	20.9	9.0	51.5	18.6	41.7
Non-Appalachian Tennessee	3,778,581	23.8	9.5	53.1	13.6	36.7
Virginia	8,411,808	22.2	9.7	53.5	14.6	38.1
Appalachian Virginia	752,817	18.6	11.0	50.6	19.8	43.0
Non-Appalachian Virginia	7,658,991	22.6	9.5	53.8	14.1	37.7
West Virginia (entire state)	1,831,102	20.5	8.8	51.9	18.8	42.2

Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

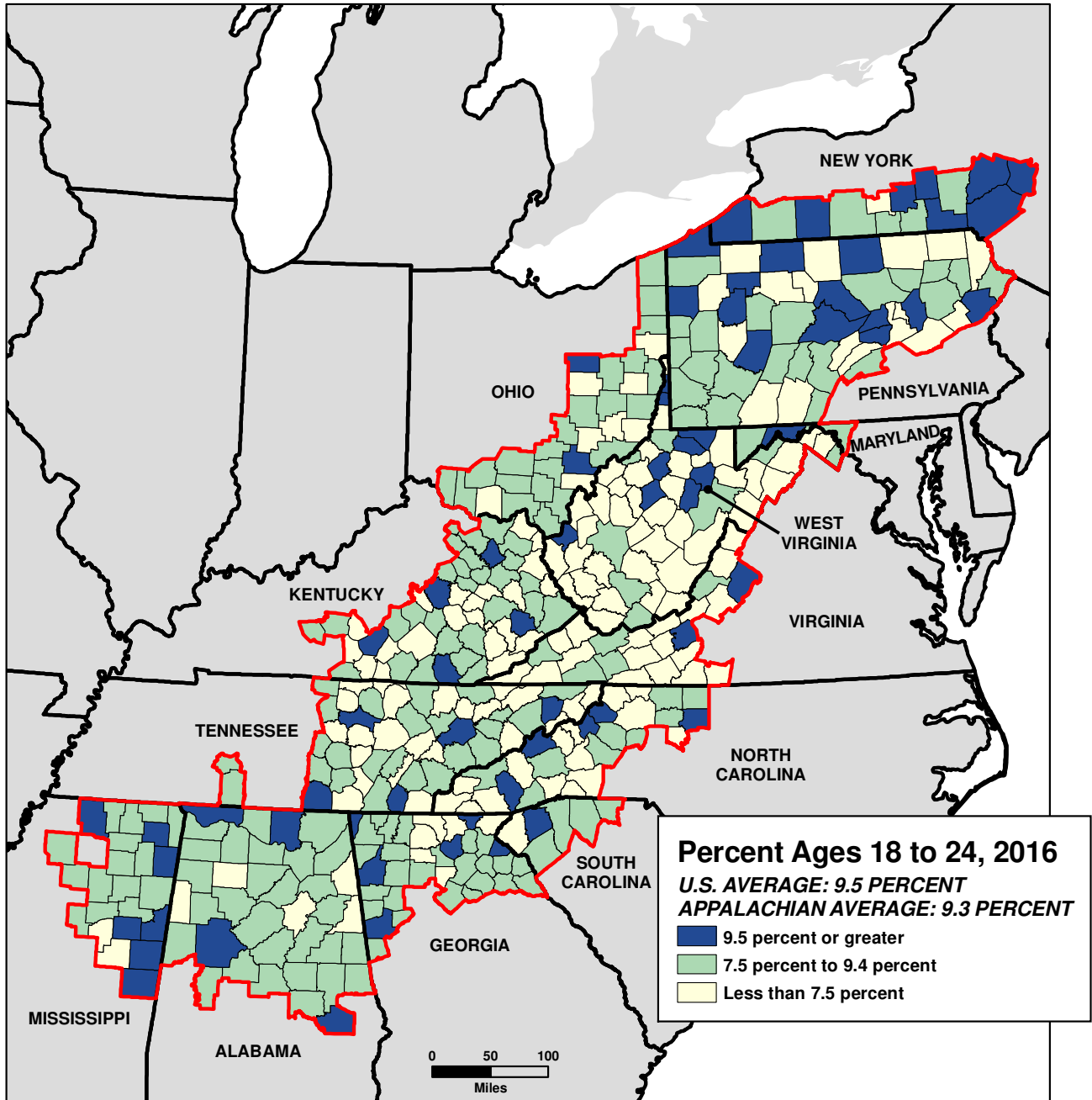
Figure 2.1: Percent of Population in the Appalachian Region Under Age 18, July 1, 2016



Map Title: Percent of Population in the Appalachian Region Under Age 18, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

As of mid-2016, the share of children and youth under age 18 in the Appalachian population was slightly below the national average of 22.8 percent. And the share was actually less than 20 percent in one-third of the Region's 420 counties, most of which were outside metropolitan areas, with concentrations in Pennsylvania, West Virginia, Virginia, North Carolina, and Tennessee. Yet in another 90 Appalachian counties, the share of children under age 18 matched or exceeded the national average. Most of these counties were in Southern Appalachia, with concentrations in Georgia, Mississippi, Alabama, and South Carolina. Among the states, the Appalachian portions of Georgia and Mississippi were the only two in the Region where the under-18 percentage was greater than that of the nation as a whole—although the share in South Carolina was close, at 22.7 percent.

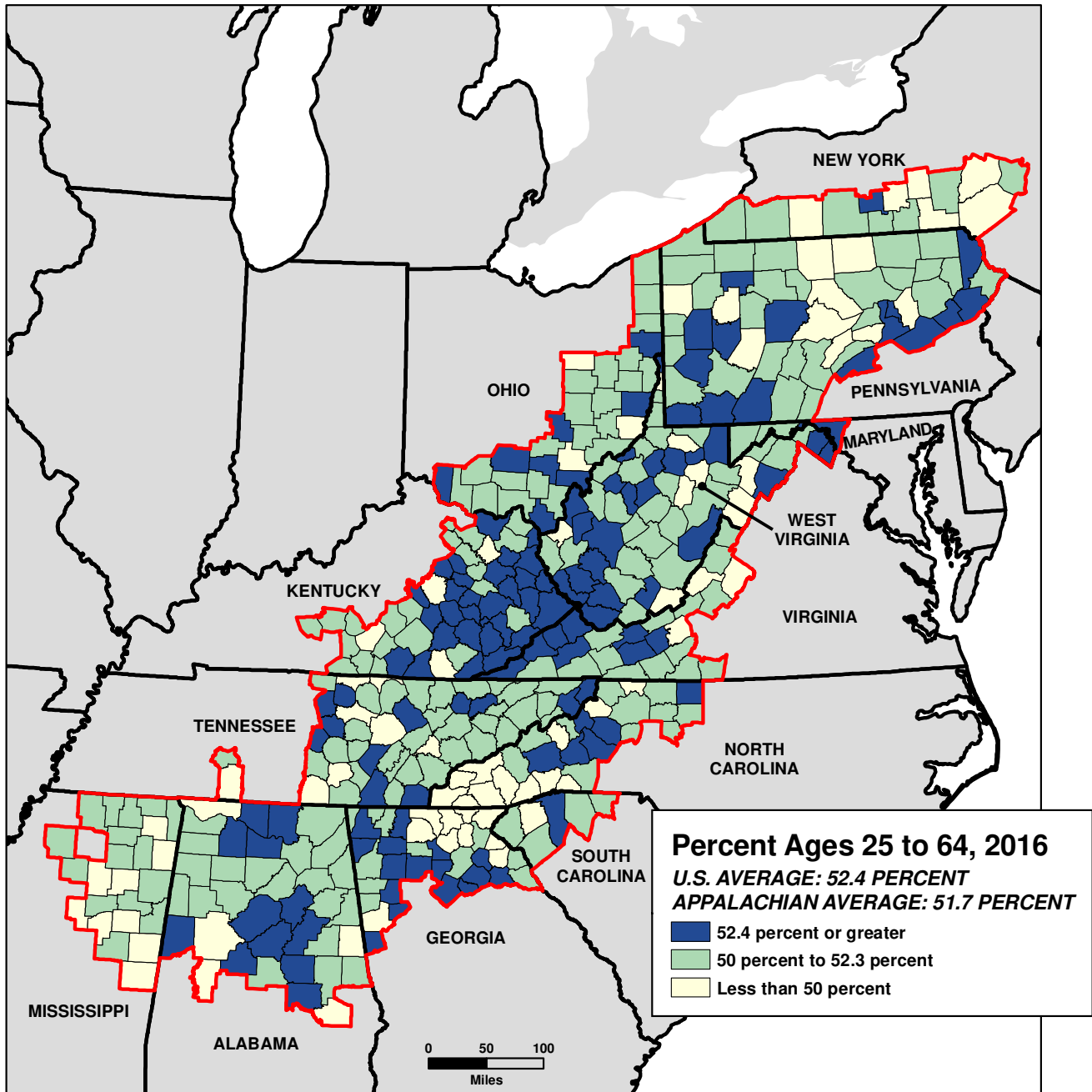
Figure 2.2: Percent of Population in the Appalachian Region Ages 18 to 24, July 1, 2016



Map Title: Percent of Population in the Appalachian Region Ages 18 to 24, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

Although the share of young adults (ages 18 to 24) in Appalachia roughly equaled the national average in 2016, there were great variations within the Region. For example, persons in this age group made up at least 15 percent of the population in 22 counties. Nearly all of these counties are home to colleges and universities such as West Virginia University (Monongalia County, West Virginia); Cornell University (Tompkins County, New York); Pennsylvania State University (Centre County); and Mississippi State University (Oktibbeha County, Mississippi). In contrast, 18-to-24-year-olds made up less than 7.5 percent of the population in 155 Appalachian counties. Of the counties in this latter group, 114 were outside metropolitan areas and 48 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.

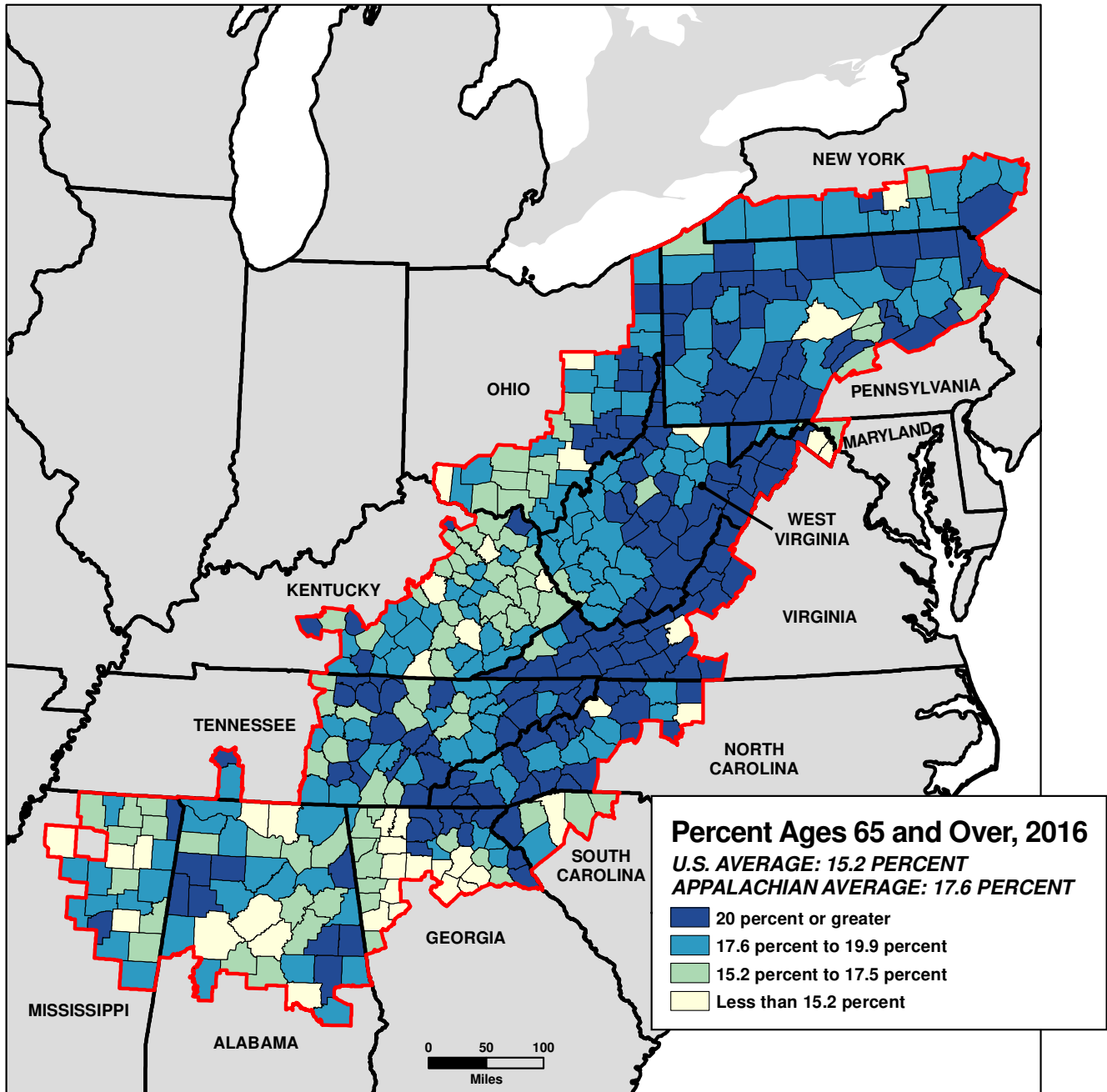
Figure 2.3: Percent of Population in the Appalachian Region Ages 25 to 64, July 1, 2016



Map Title: Percent of Population in the Appalachian Region Ages 25 to 64, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 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 2016. In 131 of the 420 Appalachian counties, the percentage of persons in this age group matched or exceeded the national average. But there were 79 counties in the Region (64 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 Athens County, Ohio, home to Ohio University—house colleges and universities (and thus had a high share of their populations in the 18-to-24 age range).

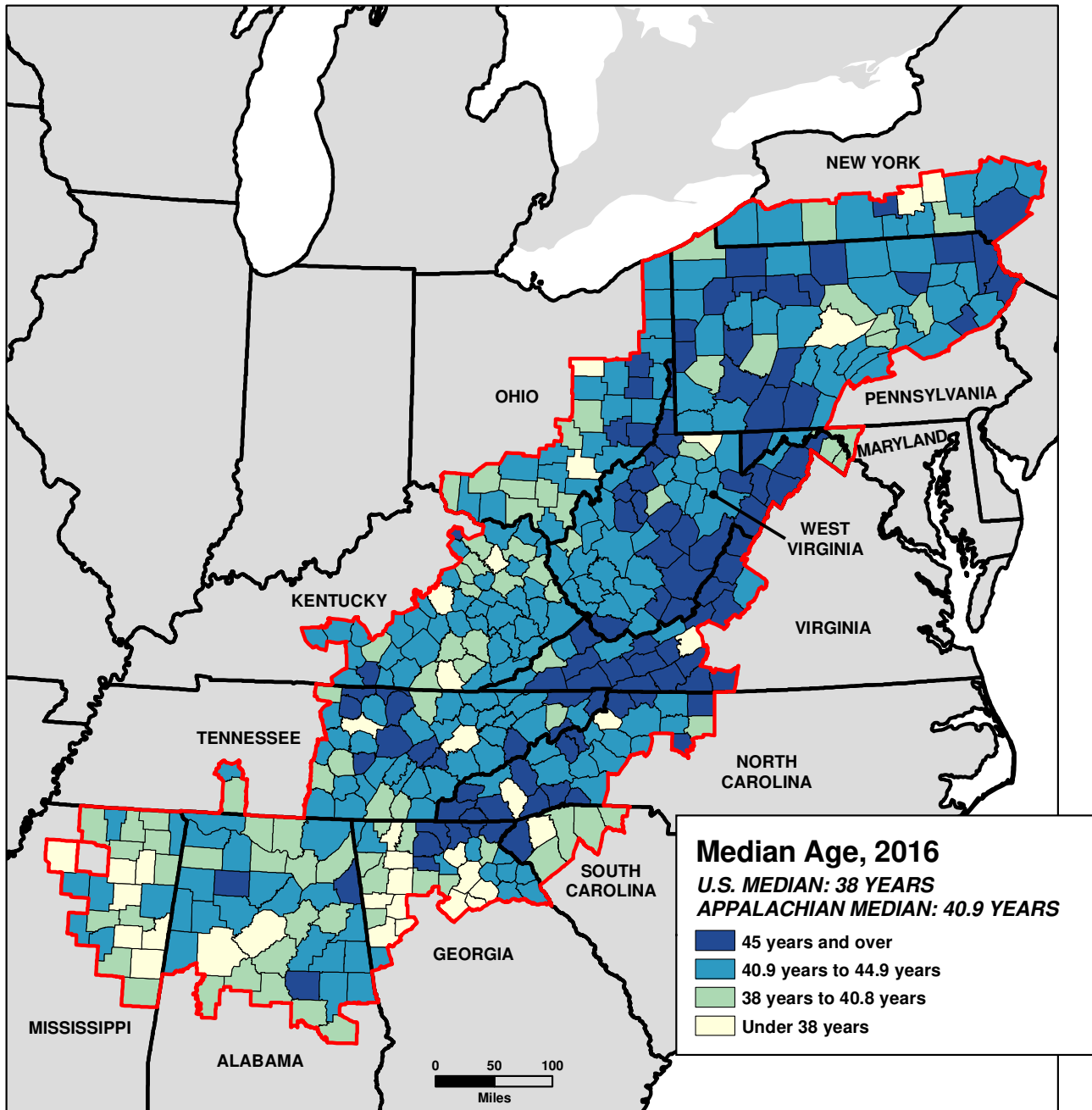
Figure 2.4: Percent of Population in the Appalachian Region Ages 65 and Over, July 1, 2016



Map Title: Percent of Population in the Appalachian Region Ages 65 and Over, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

The share of residents ages 65 and over in the Appalachian Region exceeded the national average by two percentage points in 2016. Moreover, the percentage of persons in this age group matched or exceeded the U.S. share in 380 of the 420 Appalachian counties—and the overall Region share (17.6 percent) in 298 of them. In fact, older persons made up at least 20 percent of the population in 157 Appalachian counties, almost three-fourths of which were outside metropolitan areas. In contrast, most of the 40 Appalachian counties with older population shares below the national average were either in metro areas or home to colleges and universities. As 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, 2016



Map Title: Median Age of Persons in the Appalachian Region, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

At 40.9 years, the median age of the Appalachian population was nearly three years older than that of the United States as a whole as of mid-2016. 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 three-fourths of Appalachia’s counties. And in 104 counties—77 of which were outside metro areas—the median age was at least 45 years. Of the 36 counties with populations whose median age was younger than the national median, 22 were in Southern Appalachia—the only subregion where the overall age structure roughly resembled that of the nation. (Appalachian Georgia alone had 12 of these counties.) 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 Watauga County, North Carolina, home to Appalachian 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, 2016

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	- 1.2	- 0.4	- 0.6	+ 2.1	+ 0.9
Appalachian Region	- 1.0	- 0.4	- 1.1	+ 2.4	+ 1.0
Subregions					
Northern Appalachia	- 1.1	- 0.5	- 0.7	+ 2.2	+ 0.9
North Central Appalachia	- 0.8	- 0.4	- 1.5	+ 2.6	+ 1.0
Central Appalachia	- 0.7	- 0.3	- 1.8	+ 2.9	+ 1.4
South Central Appalachia	- 1.1	- 0.2	- 1.4	+ 2.7	+ 1.3
Southern Appalachia	- 1.2	- 0.3	- 0.9	+ 2.4	+ 1.3
County Types					
Large Metros (pop. 1 million +)	- 1.1	- 0.3	- 0.8	+ 2.2	+ 0.9
Small Metros (pop. <1 million)	- 0.9	- 0.4	- 1.0	+ 2.3	+ 1.0
Nonmetro, Adjacent to Large Metros	- 1.1	- 0.4	- 1.1	+ 2.4	+ 1.3
Nonmetro, Adjacent to Small Metros	- 1.0	- 0.2	- 1.6	+ 2.8	+ 1.4
Rural (nonmetro, not adj. to a metro)	- 0.9	- 0.3	- 1.5	+ 2.7	+ 1.2
Alabama	- 1.0	- 0.5	- 0.6	+ 2.3	+ 1.0
Appalachian Alabama	- 1.0	- 0.6	- 0.7	+ 2.3	+ 1.2
Non-Appalachian Alabama	- 1.3	- 0.5	- 0.6	+ 2.3	+ 1.2
Georgia	- 1.2	- 0.2	- 0.8	+ 2.4	+ 1.1
Appalachian Georgia	- 1.7	+ 0.2	- 1.2	+ 2.6	+ 1.6
Non-Appalachian Georgia	- 1.1	- 0.5	- 0.6	+ 2.3	+ 1.1
Kentucky	- 0.7	- 0.1	- 1.3	+ 2.2	+ 0.6
Appalachian Kentucky	- 0.7	- 0.2	- 1.7	+ 2.6	+ 1.3
Non-Appalachian Kentucky	- 0.9	- 0.1	- 1.2	+ 2.0	+ 0.7
Maryland	- 1.0	- 0.6	- 0.8	+ 2.3	+ 0.5
Appalachian Maryland	- 0.8	- 0.4	- 1.1	+ 2.2	+ 0.9
Non-Appalachian Maryland	- 1.0	- 0.6	- 0.7	+ 2.3	+ 0.6
Mississippi	- 1.3	- 0.4	- 0.6	+ 2.2	+ 1.1
Appalachian Mississippi	- 1.2	- 0.3	- 0.6	+ 2.1	+ 0.9
Non-Appalachian Mississippi	- 1.3	- 0.5	- 0.6	+ 2.3	+ 1.3
New York	- 1.1	- 0.6	- 0.2	+ 1.9	+ 0.5
Appalachian New York	- 1.3	+ 0.3	- 1.5	+ 2.5	+ 0.7
Non-Appalachian New York	- 1.0	- 0.6	- 0.1	+ 1.8	+ 0.6
North Carolina	- 1.2	- 0.4	- 0.9	+ 2.5	+ 1.3
Appalachian North Carolina	- 1.4	- 0.2	- 1.4	+ 2.9	+ 1.8
Non-Appalachian North Carolina	- 1.2	- 0.4	- 0.9	+ 2.4	+ 1.3
Ohio	- 1.1	- 0.3	- 0.8	+ 2.1	+ 0.5
Appalachian Ohio	- 1.1	- 0.3	- 1.0	+ 2.5	+ 1.1
Non-Appalachian Ohio	- 1.1	- 0.3	- 0.7	+ 2.1	+ 0.6
Pennsylvania	- 1.0	- 0.6	- 0.3	+ 2.0	+ 0.5
Appalachian Pennsylvania	- 1.0	- 0.7	- 0.4	+ 2.1	+ 0.9
Non-Appalachian Pennsylvania	- 1.0	- 0.7	- 0.2	+ 1.9	+ 0.4
South Carolina	- 1.2	- 0.9	- 1.0	+ 3.0	+ 1.3
Appalachian South Carolina	- 0.9	- 0.5	- 0.8	+ 2.3	+ 0.9
Non-Appalachian South Carolina	- 1.3	- 0.9	- 1.0	+ 3.2	+ 1.6
Tennessee	- 0.9	- 0.3	- 1.0	+ 2.2	+ 0.6
Appalachian Tennessee	- 0.9	- 0.2	- 1.4	+ 2.6	+ 1.1
Non-Appalachian Tennessee	- 1.0	- 0.3	- 0.7	+ 2.0	+ 0.7
Virginia	- 0.9	- 0.3	- 1.1	+ 2.3	+ 0.6
Appalachian Virginia	- 0.9	- 0.7	- 1.4	+ 3.0	+ 1.7
Non-Appalachian Virginia	- 0.9	- 0.4	- 1.1	+ 2.3	+ 0.7
West Virginia (entire state)	- 0.4	- 0.3	- 2.0	+ 2.7	+ 0.9

Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

TRENDS IN AGE

- Like the United States as a whole, Appalachia's population has gotten older between 2010 and 2016 (see Table 2.2). And it's 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 a year to 40.9 years over the six-year period.
- Some parts of the Appalachian Region are aging faster than others. For example, the median age rose 1.8 years in Appalachian North Carolina, 1.7 years in Appalachian Virginia, and 1.6 years in Appalachian Georgia. Yet while the median age in 2016 stood at 43 years in North Carolina's and Virginia's Appalachian sections, it was 37.5 years in Georgia—still below the U.S. median of 38 years. Meanwhile, the median age in Appalachian counties outside metropolitan areas has risen slightly faster than in the Region's metropolitan counties. Yet among all Appalachian subregions and county types, as well as in the Appalachian portions of nearly every state in the Region, the median age is increasing as fast as the national average—if not faster.
- 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 the population under age 18 and the share ages 25 to 64 are both a full percentage point lower in mid-2016 than each of them was in mid-2010. The fall in the share of residents ages 25 to 64 has occurred as older members of the baby boom cohorts move into the "65 and over" age category. Between 2010 and 2016, the share of residents in the older age group increased by more than two percentage points both in the Region and nationally.
- 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, several Appalachian counties where the median age is at least 45 years—such as Towns County, Georgia; Henderson County, North Carolina; and Cumberland County, Tennessee—have been designated as "retirement" counties by the Economic Research Service of the U.S. Department of Agriculture.
- Both Appalachia and the United States have declining child populations due to lower fertility and smaller age cohorts. Yet while both the young adult (ages 18 to 24) and working-age (ages 25 to 64) populations have increased nationally since 2010, Appalachia has lost people in these age groups. For example, there were 13.2 million Appalachian residents ages 25 to 64 in 2016, down 1 percent from six years earlier.

CHAPTER 3: RACE AND HISPANIC ORIGIN

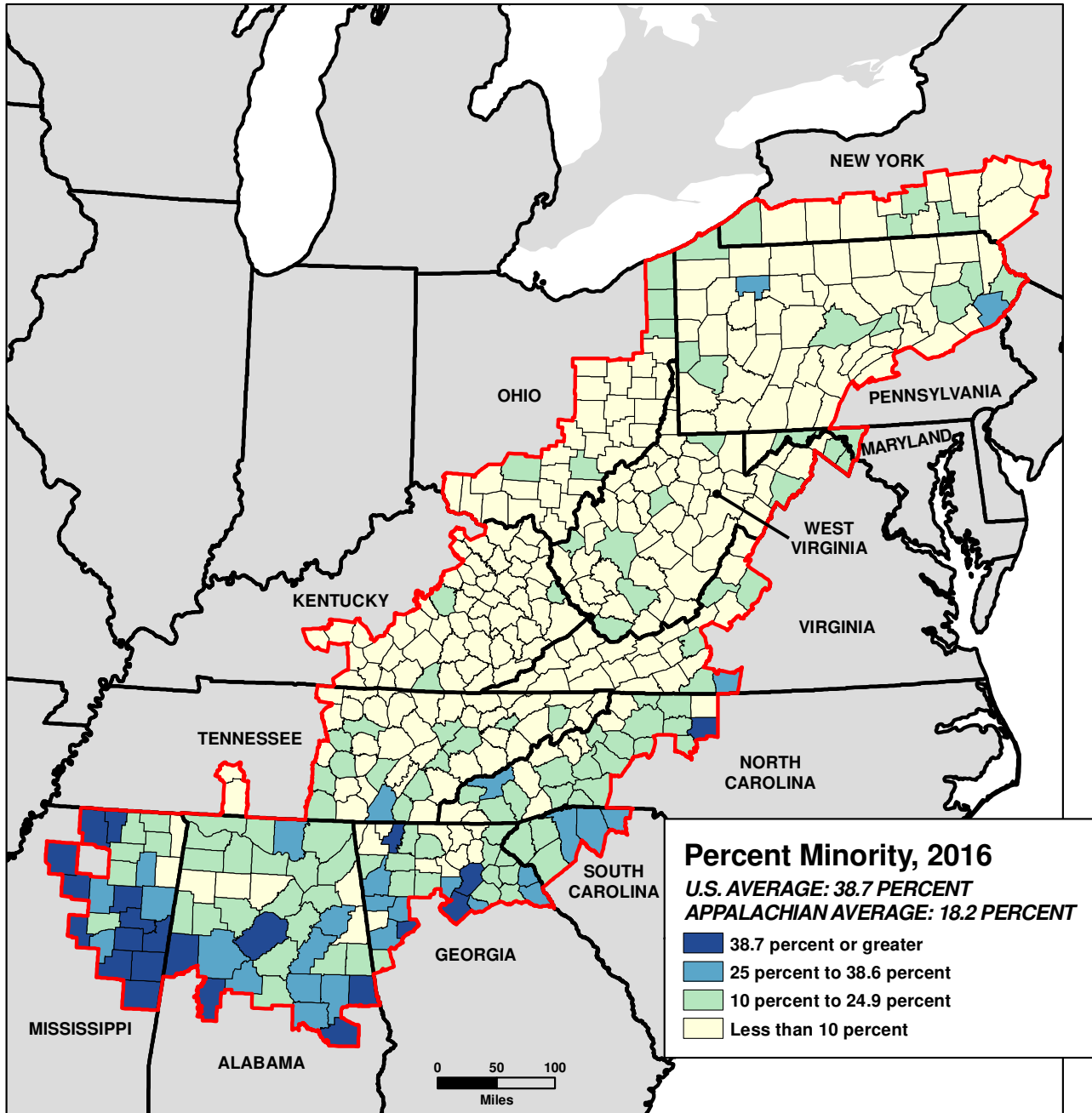
Table 3.1: Population in the Appalachian Region by Race and Hispanic Origin, July 1, 2016

Population by Race and Hispanic Origin	Total Population, July 1, 2016	Percent of Population				
		White Alone, Not Hispanic	Minority			
			Total	Black Alone, Not Hispanic	Hispanic or Latino	Other, Not Hispanic
United States	323,127,513	61.3	38.7	12.4	17.8	8.5
Appalachian Region	25,552,573	81.8	18.2	9.7	4.9	3.6
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Appalachian Georgia	3,185,886	64.4	35.6	14.8	13.7	7.0
Non-Appalachian Georgia	7,124,485	48.5	51.5	38.4	7.5	5.6
Kentucky	4,436,974	85.0	15.0	8.1	3.5	3.5
Appalachian Kentucky	1,170,012	94.7	5.3	1.9	1.6	1.8
Non-Appalachian Kentucky	3,266,962	81.5	18.5	10.3	4.2	4.0
Maryland	6,016,447	51.5	48.5	29.6	9.8	9.1
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Non-Appalachian Maryland	5,764,600	50.1	49.9	30.5	10.0	9.3
Mississippi	2,988,726	56.9	43.1	37.4	3.1	2.7
Appalachian Mississippi	628,016	63.6	36.4	31.8	2.6	2.0
Non-Appalachian Mississippi	2,360,710	55.1	44.9	38.9	3.2	2.8
New York	19,745,289	55.8	44.2	14.6	19.0	10.7
Appalachian New York	1,038,170	88.5	11.5	2.8	3.7	5.1
Non-Appalachian New York	18,707,119	53.9	46.1	15.2	19.8	11.0
North Carolina	10,146,788	63.5	36.5	21.4	9.2	5.9
Appalachian North Carolina	1,743,720	80.1	19.9	8.8	7.5	3.7
Non-Appalachian North Carolina	8,403,068	60.1	39.9	24.0	9.5	6.3
Ohio	11,614,373	79.5	20.5	12.5	3.7	4.4
Appalachian Ohio	2,002,965	91.1	8.9	4.3	2.0	2.6
Non-Appalachian Ohio	9,611,408	77.1	22.9	14.2	4.0	4.8
Pennsylvania	12,784,227	77.0	23.0	10.8	7.0	5.2
Appalachian Pennsylvania	5,708,913	87.9	12.1	5.6	3.2	3.3
Non-Appalachian Pennsylvania	7,075,314	68.3	31.7	14.9	10.2	6.6
South Carolina	4,961,119	63.9	36.1	27.0	5.5	3.6
Appalachian South Carolina	1,252,662	73.1	26.9	16.7	6.6	3.7
Non-Appalachian South Carolina	3,708,457	60.8	39.2	30.4	5.2	3.6
Tennessee	6,651,194	74.2	25.8	16.8	5.2	3.7
Appalachian Tennessee	2,872,613	87.6	12.4	5.5	3.9	3.0
Non-Appalachian Tennessee	3,778,581	64.1	35.9	25.4	6.2	4.3
Virginia	8,411,808	62.4	37.6	19.1	9.1	9.4
Appalachian Virginia	752,817	89.3	10.7	5.4	2.4	2.9
Non-Appalachian Virginia	7,658,991	59.8	40.2	20.4	9.8	10.0
West Virginia (entire state)	1,831,102	92.3	7.7	3.5	1.5	2.7

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 2016 Population Estimates.

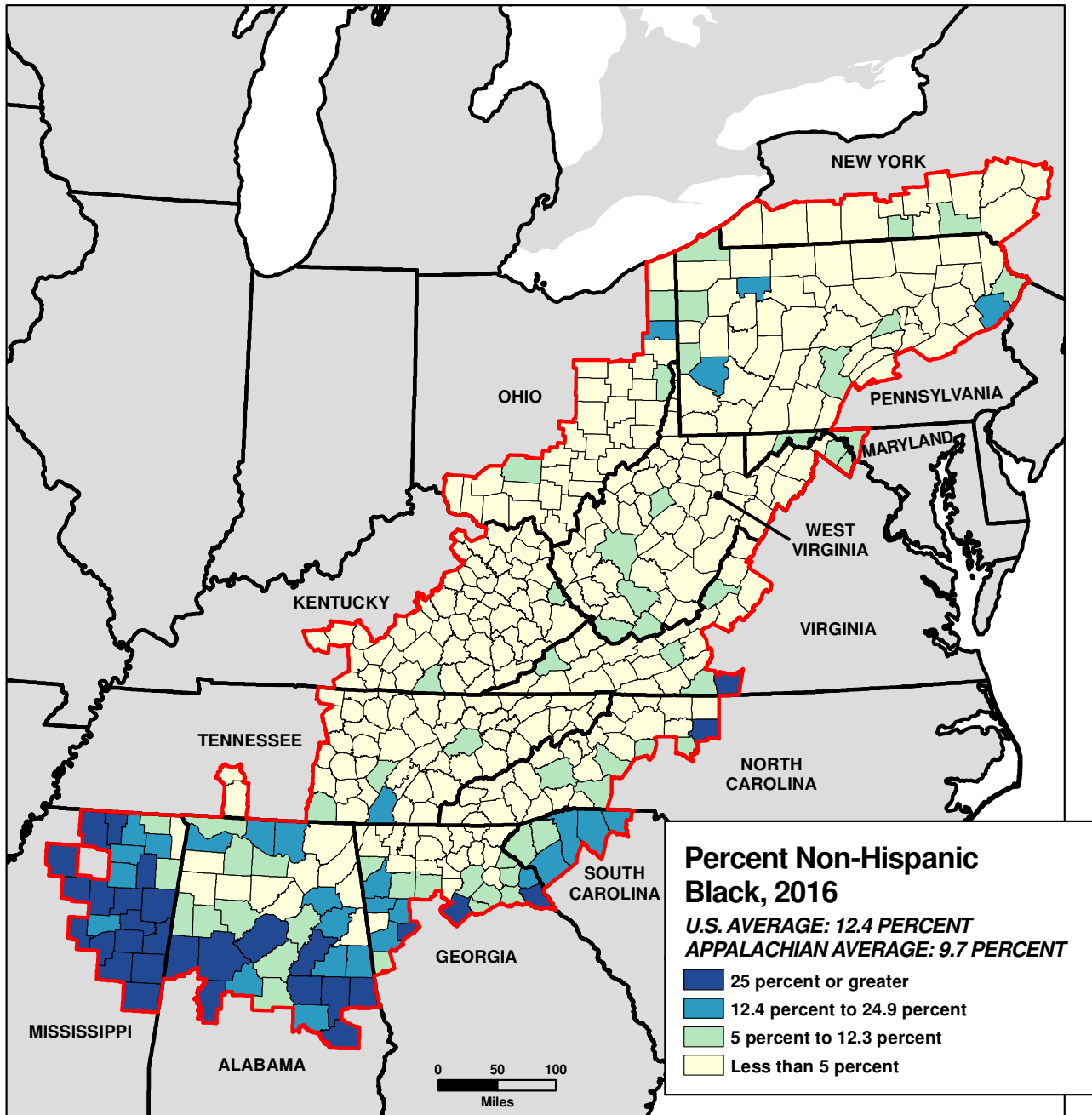
Figure 3.1: Percent of Population in the Appalachian Region That Is Minority, July 1, 2016



Map Title: Percent of Population in the Appalachian Region That Is Minority, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

The Appalachian Region is significantly less racially and ethnically diverse than the United States as a whole, and most parts of the Region have remained far below the national average in their minority populations. In more than 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-2016. There were just 22 counties—all but one in Southern Appalachia and more than half in Mississippi alone—where minorities’ share of the population matched or exceeded the national average of nearly 39 percent.

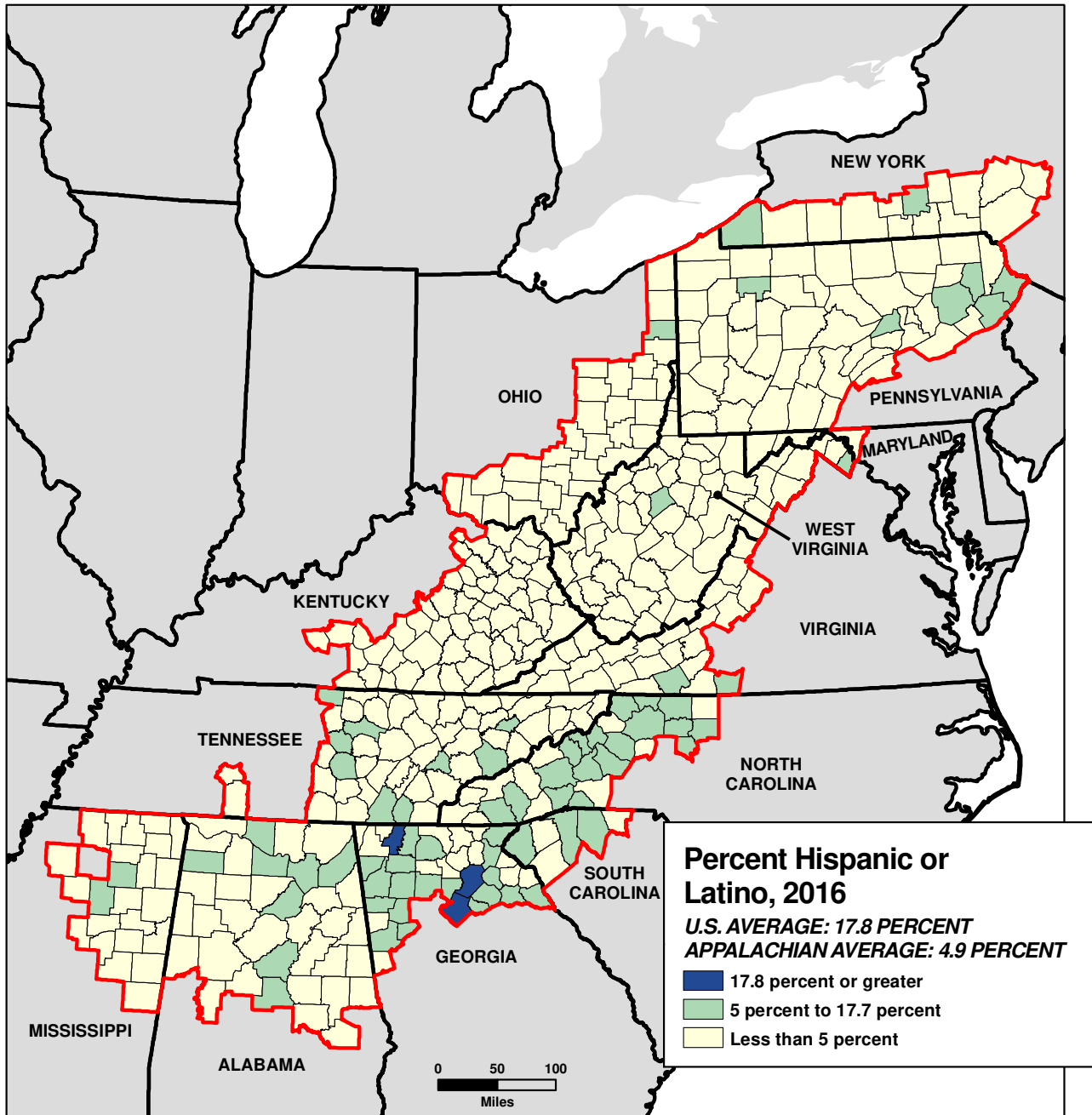
Figure 3.2: Percent of Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2016



Map Title: Percent of Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

While non-Hispanic African Americans have remained the largest single minority group in Appalachia as of 2016, 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 51 of the Region’s 58 counties where the black share of the population matched or surpassed that of the nation—as well as 28 of the 30 where at least one in four residents was 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, 2016



Map Title: Percent of Population in the Appalachian Region That Is Hispanic or Latino, July 1, 2016
 Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

Although Hispanics are now the United States' largest minority group, they made up only one in 20 residents in the Appalachian Region in 2016. The county patterns reflect this fact, as Hispanics were at least 5 percent of the population in just 75 of Appalachia's 420 counties, 63 of which were in Southern and South Central Appalachia. Moreover, just three Appalachian counties (Gwinnett, Hall, and Whitfield—all in Georgia) had Latino population shares that matched or exceeded the national average.

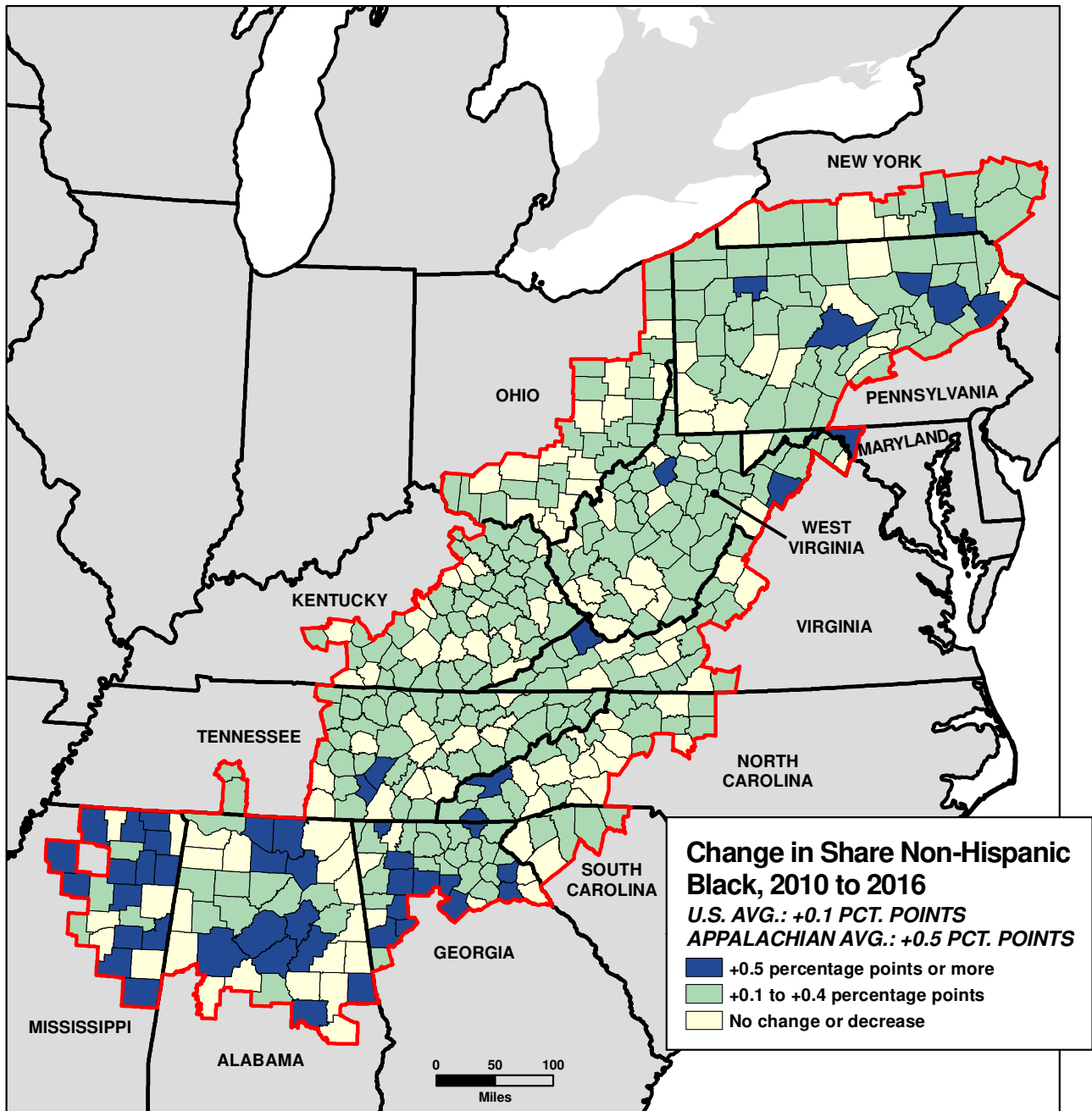
Table 3.2: Percentage Point Change in the Share of the Population in the Appalachian Region, by Race and Hispanic Origin, July 1, 2010 to July 1, 2016

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	- 2.5	+ 2.5	+ 0.1	+ 1.4	+ 1.0
Appalachian Region	- 1.8	+ 1.8	+ 0.5	+ 0.7	+ 0.6
Subregions					
Northern Appalachia	- 1.5	+ 1.5	+ 0.2	+ 0.7	+ 0.6
North Central Appalachia	- 0.9	+ 0.9	+ 0.1	+ 0.3	+ 0.4
Central Appalachia	- 0.8	+ 0.8	+ 0.1	+ 0.3	+ 0.4
South Central Appalachia	- 1.3	+ 1.3	+ 0.1	+ 0.6	+ 0.5
Southern Appalachia	- 2.3	+ 2.3	+ 0.8	+ 0.7	+ 0.8
County Types					
Large Metros (pop. 1 million +)	- 2.9	+ 2.9	+ 1.0	+ 0.7	+ 1.2
Small Metros (pop. <1 million)	- 1.8	+ 1.8	+ 0.4	+ 0.8	+ 0.6
Nonmetro, Adjacent to Large Metros	- 1.1	+ 1.1	+ 0.2	+ 0.6	+ 0.5
Nonmetro, Adjacent to Small Metros	- 1.0	+ 1.0	+ 0.1	+ 0.5	+ 0.4
Rural (nonmetro, not adj. to a metro)	- 1.0	+ 1.0	+ 0.3	+ 0.4	+ 0.3
Alabama	- 1.3	+ 1.3	+ 0.4	+ 0.3	+ 0.6
Appalachian Alabama	- 1.3	+ 1.3	+ 0.6	+ 0.3	+ 0.5
Non-Appalachian Alabama	- 1.0	+ 1.0	+ 0.1	+ 0.3	+ 0.7
Georgia	- 2.5	+ 2.5	+ 0.9	+ 0.6	+ 1.0
Appalachian Georgia	- 3.8	+ 3.8	+ 1.6	+ 1.0	+ 1.2
Non-Appalachian Georgia	- 2.1	+ 2.1	+ 0.8	+ 0.4	+ 0.9
Kentucky	- 1.4	+ 1.4	+ 0.4	+ 0.4	+ 0.7
Appalachian Kentucky	- 0.7	+ 0.7	+ 0.1	+ 0.3	+ 0.4
Non-Appalachian Kentucky	- 1.5	+ 1.5	+ 0.3	+ 0.5	+ 0.7
Maryland	- 3.2	+ 3.2	+ 0.5	+ 1.6	+ 1.2
Appalachian Maryland	- 2.5	+ 2.5	+ 0.9	+ 0.8	+ 0.8
Non-Appalachian Maryland	- 3.2	+ 3.2	+ 0.4	+ 1.5	+ 1.1
Mississippi	- 1.1	+ 1.1	+ 0.5	+ 0.3	+ 0.4
Appalachian Mississippi	- 1.2	+ 1.2	+ 0.5	+ 0.3	+ 0.4
Non-Appalachian Mississippi	- 1.1	+ 1.1	+ 0.5	+ 0.3	+ 0.3
New York	- 2.6	+ 2.6	+ 0.0	+ 1.3	+ 1.4
Appalachian New York	- 1.6	+ 1.6	+ 0.2	+ 0.6	+ 0.9
Non-Appalachian New York	- 2.7	+ 2.7	- 0.1	+ 1.3	+ 1.4
North Carolina	- 1.8	+ 1.8	+ 0.1	+ 0.8	+ 0.9
Appalachian North Carolina	- 1.2	+ 1.2	+ 0.2	+ 0.6	+ 0.5
Non-Appalachian North Carolina	- 1.8	+ 1.8	+ 0.0	+ 0.7	+ 0.9
Ohio	- 1.7	+ 1.7	+ 0.4	+ 0.6	+ 0.8
Appalachian Ohio	- 0.8	+ 0.8	+ 0.0	+ 0.4	+ 0.4
Non-Appalachian Ohio	- 1.8	+ 1.8	+ 0.4	+ 0.6	+ 0.9
Pennsylvania	- 2.5	+ 2.5	+ 0.3	+ 1.3	+ 0.9
Appalachian Pennsylvania	- 1.7	+ 1.7	+ 0.2	+ 0.8	+ 0.7
Non-Appalachian Pennsylvania	- 2.8	+ 2.8	+ 0.1	+ 1.7	+ 0.9
South Carolina	- 0.2	+ 0.2	- 0.7	+ 0.4	+ 0.6
Appalachian South Carolina	- 1.4	+ 1.4	+ 0.2	+ 0.8	+ 0.6
Non-Appalachian South Carolina	+ 0.2	- 0.2	- 1.1	+ 0.3	+ 0.6
Tennessee	- 1.5	+ 1.5	+ 0.2	+ 0.6	+ 0.6
Appalachian Tennessee	- 1.2	+ 1.2	+ 0.1	+ 0.6	+ 0.5
Non-Appalachian Tennessee	- 1.3	+ 1.3	+ 0.0	+ 0.6	+ 0.7
Virginia	- 2.5	+ 2.5	+ 0.0	+ 1.1	+ 1.3
Appalachian Virginia	- 1.1	+ 1.1	+ 0.1	+ 0.4	+ 0.6
Non-Appalachian Virginia	- 2.4	+ 2.4	- 0.2	+ 1.2	+ 1.3
West Virginia (entire state)	- 0.9	+ 0.9	+ 0.1	+ 0.3	+ 0.5

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 2016 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, 2016

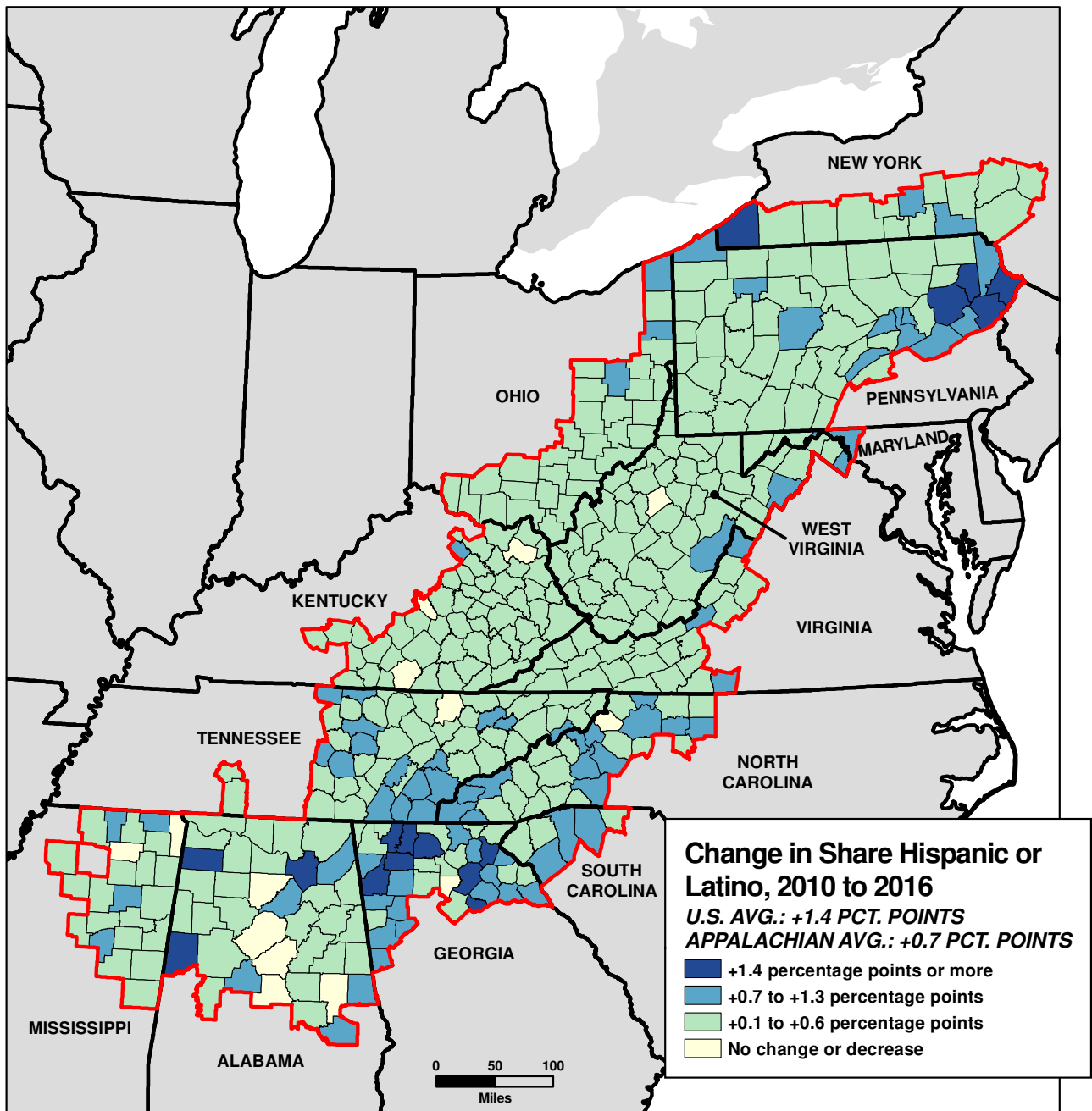


Map Title: Percentage Point Change in the Share of the Population in the Appalachian Region That Is Black Alone, not Hispanic, July 1, 2010 to July 1, 2016

Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

Although African Americans' share of the U.S. population barely budged between 2010 and 2016, their share of the Appalachian population increased half a percentage point, from 9.2 percent to 9.7 percent. And there were 51 counties—mostly with sizeable, but some with small, African American concentrations—where blacks' share of the population increased by at least that much. (In 14 of these counties, the share rose at least a full percentage point.) Yet in about one-fourth of Appalachia's 420 counties, the African American share of the population has either stayed the same or decreased from its level in 2010.

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, 2016



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, 2016

Data Source: U.S. Census Bureau, Vintage 2016 Population Estimates.

The Hispanic/Latino share of the Appalachian population rose by seven-tenths of a percentage point from 2010 to 2016—although this increase was only half the national average over the six-year period. Still, there were 16 counties (15 of which were in Georgia, Alabama, or Pennsylvania) where the Hispanic share of the population grew at or above the national rate. Opportunities in industries such as food processing (in DeKalb and Franklin counties in Alabama and Luzerne County in 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 of that year and July 1, 2016, 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 almost two percentage points to 18.2 percent (see Tables 3.1 and 3.2). The pace of the increased diversity, however, is not as great as that of the nation, where the increase was 2.5 percentage points over the period.
- Within the Region, the greatest increase in racial 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 has risen more than two percentage points—nearly three points in large metros. And Appalachian Georgia has grown even faster: The minority share of the population has increased nearly four percentage points between 2010 and 2016. Not surprisingly, these three areas have minority concentrations that come close to the national minority share of 38 percent (32 percent for Southern Appalachia, 28 percent for counties in large metros, and nearly 36 percent for Appalachian Georgia).
- Although African Americans comprise the largest minority group in Appalachia, Hispanics have fueled much (if not most) of the minority increase. The Hispanic/Latino share of the Appalachian population rose 0.7 percentage points between mid-2010 and mid-2016—slightly more than 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, and Appalachian Georgia had the greatest increases in both the black and Latino shares of the total population. (Interestingly, blacks fueled a slightly larger share of the minority increase in those areas than Latinos did.)

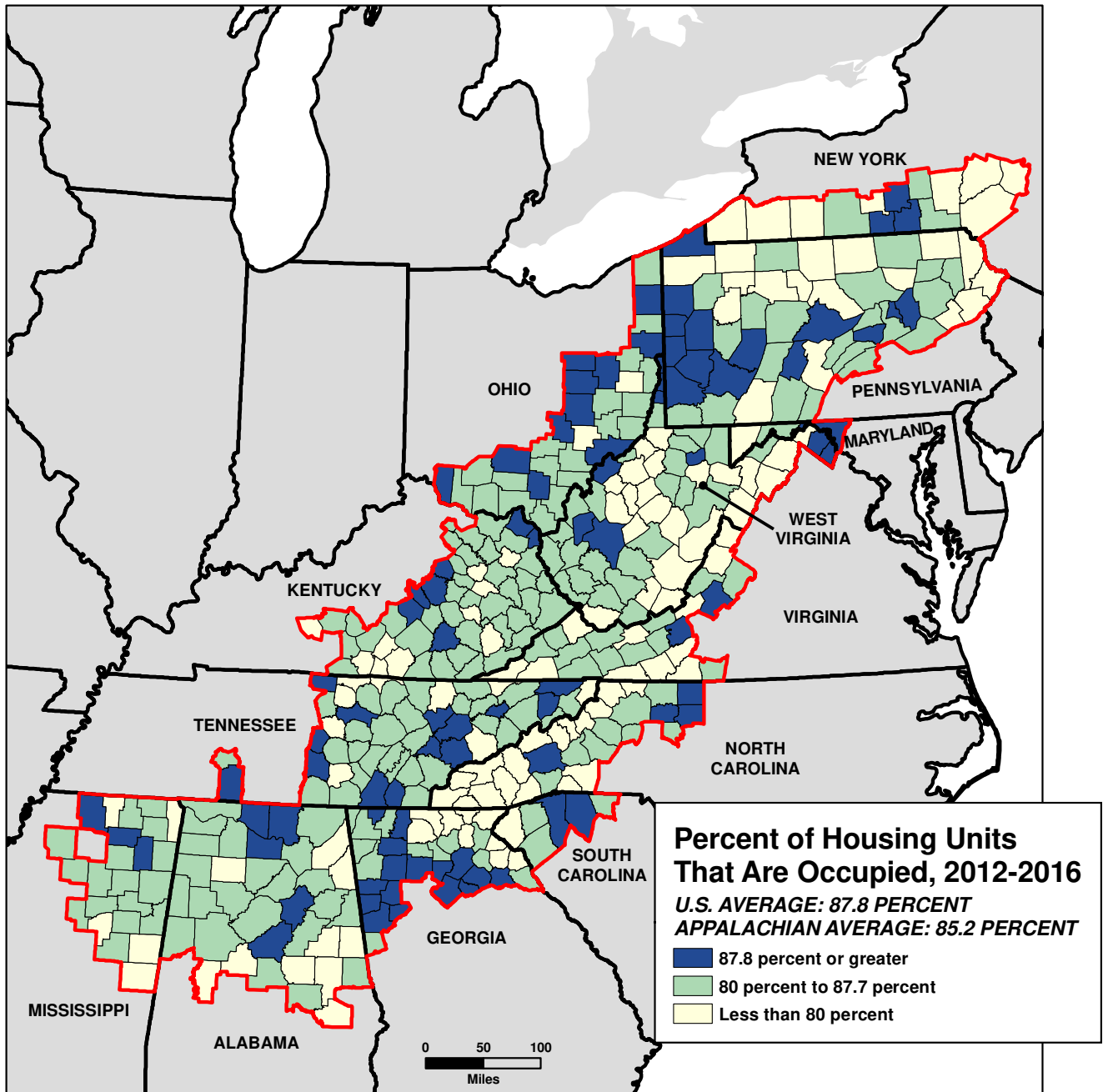
CHAPTER 4: HOUSING OCCUPANCY, TENURE AND TYPE

Table 4.1: Occupancy and Tenure of Housing Units in the Appalachian Region, 2012-2016

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	134,054,899	117,716,237	87.8	12.2	63.6	36.4
Appalachian Region	11,617,303	9,900,441	85.2	14.8	70.3	29.7
Subregions						
Northern Appalachia	3,922,698	3,339,051	85.1	14.9	70.7	29.3
North Central Appalachia	1,119,683	948,673	84.7	15.3	71.9	28.1
Central Appalachia	882,584	741,216	84.0	16.0	72.0	28.0
South Central Appalachia	2,286,361	1,921,762	84.1	15.9	69.2	30.8
Southern Appalachia	3,405,977	2,949,739	86.6	13.4	69.7	30.3
County Types						
Large Metros (pop. 1 million +)	2,562,922	2,287,658	89.3	10.7	70.4	29.6
Small Metros (pop. <1 million)	4,827,155	4,213,240	87.3	12.7	68.6	31.4
Nonmetro, Adjacent to Large Metros	1,025,855	852,003	83.1	16.9	71.4	28.6
Nonmetro, Adjacent to Small Metros	1,950,934	1,562,089	80.1	19.9	73.0	27.0
Rural (nonmetro, not adj. to a metro)	1,250,437	985,451	78.8	21.2	72.2	27.8
Alabama	2,209,335	1,851,061	83.8	16.2	68.5	31.5
Appalachian Alabama	1,399,799	1,189,924	85.0	15.0	70.1	29.9
Non-Appalachian Alabama	809,536	661,137	81.7	18.3	65.6	34.4
Georgia	4,156,518	3,611,706	86.9	13.1	62.8	37.2
Appalachian Georgia	1,198,289	1,056,937	88.2	11.8	70.0	30.0
Non-Appalachian Georgia	2,958,229	2,554,769	86.4	13.6	59.8	40.2
Kentucky	1,951,090	1,718,217	88.1	11.9	66.8	33.2
Appalachian Kentucky	539,672	457,274	84.7	15.3	70.8	29.2
Non-Appalachian Kentucky	1,411,418	1,260,943	89.3	10.7	65.4	34.6
Maryland	2,421,909	2,177,492	89.9	10.1	66.5	33.5
Appalachian Maryland	113,490	95,905	84.5	15.5	67.3	32.7
Non-Appalachian Maryland	2,308,419	2,081,587	90.2	9.8	66.5	33.5
Mississippi	1,295,242	1,098,803	84.8	15.2	67.9	32.1
Appalachian Mississippi	280,794	237,294	84.5	15.5	69.8	30.2
Non-Appalachian Mississippi	1,014,448	861,509	84.9	15.1	67.4	32.6
New York	8,191,568	7,266,187	88.7	11.3	53.6	46.4
Appalachian New York	509,002	413,914	81.3	18.7	69.1	30.9
Non-Appalachian New York	7,682,566	6,852,273	89.2	10.8	52.7	47.3
North Carolina	4,453,767	3,815,392	85.7	14.3	64.8	35.2
Appalachian North Carolina	866,171	694,864	80.2	19.8	69.1	30.9
Non-Appalachian North Carolina	3,587,596	3,120,528	87.0	13.0	63.8	36.2
Ohio	5,146,944	4,601,449	89.4	10.6	66.0	34.0
Appalachian Ohio	900,696	790,229	87.7	12.3	71.1	28.9
Non-Appalachian Ohio	4,246,248	3,811,220	89.8	10.2	64.9	35.1
Pennsylvania	5,592,175	4,961,929	88.7	11.3	69.0	31.0
Appalachian Pennsylvania	2,725,824	2,324,171	85.3	14.7	71.1	28.9
Non-Appalachian Pennsylvania	2,866,351	2,637,758	92.0	8.0	67.2	32.8
South Carolina	2,192,041	1,839,041	83.9	16.1	68.4	31.6
Appalachian South Carolina	527,095	465,584	88.3	11.7	68.1	31.9
Non-Appalachian South Carolina	1,664,946	1,373,457	82.5	17.5	68.5	31.5
Tennessee	2,873,478	2,522,204	87.8	12.2	66.3	33.7
Appalachian Tennessee	1,305,744	1,128,754	86.4	13.6	69.5	30.5
Non-Appalachian Tennessee	1,567,734	1,393,450	88.9	11.1	63.8	36.2
Virginia	3,445,357	3,090,178	89.7	10.3	65.8	34.2
Appalachian Virginia	365,999	306,194	83.7	16.3	70.8	29.2
Non-Appalachian Virginia	3,079,358	2,783,984	90.4	9.6	65.2	34.8
West Virginia (entire state)	884,728	739,397	83.6	16.4	72.5	27.5

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

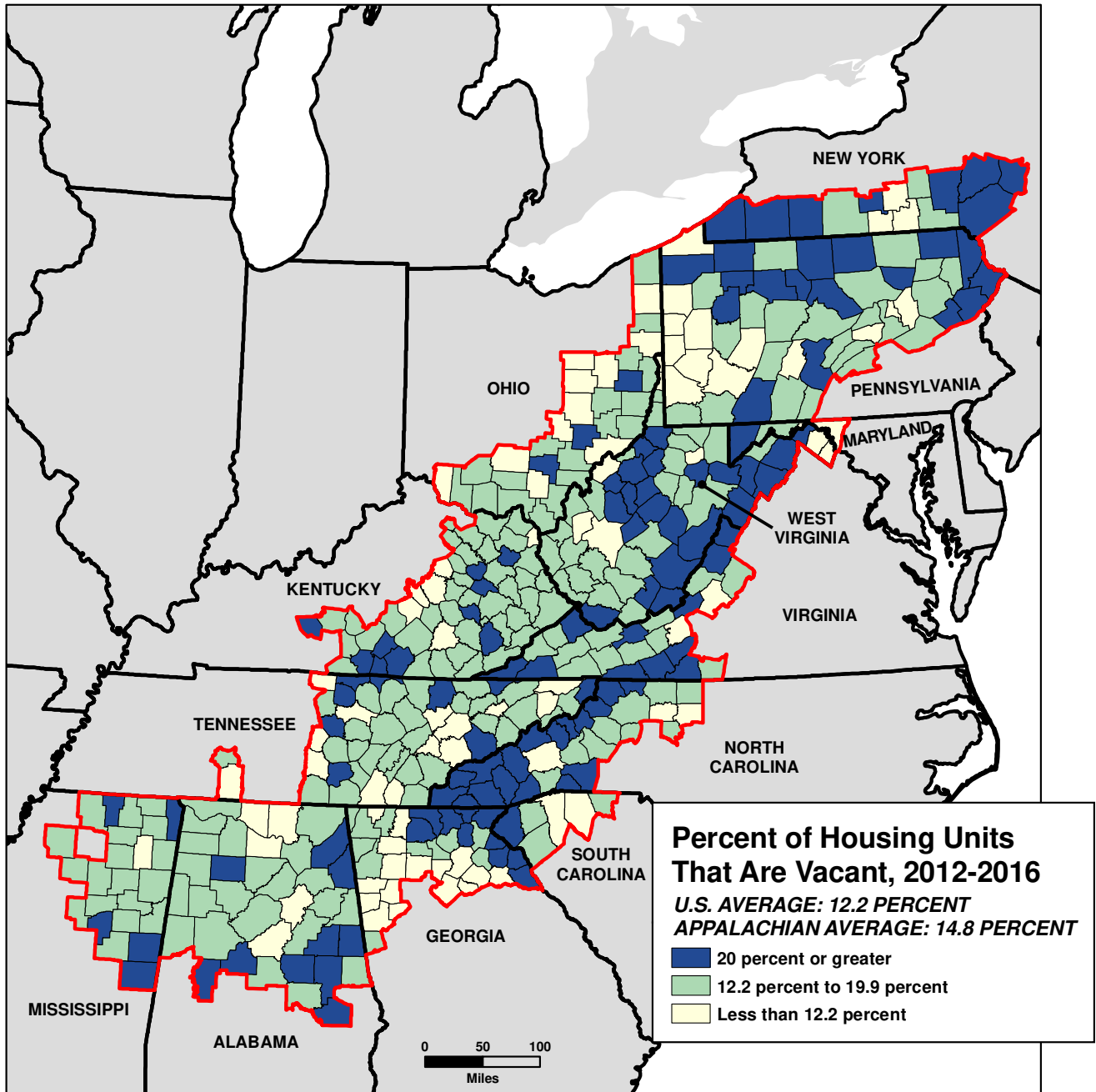
Figure 4.1: Percent of Housing Units in the Appalachian Region That Are Occupied, 2012-2016



Map Title: Percent of Housing Units in the Appalachian Region That Are Occupied, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Although the home occupancy rate during the 2012-2016 period was slightly lower in Appalachia than in the United States as a whole, there were 91 counties in the Region that had occupancy rates matching or exceeding the national average. And while they were scattered throughout the Region, 67 of these counties were in metropolitan areas, such as Pittsburgh, the Atlanta and Birmingham suburbs, and Winston-Salem, North Carolina. Conversely, less than four-fifths of housing units were occupied in 123 Appalachian counties—106 of which lay outside metropolitan areas.

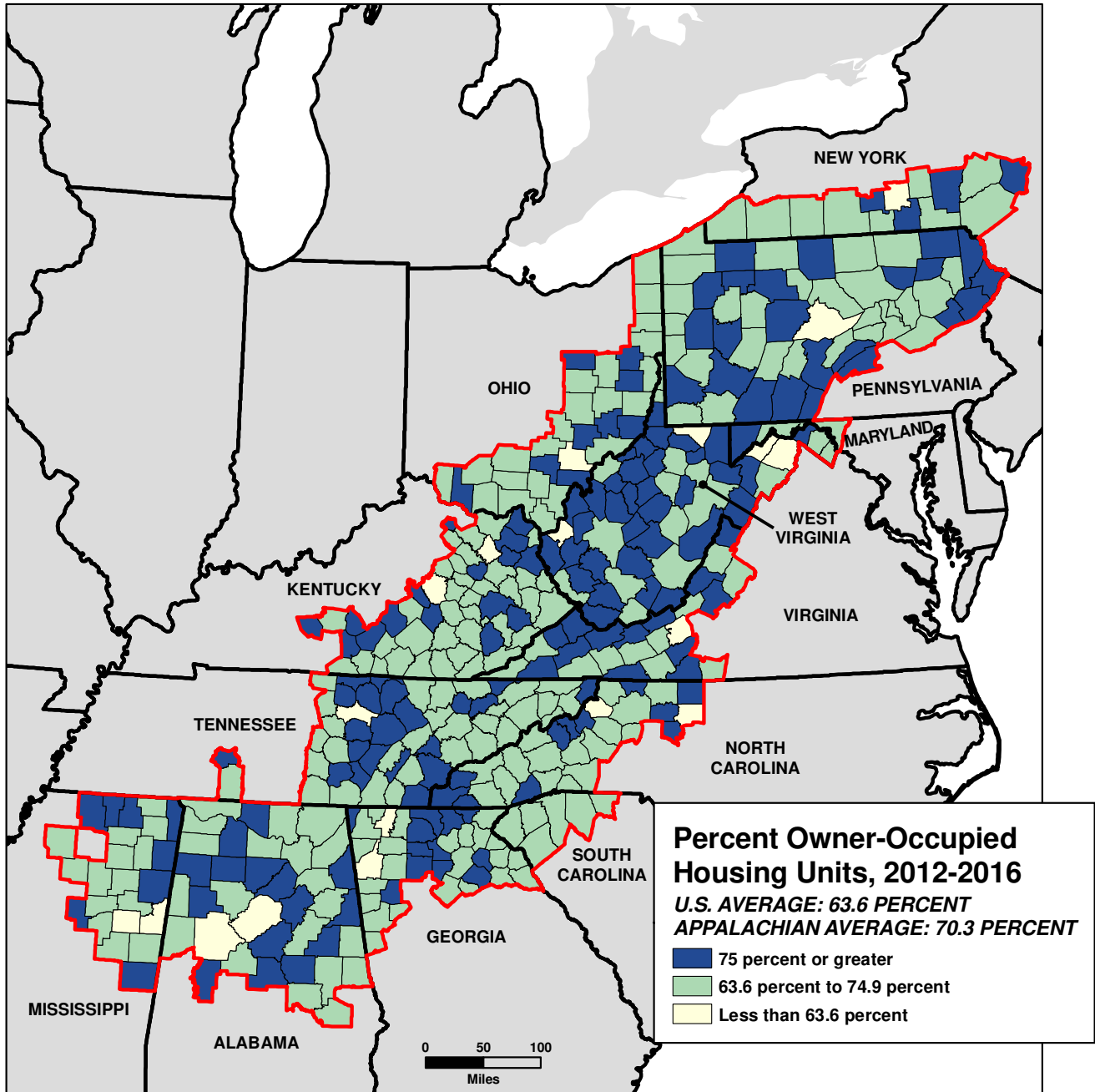
Figure 4.2: Percent of Housing Units in the Appalachian Region That Are Vacant, 2012-2016



Map Title: Percent of Housing Units in the Appalachian Region That Are Vacant, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

One in seven housing units in Appalachia were vacant during the 2012-2016 period, compared to one in eight for the nation as a whole. Vacancy rates varied within the Region, however. While 125 of the 420 Appalachian counties (all but 17 of which were outside metropolitan areas) had vacancy rates at or above 20 percent, another 85 counties (mostly in metro areas) had rates below the national average. It is important to note that in 157 of the 335 Appalachian counties with vacancy rates of 12.2 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.

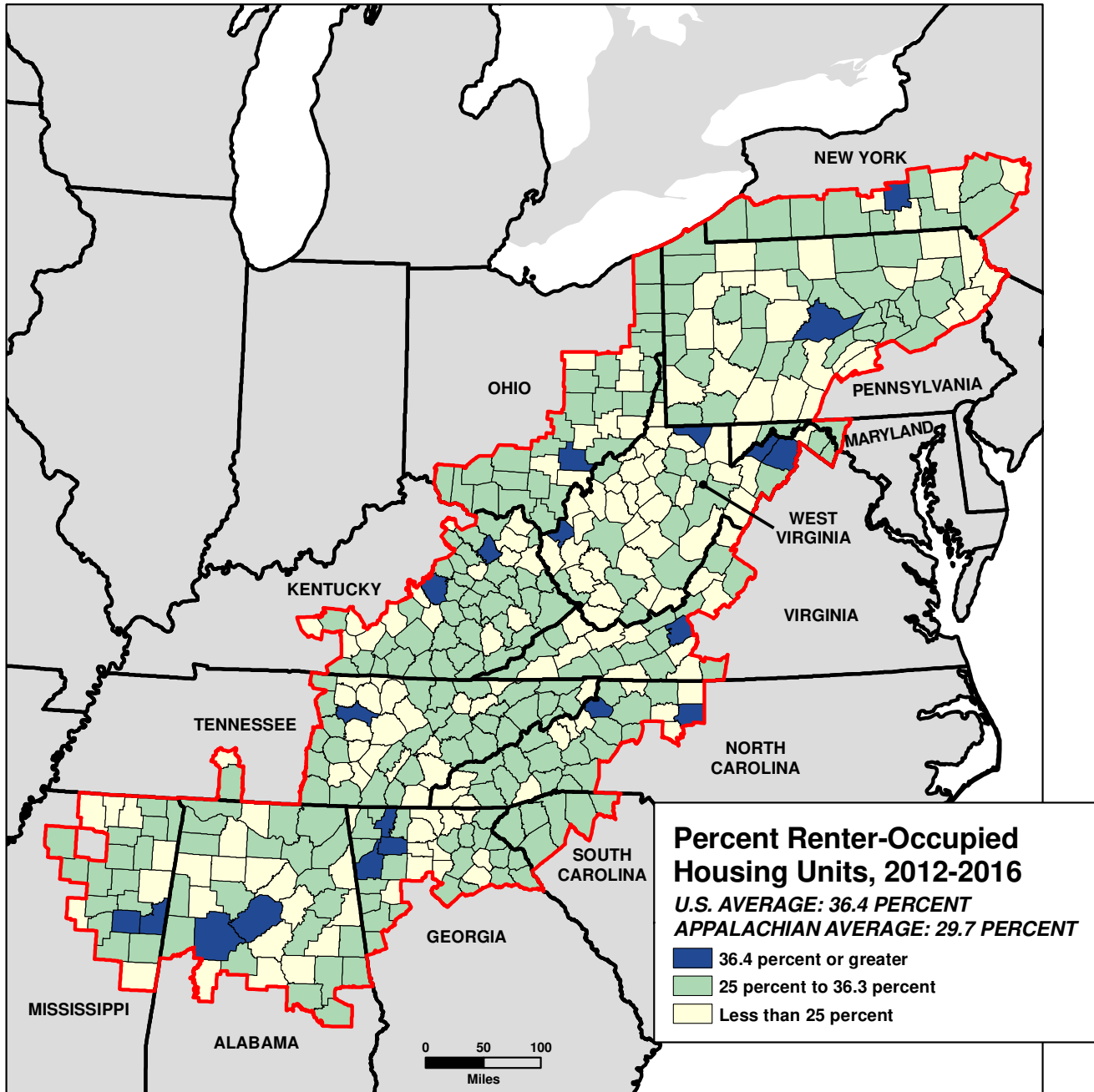
Figure 4.3: Percent Owner-Occupied Housing Units in the Appalachian Region, 2012-2016



Map Title: Percent Owner-Occupied Housing Units in the Appalachian Region, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Homeownership was more common in the Appalachian Region than in the rest of the country in the 2012-2016 period. In all but 19 counties, the share of owner-occupied housing units matched or exceeded the national average. Indeed, the homeownership rate was at least 75 percent in 167 of Appalachia’s 420 counties, scattered throughout the Region. It is important to note that in some areas, the 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, 2012-2016



Map Title: Percent Renter-Occupied Housing Units in the Appalachian Region, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

The share of renter-occupied housing units during the 2012-2016 period was well below the national average throughout Appalachia; in fact, it was less than 25 percent in 162 of the Region’s 420 counties. Among the 20 Appalachian counties where the share of renter-occupied units matched or exceeded the national average, most are home to colleges or universities, where students make up a sizeable share of the population. Examples of these counties include Centre County, Pennsylvania (Penn State University); Montgomery County, Virginia (Virginia Tech and Radford University); and Madison County, Kentucky (Eastern Kentucky University).

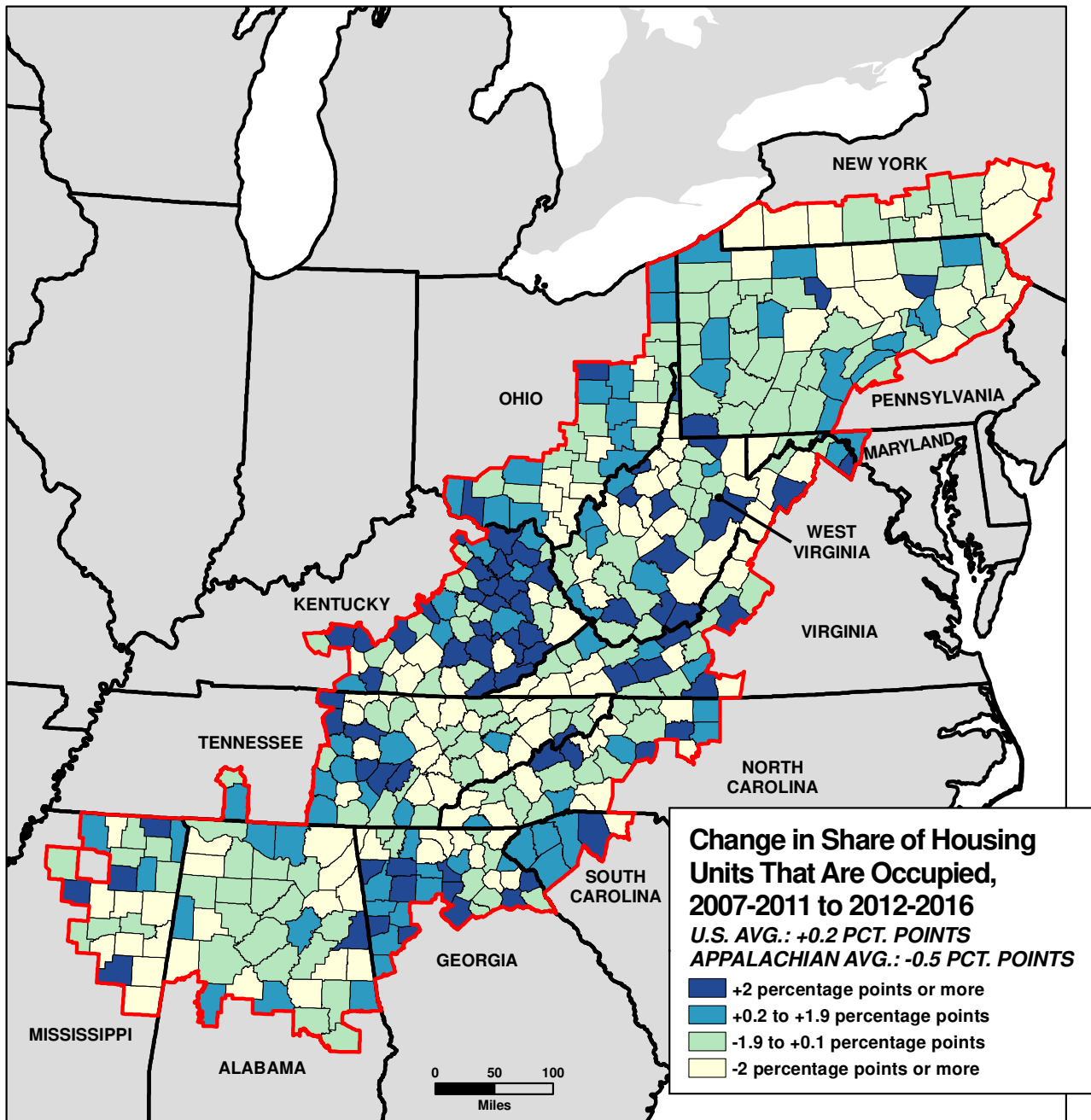
Table 4.2: Percentage Point Change in Occupancy and Tenure of Housing Units in the Appalachian Region, 2007-2011 to 2012-2016

Housing Occupancy and Tenure	Percentage Point Change, Share of Total Housing Units Housing Units		Percentage Point Change, Share of Occupied Housing Units Housing Units	
	Occupied	Vacant	Owner-Occupied	Renter-Occupied
United States	+ 0.2	- 0.2	- 2.5	+ 2.5
Appalachian Region	- 0.5	+ 0.5	- 1.9	+ 1.9
Subregions				
Northern Appalachia	- 0.9	+ 0.9	- 1.3	+ 1.3
North Central Appalachia	- 0.3	+ 0.3	- 1.8	+ 1.8
Central Appalachia	- 0.2	+ 0.2	- 1.7	+ 1.7
South Central Appalachia	- 0.8	+ 0.8	- 2.1	+ 2.1
Southern Appalachia	+ 0.2	- 0.2	- 2.6	+ 2.6
County Types				
Large Metros (pop. 1 million +)	+ 0.8	- 0.8	- 2.2	+ 2.2
Small Metros (pop. <1 million)	- 0.6	+ 0.6	- 2.1	+ 2.1
Nonmetro, Adjacent to Large Metros	- 0.7	+ 0.7	- 1.4	+ 1.4
Nonmetro, Adjacent to Small Metros	- 1.3	+ 1.3	- 1.5	+ 1.5
Rural (nonmetro, not adj. to a metro)	- 0.9	+ 0.9	- 1.4	+ 1.4
Alabama	- 0.9	+ 0.9	- 2.2	+ 2.2
Appalachian Alabama	- 0.9	+ 0.9	- 1.7	+ 1.7
Non-Appalachian Alabama	- 1.0	+ 1.0	- 3.0	+ 3.0
Georgia	+ 1.0	- 1.0	- 4.0	+ 4.0
Appalachian Georgia	+ 1.2	- 1.2	- 3.7	+ 3.7
Non-Appalachian Georgia	+ 0.9	- 0.9	- 4.2	+ 4.2
Kentucky	+ 0.6	- 0.6	- 2.7	+ 2.7
Appalachian Kentucky	+ 0.8	- 0.8	- 1.7	+ 1.7
Non-Appalachian Kentucky	+ 0.4	- 0.4	- 3.0	+ 3.0
Maryland	+ 0.1	- 0.1	- 2.2	+ 2.2
Appalachian Maryland	- 1.1	+ 1.1	- 1.7	+ 1.7
Non-Appalachian Maryland	+ 0.2	- 0.2	- 2.2	+ 2.2
Mississippi	- 0.9	+ 0.9	- 2.7	+ 2.7
Appalachian Mississippi	- 0.8	+ 0.8	- 2.2	+ 2.2
Non-Appalachian Mississippi	- 0.9	+ 0.9	- 2.8	+ 2.8
New York	- 0.6	+ 0.6	- 1.2	+ 1.2
Appalachian New York	- 2.4	+ 2.4	- 0.5	+ 0.5
Non-Appalachian New York	- 0.5	+ 0.5	- 1.2	+ 1.2
North Carolina	+ 0.2	- 0.2	- 3.0	+ 3.0
Appalachian North Carolina	- 0.9	+ 0.9	- 2.7	+ 2.7
Non-Appalachian North Carolina	+ 0.4	- 0.4	- 3.1	+ 3.1
Ohio	+ 0.4	- 0.4	- 2.7	+ 2.7
Appalachian Ohio	- 0.2	+ 0.2	- 2.3	+ 2.3
Non-Appalachian Ohio	+ 0.6	- 0.6	- 2.8	+ 2.8
Pennsylvania	- 0.5	+ 0.5	- 1.6	+ 1.6
Appalachian Pennsylvania	- 0.7	+ 0.7	- 1.2	+ 1.2
Non-Appalachian Pennsylvania	- 0.2	+ 0.2	- 2.0	+ 2.0
South Carolina	+ 0.8	- 0.8	- 1.4	+ 1.4
Appalachian South Carolina	+ 1.2	- 1.2	- 2.1	+ 2.1
Non-Appalachian South Carolina	+ 0.7	- 0.7	- 1.1	+ 1.1
Tennessee	- 0.1	+ 0.1	- 2.7	+ 2.7
Appalachian Tennessee	- 1.0	+ 1.0	- 2.0	+ 2.0
Non-Appalachian Tennessee	+ 0.5	- 0.5	- 3.2	+ 3.2
Virginia	+ 0.3	- 0.3	- 2.6	+ 2.6
Appalachian Virginia	- 0.8	+ 0.8	- 1.2	+ 1.2
Non-Appalachian Virginia	+ 0.4	- 0.4	- 2.8	+ 2.8
West Virginia (entire state)	- 0.4	+ 0.4	- 1.8	+ 1.8

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, 2007-2011 and 2012-2016 American Community Surveys.

Figure 4.5: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Occupied, 2007-2011 to 2012-2016

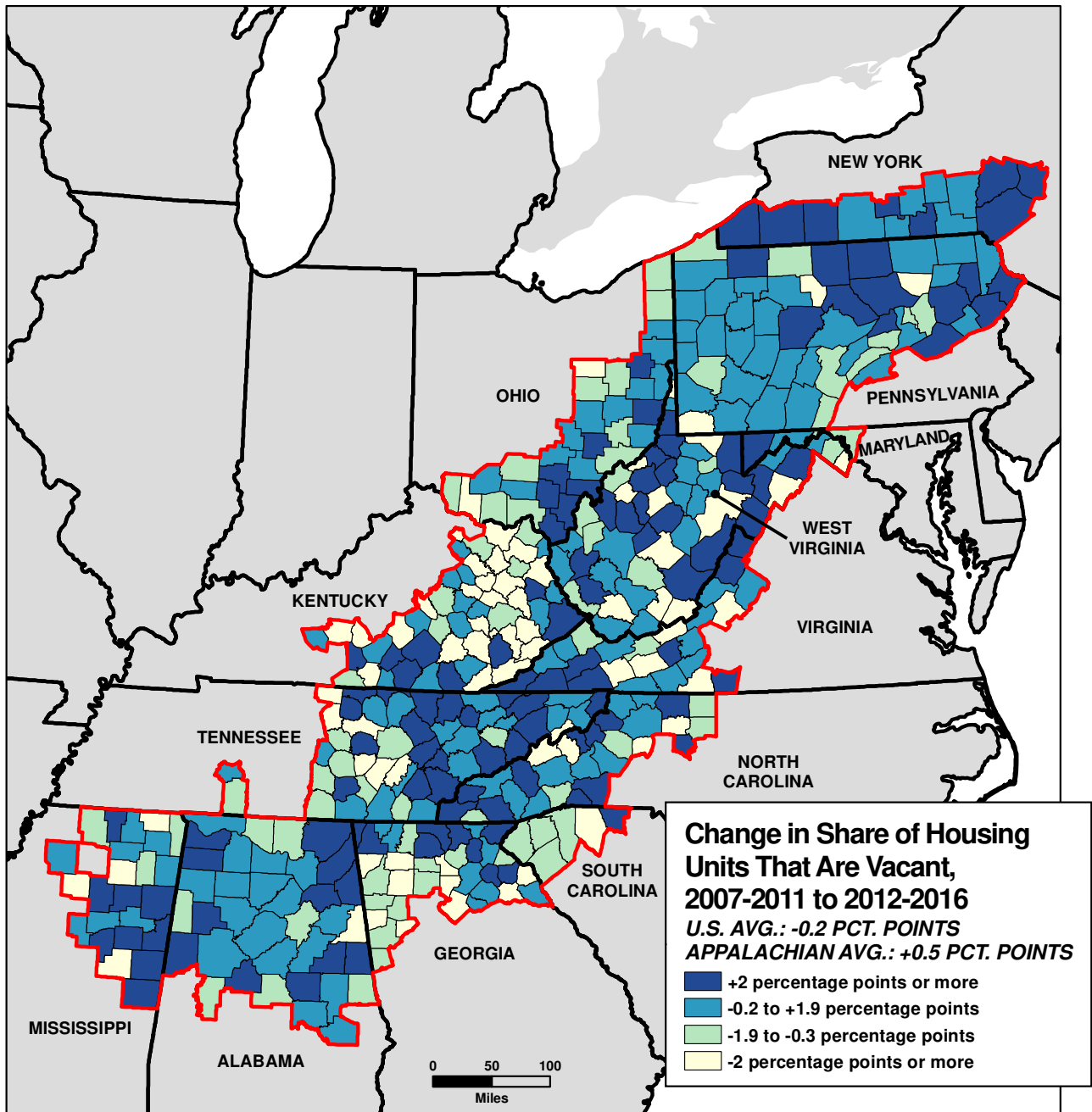


Map Title: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Occupied, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Appalachia’s home occupancy rate in 2012-2016 was half a percentage point lower than it was in 2007-2011; by contrast, home occupancy nationally had recovered to pre-recession levels (actually rising by 0.2 percentage points). Yet in the Region’s case, factors other than the effects of the Great Recession may also be at play. For example, severe weather events like the “Super Outbreak” of tornadoes that swept through parts of Mississippi, Alabama, Georgia, and Tennessee in April 2011, caused extreme structural damage and displaced families and (in some cases) entire communities. In 152 Appalachian counties, however, the occupancy rate rose at or above the national average between the two periods, and the rate increased at least two percentage points in 73 of these counties. Nearly half of the 73 counties in the latter group were in Georgia or Kentucky; indeed, the occupancy rate in those states’ Appalachian sections (as well as in South Carolina’s) increased during the period.

Figure 4.6: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Vacant, 2007-2011 to 2012-2016

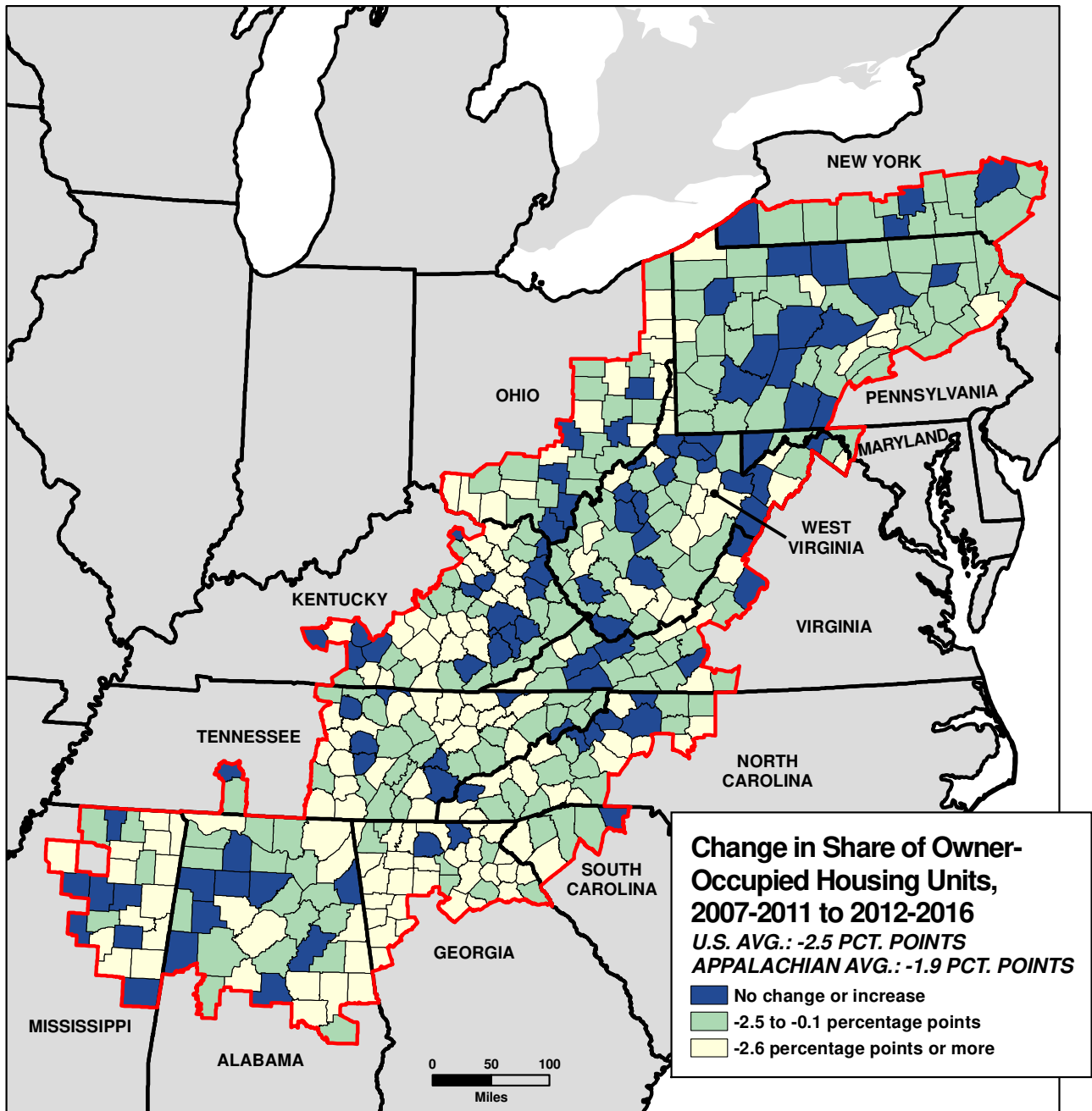


Map Title: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Vacant, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Between 2007-2011 and 2012-2016, the percentage of vacant housing units rose 0.5 percentage points in Appalachia, while actually dipping 0.2 points in the nation as a whole. Housing vacancy increased in 256 of the Region's 420 counties, and was at least two percentage points higher in 125 of these counties. While this at least partly suggests the failure of occupancy rates in Appalachia to return to pre-recessionary levels, another possible factor could be an increase in the share of vacant units that were designated for seasonal or occasional use (which would suggest significant recreational or retirement activity, such as in much of Appalachian North Carolina). In 119 of the 256 Appalachian counties where overall vacancy rates increased from their 2007-2011 levels, the percentage of vacant units designated for seasonal use also rose.

Figure 4.7: Percentage Point Change in the Share of Owner-Occupied Housing Units in the Appalachian Region, 2007-2011 to 2012-2016

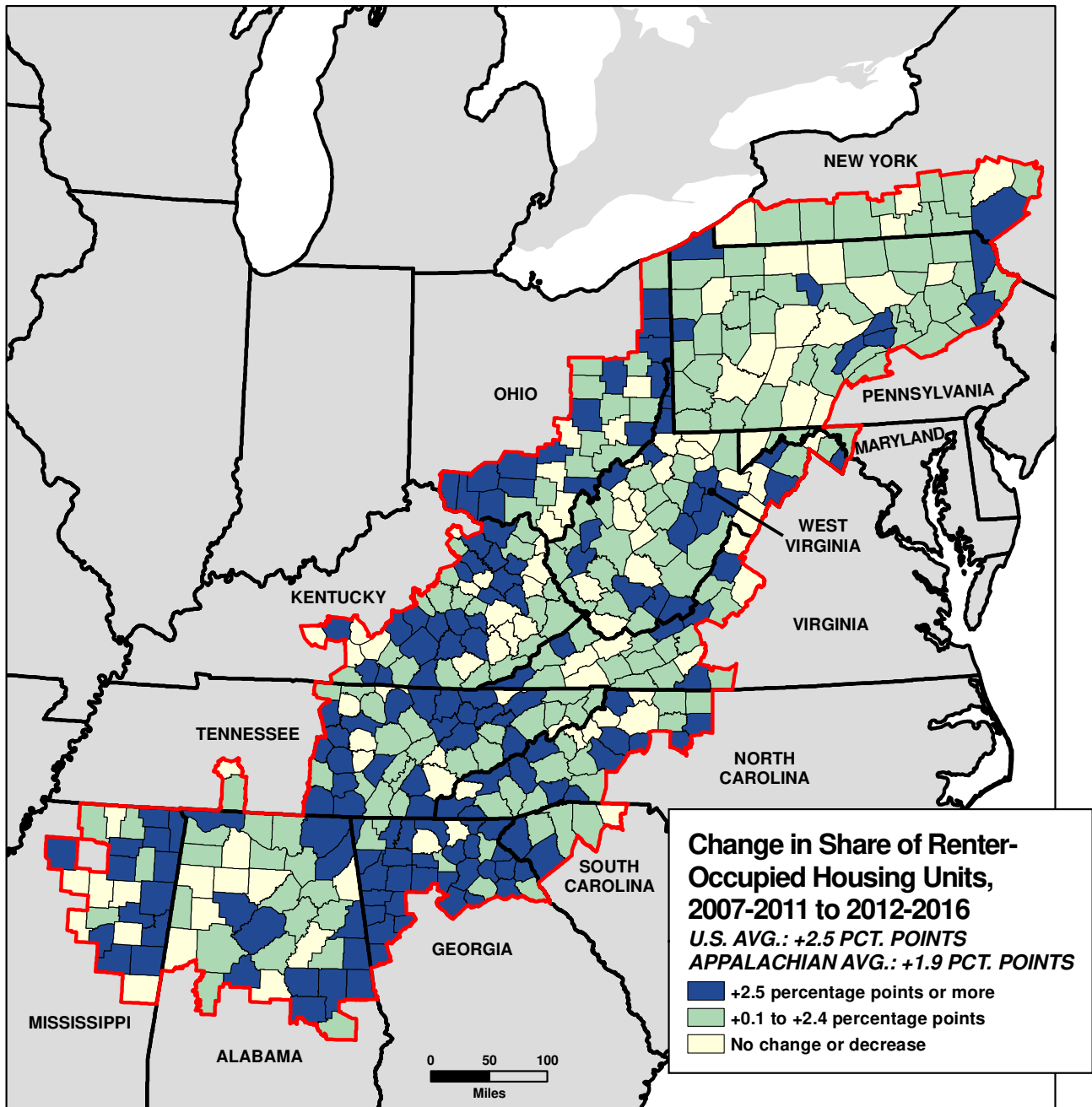


Map Title: Percentage Point Change in the Share of Owner-Occupied Housing Units in the Appalachian Region, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

The share of owner-occupied housing units fell almost two percentage points in the Appalachian Region between 2007-2011 and 2012-2016. The decline was even greater for the nation, as well as in 154 Appalachian counties where homeownership rates fell more than 2.5 percentage points (the national average). Still, there were 95 counties in the Region—72 of which were outside metropolitan areas—where homeownership either stayed the same or increased during the period. While these 95 counties were scattered throughout Appalachia, 44 of them were in three states—Pennsylvania, West Virginia, and Kentucky. (West Virginia alone had 17 of these counties.)

Figure 4.8: Percentage Point Change in the Share of Renter-Occupied Housing Units in the Appalachian Region, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Share of Renter-Occupied Housing Units in the Appalachian Region, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

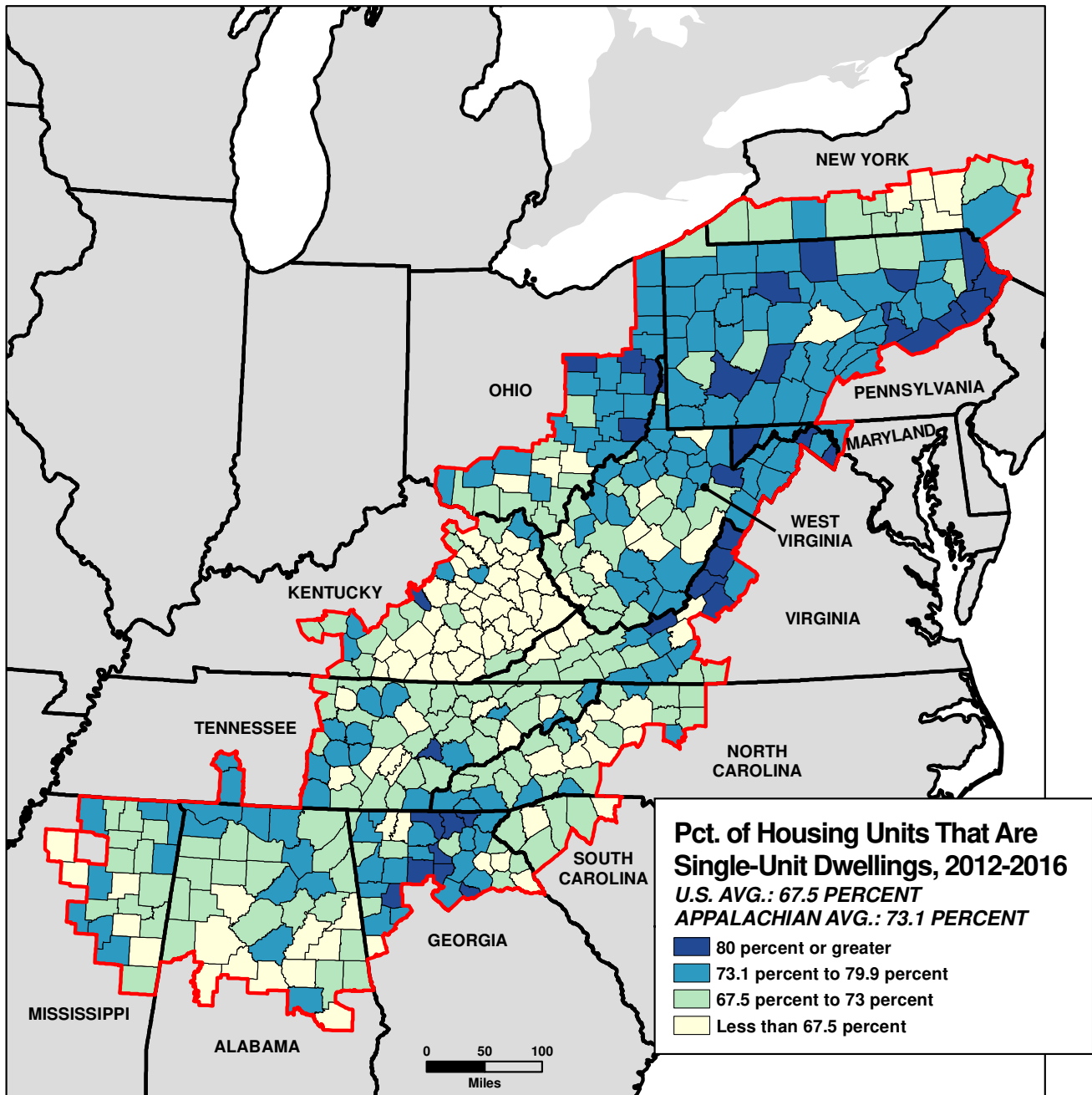
Although the share of renter-occupied housing units didn't increase as much in Appalachia as it did nationwide between 2007-2011 and 2012-2016, there were variations within the Region. In 160 Appalachian counties, for example, the increases in rental rates matched or exceeded the national average. More than half of the counties in this group were in South Central and Southern Appalachia. Georgia alone had 29 such counties; indeed, the share of renter-occupied units increased nearly four percentage points in that state's Appalachian section. Conversely, the percentage of units occupied by renters either stayed the same or decreased in 95 counties.

Table 4.3: Housing Units in the Appalachian Region, by Type of Housing, 2012-2016

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	134,054,899	67.5	26.1	8.1	18.0	6.3	0.1
Appalachian Region	11,617,303	73.1	14.9	6.0	8.9	11.9	0.1
Subregions							
Northern Appalachia	3,922,698	75.7	17.7	8.6	9.1	6.6	0.0
North Central Appalachia	1,119,683	72.9	12.5	4.8	7.7	14.5	0.1
Central Appalachia	882,584	66.2	9.2	4.4	4.9	24.5	0.1
South Central Appalachia	2,286,361	71.2	14.6	5.2	9.4	14.1	0.1
Southern Appalachia	3,405,977	73.5	14.2	4.4	9.8	12.3	0.1
County Types							
Large Metros (pop. 1 million +)	2,562,922	76.8	17.3	5.3	12.0	5.9	0.0
Small Metros (pop. <1 million)	4,827,155	72.4	17.3	6.9	10.4	10.2	0.0
Nonmetro, Adjacent to Large Metros	1,025,855	72.7	12.8	6.7	6.1	14.4	0.1
Nonmetro, Adjacent to Small Metros	1,950,934	72.7	10.3	5.2	5.1	16.9	0.1
Rural (nonmetro, not adj. to a metro)	1,250,437	69.6	9.9	4.7	5.1	20.5	0.1
Alabama	2,209,335	70.2	16.3	5.0	11.3	13.4	0.1
Appalachian Alabama	1,399,799	71.6	15.7	4.6	11.1	12.6	0.1
Non-Appalachian Alabama	809,536	67.8	17.4	5.6	11.8	14.7	0.1
Georgia	4,156,518	70.0	20.7	5.2	15.5	9.3	0.1
Appalachian Georgia	1,198,289	78.1	12.3	3.6	8.7	9.5	0.1
Non-Appalachian Georgia	2,958,229	66.7	24.1	5.9	18.2	9.2	0.1
Kentucky	1,951,090	69.5	18.3	7.1	11.2	12.1	0.1
Appalachian Kentucky	539,672	64.9	10.3	5.1	5.2	24.7	0.1
Non-Appalachian Kentucky	1,411,418	71.3	21.3	7.9	13.4	7.3	0.0
Maryland	2,421,909	72.9	25.6	3.9	21.7	1.5	0.0
Appalachian Maryland	113,490	78.7	17.1	6.3	10.8	4.2	0.0
Non-Appalachian Maryland	2,308,419	72.6	26.0	3.7	22.3	1.4	0.0
Mississippi	1,295,242	70.5	14.5	5.4	9.1	14.9	0.1
Appalachian Mississippi	280,794	69.8	11.8	5.7	6.0	18.4	0.1
Non-Appalachian Mississippi	1,014,448	70.7	15.2	5.3	10.0	14.0	0.1
New York	8,191,568	46.9	50.8	17.8	33.0	2.4	0.0
Appalachian New York	509,002	67.2	22.3	13.6	8.7	10.5	0.0
Non-Appalachian New York	7,682,566	45.5	52.6	18.1	34.6	1.8	0.0
North Carolina	4,453,767	69.2	17.5	4.9	12.7	13.3	0.0
Appalachian North Carolina	866,171	69.9	13.1	4.5	8.6	16.8	0.1
Non-Appalachian North Carolina	3,587,596	69.0	18.6	4.9	13.7	12.4	0.0
Ohio	5,146,944	73.1	23.1	8.9	14.2	3.8	0.0
Appalachian Ohio	900,696	75.5	14.1	6.2	7.9	10.4	0.1
Non-Appalachian Ohio	4,246,248	72.6	25.0	9.5	15.6	2.4	0.0
Pennsylvania	5,592,175	75.6	20.4	8.7	11.7	4.0	0.0
Appalachian Pennsylvania	2,725,824	76.7	17.4	8.0	9.3	5.9	0.0
Non-Appalachian Pennsylvania	2,866,351	74.6	23.2	9.3	13.9	2.2	0.0
South Carolina	2,192,041	65.6	17.7	5.0	12.8	16.6	0.1
Appalachian South Carolina	527,095	69.8	15.8	4.9	10.9	14.4	0.1
Non-Appalachian South Carolina	1,664,946	64.3	18.3	5.0	13.3	17.3	0.1
Tennessee	2,873,478	71.8	18.8	6.2	12.5	9.3	0.1
Appalachian Tennessee	1,305,744	71.6	15.2	5.7	9.5	13.1	0.1
Non-Appalachian Tennessee	1,567,734	72.0	21.7	6.7	15.0	6.2	0.1
Virginia	3,445,357	72.8	22.1	4.5	17.5	5.1	0.0
Appalachian Virginia	365,999	70.9	11.6	4.2	7.4	17.4	0.1
Non-Appalachian Virginia	3,079,358	73.0	23.3	4.6	18.7	3.7	0.0
West Virginia (entire state)	884,728	72.6	12.2	4.9	7.3	15.1	0.1

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Figure 4.9: Percent of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2012-2016



Map Title: Percent of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

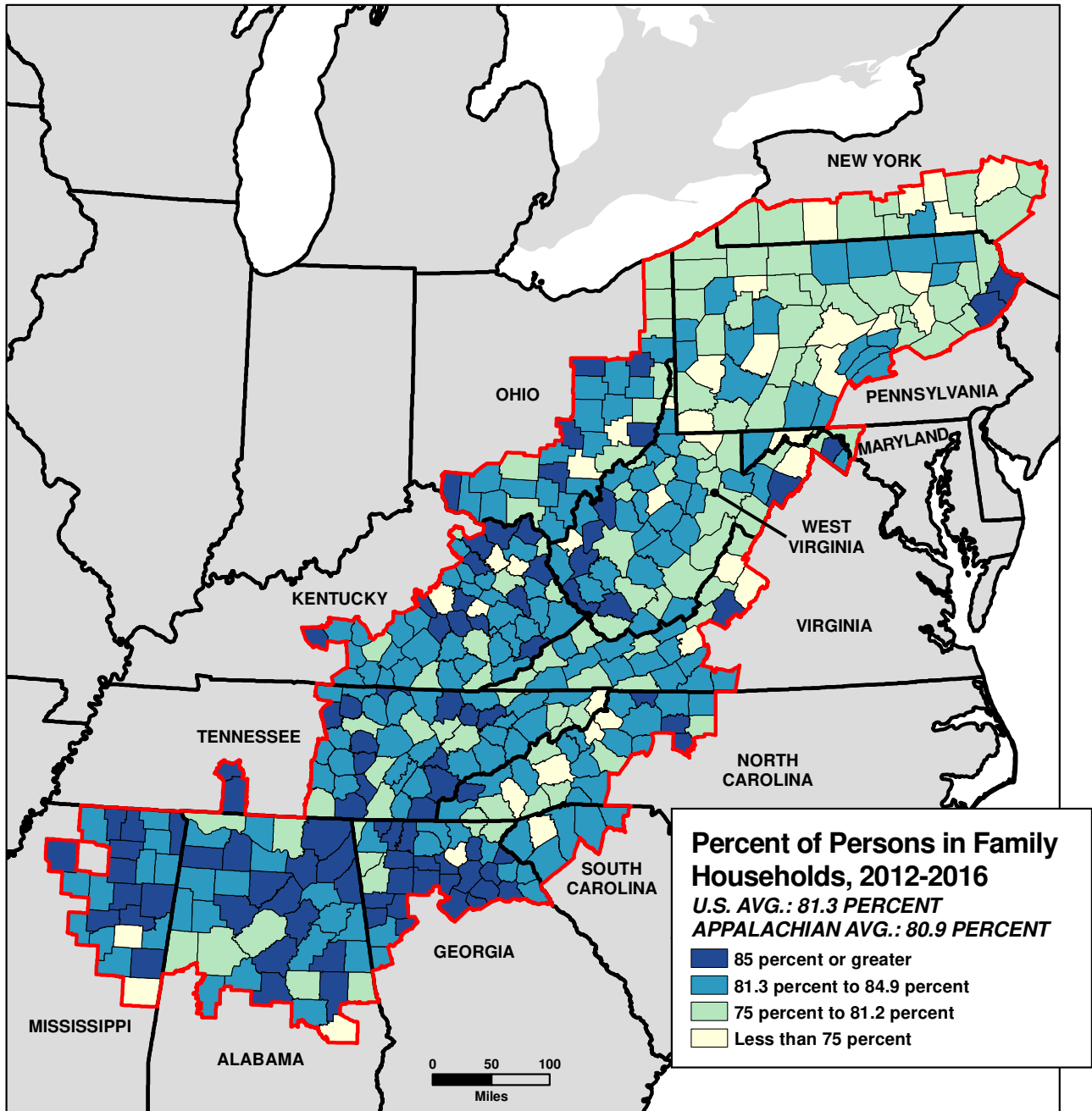
In 2012-2016, 73 percent of housing units in the Appalachian Region were single-unit dwellings (either attached or detached)—a larger share than the national average of 68 percent. And the share was even greater in much of Appalachia: In 184 of the 420 counties (most of which were in Northern Appalachia), the share of single-unit homes was at or above the average for the Region. Moreover, in 35 Appalachian counties, single-unit dwellings accounted for at least 80 percent of the housing stock. In contrast, there were 95 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 provide most of the remaining housing stock: They accounted for at least 25 percent of housing units in 64 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, 2012-2016

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	318,558,162	97.5	81.3	16.2	2.5
Appalachian Region	25,457,996	97.0	80.9	16.1	3.0
Subregions					
Northern Appalachia	8,306,431	95.9	77.8	18.1	4.1
North Central Appalachia	2,422,072	97.0	80.2	16.8	3.0
Central Appalachia	1,894,531	97.0	82.3	14.6	3.0
South Central Appalachia	4,797,451	97.2	80.0	17.2	2.8
Southern Appalachia	8,037,511	98.0	84.4	13.6	2.0
County Types					
Large Metros (pop. 1 million +)	5,997,325	98.1	82.8	15.3	1.9
Small Metros (pop. <1 million)	10,757,475	96.7	79.7	17.1	3.3
Nonmetro, Adjacent to Large Metros	2,197,963	96.4	80.5	15.9	3.6
Nonmetro, Adjacent to Small Metros	3,974,833	96.8	81.3	15.5	3.2
Rural (nonmetro, not adj. to a metro)	2,530,400	96.2	80.9	15.3	3.8
Alabama	4,841,164	97.6	82.2	15.3	2.4
Appalachian Alabama	3,099,056	97.6	82.6	14.9	2.4
Non-Appalachian Alabama	1,742,108	97.5	81.5	16.0	2.5
Georgia	10,099,320	97.4	82.6	14.8	2.6
Appalachian Georgia	3,088,021	98.8	87.4	11.3	1.2
Non-Appalachian Georgia	7,011,299	96.8	80.5	16.3	3.2
Kentucky	4,411,989	97.0	80.7	16.3	3.0
Appalachian Kentucky	1,176,684	96.7	82.1	14.6	3.3
Non-Appalachian Kentucky	3,235,305	97.1	80.2	16.9	2.9
Maryland	5,959,902	97.6	82.1	15.6	2.4
Appalachian Maryland	252,308	93.2	77.3	15.9	6.8
Non-Appalachian Maryland	5,707,594	97.8	82.3	15.5	2.2
Mississippi	2,989,192	96.8	82.6	14.2	3.2
Appalachian Mississippi	628,934	97.2	82.6	14.6	2.8
Non-Appalachian Mississippi	2,360,258	96.7	82.6	14.1	3.3
New York	19,697,457	97.1	79.8	17.2	2.9
Appalachian New York	1,050,606	94.3	74.5	19.8	5.7
Non-Appalachian New York	18,646,851	97.2	80.1	17.1	2.8
North Carolina	9,940,828	97.4	80.9	16.5	2.6
Appalachian North Carolina	1,724,085	97.3	79.6	17.7	2.7
Non-Appalachian North Carolina	8,216,743	97.5	81.2	16.3	2.5
Ohio	11,586,941	97.3	79.6	17.7	2.7
Appalachian Ohio	2,016,126	96.9	81.0	16.0	3.1
Non-Appalachian Ohio	9,570,815	97.4	79.3	18.1	2.6
Pennsylvania	12,783,977	96.6	79.4	17.3	3.4
Appalachian Pennsylvania	5,753,260	96.1	77.9	18.2	3.9
Non-Appalachian Pennsylvania	7,030,717	97.1	80.6	16.5	2.9
South Carolina	4,834,605	97.2	81.1	16.1	2.8
Appalachian South Carolina	1,221,500	97.5	82.0	15.5	2.5
Non-Appalachian South Carolina	3,613,105	97.0	80.8	16.3	3.0
Tennessee	6,548,009	97.7	81.6	16.1	2.3
Appalachian Tennessee	2,841,144	97.6	81.4	16.2	2.4
Non-Appalachian Tennessee	3,706,865	97.7	81.7	16.0	2.3
Virginia	8,310,301	97.1	81.0	16.1	2.9
Appalachian Virginia	760,180	95.6	77.2	18.4	4.4
Non-Appalachian Virginia	7,550,121	97.2	81.4	15.8	2.8
West Virginia (entire state)	1,846,092	97.4	80.0	17.4	2.6

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Figure 4.10: Percent of Persons in the Appalachian Region Living in Family Households, 2012-2016



Map Title: Percent of Persons in the Appalachian Region Living in Family Households, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

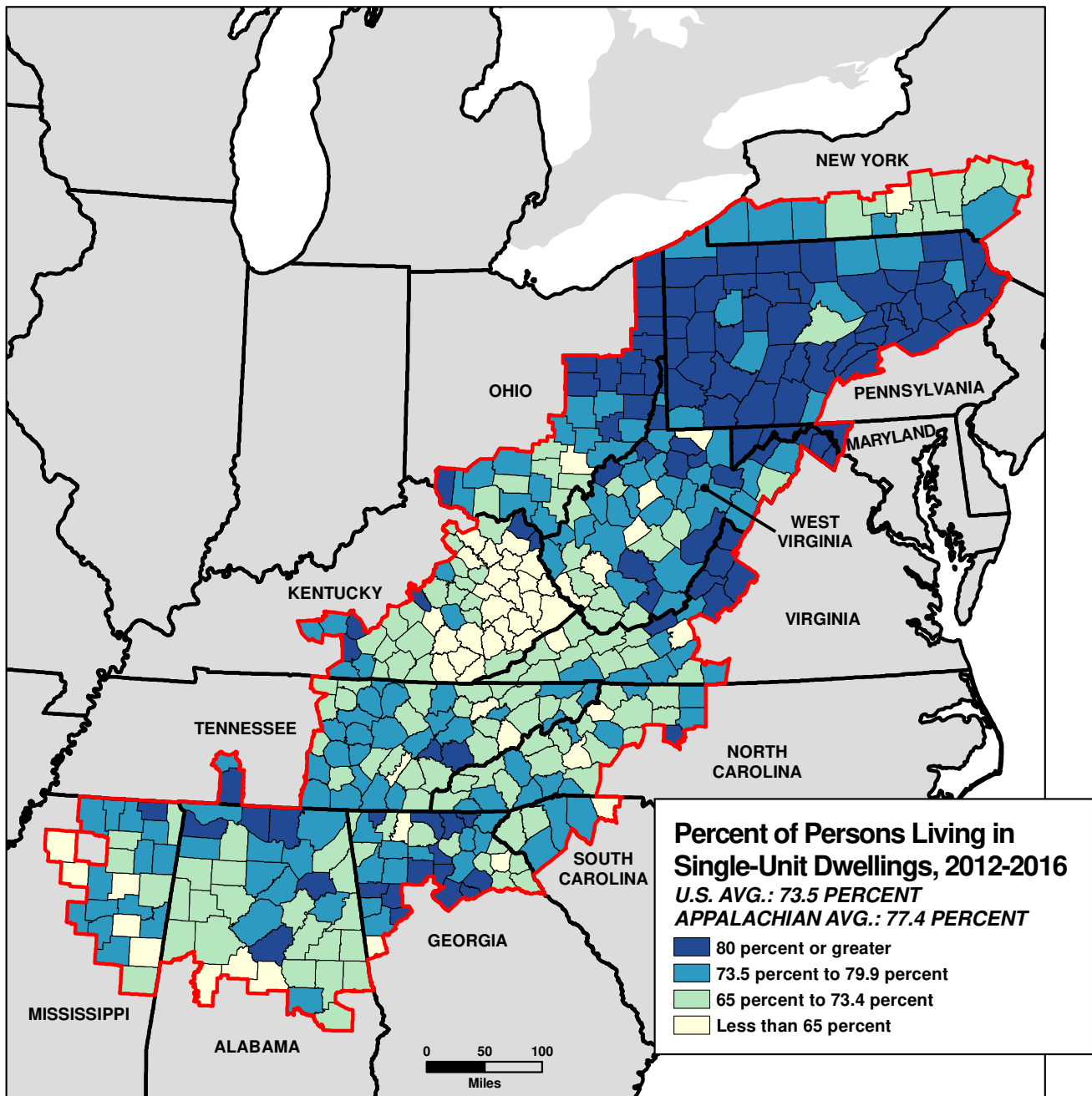
Almost 81 percent of Appalachia’s residents lived in family households during 2012-2016, which was just under the national average. Yet in 94 counties in the Region, at least 85 percent lived in family households. Nearly half of these counties were in Southern Appalachia, although there were pockets in the Central and South Central subregions. In contrast, there were 39 Appalachian counties where less than three-fourths of the residents were in family households. More than 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 three-fifths of the county’s residents. (Rowan County, Kentucky, home to Morehead State University, provides a more typical example, with 12 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, 2012-2016

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	310,482,947	73.5	20.7	7.3	13.5	5.7	0.1
Appalachian Region	24,696,187	77.4	11.1	4.7	6.4	11.4	0.0
Subregions							
Northern Appalachia	7,969,122	81.5	12.8	6.7	6.1	5.7	0.0
North Central Appalachia	2,349,027	77.0	9.0	3.6	5.5	14.0	0.0
Central Appalachia	1,836,947	68.8	7.0	3.6	3.5	24.1	0.1
South Central Appalachia	4,665,087	74.3	11.2	4.2	7.1	14.4	0.1
Southern Appalachia	7,876,004	77.3	10.8	3.5	7.2	11.9	0.1
County Types							
Large Metros (pop. 1 million +)	5,886,149	82.2	12.1	3.9	8.2	5.6	0.0
Small Metros (pop. <1 million)	10,406,763	77.0	12.8	5.3	7.5	10.1	0.0
Nonmetro, Adjacent to Large Metros	2,119,932	76.6	9.6	5.4	4.2	13.8	0.1
Nonmetro, Adjacent to Small Metros	3,848,776	75.3	7.7	4.2	3.5	16.9	0.1
Rural (nonmetro, not adj. to a metro)	2,434,567	71.8	7.7	3.9	3.8	20.5	0.1
Alabama	4,722,823	74.7	12.0	4.1	7.9	13.2	0.1
Appalachian Alabama	3,023,774	75.7	11.7	3.8	7.8	12.6	0.1
Non-Appalachian Alabama	1,699,049	72.9	12.6	4.7	7.9	14.4	0.1
Georgia	9,838,303	75.1	16.0	4.4	11.5	8.9	0.1
Appalachian Georgia	3,049,429	81.5	9.8	3.0	6.8	8.7	0.1
Non-Appalachian Georgia	6,788,874	72.3	18.8	5.1	13.7	8.9	0.1
Kentucky	4,281,075	74.8	13.8	5.8	7.9	11.3	0.0
Appalachian Kentucky	1,138,207	67.8	8.2	4.4	3.8	24.0	0.1
Non-Appalachian Kentucky	3,142,868	77.4	15.8	6.4	9.4	6.8	0.0
Maryland	5,819,571	79.9	19.0	2.8	16.2	1.1	0.0
Appalachian Maryland	235,210	83.8	13.0	4.7	8.3	3.2	0.0
Non-Appalachian Maryland	5,584,361	79.7	19.2	2.7	16.5	1.1	0.0
Mississippi	2,894,844	73.6	11.5	4.5	7.0	14.8	0.1
Appalachian Mississippi	611,406	72.3	9.1	4.7	4.5	18.6	0.1
Non-Appalachian Mississippi	2,283,438	74.0	12.1	4.5	7.6	13.8	0.1
New York	19,118,822	51.7	46.3	18.2	28.2	1.9	0.0
Appalachian New York	991,228	72.0	18.4	12.0	6.4	9.6	0.0
Non-Appalachian New York	18,127,594	50.6	47.9	18.5	29.4	1.4	0.0
North Carolina	9,686,388	72.9	13.5	3.9	9.6	13.5	0.0
Appalachian North Carolina	1,677,234	72.1	10.3	3.3	6.9	17.6	0.1
Non-Appalachian North Carolina	8,009,154	73.1	14.2	4.0	10.2	12.7	0.0
Ohio	11,275,553	80.5	16.1	6.5	9.6	3.3	0.0
Appalachian Ohio	1,954,492	80.7	9.8	4.4	5.4	9.5	0.0
Non-Appalachian Ohio	9,321,061	80.5	17.5	6.9	10.5	2.0	0.0
Pennsylvania	12,354,826	82.6	14.1	6.5	7.6	3.3	0.0
Appalachian Pennsylvania	5,527,192	82.7	12.3	6.1	6.2	5.0	0.0
Non-Appalachian Pennsylvania	6,827,634	82.5	15.6	6.8	8.8	1.9	0.0
South Carolina	4,697,622	70.1	12.5	4.1	8.4	17.4	0.0
Appalachian South Carolina	1,191,395	73.3	11.9	3.7	8.3	14.7	0.0
Non-Appalachian South Carolina	3,506,227	69.0	12.6	4.2	8.5	18.3	0.0
Tennessee	6,394,154	76.6	14.1	5.1	9.1	9.2	0.1
Appalachian Tennessee	2,772,403	75.3	11.3	4.6	6.7	13.4	0.1
Non-Appalachian Tennessee	3,621,751	77.7	16.3	5.4	10.9	5.9	0.0
Virginia	8,068,036	78.5	17.0	3.6	13.4	4.4	0.0
Appalachian Virginia	726,920	73.6	9.5	3.2	6.2	16.9	0.0
Non-Appalachian Virginia	7,341,116	79.0	17.7	3.6	14.1	3.2	0.0
West Virginia (entire state)	1,797,297	76.6	8.6	3.6	5.0	14.8	0.0

Data Source: U.S. Census Bureau, 2012-2016 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), 2012-2016



Map Title: Among Persons in the Appalachian Region in Occupied Housing Units, Percent Living in Single-Unit Dwellings (Attached or Detached), 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

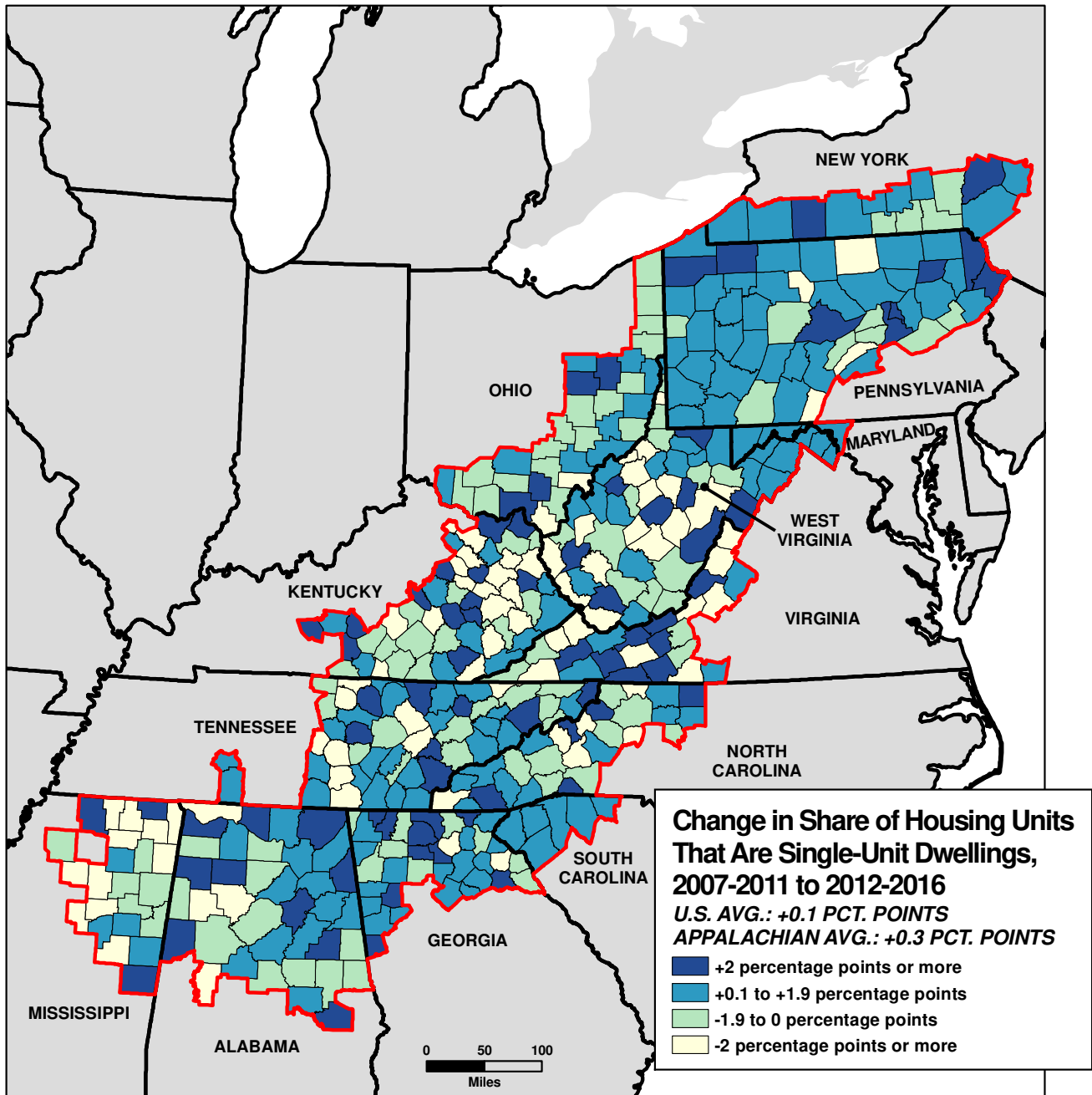
Of the Appalachian population who live in occupied housing units, 77 percent lived in single-unit dwellings during the 2012-2016 period, almost four percentage points above the national average. And the share was even greater in much of the Region: In 108 counties, at least four in five residents lived in single-unit homes. More than half of these were in Northern Appalachia; 42 were in Pennsylvania alone. Yet in 177 of Appalachia’s 420 counties, the share living in single-unit dwellings was below the U.S. average of 73.5 percent; in 50 counties (more than half of which were in Central Appalachia), the percentage was below 65 percent. And in 43 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, 2007-2011 to 2012-2016

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	+ 0.2	- 0.2	+ 0.4	- 0.3	+ 0.0
Appalachian Region	+ 0.3	+ 0.1	- 0.1	+ 0.2	- 0.5	+ 0.1
Subregions						
Northern Appalachia	+ 0.7	- 0.3	- 0.4	+ 0.1	- 0.4	+ 0.0
North Central Appalachia	+ 0.0	+ 0.0	- 0.2	+ 0.2	- 0.1	+ 0.1
Central Appalachia	- 0.3	+ 0.3	+ 0.3	+ 0.0	+ 0.0	+ 0.1
South Central Appalachia	+ 0.3	+ 0.5	+ 0.1	+ 0.3	- 0.8	+ 0.0
Southern Appalachia	+ 0.5	+ 0.3	+ 0.0	+ 0.3	- 0.7	+ 0.0
County Types						
Large Metros (pop. 1 million +)	+ 0.7	- 0.2	- 0.1	- 0.1	- 0.4	+ 0.0
Small Metros (pop. <1 million)	+ 0.3	+ 0.2	- 0.1	+ 0.3	- 0.5	+ 0.0
Nonmetro, Adjacent to Large Metros	+ 0.2	+ 0.1	- 0.2	+ 0.3	- 0.4	+ 0.1
Nonmetro, Adjacent to Small Metros	+ 0.5	+ 0.0	- 0.1	+ 0.1	- 0.6	+ 0.0
Rural (nonmetro, not adj. to a metro)	+ 0.1	+ 0.4	+ 0.0	+ 0.3	- 0.4	+ 0.1
Alabama	+ 0.1	+ 0.8	- 0.1	+ 0.8	- 0.9	+ 0.0
Appalachian Alabama	+ 0.3	+ 0.7	+ 0.0	+ 0.7	- 1.0	+ 0.0
Non-Appalachian Alabama	- 0.1	+ 0.9	- 0.3	+ 1.2	- 0.8	+ 0.0
Georgia	+ 0.1	+ 0.2	- 0.2	+ 0.4	- 0.3	+ 0.1
Appalachian Georgia	+ 0.9	- 0.4	- 0.1	- 0.3	- 0.6	+ 0.0
Non-Appalachian Georgia	- 0.2	+ 0.5	- 0.2	+ 0.7	- 0.2	+ 0.1
Kentucky	- 0.2	+ 0.5	+ 0.1	+ 0.4	- 0.4	+ 0.1
Appalachian Kentucky	- 0.3	+ 0.4	+ 0.4	+ 0.0	- 0.1	+ 0.0
Non-Appalachian Kentucky	- 0.2	+ 0.4	+ 0.0	+ 0.4	- 0.3	+ 0.0
Maryland	+ 0.1	+ 0.2	+ 0.0	+ 0.2	- 0.2	+ 0.0
Appalachian Maryland	+ 1.7	- 1.1	- 0.9	- 0.2	- 0.6	+ 0.0
Non-Appalachian Maryland	+ 0.0	+ 0.2	- 0.1	+ 0.3	- 0.2	+ 0.0
Mississippi	- 0.7	+ 1.1	+ 0.2	+ 1.0	- 0.4	- 0.1
Appalachian Mississippi	- 1.1	+ 1.1	+ 0.1	+ 0.9	+ 0.1	+ 0.1
Non-Appalachian Mississippi	- 0.5	+ 1.1	+ 0.2	+ 1.0	- 0.5	- 0.1
New York	+ 0.0	+ 0.3	- 0.4	+ 0.7	- 0.1	+ 0.0
Appalachian New York	+ 0.7	- 0.3	- 0.4	+ 0.1	- 0.3	+ 0.0
Non-Appalachian New York	- 0.1	+ 0.2	- 0.4	+ 0.7	- 0.1	+ 0.0
North Carolina	+ 0.3	+ 0.5	- 0.1	+ 0.8	- 0.8	+ 0.0
Appalachian North Carolina	- 0.1	+ 0.3	+ 0.2	+ 0.1	- 0.3	+ 0.0
Non-Appalachian North Carolina	+ 0.4	+ 0.6	- 0.3	+ 0.9	- 0.9	+ 0.0
Ohio	+ 0.0	+ 0.2	- 0.1	+ 0.3	- 0.2	+ 0.0
Appalachian Ohio	+ 0.2	+ 0.0	- 0.2	+ 0.1	- 0.1	+ 0.1
Non-Appalachian Ohio	+ 0.0	+ 0.2	- 0.1	+ 0.4	- 0.2	+ 0.0
Pennsylvania	+ 0.4	- 0.1	- 0.3	+ 0.2	- 0.3	+ 0.0
Appalachian Pennsylvania	+ 0.8	- 0.3	- 0.4	- 0.1	- 0.4	+ 0.0
Non-Appalachian Pennsylvania	+ 0.1	+ 0.0	- 0.3	+ 0.3	- 0.1	+ 0.0
South Carolina	+ 0.9	+ 0.1	- 0.3	+ 0.5	- 1.0	+ 0.0
Appalachian South Carolina	+ 0.8	+ 0.3	+ 0.1	+ 0.1	- 1.0	+ 0.0
Non-Appalachian South Carolina	+ 0.9	+ 0.0	- 0.5	+ 0.5	- 1.0	+ 0.0
Tennessee	+ 0.0	+ 0.7	+ 0.2	+ 0.4	- 0.8	+ 0.0
Appalachian Tennessee	+ 0.4	+ 0.6	+ 0.1	+ 0.4	- 1.0	+ 0.0
Non-Appalachian Tennessee	- 0.2	+ 0.7	+ 0.3	+ 0.4	- 0.5	+ 0.1
Virginia	- 0.1	+ 0.7	+ 0.1	+ 0.5	- 0.5	+ 0.0
Appalachian Virginia	+ 0.2	+ 0.7	+ 0.4	+ 0.3	- 1.0	+ 0.1
Non-Appalachian Virginia	- 0.2	+ 0.6	+ 0.1	+ 0.5	- 0.4	+ 0.0
West Virginia (entire state)	- 0.4	+ 0.2	- 0.2	+ 0.4	+ 0.1	+ 0.1

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 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), 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Share of Housing Units in the Appalachian Region That Are Single-Unit Dwellings (Attached or Detached), 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

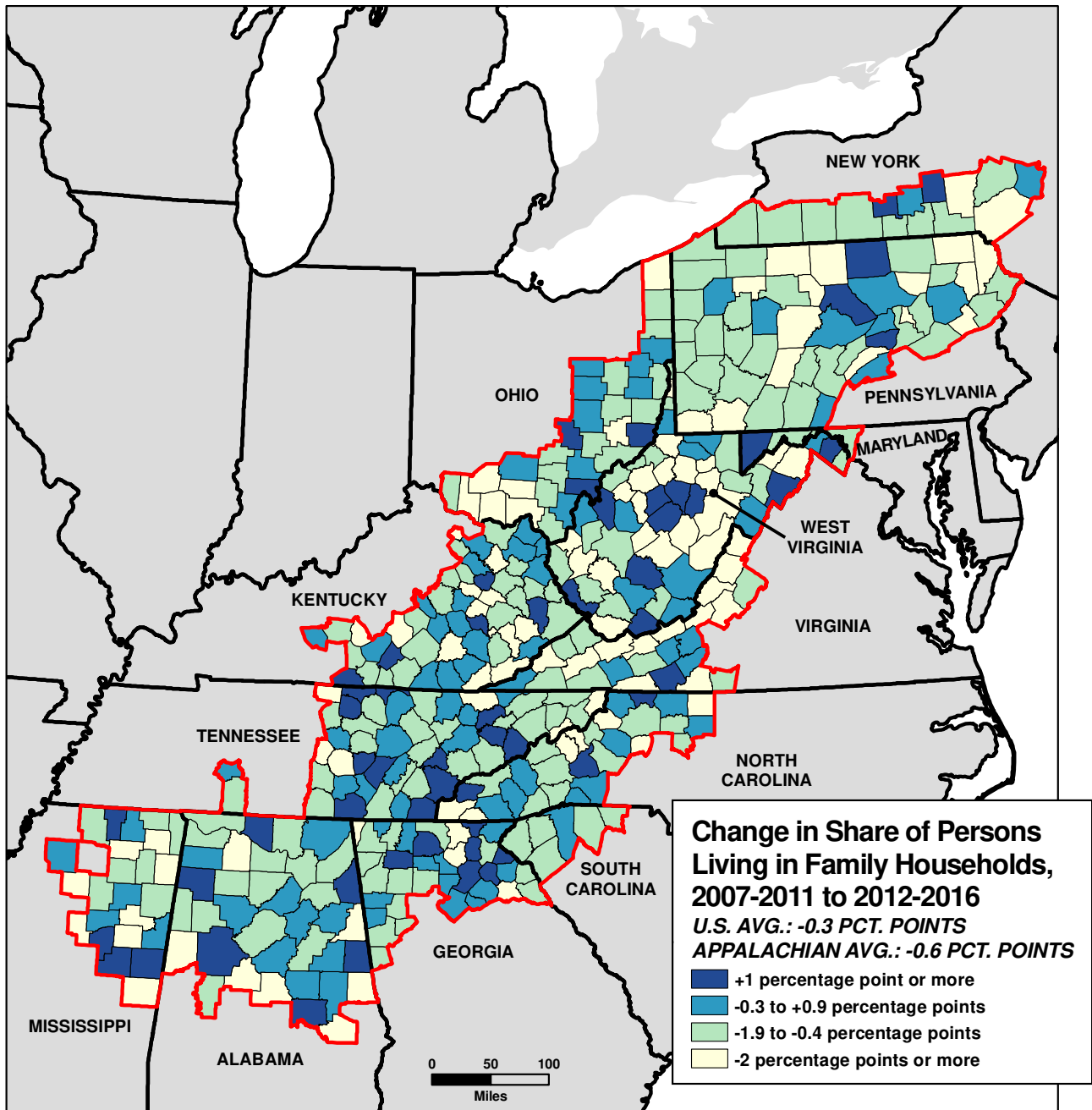
The share of single-unit dwellings among the housing stock increased slightly between the 2007-2011 and 2012-2016 periods, both in Appalachia and nationwide. And this rise was felt in most of the Region’s 420 counties. In fact, there were 79 counties (scattered throughout Appalachia) where the share of housing units that were single-unit dwellings rose at least two percentage points. Yet in 79 other Appalachian counties, the share of single-unit homes was at least two percentage points lower in 2012-2016 than in the earlier period. Of the counties in the latter group, 28 were in Central Appalachia (the only subregion where the share decreased), while 11 others were in Appalachian Mississippi (where the share declined by more than 1 percentage point—the biggest drop among the states). The increased share of single-unit homes in Appalachia seems to have come at the expense of mobile homes, the share of which fell by half a percentage point between 2007-2011 and 2012-2016.

Table 4.7: Percentage Point Change in the Share of Persons in the Appalachian Region Living in Households and Group Quarters, 2007-2011 to 2012-2016

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	- 0.3	+ 0.4	- 0.1
Appalachian Region	+ 0.0	- 0.6	+ 0.6	+ 0.0
Subregions				
Northern Appalachia	- 0.1	- 1.1	+ 1.0	+ 0.1
North Central Appalachia	+ 0.0	- 0.8	+ 0.8	+ 0.0
Central Appalachia	- 0.2	- 1.0	+ 0.7	+ 0.2
South Central Appalachia	+ 0.0	- 0.6	+ 0.6	+ 0.0
Southern Appalachia	+ 0.1	- 0.3	+ 0.4	- 0.1
County Types	+ 0.0	+ 0.0	+ 0.0	+ 0.0
Large Metros (pop. 1 million +)	+ 0.0	- 0.6	+ 0.6	+ 0.0
Small Metros (pop. <1 million)	+ 0.0	- 0.6	+ 0.7	+ 0.0
Nonmetro, Adjacent to Large Metros	- 0.1	- 0.8	+ 0.8	+ 0.1
Nonmetro, Adjacent to Small Metros	- 0.1	- 0.7	+ 0.6	+ 0.1
Rural (nonmetro, not adj. to a metro)	- 0.3	- 1.1	+ 0.8	+ 0.3
Alabama	+ 0.0	- 0.7	+ 0.6	+ 0.0
Appalachian Alabama	+ 0.0	- 0.6	+ 0.5	+ 0.0
Non-Appalachian Alabama	+ 0.0	- 0.9	+ 0.8	+ 0.0
Georgia	+ 0.1	- 0.2	+ 0.3	- 0.1
Appalachian Georgia	+ 0.2	+ 0.0	+ 0.1	- 0.2
Non-Appalachian Georgia	+ 0.0	- 0.3	+ 0.3	+ 0.0
Kentucky	- 0.1	- 1.0	+ 0.9	+ 0.1
Appalachian Kentucky	- 0.1	- 1.0	+ 0.9	+ 0.1
Non-Appalachian Kentucky	- 0.1	- 1.0	+ 0.9	+ 0.1
Maryland	+ 0.0	+ 0.0	+ 0.1	+ 0.0
Appalachian Maryland	- 0.8	- 0.9	+ 0.1	+ 0.8
Non-Appalachian Maryland	+ 0.0	+ 0.0	+ 0.0	+ 0.0
Mississippi	- 0.1	- 0.8	+ 0.7	+ 0.1
Appalachian Mississippi	- 0.3	- 1.1	+ 0.9	+ 0.3
Non-Appalachian Mississippi	+ 0.0	- 0.7	+ 0.7	+ 0.0
New York	+ 0.2	- 0.5	+ 0.5	- 0.2
Appalachian New York	- 0.1	- 1.1	+ 1.1	+ 0.1
Non-Appalachian New York	+ 0.1	- 0.4	+ 0.5	- 0.1
North Carolina	+ 0.2	- 0.4	+ 0.5	- 0.2
Appalachian North Carolina	+ 0.1	- 0.7	+ 0.8	- 0.1
Non-Appalachian North Carolina	+ 0.2	- 0.3	+ 0.5	- 0.2
Ohio	+ 0.0	- 1.0	+ 1.0	+ 0.0
Appalachian Ohio	- 0.2	- 0.9	+ 0.8	+ 0.2
Non-Appalachian Ohio	+ 0.0	- 1.0	+ 1.0	+ 0.0
Pennsylvania	+ 0.0	- 0.6	+ 0.7	+ 0.0
Appalachian Pennsylvania	+ 0.0	- 1.1	+ 1.0	+ 0.0
Non-Appalachian Pennsylvania	+ 0.1	- 0.2	+ 0.3	- 0.1
South Carolina	+ 0.3	- 0.4	+ 0.7	- 0.3
Appalachian South Carolina	+ 0.2	- 0.4	+ 0.7	- 0.2
Non-Appalachian South Carolina	+ 0.2	- 0.4	+ 0.7	- 0.2
Tennessee	+ 0.1	- 0.3	+ 0.4	- 0.1
Appalachian Tennessee	- 0.1	- 0.4	+ 0.3	+ 0.1
Non-Appalachian Tennessee	+ 0.2	- 0.3	+ 0.5	- 0.2
Virginia	+ 0.1	- 0.1	+ 0.2	- 0.1
Appalachian Virginia	+ 0.0	- 1.4	+ 1.4	+ 0.0
Non-Appalachian Virginia	+ 0.1	+ 0.0	+ 0.1	- 0.1
West Virginia (entire state)	+ 0.0	- 0.8	+ 0.8	+ 0.0

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Figure 4.13: Percentage Point Change in the Share of Persons in the Appalachian Region Living in Family Households, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region Living in Family Households, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

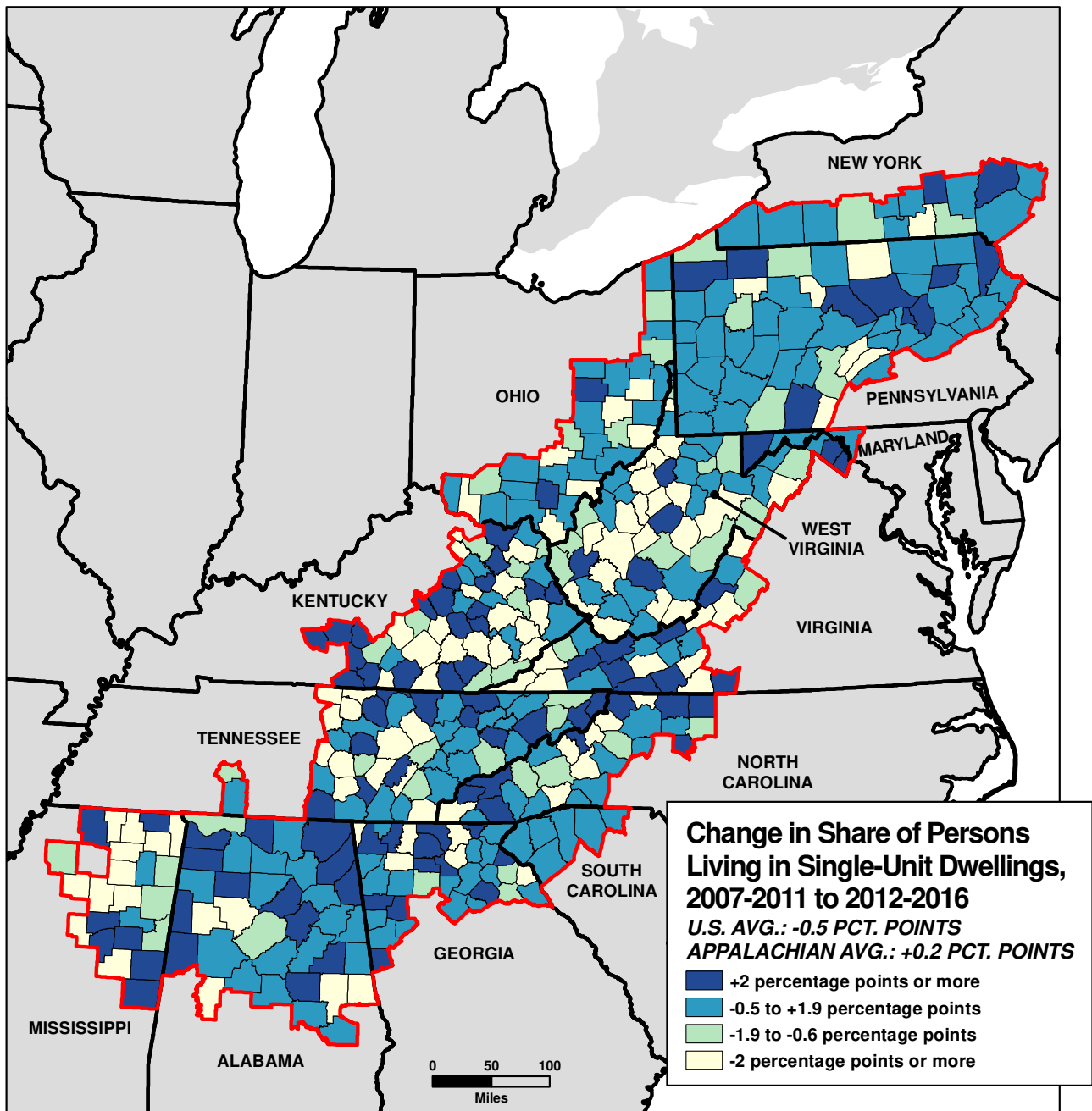
In the Appalachian Region, the share of persons living in family households fell more than half a percentage point between 2007-2011 and 2012-2016—slightly more than in the nation as a whole. And the decline was even greater in parts of Appalachia: In 100 counties, the share in family households dropped at least two percentage points. More than a third of these counties were in the most isolated rural areas, which had the largest decline among the county types (more than a full percentage point). The decline in the share of residents in married-couple households has fueled this drop; the percentage of persons in married-couple households in Appalachia fell nearly two points—more than a full point more than the decline for all family households. Yet the declining prevalence of family households was not universal: there were 57 Appalachian counties where the share increased by at least a full percentage point.

Table 4.8: Percentage Point Change in the Share of Population in Occupied Housing Units in the Appalachian Region, by Type of Housing, 2007-2011 to 2012-2016

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	- 0.5	+ 0.7	+ 0.1	+ 0.7	- 0.2	+ 0.0
Appalachian Region	+ 0.2	+ 0.4	+ 0.0	+ 0.3	- 0.6	+ 0.0
Subregions						
Northern Appalachia	+ 0.3	+ 0.1	- 0.1	+ 0.2	- 0.3	+ 0.0
North Central Appalachia	- 0.4	+ 0.2	- 0.1	+ 0.4	+ 0.2	+ 0.0
Central Appalachia	- 0.2	+ 0.4	+ 0.4	+ 0.1	- 0.3	+ 0.1
South Central Appalachia	+ 0.0	+ 0.7	+ 0.2	+ 0.5	- 0.7	+ 0.1
Southern Appalachia	+ 0.7	+ 0.4	+ 0.0	+ 0.3	- 1.1	+ 0.1
County Types						
Large Metros (pop. 1 million +)	+ 0.4	+ 0.2	+ 0.1	+ 0.0	- 0.6	+ 0.0
Small Metros (pop. <1 million)	+ 0.1	+ 0.3	- 0.1	+ 0.5	- 0.5	+ 0.0
Nonmetro, Adjacent to Large Metros	+ 0.3	+ 0.3	+ 0.1	+ 0.2	- 0.6	+ 0.1
Nonmetro, Adjacent to Small Metros	+ 0.3	+ 0.2	+ 0.1	+ 0.2	- 0.5	+ 0.0
Rural (nonmetro, not adj. to a metro)	+ 0.1	+ 0.5	+ 0.1	+ 0.3	- 0.5	+ 0.1
Alabama	+ 0.1	+ 1.0	+ 0.1	+ 0.9	- 1.1	+ 0.0
Appalachian Alabama	+ 0.4	+ 1.0	+ 0.2	+ 0.7	- 1.3	+ 0.0
Non-Appalachian Alabama	- 0.4	+ 1.1	+ 0.0	+ 1.1	- 0.7	+ 0.0
Georgia	+ 0.1	+ 0.6	+ 0.0	+ 0.5	- 0.7	+ 0.1
Appalachian Georgia	+ 1.2	- 0.2	+ 0.0	- 0.2	- 1.0	+ 0.1
Non-Appalachian Georgia	- 0.3	+ 1.0	+ 0.2	+ 0.9	- 0.6	+ 0.1
Kentucky	- 0.4	+ 0.9	+ 0.4	+ 0.5	- 0.6	+ 0.0
Appalachian Kentucky	- 0.1	+ 0.7	+ 0.6	+ 0.2	- 0.6	+ 0.1
Non-Appalachian Kentucky	- 0.5	+ 0.9	+ 0.4	+ 0.6	- 0.3	+ 0.0
Maryland	- 0.7	+ 1.0	+ 0.0	+ 1.0	- 0.3	+ 0.0
Appalachian Maryland	+ 1.1	+ 0.0	- 0.5	+ 0.5	- 1.2	+ 0.0
Non-Appalachian Maryland	- 0.8	+ 1.0	+ 0.0	+ 1.0	- 0.1	+ 0.0
Mississippi	- 0.5	+ 1.3	+ 0.2	+ 1.1	- 0.7	+ 0.0
Appalachian Mississippi	- 0.7	+ 0.7	+ 0.0	+ 0.8	+ 0.0	+ 0.1
Non-Appalachian Mississippi	- 0.5	+ 1.4	+ 0.3	+ 1.1	- 0.9	- 0.1
New York	- 0.8	+ 0.8	+ 0.0	+ 0.9	- 0.1	+ 0.0
Appalachian New York	+ 0.0	+ 0.4	+ 0.1	+ 0.3	- 0.3	+ 0.0
Non-Appalachian New York	- 0.8	+ 0.9	+ 0.0	+ 0.9	- 0.1	+ 0.0
North Carolina	- 0.1	+ 0.9	+ 0.0	+ 0.9	- 0.8	+ 0.0
Appalachian North Carolina	- 0.2	+ 0.7	+ 0.2	+ 0.5	- 0.5	+ 0.0
Non-Appalachian North Carolina	- 0.1	+ 0.9	- 0.1	+ 1.0	- 0.8	+ 0.0
Ohio	- 0.5	+ 0.5	+ 0.0	+ 0.5	- 0.1	+ 0.0
Appalachian Ohio	- 0.2	+ 0.3	+ 0.0	+ 0.3	- 0.1	+ 0.0
Non-Appalachian Ohio	- 0.5	+ 0.6	+ 0.0	+ 0.5	- 0.1	+ 0.0
Pennsylvania	+ 0.0	+ 0.2	+ 0.0	+ 0.2	- 0.2	+ 0.0
Appalachian Pennsylvania	+ 0.5	- 0.1	- 0.2	+ 0.1	- 0.4	+ 0.0
Non-Appalachian Pennsylvania	- 0.5	+ 0.5	+ 0.1	+ 0.4	+ 0.0	+ 0.0
South Carolina	+ 0.7	+ 0.6	+ 0.0	+ 0.6	- 1.3	- 0.1
Appalachian South Carolina	+ 0.8	+ 0.3	- 0.1	+ 0.4	- 1.1	- 0.1
Non-Appalachian South Carolina	+ 0.6	+ 0.7	+ 0.0	+ 0.8	- 1.4	- 0.1
Tennessee	- 0.4	+ 0.9	+ 0.3	+ 0.7	- 0.6	+ 0.1
Appalachian Tennessee	+ 0.2	+ 0.6	+ 0.1	+ 0.5	- 0.8	+ 0.1
Non-Appalachian Tennessee	- 0.8	+ 1.1	+ 0.3	+ 0.8	- 0.4	+ 0.0
Virginia	- 0.6	+ 1.0	+ 0.2	+ 0.9	- 0.5	+ 0.0
Appalachian Virginia	+ 0.0	+ 0.8	+ 0.3	+ 0.4	- 0.8	+ 0.0
Non-Appalachian Virginia	- 0.7	+ 0.9	+ 0.1	+ 0.8	- 0.3	+ 0.0
West Virginia (entire state)	- 0.6	+ 0.3	- 0.2	+ 0.4	+ 0.4	+ 0.0

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 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), 2007-2011 to 2012-2016



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), 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Contrary to the national trend, the share of Appalachian residents living in single-unit homes was slightly higher in 2012-2016 than in 2007-2011. And in 101 of the Region's 420 counties, the share actually increased two percentage points or more. One-fourth of these counties were in either Georgia or Alabama; the share in Appalachian Georgia rose more than a full percentage point. However, the share living in single-unit dwellings declined at least two percentage points in another 101 counties—one-third of which were in Kentucky or West Virginia. (The share fell more than half a percentage point in West Virginia alone.) 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 0.6 points from 2007-2011 and 2012-2016.

TRENDS IN HOUSING OCCUPANCY, TENURE, AND TYPE

- At just over 85 percent in 2012-2016, Appalachia's home occupancy rate is half a percentage point lower than it was in 2007-2011 (see Tables 4.1 and 4.2). This decrease was present among all subregions except Southern Appalachia, all county types except the ones in large metropolitan areas, and the Appalachian portions of every state except Georgia, Kentucky, and South Carolina. And although the dip suggests that occupancy rates in the Region (in contrast to the nation as a whole) have not yet returned to pre-recession levels, other factors might be at play—for example, the displacement caused by severe weather events like the April 2011 Super Outbreak of tornadoes that devastated parts of Mississippi, Alabama, Georgia, and Tennessee.
- One factor behind the decline in Appalachia's occupancy rates from 2007-2011 to 2012-2016 might be an increase in the percentage of vacant units that were designated for seasonal or occasional use. Between the two periods, the share of such units rose more than a full percentage point in Appalachia—and was higher in nearly half of the 256 Appalachian counties where the overall vacancy rates increased.
- Homeownership rates in Appalachia fell nearly two percentage points between 2007-2011 and 2012-2016. Among subregions, the declines were greatest in South Central and Southern Appalachia, while there was an urban/rural pattern among county types (with the drop in homeownership being greatest among counties in large metropolitan areas). As with the drop in the occupancy rate, the decrease in homeownership partly suggests the continued effects of the 2007-2009 recession and the slow economic recovery that has followed.
- Single-unit dwellings accounted for 73 percent of Appalachia's housing stock in 2012-2016, which represents a slight increase from 2007-2011 (see Tables 4.3 and 4.6). Within the Region, the share increased for all county types and all subregions except Central Appalachia, which showed no change. The greatest increases were in Northern Appalachia and counties in large metro areas; the share increased by 0.7 points in both cases. The share also increased in the Appalachian section of most states, particularly in Maryland, Georgia, Pennsylvania, and South Carolina. But the share did fall in some states—in Mississippi, for example, the percentage dropped a full point. 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 by half a percentage point overall since 2007-2011, with slightly larger drops in the South Central and Southern subregions.
- At just under 81 percent, the share of Appalachian residents living in family households was 0.6 percentage points lower in 2012-2016 than in 2007-2011 (see Tables 4.4 and 4.7). Except for Georgia's Appalachian section (where there was no change), the decline was present throughout the Region. The greatest drops—at least a full percentage point in most cases—were in Northern and Central Appalachia, the most rural counties, and the Appalachian sections of Kentucky, Mississippi, New York, Pennsylvania, and Virginia. The decline in the percentage of persons in married-couple households has fueled the drop overall; the share of persons in married-couple households in Appalachia fell nearly two percentage points.
- The share of Appalachian residents living in single-unit homes was 77 percent in 2012-2016, slightly higher than in 2007-2011 (see Tables 4.5 and 4.8). But this modest increase was not present throughout the Region. For example, although the share increased more than half a percentage point in Southern Appalachia (and a full percentage point in Georgia's Appalachian section), it stayed the same in South Central Appalachia and fell slightly in North Central and Central Appalachia. And increases in Georgia, Maryland, Pennsylvania, and South Carolina were offset by declines in Mississippi, North Carolina, Ohio, and West Virginia. 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 2012-2016 was 0.6 percentage points lower than it was in 2007-2011.

CHAPTER 5: EDUCATION

Table 5.1: Educational Attainment of Persons Ages 25 and Over in the Appalachian Region, 2012-2016

Education (Highest Level Attained)	Total Population Ages 25 and Over, 2012-2016	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	Bachelor's Degree or More
United States	213,649,147	13.0	87.0	48.5	8.2	30.3
Appalachian Region	17,493,439	14.1	85.9	54.4	8.3	23.2
Subregions						
Northern Appalachia	5,815,052	10.0	90.0	56.4	9.3	24.3
North Central Appalachia	1,676,481	13.9	86.1	58.8	7.7	19.7
Central Appalachia	1,317,638	22.7	77.3	57.2	6.6	13.6
South Central Appalachia	3,339,482	15.0	85.0	53.2	8.1	23.7
Southern Appalachia	5,344,786	15.8	84.2	51.0	8.1	25.1
County Types						
Large Metros (pop. 1 million +)	4,093,553	10.4	89.6	50.2	8.7	30.6
Small Metros (pop. <1 million)	7,367,401	13.2	86.8	53.9	8.3	24.6
Nonmetro, Adjacent to Large Metros	1,505,524	15.6	84.4	58.9	8.6	16.9
Nonmetro, Adjacent to Small Metros	2,788,028	16.9	83.1	58.8	8.0	16.3
Rural (nonmetro, not adj. to a metro)	1,738,933	20.4	79.6	55.9	7.7	16.0
Alabama	3,261,408	15.2	84.8	52.9	7.9	24.0
Appalachian Alabama	2,103,294	15.2	84.8	52.3	7.9	24.6
Non-Appalachian Alabama	1,158,114	15.3	84.7	53.8	8.0	22.9
Georgia	6,589,462	14.2	85.8	49.1	7.4	29.4
Appalachian Georgia	2,012,094	15.9	84.1	49.9	7.6	26.5
Non-Appalachian Georgia	4,577,368	13.4	86.6	48.7	7.2	30.7
Kentucky	2,970,073	15.4	84.6	54.2	7.8	22.7
Appalachian Kentucky	805,730	22.8	77.2	56.1	6.7	14.3
Non-Appalachian Kentucky	2,164,343	12.6	87.4	53.4	8.2	25.8
Maryland	4,052,639	10.4	89.6	44.8	6.4	38.4
Appalachian Maryland	175,767	12.3	87.7	60.2	8.1	19.4
Non-Appalachian Maryland	3,876,872	10.3	89.7	44.1	6.3	39.3
Mississippi	1,949,683	17.0	83.0	53.2	8.7	21.0
Appalachian Mississippi	410,898	20.3	79.7	53.3	8.3	18.1
Non-Appalachian Mississippi	1,538,785	16.2	83.8	53.2	8.9	21.8
New York	13,504,083	14.1	85.9	42.6	8.6	34.7
Appalachian New York	701,213	10.3	89.7	52.0	12.1	25.6
Non-Appalachian New York	12,802,870	14.3	85.7	42.0	8.4	35.2
North Carolina	6,684,672	13.7	86.3	48.2	9.1	29.0
Appalachian North Carolina	1,212,422	15.2	84.8	50.2	9.2	25.4
Non-Appalachian North Carolina	5,472,250	13.4	86.6	47.7	9.1	29.8
Ohio	7,848,046	10.5	89.5	54.4	8.4	26.7
Appalachian Ohio	1,390,455	13.3	86.7	61.0	8.6	17.1
Non-Appalachian Ohio	6,457,591	9.9	90.1	53.0	8.4	28.7
Pennsylvania	8,849,846	10.5	89.5	52.2	8.0	29.3
Appalachian Pennsylvania	4,062,266	9.3	90.7	55.8	9.1	25.8
Non-Appalachian Pennsylvania	4,787,580	11.4	88.6	49.1	7.2	32.3
South Carolina	3,269,424	14.0	86.0	50.4	9.1	26.5
Appalachian South Carolina	818,500	15.2	84.8	49.3	9.4	26.2
Non-Appalachian South Carolina	2,450,924	13.5	86.5	50.8	9.1	26.6
Tennessee	4,427,340	14.0	86.0	53.8	6.8	25.4
Appalachian Tennessee	1,974,895	15.5	84.5	55.7	7.0	21.7
Non-Appalachian Tennessee	2,452,445	12.8	87.2	52.3	6.6	28.3
Virginia	5,621,010	11.4	88.6	44.4	7.4	36.9
Appalachian Virginia	528,787	17.8	82.2	54.1	8.5	19.7
Non-Appalachian Virginia	5,092,223	10.7	89.3	43.4	7.2	38.7
West Virginia (entire state)	1,297,118	14.7	85.3	59.0	6.8	19.6

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Table 5.2: Educational Attainment of Persons Ages 25 to 64 in the Appalachian Region, 2012-2016

Education (Highest Level Attained)	Total Population Ages 25-64, 2012-2016	Percent of Population Ages 25-64				
		Less than High School Diploma	High School Diploma or More			
			Total	H.S. Grad, No Postsecondary Degree	Associate's Degree	Bachelor's Degree or More
United States	167,468,515	11.6	88.4	47.7	8.9	31.8
Appalachian Region	13,228,268	11.8	88.2	53.9	9.5	24.8
Subregions						
Northern Appalachia	4,305,907	7.9	92.1	54.5	10.9	26.7
North Central Appalachia	1,264,342	11.1	88.9	58.8	8.9	21.3
Central Appalachia	997,363	17.9	82.1	60.0	7.7	14.4
South Central Appalachia	2,463,010	12.5	87.5	53.5	9.2	24.8
Southern Appalachia	4,197,646	14.1	85.9	50.6	8.9	26.4
County Types						
Large Metros (pop. 1 million +)	3,208,687	8.8	91.2	48.3	9.8	33.1
Small Metros (pop. <1 million)	5,567,260	11.2	88.8	53.2	9.4	26.2
Nonmetro, Adjacent to Large Metros	1,124,566	13.3	86.7	59.0	10.0	17.7
Nonmetro, Adjacent to Small Metros	2,036,666	14.1	85.9	59.6	9.4	17.0
Rural (nonmetro, not adj. to a metro)	1,291,089	17.0	83.0	57.4	9.0	16.6
Alabama	2,519,014	13.3	86.7	52.6	8.9	25.2
Appalachian Alabama	1,627,542	13.4	86.6	51.8	8.9	26.0
Non-Appalachian Alabama	891,472	13.2	86.8	54.1	9.0	23.7
Georgia	5,343,167	12.6	87.4	48.6	8.0	30.8
Appalachian Georgia	1,626,740	14.6	85.4	49.3	8.3	27.8
Non-Appalachian Georgia	3,716,427	11.7	88.3	48.3	7.8	32.1
Kentucky	2,317,073	12.5	87.5	54.4	8.9	24.2
Appalachian Kentucky	616,022	18.3	81.7	58.6	7.9	15.2
Non-Appalachian Kentucky	1,701,051	10.4	89.6	52.9	9.2	27.5
Maryland	3,232,589	9.0	91.0	44.1	6.9	40.1
Appalachian Maryland	132,307	10.2	89.8	59.7	9.4	20.7
Non-Appalachian Maryland	3,100,282	8.9	91.1	43.4	6.8	40.9
Mississippi	1,523,051	14.7	85.3	53.8	9.9	21.6
Appalachian Mississippi	313,765	17.6	82.4	54.1	9.7	18.6
Non-Appalachian Mississippi	1,209,286	14.0	86.0	53.7	10.0	22.4
New York	10,610,282	12.1	87.9	41.3	9.5	37.1
Appalachian New York	520,260	8.6	91.4	50.8	13.7	26.9
Non-Appalachian New York	10,090,022	12.3	87.7	40.9	9.3	37.6
North Carolina	5,225,342	12.0	88.0	47.5	9.9	30.6
Appalachian North Carolina	886,378	13.3	86.7	50.1	10.4	26.1
Non-Appalachian North Carolina	4,338,964	11.7	88.3	46.9	9.8	31.5
Ohio	6,051,709	8.7	91.3	53.1	9.6	28.7
Appalachian Ohio	1,042,671	11.2	88.8	60.2	10.1	18.4
Non-Appalachian Ohio	5,009,038	8.2	91.8	51.6	9.4	30.8
Pennsylvania	6,716,599	8.3	91.7	50.4	9.2	32.1
Appalachian Pennsylvania	3,008,303	7.1	92.9	53.5	10.7	28.7
Non-Appalachian Pennsylvania	3,708,296	9.4	90.6	47.8	8.0	34.8
South Carolina	2,507,744	12.1	87.9	50.6	10.0	27.3
Appalachian South Carolina	629,599	13.1	86.9	49.1	10.2	27.6
Non-Appalachian South Carolina	1,878,145	11.7	88.3	51.1	9.9	27.2
Tennessee	3,442,891	11.6	88.4	53.9	7.6	26.9
Appalachian Tennessee	1,469,459	12.5	87.5	56.6	8.0	22.9
Non-Appalachian Tennessee	1,973,432	10.9	89.1	51.9	7.3	30.0
Virginia	4,476,193	9.4	90.6	43.8	7.9	38.9
Appalachian Virginia	386,228	13.3	86.7	55.4	9.7	21.6
Non-Appalachian Virginia	4,089,965	9.0	91.0	42.7	7.8	40.5
West Virginia (entire state)	968,994	11.6	88.4	59.3	7.8	21.2

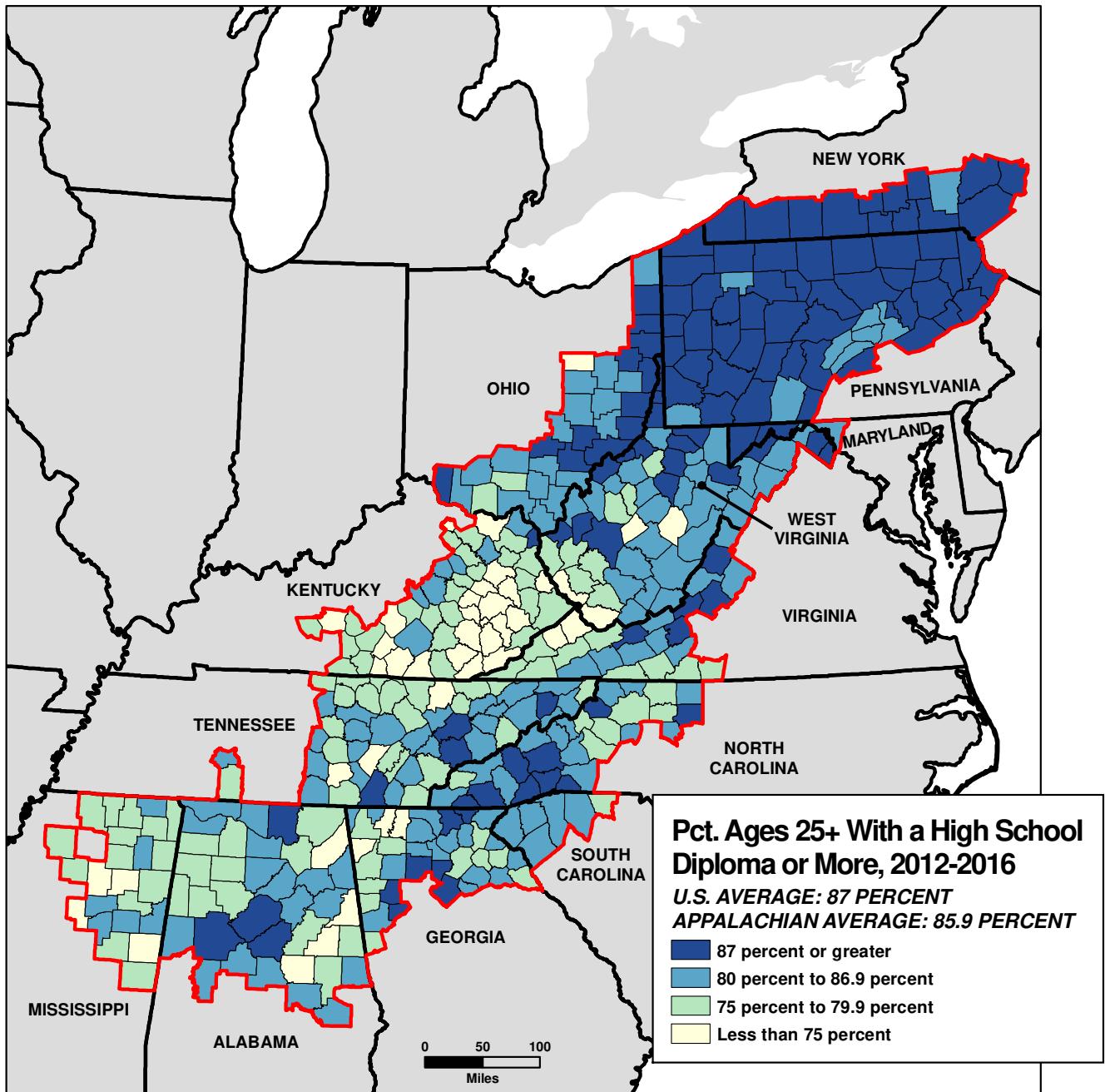
Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Table 5.3: Educational Attainment of Persons Ages 65 and Over in the Appalachian Region, 2012-2016

Education (Highest Level Attained)	Total Population Ages 65 and Over, 2012-2016	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	Bachelor's Degree or More
United States	46,180,632	18.1	81.9	51.5	5.4	25.0
Appalachian Region	4,265,171	21.2	78.8	56.1	4.6	18.1
Subregions						
Northern Appalachia	1,509,145	16.0	84.0	61.9	4.6	17.4
North Central Appalachia	412,139	22.5	77.5	58.8	4.0	14.8
Central Appalachia	320,275	37.5	62.5	48.3	2.9	11.2
South Central Appalachia	876,472	22.2	77.8	52.3	5.1	20.4
Southern Appalachia	1,147,140	22.1	77.9	52.6	5.0	20.4
County Types						
Large Metros (pop. 1 million +)	884,866	16.1	83.9	57.2	4.9	21.7
Small Metros (pop. <1 million)	1,800,141	19.6	80.4	56.0	4.8	19.6
Nonmetro, Adjacent to Large Metros	380,958	22.4	77.6	58.7	4.4	14.5
Nonmetro, Adjacent to Small Metros	751,362	24.8	75.2	56.5	4.3	14.3
Rural (nonmetro, not adj. to a metro)	447,844	30.3	69.7	51.4	3.9	14.3
Alabama	742,394	21.6	78.4	53.7	4.6	20.1
Appalachian Alabama	475,752	21.3	78.7	54.1	4.6	20.0
Non-Appalachian Alabama	266,642	22.1	77.9	53.1	4.6	20.2
Georgia	1,246,295	20.7	79.3	51.0	4.8	23.5
Appalachian Georgia	385,354	21.2	78.8	52.5	4.9	21.3
Non-Appalachian Georgia	860,941	20.5	79.5	50.3	4.7	24.5
Kentucky	653,000	25.6	74.4	53.1	3.9	17.3
Appalachian Kentucky	189,708	37.6	62.4	47.9	2.8	11.6
Non-Appalachian Kentucky	463,292	20.7	79.3	55.3	4.3	19.7
Maryland	820,050	15.9	84.1	47.6	4.6	31.9
Appalachian Maryland	43,460	18.7	81.3	61.8	4.2	15.4
Non-Appalachian Maryland	776,590	15.8	84.2	46.8	4.6	32.8
Mississippi	426,632	25.3	74.7	51.1	4.5	19.0
Appalachian Mississippi	97,133	29.2	70.8	50.8	3.7	16.3
Non-Appalachian Mississippi	329,499	24.2	75.8	51.2	4.8	19.8
New York	2,893,801	21.3	78.7	47.0	5.5	26.2
Appalachian New York	180,953	15.0	85.0	55.3	7.6	22.1
Non-Appalachian New York	2,712,848	21.7	78.3	46.5	5.4	26.5
North Carolina	1,459,330	19.8	80.2	50.8	6.1	23.3
Appalachian North Carolina	326,044	20.1	79.9	50.6	5.7	23.6
Non-Appalachian North Carolina	1,133,286	19.7	80.3	50.8	6.2	23.2
Ohio	1,796,337	16.7	83.3	59.0	4.5	19.8
Appalachian Ohio	347,784	19.6	80.4	63.2	3.9	13.3
Non-Appalachian Ohio	1,448,553	16.0	84.0	58.0	4.6	21.4
Pennsylvania	2,133,247	17.1	82.9	57.8	4.4	20.7
Appalachian Pennsylvania	1,053,963	15.8	84.2	62.3	4.4	17.6
Non-Appalachian Pennsylvania	1,079,284	18.5	81.5	53.4	4.4	23.8
South Carolina	761,680	20.1	79.9	49.9	6.4	23.6
Appalachian South Carolina	188,901	22.3	77.7	49.7	6.6	21.5
Non-Appalachian South Carolina	572,779	19.4	80.6	49.9	6.3	24.3
Tennessee	984,449	22.6	77.4	53.6	4.1	19.8
Appalachian Tennessee	505,436	24.2	75.8	53.2	4.3	18.3
Non-Appalachian Tennessee	479,013	20.8	79.2	54.0	3.8	21.3
Virginia	1,144,817	19.0	81.0	46.9	5.1	29.0
Appalachian Virginia	142,559	29.9	70.1	50.4	5.3	14.5
Non-Appalachian Virginia	1,002,258	17.5	82.5	46.3	5.1	31.1
West Virginia (entire state)	328,124	23.6	76.4	58.0	3.7	14.7

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

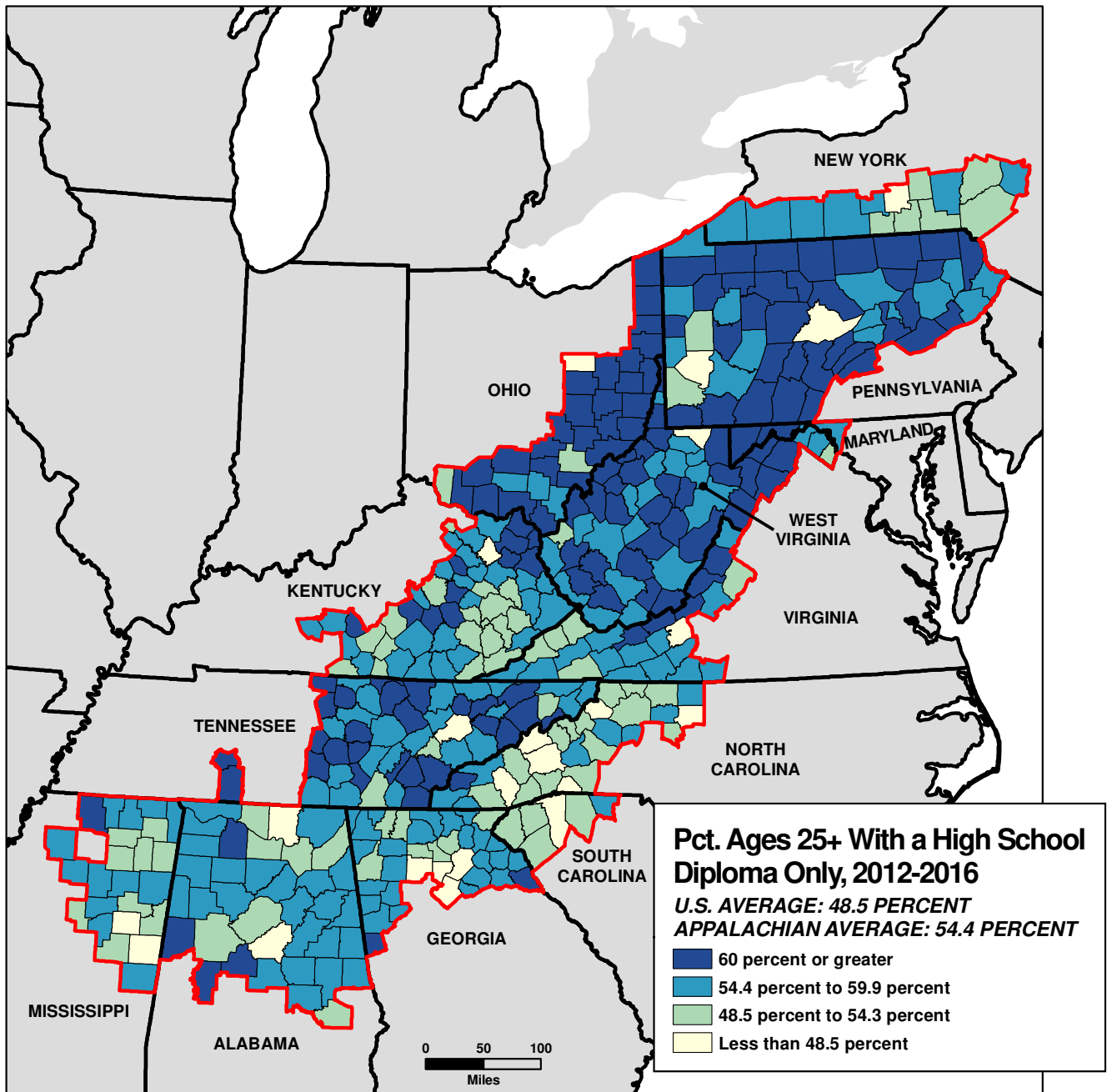
Figure 5.1: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2012-2016



Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Although the share of Appalachian adults with at least a high school diploma was slightly below the national average over the 2012-2016 period, it matched or exceeded the national share in 119 counties in the Region—100 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 91 percent and 90 percent, respectively. Yet in 43 counties, less than three-fourths of adults had completed high school; all but three of those counties were in Central, South Central, and Southern Appalachia, and 39 were outside metropolitan areas. More than half of these 43 counties were in Kentucky alone; just 77 percent of adults in the state’s Appalachian counties had a high school diploma or more in 2012-2016.

Figure 5.2: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2012-2016

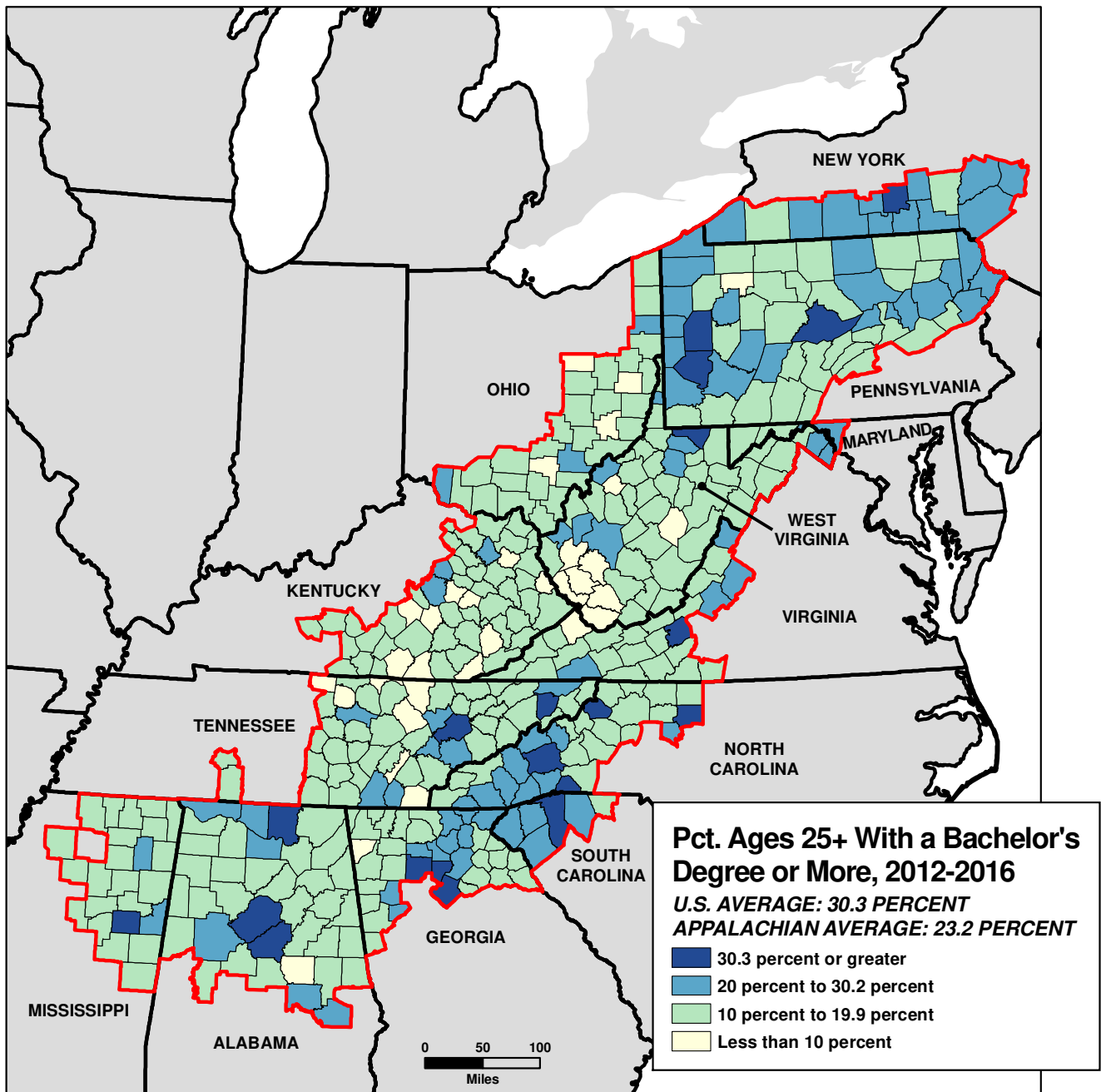


Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

During the 2012-2016 period, 54 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 144 of the Region’s 420 counties—116 of which were in four states: Ohio, Pennsylvania, Tennessee, and West Virginia. Many of these adults had attended college but did not graduate, while others acquired vocational training. Conversely, nearly 32 percent of adults in Appalachia did earn an associate’s or bachelor’s degree, while 14 percent never finished high school.

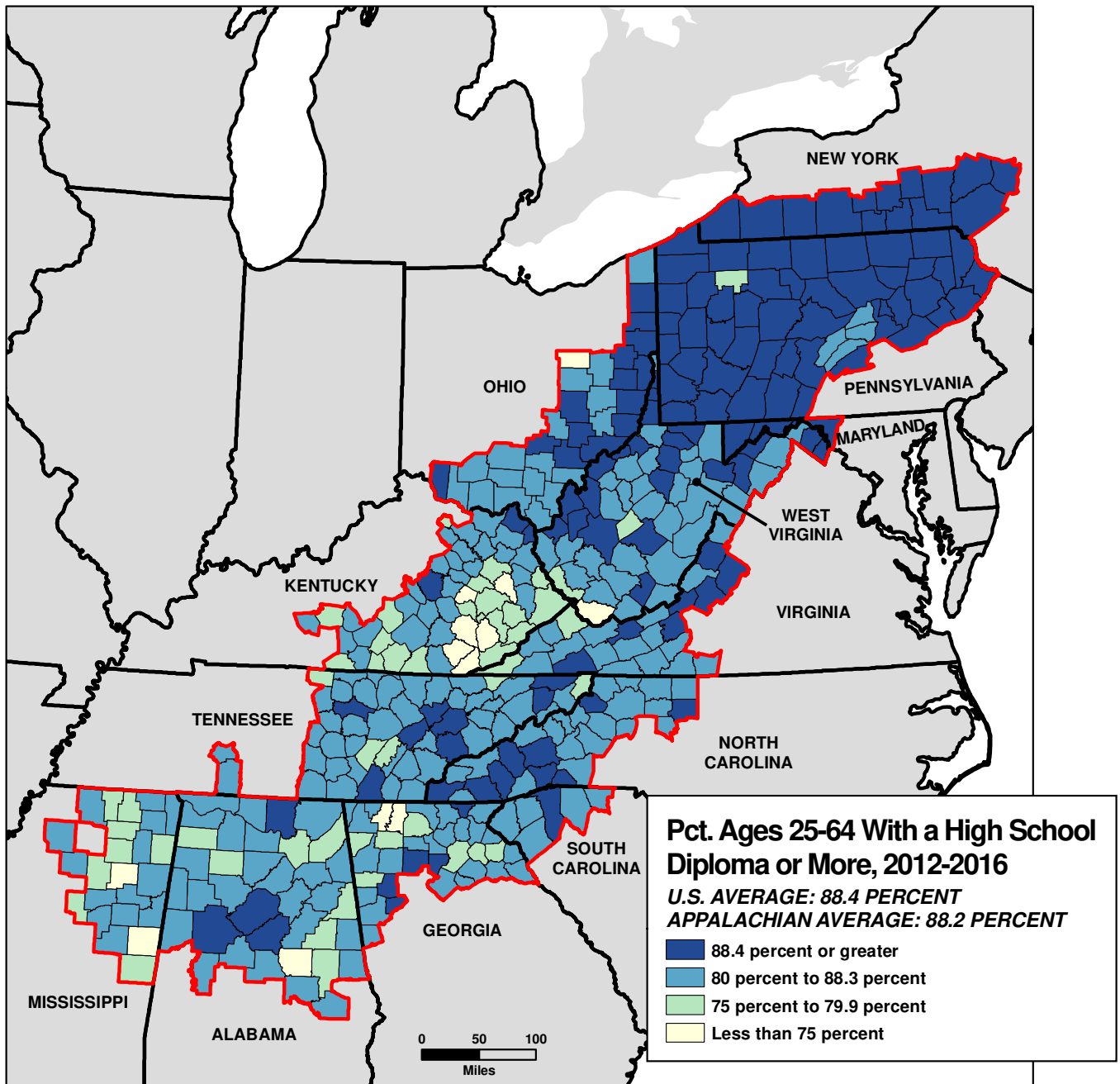
Figure 5.3: Percent of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016



Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

The share of adults ages 25 and over with a bachelor's degree or more was seven percentage points lower in Appalachia during the 2012-2016 period than in the nation as a whole. Indeed, the rate was lower than the national average in 400 of the Region's 420 counties. In fact, less than one in five residents ages 25 and over were graduates of a four-year college or university in 311 Appalachian counties. And in 33 counties—all but two of which were either outside metropolitan areas or in Central Appalachia—the share was less than one in 10. The 20 counties where the percentage of college graduates matched or surpassed the national average were mostly in metro areas (e.g., Pittsburgh, Birmingham, suburban Atlanta) or home to a college or university (such as Knox County, Tennessee, where the University of Tennessee is located).

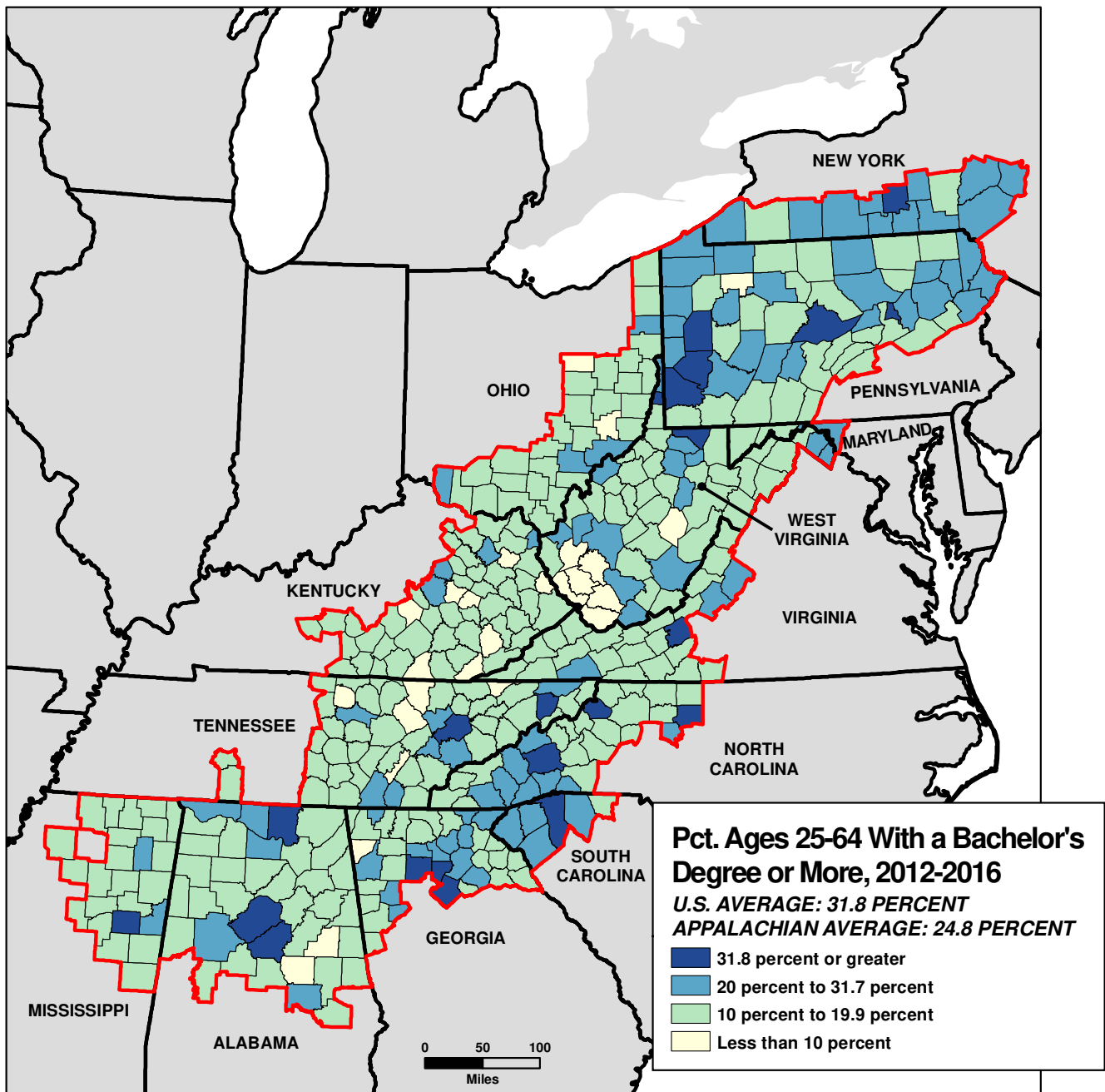
Figure 5.4: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma or More, 2012-2016



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma or More, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In 2012-2016, the percentage of working-age adults (ages 25 to 64) in the Appalachian Region with at least a high school diploma was almost at the national average of just over 88 percent, and the share matched or exceeded the national rate in 137 counties. Slightly more than half of these counties were in metropolitan areas, and most were in Northern or North Central Appalachia. Nearly half of these counties were in New York or Pennsylvania; the share of working-age adults with a high school diploma or more exceeded 90 percent in both states. (The share also approached 90 percent in Appalachian Maryland; all three of the state's counties in the Region matched or exceeded the national average.) At the other end of the spectrum, less than three-fourths of working-age adults had finished high school in 13 Appalachian counties. Almost all of these counties were outside metropolitan areas, and almost half were in Kentucky alone.

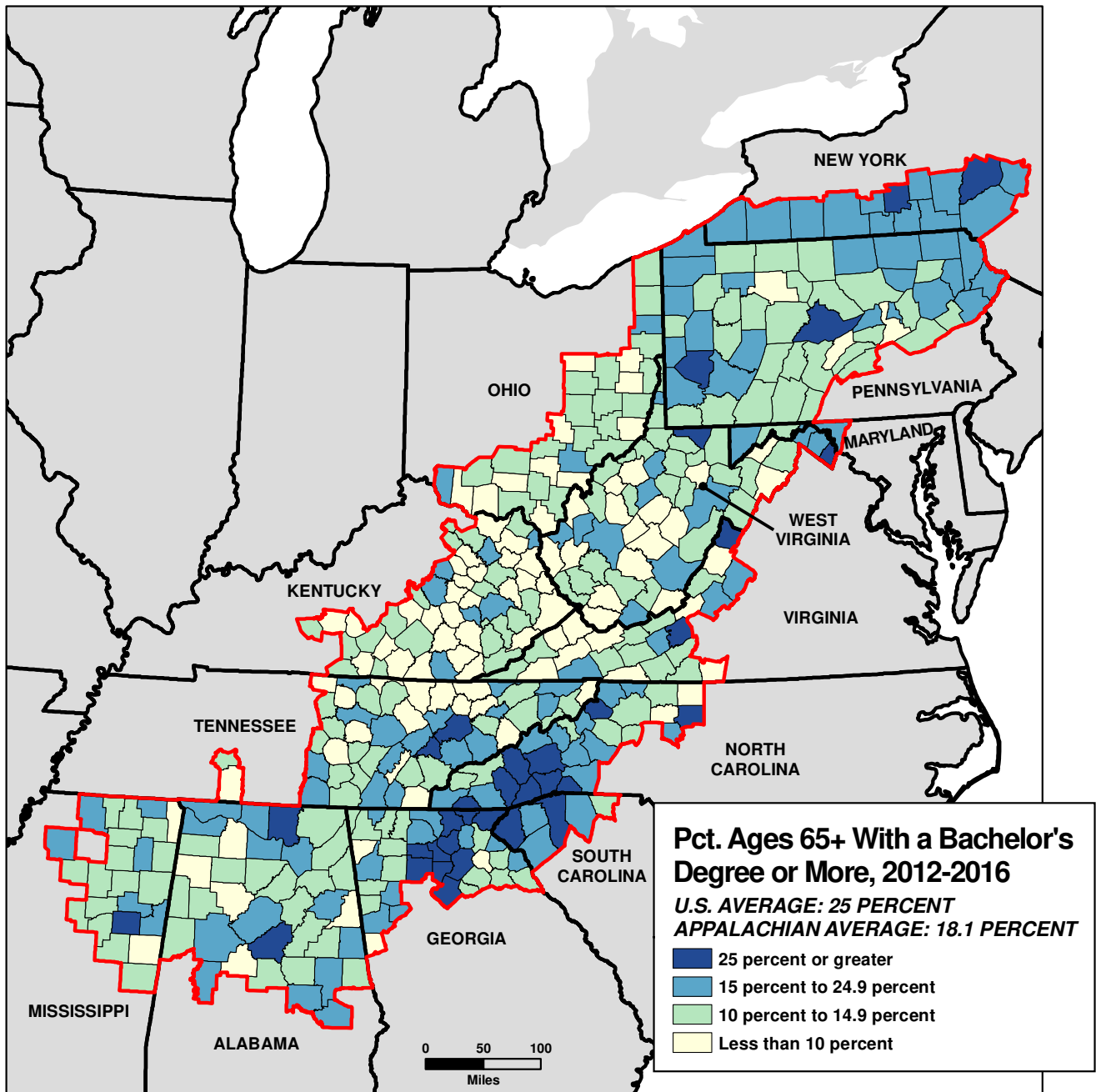
Figure 5.5: Percent of Persons Ages 25 to 64 in the Appalachian Region With a Bachelor's Degree or More, 2012-2016



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a Bachelor's Degree or More, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Just under 25 percent of Appalachia's working-age population had a bachelor's degree or more in 2012-2016—seven percentage points lower than the U.S. average of 32 percent. This is a striking indicator of the lower educational level of the Appalachian workforce. Indeed, just 14 percent of working-age adults in Central Appalachia had a bachelor's degree, as did less than 18 percent of residents of Appalachian counties lying outside of metro areas. There were only 22 Appalachian counties—all in metro areas (e.g., suburban Atlanta) and several that house a four-year college or university (such as Tompkins County, New York, home to Cornell University and Ithaca College)—where the share of working-age adults ages 25 to 64 with at least a bachelor's degree matched or exceeded the national average. In contrast, less than one in 10 adults had a four-year degree in 26 counties. Of the counties in this latter group, 23 were outside metropolitan areas, suggesting a lack of employment opportunities for college-educated adults.

Figure 5.6: Percent of Persons Ages 65 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

While one in four older Americans (ages 65 and over) had at least a bachelor's degree in 2012-2016, less than one in 10 had one in 96 of Appalachia's 420 counties. (And in most of these counties, less than two-thirds of older adults had completed high school.) Three-fourths of these counties were outside metropolitan areas, and nearly half were in Central Appalachia—Kentucky alone had 28 of these counties. Yet in 34 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 Watauga County, North Carolina, home of Appalachian State 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 Rabun, Towns, and Union counties in Georgia, home of the Chattahoochee-Oconee National Forest).

Table 5.4: Percentage Point Change in Educational Attainment of Persons Ages 25 and Over in the Appalachian Region, 2007-2011 to 2012-2016

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	Bachelor's Degree or More
United States	- 1.6	+ 1.6	- 1.1	+ 0.6	+ 2.1
Appalachian Region	- 2.4	+ 2.4	- 0.6	+ 0.8	+ 2.2
Subregions					
Northern Appalachia	- 1.8	+ 1.8	- 1.5	+ 0.9	+ 2.4
North Central Appalachia	- 2.6	+ 2.6	- 0.5	+ 1.2	+ 2.0
Central Appalachia	- 4.5	+ 4.5	+ 2.2	+ 0.9	+ 1.4
South Central Appalachia	- 2.8	+ 2.8	+ 0.0	+ 0.7	+ 2.0
Southern Appalachia	- 2.5	+ 2.5	- 0.5	+ 0.9	+ 2.1
County Types					
Large Metros (pop. 1 million +)	- 1.8	+ 1.8	- 1.7	+ 0.7	+ 2.7
Small Metros (pop. <1 million)	- 2.2	+ 2.2	- 0.7	+ 0.8	+ 2.2
Nonmetro, Adjacent to Large Metros	- 2.4	+ 2.4	+ 0.0	+ 1.0	+ 1.4
Nonmetro, Adjacent to Small Metros	- 2.8	+ 2.8	+ 0.4	+ 0.9	+ 1.5
Rural (nonmetro, not adj. to a metro)	- 3.7	+ 3.7	+ 0.9	+ 1.1	+ 1.7
Alabama	- 2.9	+ 2.9	+ 0.0	+ 0.9	+ 2.0
Appalachian Alabama	- 2.8	+ 2.8	- 0.3	+ 1.0	+ 2.1
Non-Appalachian Alabama	- 2.9	+ 2.9	+ 0.2	+ 0.8	+ 1.9
Georgia	- 1.8	+ 1.8	- 0.8	+ 0.8	+ 1.9
Appalachian Georgia	- 1.7	+ 1.7	- 0.8	+ 0.7	+ 1.7
Non-Appalachian Georgia	- 1.9	+ 1.9	- 0.8	+ 0.7	+ 2.0
Kentucky	- 2.9	+ 2.9	- 0.1	+ 1.1	+ 2.1
Appalachian Kentucky	- 4.6	+ 4.6	+ 2.0	+ 1.0	+ 1.6
Non-Appalachian Kentucky	- 2.2	+ 2.2	- 1.0	+ 1.1	+ 2.1
Maryland	- 1.4	+ 1.4	- 1.0	+ 0.1	+ 2.3
Appalachian Maryland	- 2.8	+ 2.8	+ 0.9	+ 0.4	+ 1.5
Non-Appalachian Maryland	- 1.4	+ 1.4	- 1.1	+ 0.1	+ 2.4
Mississippi	- 2.7	+ 2.7	+ 0.3	+ 0.9	+ 1.3
Appalachian Mississippi	- 2.8	+ 2.8	+ 0.0	+ 0.7	+ 2.0
Non-Appalachian Mississippi	- 2.5	+ 2.5	+ 0.4	+ 1.0	+ 1.2
New York	- 1.3	+ 1.3	- 1.3	+ 0.4	+ 2.2
Appalachian New York	- 1.4	+ 1.4	- 1.1	+ 0.7	+ 1.9
Non-Appalachian New York	- 1.3	+ 1.3	- 1.4	+ 0.3	+ 2.2
North Carolina	- 2.2	+ 2.2	- 0.9	+ 0.6	+ 2.5
Appalachian North Carolina	- 2.0	+ 2.0	- 0.9	+ 0.5	+ 2.4
Non-Appalachian North Carolina	- 2.2	+ 2.2	- 0.9	+ 0.6	+ 2.5
Ohio	- 1.7	+ 1.7	- 1.4	+ 0.9	+ 2.2
Appalachian Ohio	- 2.0	+ 2.0	- 0.9	+ 1.5	+ 1.4
Non-Appalachian Ohio	- 1.6	+ 1.6	- 1.5	+ 0.8	+ 2.3
Pennsylvania	- 1.6	+ 1.6	- 1.6	+ 0.6	+ 2.6
Appalachian Pennsylvania	- 1.8	+ 1.8	- 1.7	+ 0.9	+ 2.7
Non-Appalachian Pennsylvania	- 1.5	+ 1.5	- 1.5	+ 0.6	+ 2.5
South Carolina	- 2.4	+ 2.4	- 0.6	+ 0.7	+ 2.3
Appalachian South Carolina	- 2.6	+ 2.6	- 0.5	+ 0.7	+ 2.5
Non-Appalachian South Carolina	- 2.5	+ 2.5	- 0.6	+ 0.8	+ 2.2
Tennessee	- 2.8	+ 2.8	- 0.3	+ 0.8	+ 2.4
Appalachian Tennessee	- 3.2	+ 3.2	+ 0.6	+ 0.9	+ 1.7
Non-Appalachian Tennessee	- 2.5	+ 2.5	- 1.0	+ 0.6	+ 2.8
Virginia	- 2.0	+ 2.0	- 1.1	+ 0.7	+ 2.5
Appalachian Virginia	- 4.0	+ 4.0	+ 1.5	+ 0.5	+ 2.2
Non-Appalachian Virginia	- 1.8	+ 1.8	- 1.3	+ 0.6	+ 2.5
West Virginia (entire state)	- 2.7	+ 2.7	+ 0.0	+ 0.8	+ 2.0

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Table 5.5: Percentage Point Change in Educational Attainment of Persons Ages 25 to 64 in the Appalachian Region, 2007-2011 to 2012-2016

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

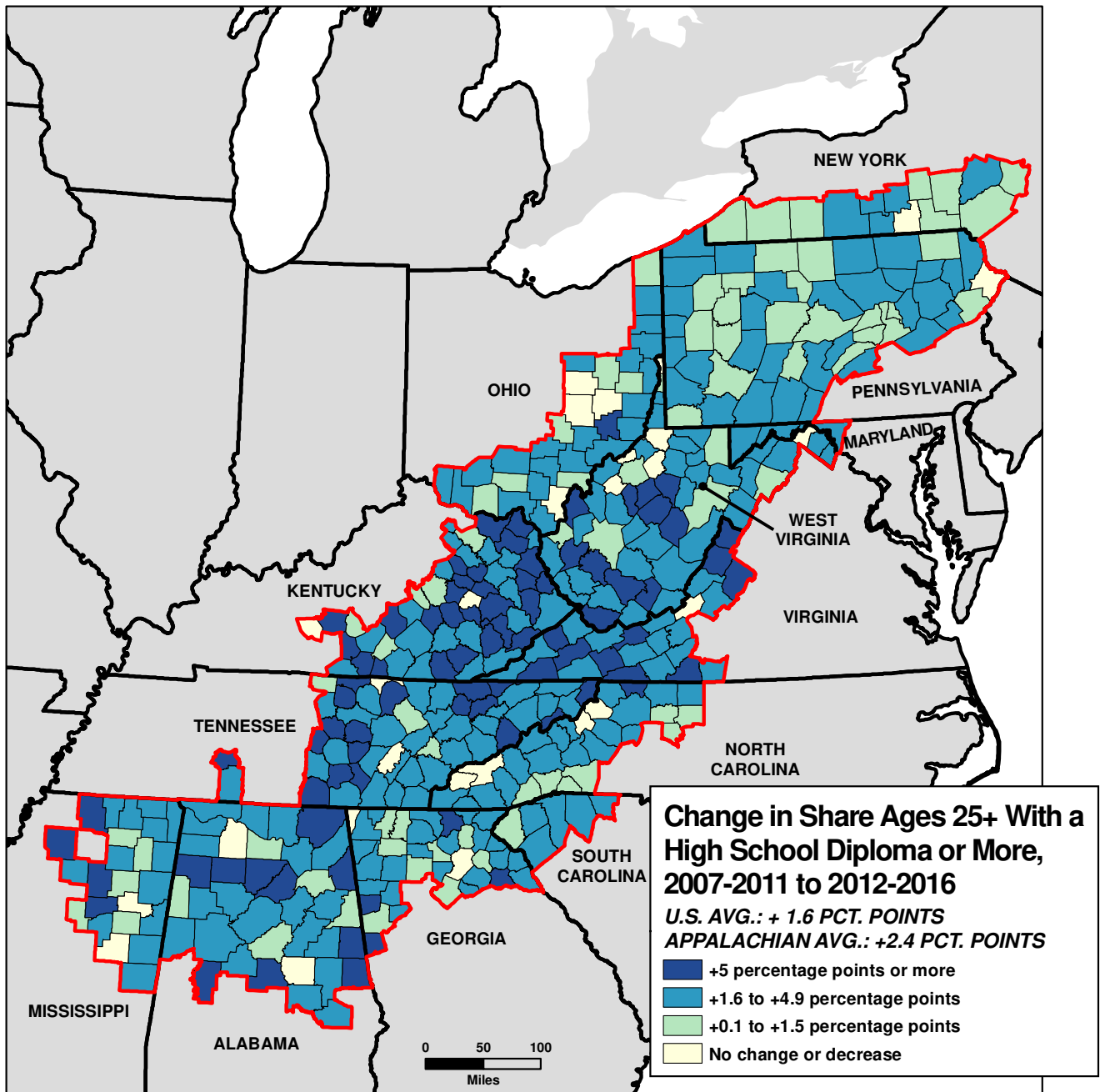
Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Table 5.6: Percentage Point Change in Educational Attainment of Persons Ages 65 and Over in the Appalachian Region, 2007-2011 to 2012-2016

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	Bachelor's Degree or More
United States	- 5.1	+ 5.1	- 0.5	+ 1.3	+ 4.3
Appalachian Region	- 7.3	+ 7.3	+ 2.0	+ 1.4	+ 3.9
Subregions					
Northern Appalachia	- 6.4	+ 6.4	+ 0.9	+ 1.4	+ 4.0
North Central Appalachia	- 7.4	+ 7.4	+ 2.8	+ 1.6	+ 3.1
Central Appalachia	- 10.3	+ 10.3	+ 6.5	+ 1.0	+ 2.8
South Central Appalachia	- 7.7	+ 7.7	+ 2.5	+ 1.6	+ 3.6
Southern Appalachia	- 7.8	+ 7.8	+ 2.2	+ 1.5	+ 4.3
County Types					
Large Metros (pop. 1 million +)	- 6.9	+ 6.9	+ 0.0	+ 1.5	+ 5.3
Small Metros (pop. <1 million)	- 6.8	+ 6.8	+ 1.5	+ 1.4	+ 3.9
Nonmetro, Adjacent to Large Metros	- 7.3	+ 7.3	+ 2.5	+ 1.5	+ 3.4
Nonmetro, Adjacent to Small Metros	- 7.7	+ 7.7	+ 3.3	+ 1.6	+ 2.7
Rural (nonmetro, not adj. to a metro)	- 9.1	+ 9.1	+ 4.6	+ 1.2	+ 3.2
Alabama	- 7.9	+ 7.9	+ 2.5	+ 1.3	+ 4.1
Appalachian Alabama	- 8.4	+ 8.4	+ 2.7	+ 1.4	+ 4.2
Non-Appalachian Alabama	- 7.1	+ 7.1	+ 2.2	+ 1.2	+ 3.7
Georgia	- 6.7	+ 6.7	+ 1.1	+ 1.1	+ 4.5
Appalachian Georgia	- 7.2	+ 7.2	+ 1.1	+ 1.3	+ 4.7
Non-Appalachian Georgia	- 6.5	+ 6.5	+ 1.0	+ 1.0	+ 4.5
Kentucky	- 9.2	+ 9.2	+ 3.9	+ 1.3	+ 3.9
Appalachian Kentucky	- 11.2	+ 11.2	+ 7.3	+ 0.9	+ 2.9
Non-Appalachian Kentucky	- 8.1	+ 8.1	+ 2.5	+ 1.4	+ 4.3
Maryland	- 5.7	+ 5.7	+ 0.1	+ 0.8	+ 4.8
Appalachian Maryland	- 8.5	+ 8.5	+ 5.0	+ 0.6	+ 2.9
Non-Appalachian Maryland	- 5.5	+ 5.5	- 0.1	+ 0.8	+ 4.8
Mississippi	- 6.6	+ 6.6	+ 1.6	+ 1.1	+ 3.7
Appalachian Mississippi	- 7.5	+ 7.5	+ 3.1	+ 0.9	+ 3.5
Non-Appalachian Mississippi	- 6.2	+ 6.2	+ 1.2	+ 1.3	+ 3.7
New York	- 4.2	+ 4.2	- 1.4	+ 1.4	+ 4.2
Appalachian New York	- 5.0	+ 5.0	- 1.7	+ 2.0	+ 4.7
Non-Appalachian New York	- 4.2	+ 4.2	- 1.3	+ 1.4	+ 4.2
North Carolina	- 7.2	+ 7.2	+ 1.6	+ 1.6	+ 4.0
Appalachian North Carolina	- 6.7	+ 6.7	+ 1.2	+ 1.4	+ 4.0
Non-Appalachian North Carolina	- 7.4	+ 7.4	+ 1.7	+ 1.7	+ 4.0
Ohio	- 5.9	+ 5.9	+ 0.8	+ 1.5	+ 3.6
Appalachian Ohio	- 7.3	+ 7.3	+ 2.4	+ 1.8	+ 3.1
Non-Appalachian Ohio	- 5.6	+ 5.6	+ 0.5	+ 1.4	+ 3.7
Pennsylvania	- 6.2	+ 6.2	+ 0.5	+ 1.3	+ 4.4
Appalachian Pennsylvania	- 6.3	+ 6.3	+ 0.9	+ 1.4	+ 4.1
Non-Appalachian Pennsylvania	- 6.0	+ 6.0	+ 0.3	+ 1.2	+ 4.7
South Carolina	- 7.2	+ 7.2	+ 2.0	+ 1.6	+ 3.6
Appalachian South Carolina	- 7.4	+ 7.4	+ 2.1	+ 1.9	+ 3.5
Non-Appalachian South Carolina	- 7.1	+ 7.1	+ 1.9	+ 1.5	+ 3.6
Tennessee	- 8.0	+ 8.0	+ 2.8	+ 1.3	+ 4.0
Appalachian Tennessee	- 7.9	+ 7.9	+ 3.1	+ 1.4	+ 3.4
Non-Appalachian Tennessee	- 8.1	+ 8.1	+ 2.4	+ 1.0	+ 4.6
Virginia	- 6.0	+ 6.0	- 0.2	+ 1.5	+ 4.7
Appalachian Virginia	- 9.7	+ 9.7	+ 4.9	+ 2.3	+ 2.5
Non-Appalachian Virginia	- 5.3	+ 5.3	- 1.0	+ 1.4	+ 4.9
West Virginia (entire state)	- 7.5	+ 7.5	+ 3.2	+ 1.1	+ 3.2

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Figure 5.7: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2007-2011 to 2012-2016

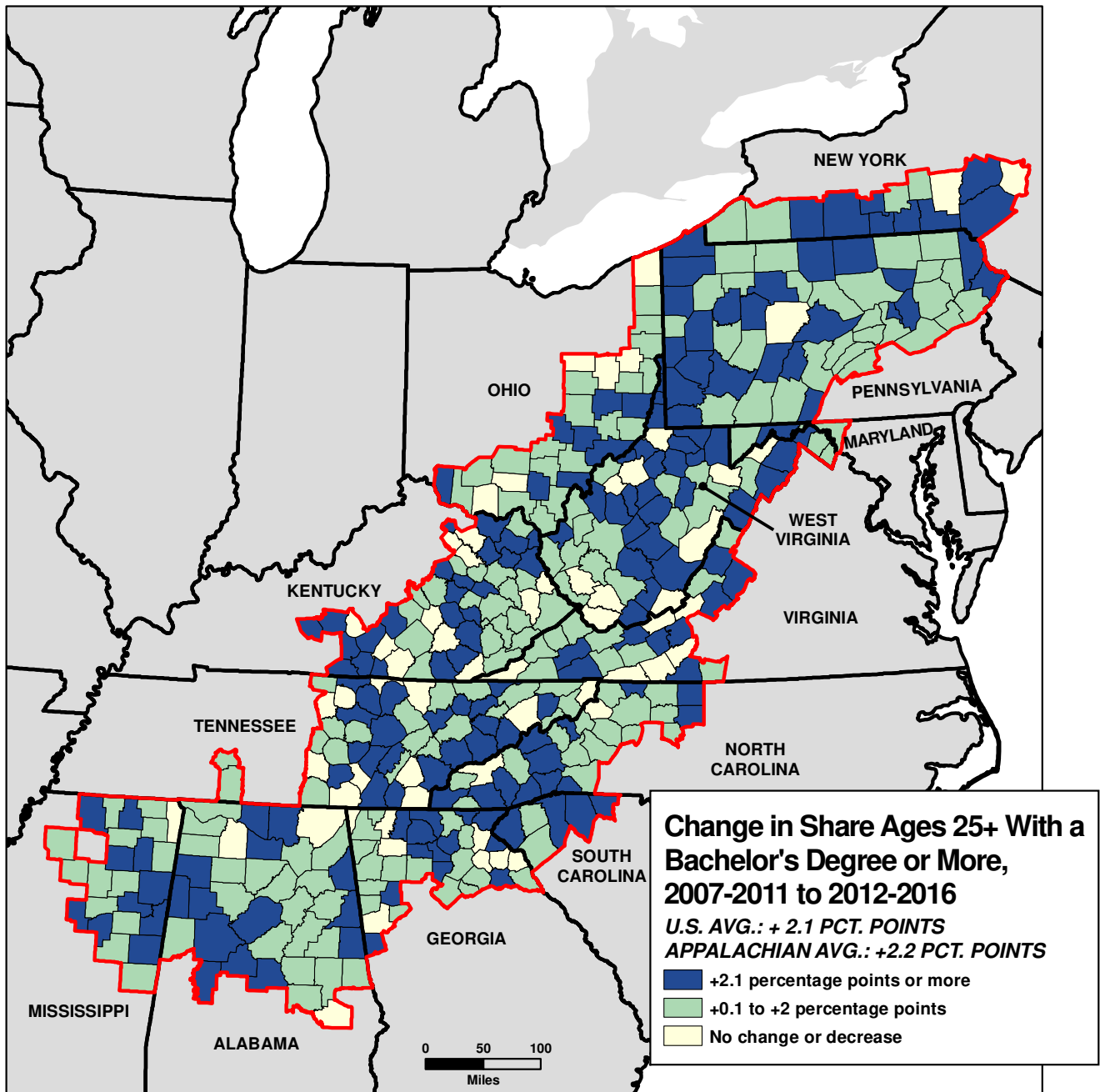


Map Title: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Since the 2007-2011 period, the share of Appalachian adults who have completed high school or more has increased more than two percentage points. This rise, which is close to a full percentage point above the national average, has continued a longstanding trend in the Region. And that increase has been even greater in some places: The share of adults with at least a high school diploma rose at least four percentage points in the Appalachian counties of Kentucky and Virginia. In 85 Appalachian counties—all but nine 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 (more than three times the national average) between 2007-2011 and 2012-2016. In most of these 85 counties, however, less than 80 percent of adult residents have completed high school.

Figure 5.8: Percentage Point Change in the Share of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2007-2011 to 2012-2016



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, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 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. Both in Appalachia and nationwide, it was more than two percentage points higher in 2012-2016 than it was in 2007-2011, suggesting a continued trend toward greater educational attainment among cohorts entering this age group. And in 176 of the Region's 420 counties (scattered throughout the Region), the increased share matched or exceeded the national average. Conversely, the share of adults ages 25 and over with at least a four-year degree either remained the same or decreased in 61 counties. While counties in the latter group were likewise spread throughout the Region, three-fourths of them were outside metropolitan areas.

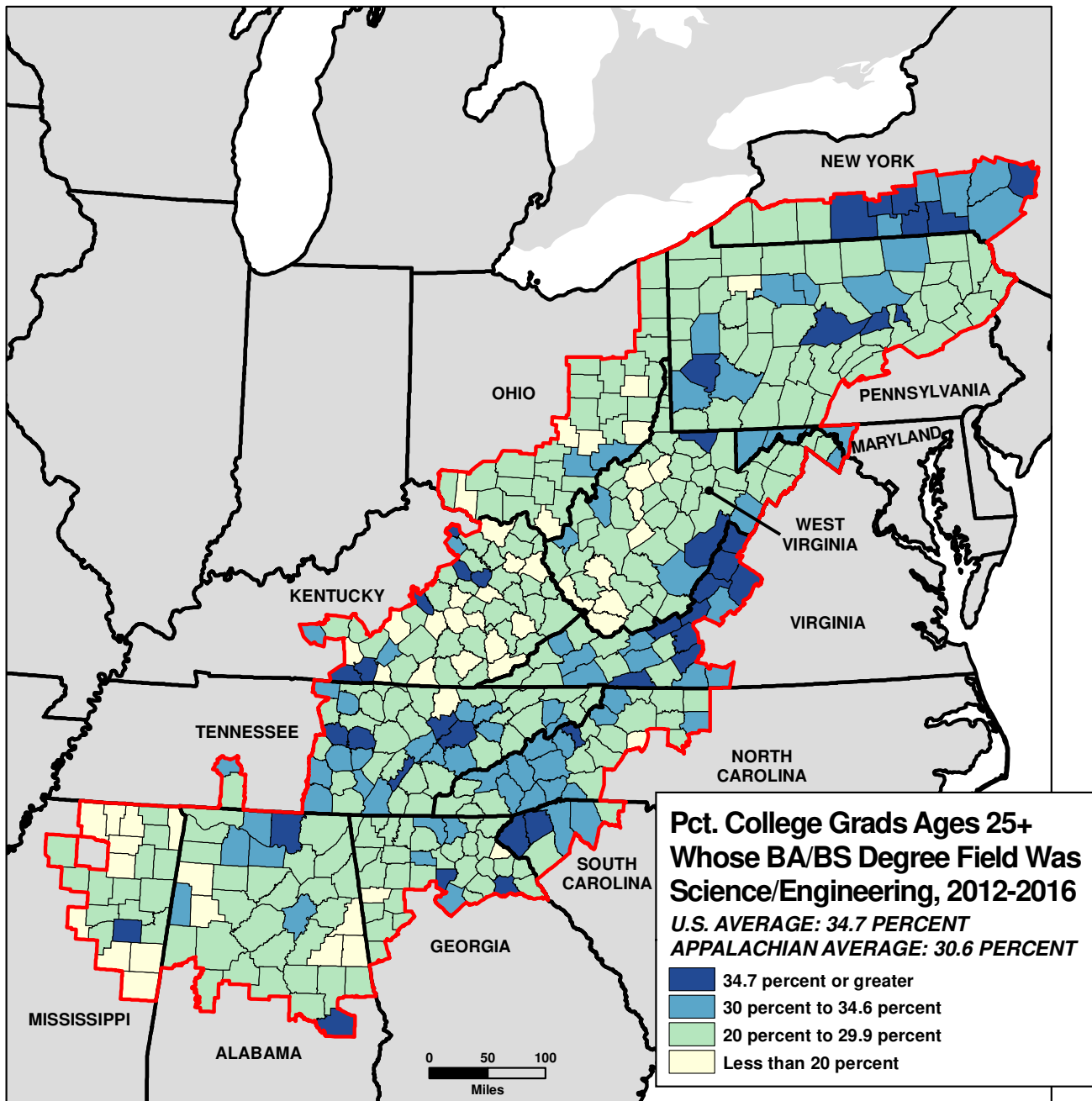
Table 5.7: Bachelor's Degree Field (First Major) for Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2012-2016

Bachelor's Degree Field (First Major)	Total Population Ages 25 and Over With a Bachelor's Degree or More, 2012-2016	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	64,767,787	34.7	9.2	20.4	13.0	22.6
Appalachian Region	4,050,275	30.6	10.7	20.2	18.1	20.4
Subregions						
Northern Appalachia	1,410,901	31.6	11.1	18.3	18.6	20.5
North Central Appalachia	329,875	28.3	12.5	18.6	21.0	19.6
Central Appalachia	179,168	26.2	12.5	16.0	26.8	18.5
South Central Appalachia	790,056	31.7	10.6	18.9	16.4	22.3
Southern Appalachia	1,340,275	30.1	9.6	24.1	16.6	19.6
County Types						
Large Metros (pop. 1 million +)	1,254,308	31.6	10.1	23.8	14.4	20.1
Small Metros (pop. <1 million)	1,809,335	32.0	10.7	19.4	17.0	20.8
Nonmetro, Adjacent to Large Metros	254,688	26.5	11.5	17.4	24.5	20.0
Nonmetro, Adjacent to Small Metros	453,068	27.5	11.8	17.4	23.7	19.6
Rural (nonmetro, not adj. to a metro)	278,876	26.0	11.1	16.6	26.3	20.0
Alabama	783,076	29.3	10.2	23.4	17.6	19.6
Appalachian Alabama	517,745	30.1	10.0	23.7	16.8	19.4
Non-Appalachian Alabama	265,331	27.6	10.5	22.8	19.1	19.9
Georgia	1,938,090	31.9	8.8	24.6	13.6	21.1
Appalachian Georgia	534,038	30.2	9.3	25.8	15.3	19.4
Non-Appalachian Georgia	1,404,052	32.5	8.7	24.1	13.0	21.8
Kentucky	674,165	28.9	11.3	20.2	17.3	22.4
Appalachian Kentucky	115,566	24.9	12.5	15.0	27.5	20.1
Non-Appalachian Kentucky	558,599	29.7	11.0	21.3	15.1	22.8
Maryland	1,556,711	41.0	8.5	18.3	10.1	22.1
Appalachian Maryland	34,059	33.4	9.3	16.9	19.6	20.8
Non-Appalachian Maryland	1,522,652	41.2	8.5	18.3	9.8	22.1
Mississippi	409,891	25.2	12.2	21.4	22.0	19.2
Appalachian Mississippi	74,317	24.1	11.3	20.1	26.3	18.2
Non-Appalachian Mississippi	335,574	25.4	12.4	21.7	21.1	19.5
New York	4,691,446	34.1	8.7	18.9	11.6	26.6
Appalachian New York	179,792	36.6	9.3	12.6	18.7	22.8
Non-Appalachian New York	4,511,654	34.0	8.7	19.1	11.4	26.8
North Carolina	1,940,435	33.9	9.3	20.4	13.6	22.8
Appalachian North Carolina	308,400	30.7	10.7	17.6	16.3	24.7
Non-Appalachian North Carolina	1,632,035	34.5	9.0	20.9	13.1	22.5
Ohio	2,092,875	30.6	10.9	21.5	16.4	20.6
Appalachian Ohio	238,342	25.4	13.6	18.9	22.9	19.2
Non-Appalachian Ohio	1,854,533	31.3	10.5	21.9	15.6	20.7
Pennsylvania	2,595,950	33.2	10.2	19.8	15.4	21.4
Appalachian Pennsylvania	1,047,567	31.7	11.2	19.0	17.8	20.3
Non-Appalachian Pennsylvania	1,548,383	34.3	9.6	20.4	13.7	22.1
South Carolina	865,057	31.6	8.8	22.5	15.8	21.3
Appalachian South Carolina	214,175	31.8	9.1	22.0	16.2	20.8
Non-Appalachian South Carolina	650,882	31.5	8.8	22.6	15.7	21.5
Tennessee	1,122,416	30.0	10.2	22.5	15.3	22.1
Appalachian Tennessee	428,497	31.4	11.0	20.5	17.2	19.9
Non-Appalachian Tennessee	693,919	29.1	9.6	23.7	14.2	23.4
Virginia	2,073,641	40.4	7.5	19.0	9.9	23.3
Appalachian Virginia	104,071	35.8	9.4	16.2	16.8	21.8
Non-Appalachian Virginia	1,969,570	40.6	7.4	19.1	9.5	23.3
West Virginia (entire state)	253,706	28.3	12.3	19.0	21.3	19.1

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

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Figure 5.9: 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, 2012-2016



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, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Among the 4.1 million adults in the Appalachian Region with a bachelor’s degree or more, 31 percent held a degree in the science and engineering field—slightly lower than the national share of 35 percent. But there was much variation within the Region. In 40 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 including Virginia Tech, Penn State, and Carnegie Mellon University. Yet in another 50 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.

TRENDS IN EDUCATION

- Since the 2007-2011 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 86 percent in 2012-2016 (see Tables 5.1 and 5.4). The increase is almost a full percentage point greater than 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 the most in Central Appalachia (an improvement of 4.5 percentage points) and in Appalachia's most rural counties (an increase of almost four points). With these improvements, the share of adults completing high school as of 2012-2016 has surpassed 75 percent in Central Appalachia and is approaching 80 percent in the Region's rural areas. The Appalachian sections of Kentucky and Virginia had the largest increases among the states—at least four percentage points.
- The share of adults ages 25 and over in the Region with at least a bachelor's degree also has increased more than two percentage points since 2007-2011—in this case, reaching 23 percent. The increase has been at least two percentage points in four of the five subregions, and has been even greater in metropolitan areas and in the Appalachian portions of several states—particularly North Carolina, Pennsylvania, South Carolina, and Virginia. In Central Appalachia, the Region's nonmetropolitan counties, and in Appalachian Ohio, the improvement has been smaller.
- The pattern of improvement among working-age adults ages 25 to 64 has been similar to that for all adults, except that the overall improvement was smaller: 1.3 percentage points for high school completion and 1.9 points for college completion (see Table 5.5). Central Appalachia, Appalachian Kentucky and Virginia, and the Region's most rural counties still had the greatest improvement in the share with at least a high school diploma. Northern Appalachia, counties in large metros, and the Appalachian sections of North Carolina, Pennsylvania, South Carolina, and Virginia, showed the greatest gains in the share of working-age adults with a bachelor's degree.
- The greatest improvement since 2007-2011 has been among adults ages 65 and over. The share of older adults in Appalachia with at least a high school diploma has risen seven percentage points; the share with at least a bachelor's degree has increased almost 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. Within Appalachia's subregions, county types, and states, the patterns of improvement that were present among working-age adults generally held among older adults as well. (In Central Appalachia, for example, the share of older adults with at least a high school diploma rose more than 10 percentage points, while the share with a bachelor's degree or more increased less than three points.)
- 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 remains well below the U.S. average in many parts of the Region (see Tables 5.1 through 5.3). For example, the percentage of persons ages 25 and over with a bachelor's degree or more was at least 10 percentage points below the national share in the Appalachian sections of six states (Kentucky, Maryland, Mississippi, Ohio, Virginia, and West Virginia).

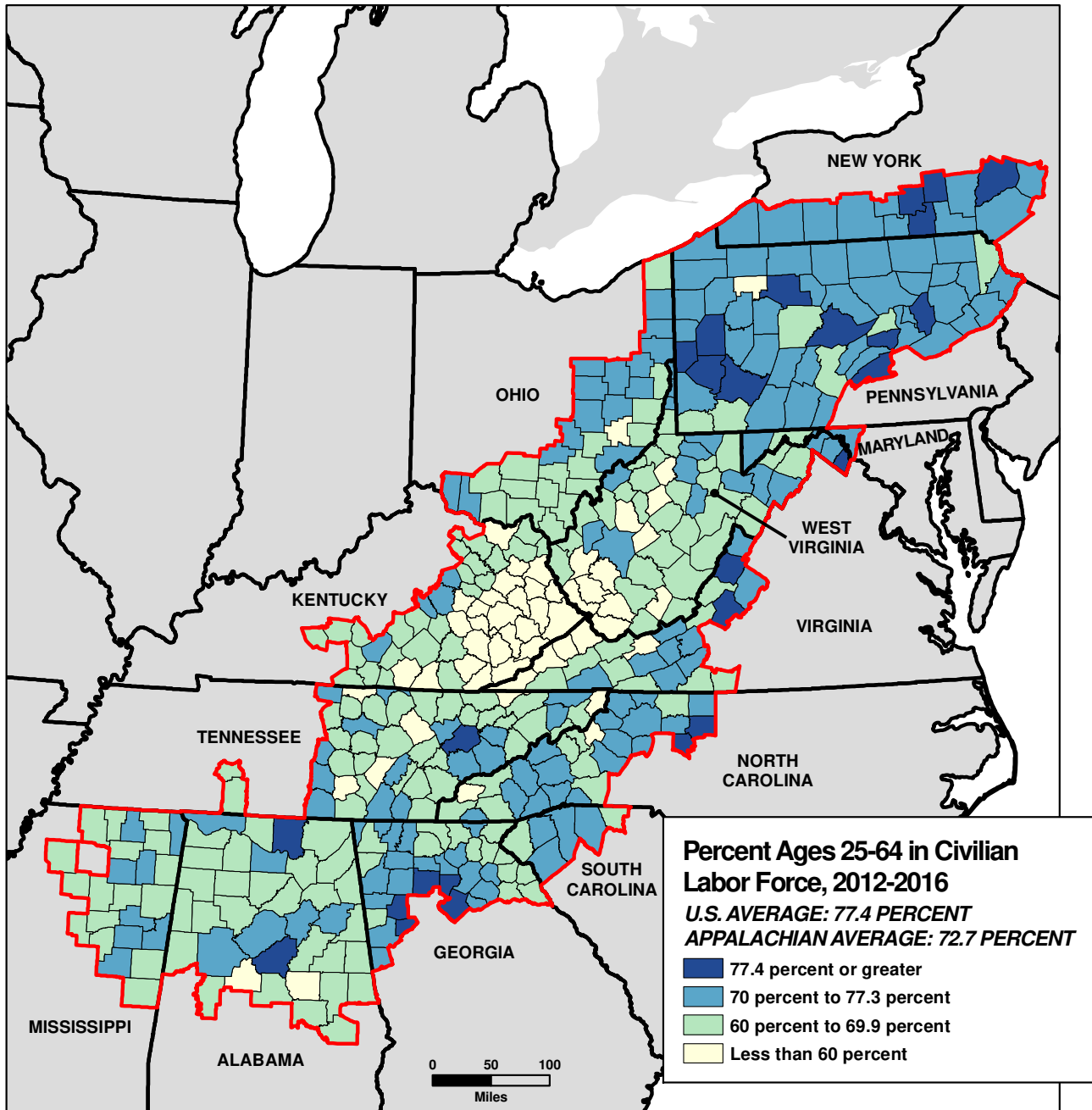
CHAPTER 6: LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND COMMUTING PATTERNS

Table 6.1: Labor Force, Employment, and Unemployment Status of Persons Ages 25 to 64 in the Appalachian Region, 2012-2016

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	166,849,180	129,070,900	77.4	93.9	6.1
Appalachian Region	13,216,311	9,603,608	72.7	93.9	6.1
Subregions					
Northern Appalachia	4,303,351	3,246,534	75.4	94.4	5.6
North Central Appalachia	1,263,463	873,232	69.1	93.7	6.3
Central Appalachia	996,823	592,527	59.4	92.0	8.0
South Central Appalachia	2,460,446	1,789,415	72.7	93.8	6.2
Southern Appalachia	4,192,228	3,101,900	74.0	93.8	6.2
County Types					
Large Metros (pop. 1 million +)	3,206,076	2,491,322	77.7	94.4	5.6
Small Metros (pop. <1 million)	5,561,350	4,094,072	73.6	93.9	6.1
Nonmetro, Adjacent to Large Metros	1,123,726	791,211	70.4	93.4	6.6
Nonmetro, Adjacent to Small Metros	2,035,403	1,397,811	68.7	93.5	6.5
Rural (nonmetro, not adj. to a metro)	1,289,756	829,192	64.3	92.8	7.2
Alabama	2,509,341	1,787,542	71.2	93.4	6.6
Appalachian Alabama	1,625,235	1,164,332	71.6	93.7	6.3
Non-Appalachian Alabama	884,106	623,210	70.5	92.8	7.2
Georgia	5,313,583	4,015,427	75.6	93.1	6.9
Appalachian Georgia	1,625,070	1,247,333	76.8	93.9	6.1
Non-Appalachian Georgia	3,688,513	2,768,094	75.0	92.7	7.3
Kentucky	2,308,636	1,647,584	71.4	93.8	6.2
Appalachian Kentucky	615,684	367,011	59.6	91.7	8.3
Non-Appalachian Kentucky	1,692,952	1,280,573	75.6	94.3	5.7
Maryland	3,214,396	2,635,839	82.0	94.5	5.5
Appalachian Maryland	132,036	95,409	72.3	93.6	6.4
Non-Appalachian Maryland	3,082,360	2,540,430	82.4	94.5	5.5
Mississippi	1,517,531	1,080,140	71.2	92.3	7.7
Appalachian Mississippi	312,786	220,429	70.5	92.7	7.3
Non-Appalachian Mississippi	1,204,745	859,711	71.4	92.3	7.7
New York	10,597,591	8,293,905	78.3	93.7	6.3
Appalachian New York	519,986	391,550	75.3	94.1	5.9
Non-Appalachian New York	10,077,605	7,902,355	78.4	93.7	6.3
North Carolina	5,176,177	3,950,239	76.3	93.2	6.8
Appalachian North Carolina	885,527	648,480	73.2	93.6	6.4
Non-Appalachian North Carolina	4,290,650	3,301,759	77.0	93.2	6.8
Ohio	6,045,416	4,669,487	77.2	94.1	5.9
Appalachian Ohio	1,042,167	742,904	71.3	93.6	6.4
Non-Appalachian Ohio	5,003,249	3,926,583	78.5	94.2	5.8
Pennsylvania	6,712,465	5,241,323	78.1	94.1	5.9
Appalachian Pennsylvania	3,006,677	2,289,260	76.1	94.5	5.5
Non-Appalachian Pennsylvania	3,705,788	2,952,063	79.7	93.8	6.2
South Carolina	2,492,474	1,861,245	74.7	93.2	6.8
Appalachian South Carolina	629,137	469,806	74.7	94.1	5.9
Non-Appalachian South Carolina	1,863,337	1,391,439	74.7	93.0	7.0
Tennessee	3,428,726	2,543,492	74.2	93.8	6.2
Appalachian Tennessee	1,468,019	1,048,434	71.4	93.6	6.4
Non-Appalachian Tennessee	1,960,707	1,495,058	76.3	94.0	6.0
Virginia	4,404,169	3,499,279	79.5	95.3	4.7
Appalachian Virginia	385,773	263,716	68.4	94.1	5.9
Non-Appalachian Virginia	4,018,396	3,235,563	80.5	95.4	4.6
West Virginia (entire state)	968,214	654,944	67.6	93.7	6.3

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

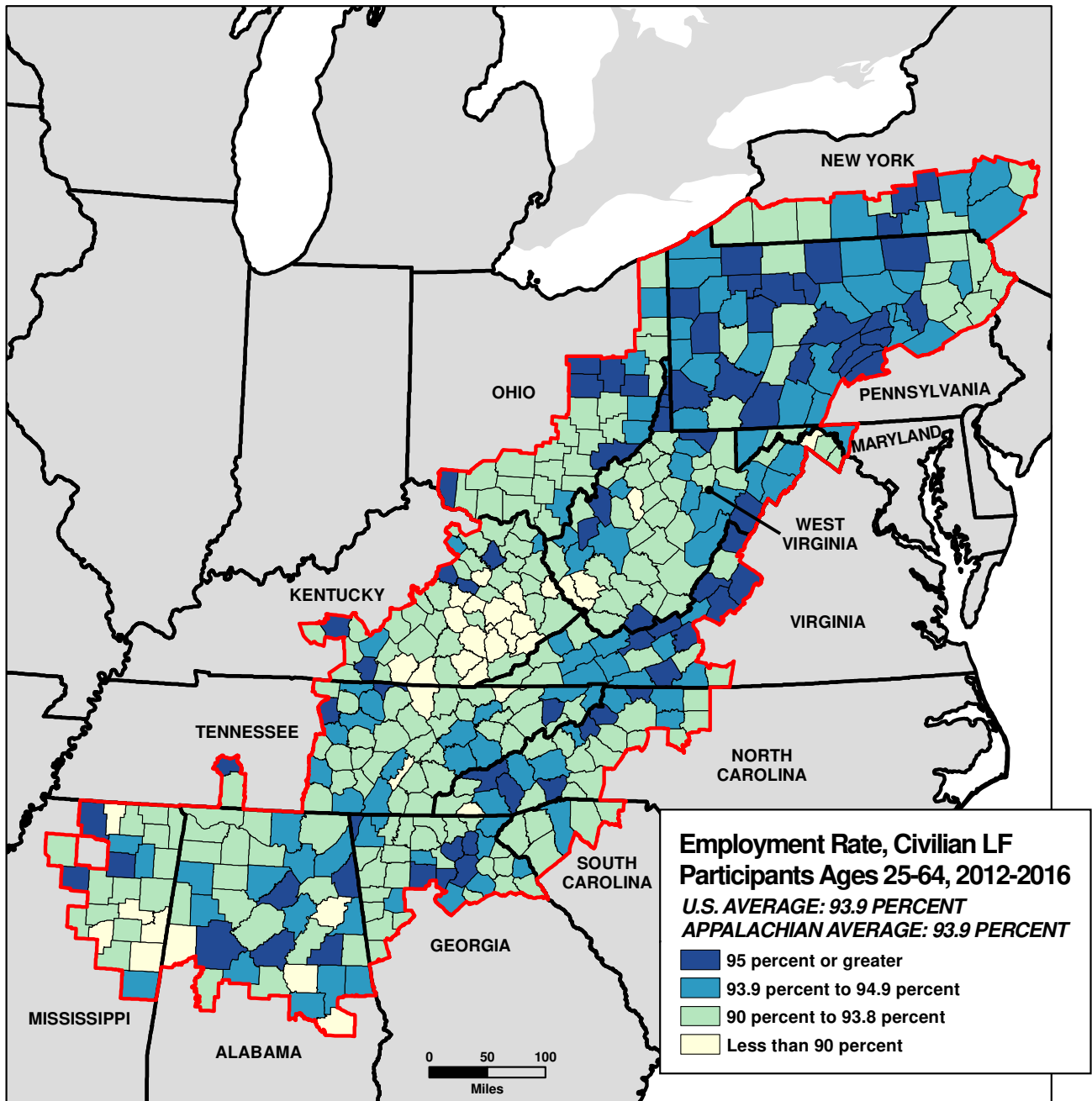
Figure 6.1: Percent of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Labor Force, 2012-2016



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Labor Force, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In the 2012-2016 period, 73 percent of Appalachia’s civilian population in the prime working ages (ages 25 to 64) were in the civilian labor force, slightly below the U.S. average of 77 percent. In 26 Appalachian counties (21 of which were in metropolitan areas), the share was at or above the national average, yet there were 53 counties where less than 60 percent of 25-to-64-year-olds were in the civilian labor force. Nearly all the counties in the latter group were outside of metropolitan areas, and 38 were in Central Appalachia. Indeed, just 59 percent of working-age residents in Central Appalachia and 64 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 22 of the 26 counties where labor force participation levels were at or above the national rate, at least 90 percent of working-age adults had attained at least a high school diploma.

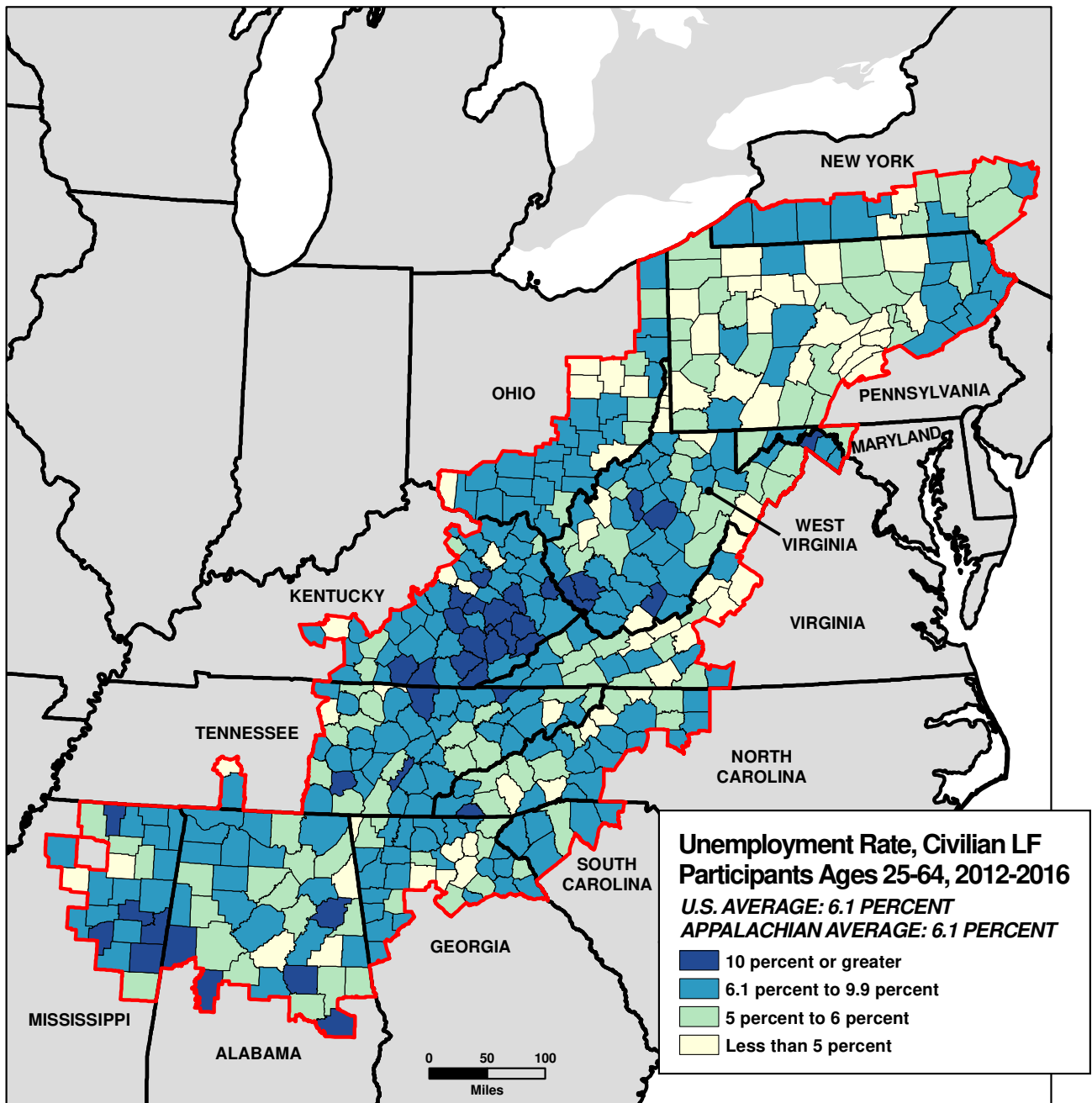
Figure 6.2: Employment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2012-2016



Map Title: Employment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

The employment rate in Appalachia among members of the civilian labor force ages 25 to 64 was identical to the national rate during the 2012-2016 period. Although there were only slight differences among subregions and urban/rural county types, there was some variation at the county level. In 177 of the Region’s 420 counties, the employment rate matched or exceeded the national average, with 74 counties having employment rates of 95 percent or greater. (Northern Appalachia accounted for 30 of those 74 counties.) Yet in 33 counties in the Region (20 of which were in Central Appalachia), employment among 25-to-64-year-olds was less than 90 percent. All but three of the counties in the latter group were outside metropolitan areas. While most of the counties with the lowest employment rates also had similarly low employment in 2007-2011, the rate had been at least 91 percent in 13 of them—suggesting that these 13 counties may not have fully recovered economically from the recent recession.

Figure 6.3: Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2012-2016



Map Title: Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

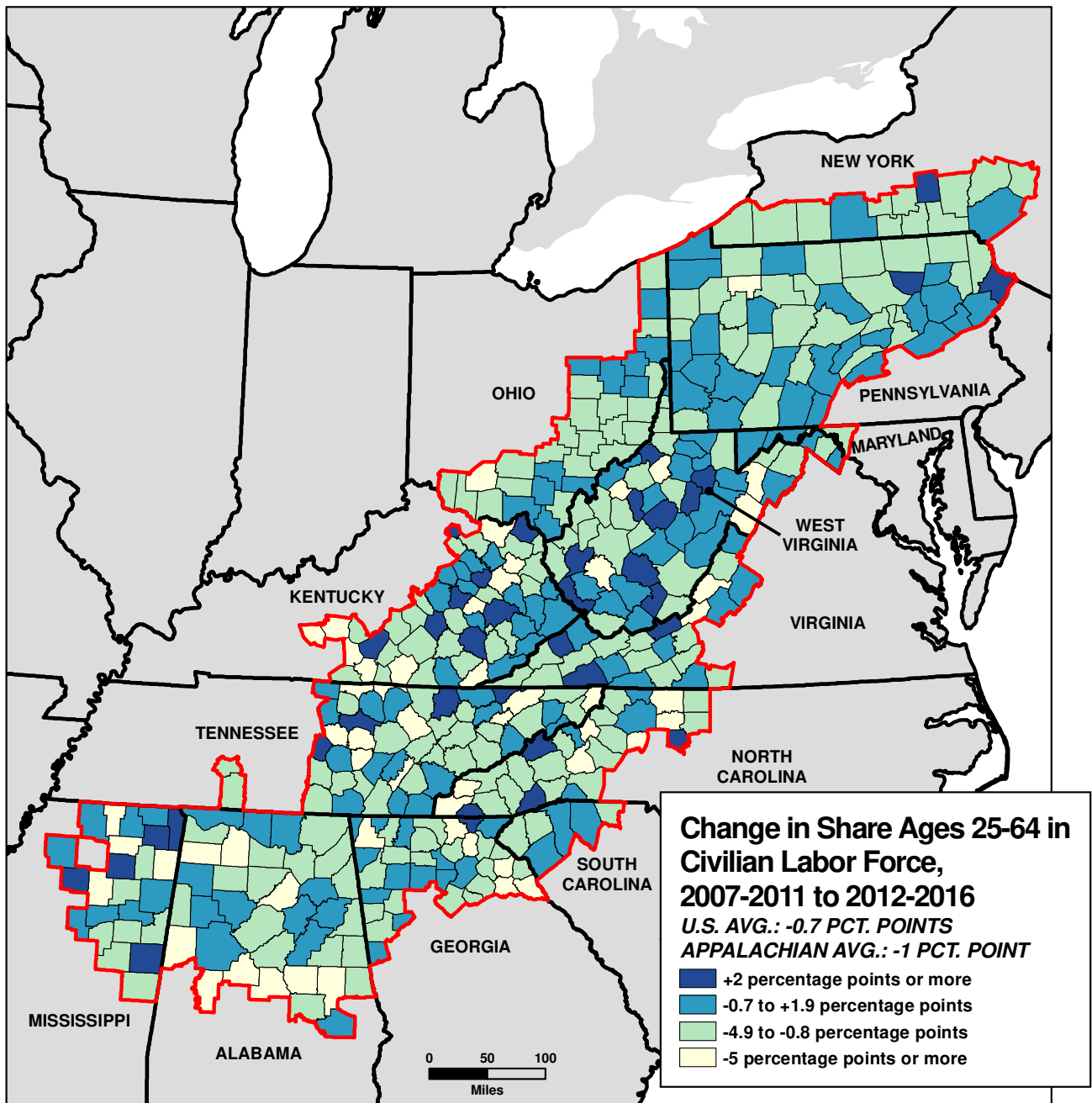
Unemployment in the Appalachian Region among persons ages 25 to 64 matched the national average of 6.1 percent during the 2012-2016 period. Within Appalachia, the jobless rate was at least 10 percent in 37 counties—33 of which were outside metropolitan areas and 20 of which were in Central Appalachia. (Unemployment was 8 percent in Central Appalachia.) Conversely, the unemployment rate was less than 5 percent in 68 other counties, with 29 of these located in Northern Appalachia—the subregion that had the lowest jobless level. There are indications of a connection between unemployment and educational attainment: In all but one of the 37 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; in 18 of these counties, the share was less than four-fifths.

Table 6.2: Percentage Point Change in Labor Force, Employment, and Unemployment Status of Persons Ages 25 to 64 in the Appalachian Region, 2007-2011 to 2012-2016

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	- 0.7	+ 1.1	- 1.1
Appalachian Region	- 1.0	+ 1.1	- 1.1
Subregions			
Northern Appalachia	- 0.6	+ 0.8	- 0.8
North Central Appalachia	- 1.2	+ 0.5	- 0.5
Central Appalachia	- 1.0	+ 0.0	+ 0.0
South Central Appalachia	- 1.6	+ 1.2	- 1.2
Southern Appalachia	- 1.2	+ 1.6	- 1.6
County Types			
Large Metros (pop. 1 million +)	- 0.5	+ 1.3	- 1.3
Small Metros (pop. <1 million)	- 1.1	+ 0.8	- 0.8
Nonmetro, Adjacent to Large Metros	- 1.8	+ 1.4	- 1.4
Nonmetro, Adjacent to Small Metros	- 1.6	+ 0.9	- 0.9
Rural (nonmetro, not adj. to a metro)	- 1.1	+ 0.4	- 0.4
Alabama	- 1.8	+ 1.0	- 1.0
Appalachian Alabama	- 1.7	+ 1.1	- 1.1
Non-Appalachian Alabama	- 1.9	+ 0.8	- 0.8
Georgia	- 1.3	+ 1.1	- 1.1
Appalachian Georgia	- 1.3	+ 1.7	- 1.7
Non-Appalachian Georgia	- 1.4	+ 0.8	- 0.8
Kentucky	- 0.6	+ 1.1	- 1.1
Appalachian Kentucky	- 1.1	+ 0.0	+ 0.0
Non-Appalachian Kentucky	- 0.6	+ 1.4	- 1.4
Maryland	- 0.6	+ 0.2	- 0.2
Appalachian Maryland	- 1.8	- 0.1	+ 0.1
Non-Appalachian Maryland	- 0.6	+ 0.2	- 0.2
Mississippi	- 1.1	+ 0.0	+ 0.0
Appalachian Mississippi	- 0.5	+ 1.1	- 1.1
Non-Appalachian Mississippi	- 1.2	- 0.2	+ 0.2
New York	+ 0.0	+ 0.4	- 0.4
Appalachian New York	- 1.5	+ 0.2	- 0.2
Non-Appalachian New York	+ 0.1	+ 0.4	- 0.4
North Carolina	- 1.1	+ 1.3	- 1.3
Appalachian North Carolina	- 2.1	+ 1.4	- 1.4
Non-Appalachian North Carolina	- 0.9	+ 1.3	- 1.3
Ohio	- 1.0	+ 1.8	- 1.8
Appalachian Ohio	- 1.3	+ 1.9	- 1.9
Non-Appalachian Ohio	- 0.9	+ 1.8	- 1.8
Pennsylvania	- 0.3	+ 0.4	- 0.4
Appalachian Pennsylvania	- 0.4	+ 0.6	- 0.6
Non-Appalachian Pennsylvania	- 0.3	+ 0.4	- 0.4
South Carolina	- 0.5	+ 1.7	- 1.7
Appalachian South Carolina	- 0.5	+ 2.4	- 2.4
Non-Appalachian South Carolina	- 0.6	+ 1.6	- 1.6
Tennessee	- 1.1	+ 1.5	- 1.5
Appalachian Tennessee	- 1.4	+ 1.1	- 1.1
Non-Appalachian Tennessee	- 0.9	+ 1.8	- 1.8
Virginia	+ 0.0	+ 0.3	- 0.3
Appalachian Virginia	- 0.8	+ 0.4	- 0.4
Non-Appalachian Virginia	- 0.1	+ 0.3	- 0.3
West Virginia (entire state)	- 0.7	- 0.3	+ 0.3

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 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 Labor Force, 2007-2011 to 2012-2016

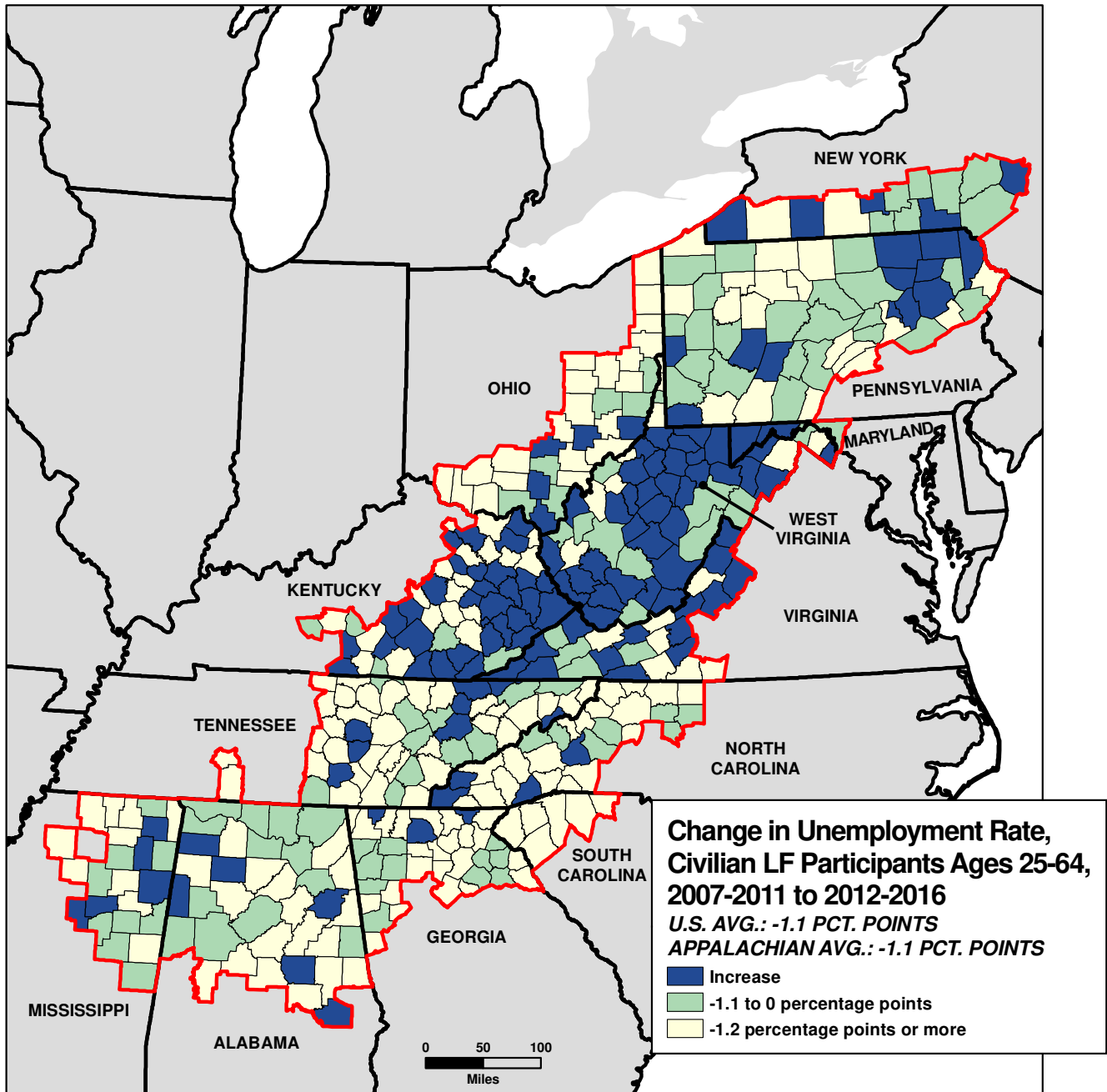


Map Title: Percentage Point Change in the Share of Persons Ages 25 to 64 in the Appalachian Region Who Are In the Labor Force, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Between 2007-2011 and 2012-2016, the labor force participation rate among civilians ages 25 to 64 fell by a full percentage point in the Appalachian Region, compared with 0.7 percentage points for the nation as a whole. The decline was present in most of the Region—nearly three-fifths of Appalachia’s 420 counties had decreases in labor force participation rates that exceeded the U.S. average. And in 55 counties (all but six of them in Central, South Central, and Southern Appalachia), the labor force participation rate among working-age adults was at least five percentage points lower than in 2007-2011. But participation rates did increase in some parts of Appalachia—there were 37 counties in the Region where the share of adults in the labor force rose by at least two percentage points. Almost half of the counties in this latter group were in two states—Kentucky and West Virginia.

Figure 6.5: Percentage Point Change in the Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Unemployment Rate for Civilian Labor Force Participants Ages 25 to 64 in the Appalachian Region, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Unemployment among civilian labor force participants declined by just over a percentage point between 2007-2011 and 2012-2016, both in Appalachia and nationwide. And in 184 of the Region's 420 counties, unemployment declined even further. (Most of these counties were in South Central and Southern Appalachia.) These numbers support an economic rebound from the "Great Recession" of 2007-2009, given that the 2007-2011 period includes the 11 months prior to the beginning of the economic downturn, and that the 2012-2016 period covers the recession's aftermath. Yet in 129 Appalachian counties, the unemployment rate was actually higher in 2012-2016 than it was in 2007-2011, with half of these counties in either Kentucky or West Virginia. While 31 of these counties already had jobless rates above the national average of 7.2 percent in 2007-2011, unemployment in the earlier period had been less than 5 percent in 33 others. This suggests that more recent economic forces—including a slow recovery—may be at play in some areas.

Table 6.3: Mean Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region (in Minutes), by Gender, 2012-2016

Travel Time to Work	Mean Travel Time to Work (in Minutes)		
	Total	Males	Females
United States	26.1	27.6	24.5
Appalachian Region	25.0	27.0	22.8
Subregions			
Northern Appalachia	24.3	26.3	22.0
North Central Appalachia	26.3	29.4	22.8
Central Appalachia	25.5	28.6	22.0
South Central Appalachia	23.0	24.5	21.3
Southern Appalachia	26.4	28.1	24.5
County Types			
Large Metros (pop. 1 million +)	28.8	30.6	26.8
Small Metros (pop. <1 million)	23.1	24.8	21.2
Nonmetro, Adjacent to Large Metros	24.6	26.9	21.8
Nonmetro, Adjacent to Small Metros	24.9	27.3	22.1
Rural (nonmetro, not adj. to a metro)	23.5	26.1	20.7
Alabama	24.5	26.1	22.8
Appalachian Alabama	24.9	26.4	23.3
Non-Appalachian Alabama	23.8	25.6	21.8
Georgia	27.7	29.0	26.1
Appalachian Georgia	29.9	31.9	27.6
Non-Appalachian Georgia	26.6	27.7	25.5
Kentucky	23.0	24.6	21.2
Appalachian Kentucky	24.6	27.7	21.1
Non-Appalachian Kentucky	22.6	23.8	21.3
Maryland	32.4	33.6	31.1
Appalachian Maryland	26.2	28.7	23.4
Non-Appalachian Maryland	32.6	33.8	31.4
Mississippi	24.2	26.4	21.7
Appalachian Mississippi	23.3	25.0	21.4
Non-Appalachian Mississippi	24.4	26.8	21.8
New York	32.6	33.7	31.5
Appalachian New York	20.8	22.5	19.1
Non-Appalachian New York	33.3	34.2	32.2
North Carolina	24.1	25.5	22.5
Appalachian North Carolina	22.6	24.0	21.0
Non-Appalachian North Carolina	24.4	25.8	22.8
Ohio	23.3	24.7	21.8
Appalachian Ohio	25.2	27.7	22.4
Non-Appalachian Ohio	23.0	24.1	21.7
Pennsylvania	26.5	28.2	24.6
Appalachian Pennsylvania	25.0	27.0	22.8
Non-Appalachian Pennsylvania	27.6	29.2	26.0
South Carolina	24.1	25.3	22.8
Appalachian South Carolina	22.7	23.8	21.4
Non-Appalachian South Carolina	24.6	25.8	23.3
Tennessee	24.7	26.0	23.2
Appalachian Tennessee	23.6	25.3	21.7
Non-Appalachian Tennessee	25.4	26.5	24.2
Virginia	28.1	29.8	26.2
Appalachian Virginia	23.7	25.6	21.7
Non-Appalachian Virginia	28.5	30.1	26.6
West Virginia (entire state)	25.6	28.8	22.0

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

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

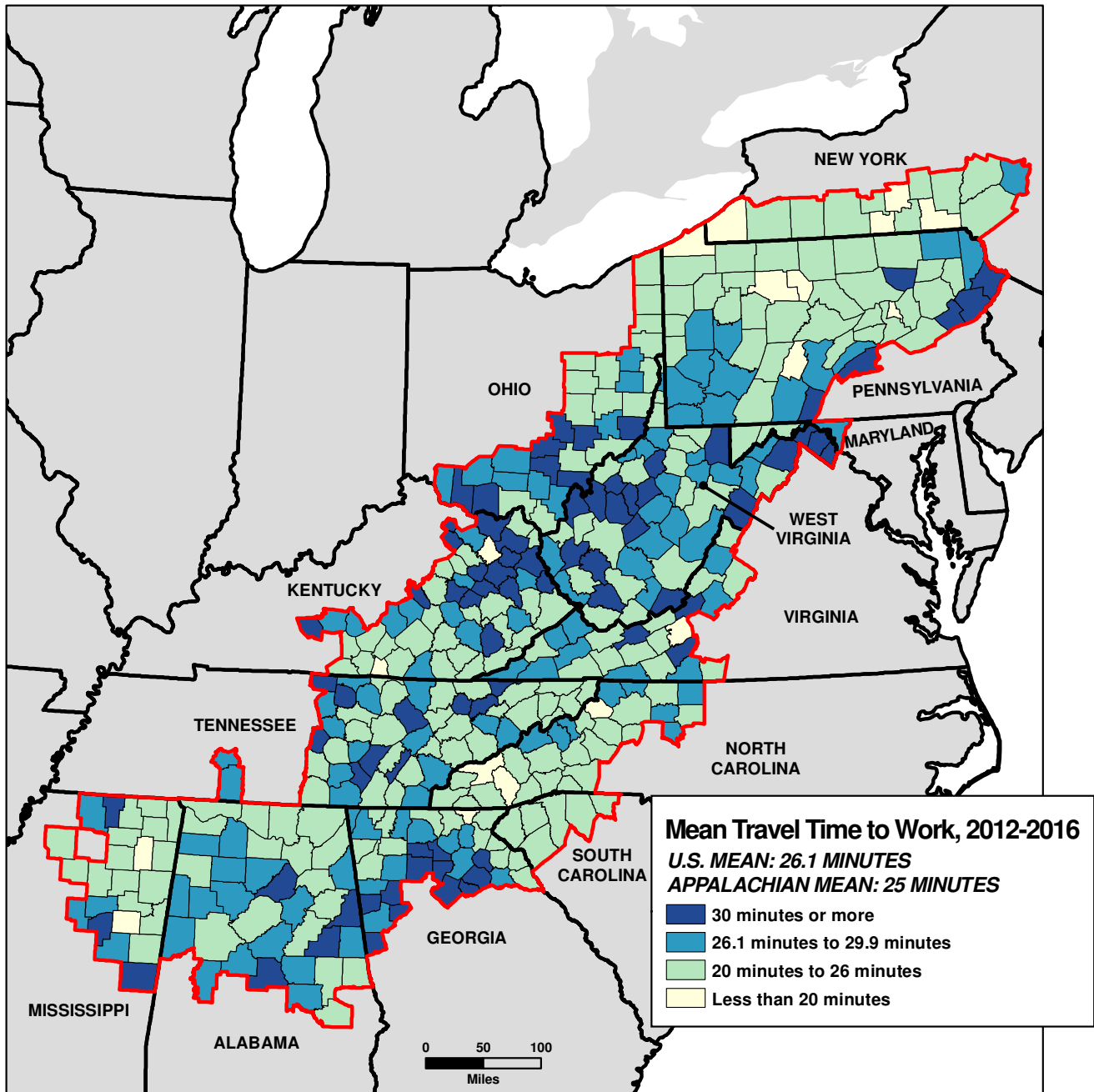
Table 6.4: Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, by Amount of Time, 2012-2016

Travel Time to Work (Minutes)	Workers Ages 16 and Over	Percent of Workers Ages 16 and Over			
		Less Than 15 Minutes	15 Minutes to 29 Minutes	30 Minutes to 59 Minutes	60 Minutes or More
United States	139,199,329	26.7	36.3	28.3	8.7
Appalachian Region	10,453,735	29.3	37.1	26.2	7.5
Subregions					
Northern Appalachia	3,571,193	32.4	36.0	24.4	7.2
North Central Appalachia	953,792	29.3	35.5	25.9	9.3
Central Appalachia	633,711	31.4	33.0	27.0	8.6
South Central Appalachia	1,957,180	30.3	40.8	23.7	5.2
Southern Appalachia	3,337,859	24.8	37.2	29.6	8.3
County Types					
Large Metros (pop. 1 million +)	2,652,448	21.7	33.9	33.9	10.5
Small Metros (pop. <1 million)	4,499,931	30.2	41.3	23.1	5.4
Nonmetro, Adjacent to Large Metros	865,509	34.1	33.8	23.7	8.4
Nonmetro, Adjacent to Small Metros	1,529,679	32.9	33.6	25.6	8.0
Rural (nonmetro, not adj. to a metro)	906,168	35.6	34.4	22.9	7.1
Alabama	1,955,974	26.7	39.4	27.9	6.1
Appalachian Alabama	1,271,407	25.7	39.4	28.6	6.3
Non-Appalachian Alabama	684,567	28.6	39.3	26.5	5.6
Georgia	4,214,451	23.3	36.0	30.9	9.8
Appalachian Georgia	1,307,844	21.0	33.2	33.4	12.4
Non-Appalachian Georgia	2,906,607	24.3	37.3	29.7	8.6
Kentucky	1,825,026	31.1	39.3	24.2	5.4
Appalachian Kentucky	395,061	33.8	33.3	25.0	7.8
Non-Appalachian Kentucky	1,429,965	30.3	41.0	24.0	4.8
Maryland	2,844,429	17.2	31.4	36.2	15.1
Appalachian Maryland	103,781	31.2	36.7	21.2	10.9
Non-Appalachian Maryland	2,740,648	16.7	31.2	36.8	15.3
Mississippi	1,172,755	31.2	37.1	25.2	6.5
Appalachian Mississippi	242,492	34.4	35.5	24.3	5.9
Non-Appalachian Mississippi	930,263	30.4	37.5	25.4	6.7
New York	8,781,619	20.5	29.5	32.9	17.1
Appalachian New York	441,283	40.2	36.2	18.6	5.0
Non-Appalachian New York	8,340,336	19.4	29.2	33.7	17.7
North Carolina	4,233,163	27.8	40.3	26.2	5.7
Appalachian North Carolina	692,621	30.9	41.8	22.2	5.0
Non-Appalachian North Carolina	3,540,542	27.2	40.0	27.0	5.9
Ohio	5,123,424	29.3	40.3	25.4	5.0
Appalachian Ohio	814,310	30.9	36.2	24.8	8.1
Non-Appalachian Ohio	4,309,114	29.0	41.1	25.5	4.4
Pennsylvania	5,674,512	27.2	35.4	28.6	8.8
Appalachian Pennsylvania	2,508,932	30.8	35.6	26.1	7.6
Non-Appalachian Pennsylvania	3,165,580	24.3	35.2	30.6	9.8
South Carolina	2,040,101	27.3	39.5	27.5	5.6
Appalachian South Carolina	516,116	28.0	43.0	25.2	3.8
Non-Appalachian South Carolina	1,523,985	27.1	38.3	28.3	6.3
Tennessee	2,780,515	26.2	39.4	28.3	6.1
Appalachian Tennessee	1,149,306	28.9	40.1	25.5	5.5
Non-Appalachian Tennessee	1,631,209	24.3	38.9	30.3	6.5
Virginia	3,878,526	22.5	36.5	30.7	10.2
Appalachian Virginia	298,812	32.9	35.9	24.6	6.6
Non-Appalachian Virginia	3,579,714	21.6	36.6	31.3	10.5
West Virginia (entire state)	711,770	30.7	36.1	24.3	9.0

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

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Figure 6.6: Mean Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, 2012-2016



Map Title: Mean Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

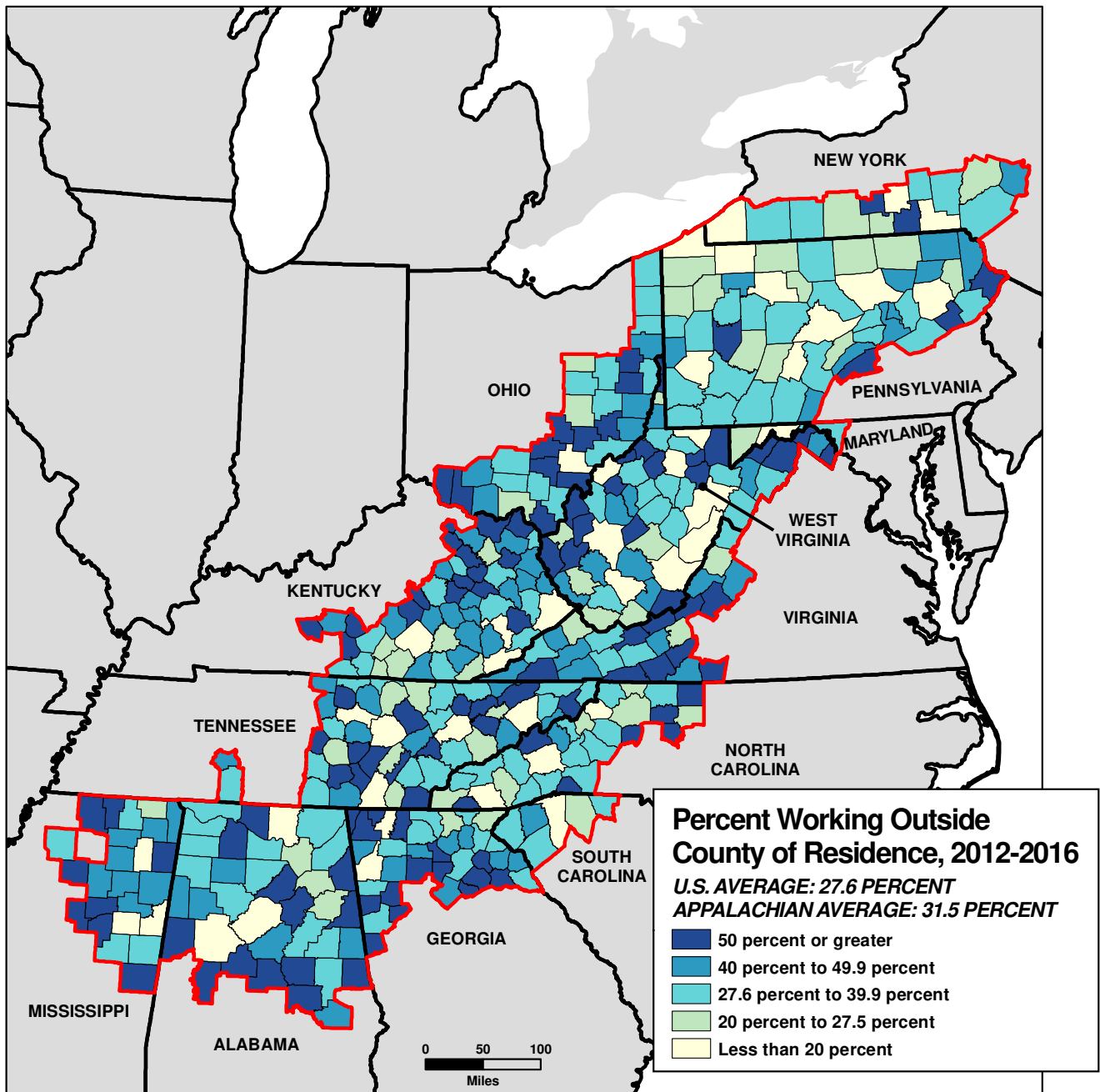
In the Appalachian Region, workers ages 16 and older took, on average, 25 minutes to get to their jobs, a minute less than workers nationwide. But that was not the case in much of Appalachia: In 195 of the Region’s 420 counties, the mean travel time to work was at or above the national average. And in 80 Appalachian counties, workers averaged a half hour or more to get to their jobs. Nearly half of these 80 counties were in metropolitan areas, including suburban Atlanta and the exurban counties of New York (Pike County, Pennsylvania) and Washington, D.C. (Jefferson County, West Virginia). Yet workers in 43 nonmetropolitan counties—30 of which were in Kentucky, West Virginia, and Ohio—faced similarly lengthy commutes. By comparison, workers in just 18 Appalachian counties had average commutes lasting less than 20 minutes. Many of these counties were home to colleges and universities (for example, Jackson County, North Carolina, home to Western Carolina University).

Table 6.5: Place of Work (State and County Level) for Workers Ages 16 and Over in the Appalachian Region, 2012-2016

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	145,861,221	72.4	27.6	23.9	3.7
Appalachian Region	10,862,737	68.5	31.5	27.0	4.5
Subregions					
Northern Appalachia	3,713,273	73.6	26.4	22.1	4.3
North Central Appalachia	987,080	63.7	36.3	25.4	10.9
Central Appalachia	651,705	61.2	38.8	33.0	5.8
South Central Appalachia	2,040,936	70.8	29.2	25.9	3.3
Southern Appalachia	3,469,743	64.4	35.6	32.3	3.4
County Types					
Large Metros (pop. 1 million +)	2,780,058	64.0	36.0	33.4	2.6
Small Metros (pop. <1 million)	4,668,425	72.4	27.6	22.3	5.3
Nonmetro, Adjacent to Large Metros	895,021	67.4	32.6	28.5	4.1
Nonmetro, Adjacent to Small Metros	1,582,677	65.1	34.9	28.9	6.0
Rural (nonmetro, not adj. to a metro)	936,556	69.0	31.0	26.9	4.1
Alabama	2,014,965	72.6	27.4	22.8	4.6
Appalachian Alabama	1,307,305	71.4	28.6	25.9	2.8
Non-Appalachian Alabama	707,660	74.9	25.1	17.1	8.0
Georgia	4,438,650	58.5	41.5	38.7	2.7
Appalachian Georgia	1,380,109	53.5	46.5	42.6	3.9
Non-Appalachian Georgia	3,058,541	60.8	39.2	37.0	2.2
Kentucky	1,886,629	68.4	31.6	25.1	6.5
Appalachian Kentucky	406,461	63.4	36.6	32.1	4.5
Non-Appalachian Kentucky	1,480,168	69.7	30.3	23.2	7.0
Maryland	2,974,521	53.5	46.5	29.6	16.9
Appalachian Maryland	108,452	71.8	28.2	16.6	11.6
Non-Appalachian Maryland	2,866,069	52.8	47.2	30.1	17.1
Mississippi	1,198,881	63.9	36.1	27.8	8.4
Appalachian Mississippi	248,839	64.3	35.7	29.9	5.8
Non-Appalachian Mississippi	950,042	63.7	36.3	27.2	9.0
New York	9,147,894	64.3	35.7	33.1	2.5
Appalachian New York	459,042	76.9	23.1	20.2	2.8
Non-Appalachian New York	8,688,852	63.7	36.3	33.8	2.5
North Carolina	4,448,095	71.5	28.5	25.9	2.6
Appalachian North Carolina	727,125	72.1	27.9	25.3	2.6
Non-Appalachian North Carolina	3,720,970	71.4	28.6	26.0	2.6
Ohio	5,320,795	69.7	30.3	27.5	2.8
Appalachian Ohio	842,501	61.5	38.5	30.1	8.4
Non-Appalachian Ohio	4,478,294	71.3	28.7	27.0	1.7
Pennsylvania	5,922,289	70.5	29.5	24.2	5.2
Appalachian Pennsylvania	2,612,050	74.7	25.3	21.9	3.3
Non-Appalachian Pennsylvania	3,310,239	67.2	32.8	26.1	6.7
South Carolina	2,116,301	70.6	29.4	24.1	5.3
Appalachian South Carolina	533,490	75.4	24.6	22.4	2.2
Non-Appalachian South Carolina	1,582,811	69.0	31.0	24.7	6.3
Tennessee	2,892,838	71.7	28.3	24.5	3.8
Appalachian Tennessee	1,194,397	71.1	28.9	25.8	3.1
Non-Appalachian Tennessee	1,698,441	72.1	27.9	23.6	4.3
Virginia	4,068,919	48.4	51.6	42.8	8.8
Appalachian Virginia	308,322	58.9	41.1	32.8	8.3
Non-Appalachian Virginia	3,760,597	47.5	52.5	43.6	8.9
West Virginia (entire state)	734,644	67.1	32.9	20.8	12.1

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Figure 6.7: Percent of Workers Ages 16 and Over in the Appalachian Region Who Work Outside Their County of Residence, 2012-2016



Map Title: Percent of Workers Ages 16 and Over in the Appalachian Region Who Work Outside Their County of Residence, 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

About 32 percent of Appalachian workers ages 16 and older had jobs outside their county of residence during 2012-2016, four percentage points above the share nationwide. And the share is even higher in much of the Region: In 203 of Appalachia's 420 counties, at least 40 percent of workers had their primary employment outside their county of residence. And in 119 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 42 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 Monongalia County, West Virginia, home to West Virginia University).

Table 6.6: Change in Travel Time to Work for Workers Ages 16 and Over in the Appalachian Region, by Amount of Time, 2007-2011 to 2012-2016

Travel Time to Work (Minutes)	Change in Mean Travel Time (Minutes)	Percentage Point Change in Share of Workers Ages 16 and Over			
		Less Than 15 Minutes	15 Minutes to 29 Minutes	30 Minutes to 59 Minutes	60 Minutes or More
United States	+ 0.7	- 1.6	+ 0.0	+ 1.0	+ 0.6
Appalachian Region	+ 0.5	- 1.3	+ 0.3	+ 0.8	+ 0.3
Subregions					
Northern Appalachia	+ 0.6	- 1.7	+ 0.4	+ 1.1	+ 0.3
North Central Appalachia	+ 0.2	- 1.1	+ 0.7	+ 0.4	+ 0.0
Central Appalachia	- 0.1	- 0.1	- 0.1	+ 0.4	- 0.2
South Central Appalachia	+ 0.5	- 0.9	- 0.2	+ 0.8	+ 0.3
Southern Appalachia	+ 0.5	- 1.3	+ 0.2	+ 0.8	+ 0.3
County Types					
Large Metros (pop. 1 million +)	+ 0.5	- 1.2	+ 0.0	+ 0.7	+ 0.5
Small Metros (pop. <1 million)	+ 0.4	- 1.6	+ 0.7	+ 0.8	+ 0.1
Nonmetro, Adjacent to Large Metros	+ 0.6	- 1.3	- 0.4	+ 1.4	+ 0.3
Nonmetro, Adjacent to Small Metros	+ 0.4	- 0.6	- 0.3	+ 0.8	+ 0.2
Rural (nonmetro, not adj. to a metro)	+ 0.3	- 0.8	+ 0.4	+ 0.4	- 0.1
Alabama	+ 0.5	- 1.6	+ 0.2	+ 1.2	+ 0.2
Appalachian Alabama	+ 0.4	- 1.3	+ 0.6	+ 0.5	+ 0.1
Non-Appalachian Alabama	+ 0.9	- 2.1	- 0.6	+ 2.4	+ 0.3
Georgia	+ 0.7	- 1.3	+ 0.0	+ 0.9	+ 0.5
Appalachian Georgia	+ 0.6	- 1.2	+ 0.4	+ 0.4	+ 0.5
Non-Appalachian Georgia	+ 0.6	- 1.4	- 0.1	+ 1.0	+ 0.4
Kentucky	+ 0.4	- 1.1	- 0.3	+ 1.3	+ 0.1
Appalachian Kentucky	+ 0.1	- 0.2	- 0.4	+ 0.7	- 0.2
Non-Appalachian Kentucky	+ 0.5	- 1.3	- 0.4	+ 1.6	+ 0.3
Maryland	+ 0.7	- 1.3	- 0.3	+ 0.8	+ 0.8
Appalachian Maryland	+ 0.3	- 2.2	+ 2.0	- 0.4	+ 0.6
Non-Appalachian Maryland	+ 0.7	- 1.2	- 0.4	+ 0.8	+ 0.8
Mississippi	+ 0.3	- 0.8	+ 0.0	+ 0.9	- 0.1
Appalachian Mississippi	+ 0.4	- 1.3	+ 1.4	+ 0.4	- 0.4
Non-Appalachian Mississippi	+ 0.2	- 0.7	- 0.3	+ 1.0	+ 0.0
New York	+ 1.2	- 1.8	- 0.6	+ 1.5	+ 0.9
Appalachian New York	+ 0.4	- 1.4	+ 1.0	+ 0.2	+ 0.2
Non-Appalachian New York	+ 1.2	- 1.8	- 0.6	+ 1.6	+ 0.8
North Carolina	+ 0.7	- 1.2	+ 0.0	+ 0.8	+ 0.4
Appalachian North Carolina	+ 0.4	- 0.9	+ 0.2	+ 0.4	+ 0.2
Non-Appalachian North Carolina	+ 0.8	- 1.3	+ 0.0	+ 0.8	+ 0.5
Ohio	+ 0.4	- 1.1	+ 0.0	+ 1.0	+ 0.1
Appalachian Ohio	+ 0.2	- 0.8	+ 0.5	+ 0.3	+ 0.0
Non-Appalachian Ohio	+ 0.5	- 1.2	+ 0.0	+ 1.1	+ 0.1
Pennsylvania	+ 0.8	- 1.8	- 0.2	+ 1.3	+ 0.6
Appalachian Pennsylvania	+ 0.7	- 1.8	+ 0.1	+ 1.3	+ 0.5
Non-Appalachian Pennsylvania	+ 0.8	- 1.7	- 0.4	+ 1.2	+ 0.8
South Carolina	+ 0.8	- 1.5	- 0.7	+ 1.6	+ 0.5
Appalachian South Carolina	+ 0.5	- 1.0	- 1.4	+ 2.5	- 0.1
Non-Appalachian South Carolina	+ 0.9	- 1.6	- 0.4	+ 1.2	+ 0.8
Tennessee	+ 0.7	- 1.3	- 0.4	+ 1.1	+ 0.6
Appalachian Tennessee	+ 0.4	- 0.8	- 0.6	+ 1.1	+ 0.2
Non-Appalachian Tennessee	+ 0.8	- 1.5	- 0.3	+ 0.9	+ 0.9
Virginia	+ 0.8	- 1.5	+ 0.0	+ 0.7	+ 0.7
Appalachian Virginia	+ 0.3	- 0.8	+ 0.3	+ 0.2	+ 0.3
Non-Appalachian Virginia	+ 0.9	- 1.5	+ 0.0	+ 0.8	+ 0.7
West Virginia (entire state)	+ 0.1	- 1.0	+ 0.8	+ 0.6	- 0.3

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

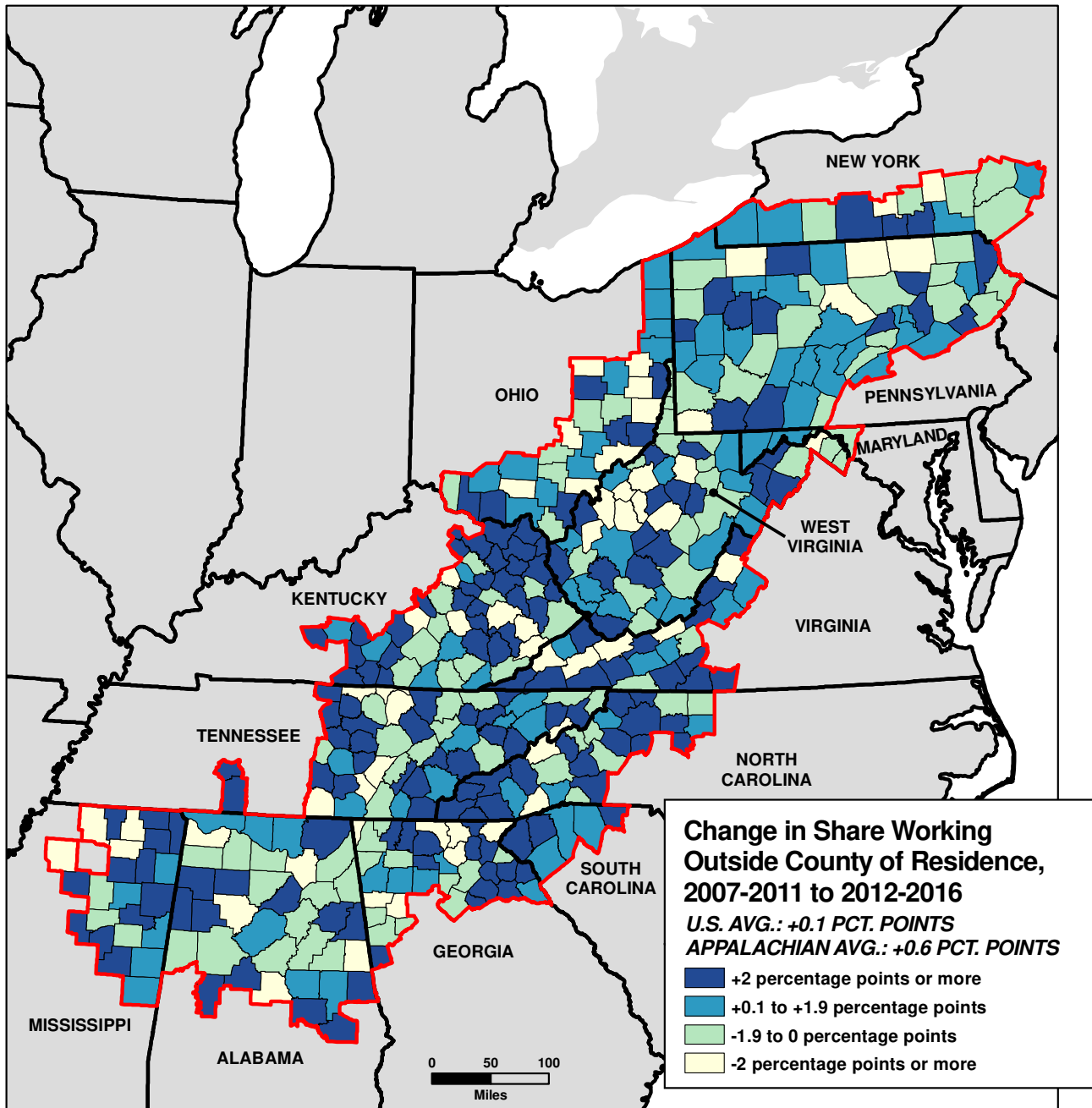
Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Table 6.7: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region, by Place of Work (State and County Level), 2007-2011 to 2012-2016

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	- 0.1	+ 0.1	+ 0.3	- 0.1
Appalachian Region	- 0.6	+ 0.6	+ 0.6	- 0.1
Subregions				
Northern Appalachia	- 0.4	+ 0.4	+ 0.5	+ 0.0
North Central Appalachia	- 0.3	+ 0.3	+ 0.3	+ 0.0
Central Appalachia	- 0.9	+ 0.9	+ 0.5	+ 0.4
South Central Appalachia	- 0.9	+ 0.9	+ 1.0	- 0.1
Southern Appalachia	- 0.5	+ 0.5	+ 0.6	+ 0.0
County Types				
Large Metros (pop. 1 million +)	- 0.2	+ 0.2	+ 0.3	- 0.1
Small Metros (pop. <1 million)	- 0.5	+ 0.5	+ 0.6	- 0.1
Nonmetro, Adjacent to Large Metros	- 1.3	+ 1.3	+ 1.1	+ 0.2
Nonmetro, Adjacent to Small Metros	- 0.7	+ 0.7	+ 0.7	+ 0.0
Rural (nonmetro, not adj. to a metro)	- 1.1	+ 1.1	+ 1.0	+ 0.2
Alabama	- 0.5	+ 0.5	+ 0.2	+ 0.4
Appalachian Alabama	+ 0.0	+ 0.0	+ 0.1	+ 0.0
Non-Appalachian Alabama	- 1.5	+ 1.5	+ 0.3	+ 1.1
Georgia	- 0.2	+ 0.2	+ 0.1	- 0.1
Appalachian Georgia	- 0.2	+ 0.2	+ 0.3	- 0.1
Non-Appalachian Georgia	+ 0.0	+ 0.0	+ 0.1	+ 0.0
Kentucky	- 0.2	+ 0.2	+ 0.2	+ 0.0
Appalachian Kentucky	- 1.3	+ 1.3	+ 0.8	+ 0.5
Non-Appalachian Kentucky	- 0.1	+ 0.1	+ 0.2	- 0.2
Maryland	+ 0.5	- 0.5	+ 0.1	- 0.6
Appalachian Maryland	- 0.3	+ 0.3	- 1.2	+ 1.5
Non-Appalachian Maryland	+ 0.6	- 0.6	+ 0.1	- 0.7
Mississippi	- 0.9	+ 0.9	+ 0.4	+ 0.6
Appalachian Mississippi	- 1.5	+ 1.5	+ 1.5	- 0.1
Non-Appalachian Mississippi	- 0.8	+ 0.8	+ 0.1	+ 0.6
New York	- 0.3	+ 0.3	+ 0.4	- 0.2
Appalachian New York	- 0.6	+ 0.6	+ 0.1	+ 0.4
Non-Appalachian New York	- 0.2	+ 0.2	+ 0.4	- 0.2
North Carolina	- 0.5	+ 0.5	+ 0.4	+ 0.1
Appalachian North Carolina	- 1.0	+ 1.0	+ 0.7	+ 0.3
Non-Appalachian North Carolina	- 0.4	+ 0.4	+ 0.4	+ 0.0
Ohio	- 0.6	+ 0.6	+ 0.6	+ 0.0
Appalachian Ohio	- 0.4	+ 0.4	+ 0.5	- 0.1
Non-Appalachian Ohio	- 0.6	+ 0.6	+ 0.6	+ 0.0
Pennsylvania	- 0.2	+ 0.2	+ 0.3	- 0.2
Appalachian Pennsylvania	- 0.4	+ 0.4	+ 0.5	- 0.2
Non-Appalachian Pennsylvania	+ 0.0	+ 0.0	+ 0.3	- 0.3
South Carolina	- 0.6	+ 0.6	+ 0.5	+ 0.2
Appalachian South Carolina	- 1.0	+ 1.0	+ 1.3	- 0.3
Non-Appalachian South Carolina	- 0.5	+ 0.5	+ 0.2	+ 0.3
Tennessee	- 0.5	+ 0.5	+ 0.6	- 0.1
Appalachian Tennessee	- 0.7	+ 0.7	+ 1.1	- 0.3
Non-Appalachian Tennessee	- 0.4	+ 0.4	+ 0.3	+ 0.1
Virginia	+ 0.2	- 0.2	+ 0.0	- 0.2
Appalachian Virginia	- 0.6	+ 0.6	+ 0.6	+ 0.0
Non-Appalachian Virginia	+ 0.2	- 0.2	- 0.1	- 0.1
West Virginia (entire state)	- 0.4	+ 0.4	+ 0.3	+ 0.1

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Figure 6.8: Percentage Point Change in the Share of Workers in the Appalachian Region Who Worked Outside Their County of Residence, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in Share of Workers Ages 16 and Over in the Appalachian Region Who Worked Outside Their County of Residence, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

A greater share of Appalachian residents worked outside their county of residence in 2012-2016 than in 2007-2011; this was also the case in three-fifths of Appalachia’s 420 counties. And in 164 of these counties, the share of workers whose employment commitments caused them to travel outside their counties increased at least two percentage points between these two periods. More than two-thirds of these counties were outside metropolitan areas, while 130 of them were in Central, South Central, and Southern Appalachia. As a group, these areas had the greatest increases in the percentage of workers commuting between counties. Yet there were 60 counties—scattered throughout the Region—where the share working outside their residential county was two or more percentage points lower in 2012-2016 than in the earlier period.

TRENDS IN LABOR FORCE, EMPLOYMENT, UNEMPLOYMENT, AND COMMUTING PATTERNS

- Among working-age adults (ages 25 to 64), Appalachia's labor force participation rate in 2012-2016 was nearly 73 percent, a full percentage point lower than its rate in 2007-2011 (see Tables 6.1 and 6.2). The decline was even greater in South Central Appalachia and nonmetropolitan counties bordering metro areas, where the rates fell more than 1.5 percentage points.
- Within the civilian labor force, the employment rate in Appalachia was almost 94 percent, which was just over a percentage point higher than the employment rate in 2007-2011. Among the subregions, the increase was greatest in Southern Appalachia, where employment rose 1.6 percentage points. Employment in Central Appalachia, however, did not change, making it the only subregion where employment rates did not rise. Elsewhere in the Region, the employment rate rose less than half a percentage point (0.4 points) among the most rural Appalachian counties—a noticeably smaller increase than among Appalachian counties within or bordering metropolitan areas. Among the states, employment increased the most in the Appalachian sections of South Carolina (2.4 percentage points), Ohio (1.9 points), and Georgia (1.7 points), yet stayed the same in Kentucky and declined slightly in Maryland and West Virginia.
- As Appalachia's employment rate rose between 2007-2011 and 2012-2016, its unemployment rate fell. The Region's unemployment rate of 6.1 percent in the later period is 1.1 percentage points lower than its rate in 2007-2011.
- The labor force and employment data provide a mixed picture. On one hand, the lower labor force rates in 2012-2016 for both Appalachia and the United States suggest that labor force levels may not yet have rebounded from the economic downturn of 2007-2009. Yet the higher employment rates (and thus the lower rates of unemployment) support the idea of an economic recovery in much of the Region.
- On average, Appalachian workers traveled 25 minutes to their jobs in 2012-2016, about half a minute longer than they did in 2007-2011 (see Tables 6.3 and 6.6). The average commute was longer throughout the Region: Only in Central Appalachia did the mean travel time drop between the two periods. And a greater percentage of workers took longer commutes: The share of workers who took between 30 minutes and 59 minutes to get to their jobs rose nearly a full percentage point between the 2007-2011 and 2012-2016 periods. And the share who took at least an hour to get to work rose 0.3 points in Appalachia—and 0.5 points in counties that were part of large metro areas.
- Slightly less than 32 percent of employed Appalachian residents ages 16 and over worked outside their county of residence in 2012-2016, representing an increase of 0.6 percentage points from the 2007-2011 period (see Tables 6.5 and 6.7). Within Appalachia, Central and South Central Appalachia had the greatest increases, while the counties outside metropolitan areas had greater increases than those within metros. Among the states, the share working outside their home county increased at least a full percentage point in the Appalachian sections of Kentucky, Mississippi, and the Carolinas, while the increases were more modest in Georgia and Maryland—and the share in Appalachian Alabama remained unchanged between the two periods.

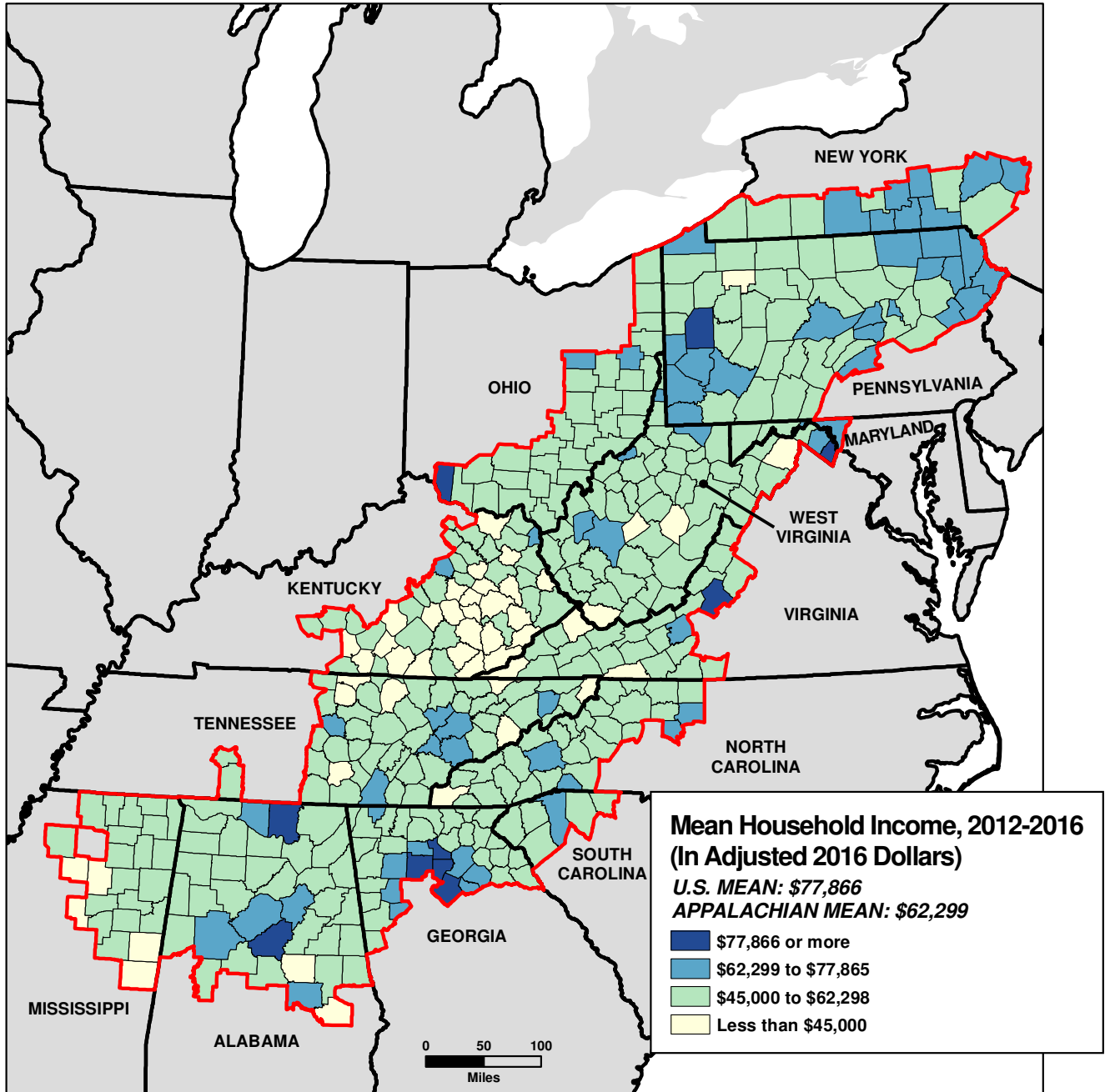
CHAPTER 7: INCOME AND POVERTY

Table 7.1: Household, Family, and Per Capita Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016

Income	Household Income, 2012-2016 (2016 Dollars)		Family Income, 2012-2016 (2016 Dollars)		Per Capita Income, 2012-2016 (2016 Dollars)
	Mean HH Income	Median HH Income	Mean Family Income	Median Family Income	
United States	77,866	55,322	90,960	67,871	29,829
Appalachian Region	62,299	45,967	73,916	57,983	25,028
Subregions					
Northern Appalachia	64,795	48,993	78,158	62,806	26,770
North Central Appalachia	59,271	44,209	70,301	56,330	24,075
Central Appalachia	48,706	34,602	57,347	44,223	19,687
South Central Appalachia	59,497	43,003	70,901	54,628	24,585
Southern Appalachia	65,690	48,666	76,553	59,411	25,037
County Types					
Large Metros (pop. 1 million +)	74,391	56,012	87,821	69,507	29,171
Small Metros (pop. <1 million)	62,906	46,555	75,277	59,201	25,477
Nonmetro, Adjacent to Large Metros	55,637	42,164	65,710	53,052	22,283
Nonmetro, Adjacent to Small Metros	54,224	41,011	63,520	51,171	22,077
Rural (nonmetro, not adj. to a metro)	50,195	36,565	59,425	46,454	20,314
Alabama	62,061	44,758	74,189	56,828	24,736
Appalachian Alabama	64,061	46,458	76,230	58,656	25,515
Non-Appalachian Alabama	58,461	42,188	70,406	54,622	23,351
Georgia	71,420	51,037	82,647	61,328	26,678
Appalachian Georgia	71,785	54,931	80,852	63,715	25,543
Non-Appalachian Georgia	71,269	49,607	83,492	60,350	27,178
Kentucky	61,757	44,811	73,193	56,522	24,802
Appalachian Kentucky	47,923	34,006	56,341	43,484	19,212
Non-Appalachian Kentucky	66,774	49,431	79,598	62,633	26,835
Maryland	100,071	76,067	116,461	92,049	37,756
Appalachian Maryland	65,876	50,452	78,348	63,198	25,684
Non-Appalachian Maryland	101,647	77,829	118,183	94,171	38,290
Mississippi	56,358	40,528	66,185	50,592	21,651
Appalachian Mississippi	51,106	37,520	60,140	47,009	20,107
Non-Appalachian Mississippi	57,805	41,488	67,847	51,824	22,062
New York	89,397	60,741	104,233	74,036	34,212
Appalachian New York	62,687	48,094	75,535	61,834	25,437
Non-Appalachian New York	91,010	61,949	105,913	75,081	34,707
North Carolina	67,367	48,256	79,446	59,667	26,779
Appalachian North Carolina	58,527	42,419	69,511	53,876	24,390
Non-Appalachian North Carolina	69,336	49,785	81,604	61,316	27,280
Ohio	68,341	50,674	82,269	64,433	27,800
Appalachian Ohio	58,168	44,351	68,778	56,419	23,460
Non-Appalachian Ohio	70,450	52,282	85,202	66,955	28,714
Pennsylvania	75,235	54,895	90,446	69,960	30,137
Appalachian Pennsylvania	66,797	50,381	80,862	64,709	27,737
Non-Appalachian Pennsylvania	82,670	60,140	98,656	75,704	32,101
South Carolina	64,115	46,898	75,385	58,158	25,521
Appalachian South Carolina	63,451	46,497	75,086	58,443	25,087
Non-Appalachian South Carolina	64,341	47,125	75,489	58,299	25,667
Tennessee	65,368	46,574	77,112	57,747	26,019
Appalachian Tennessee	59,450	42,601	70,512	53,766	24,332
Non-Appalachian Tennessee	70,162	50,411	82,454	61,931	27,313
Virginia	90,881	66,149	105,488	80,068	34,967
Appalachian Virginia	55,961	40,928	67,687	53,200	23,335
Non-Appalachian Virginia	94,721	70,302	109,481	84,416	36,138
West Virginia (entire state)	57,779	42,644	68,895	54,409	24,002

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

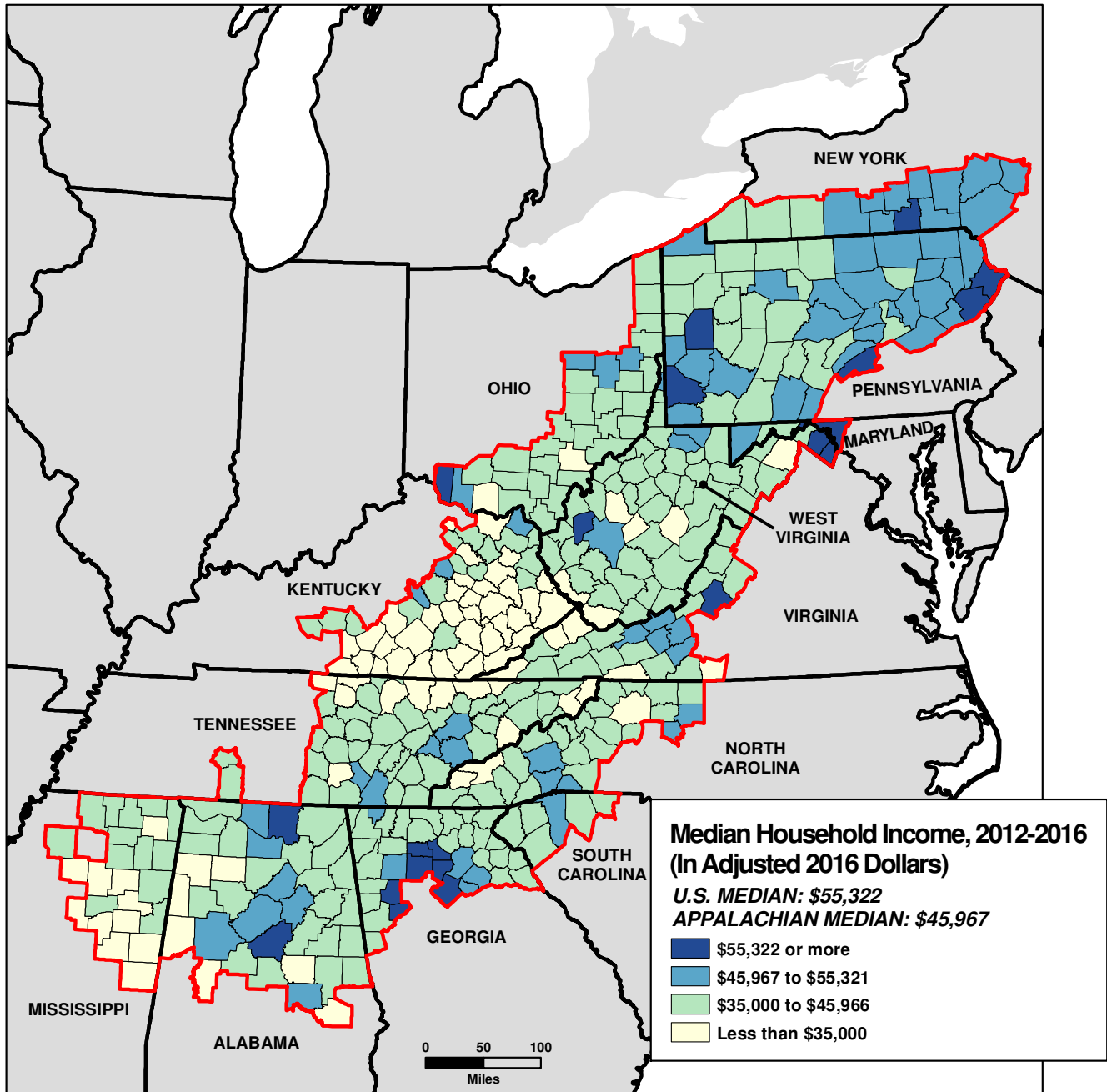
Figure 7.1: Mean Household Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016



Map Title: Mean Household Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In the 2012-2016 period, the mean income of Appalachian households was \$62,299, just 80 percent of the U.S. average (\$77,866). In just 10 of the Region’s counties (all of which were in metropolitan areas), average household income matched or exceeded the national mean. And in only 64 additional counties (50 of which were in metros), mean household income matched or surpassed the Appalachian average. In contrast, mean household income was less than \$45,000 in 48 counties—all but two of which were outside metro areas, and 32 of which were in Central Appalachia (25 in Kentucky alone).

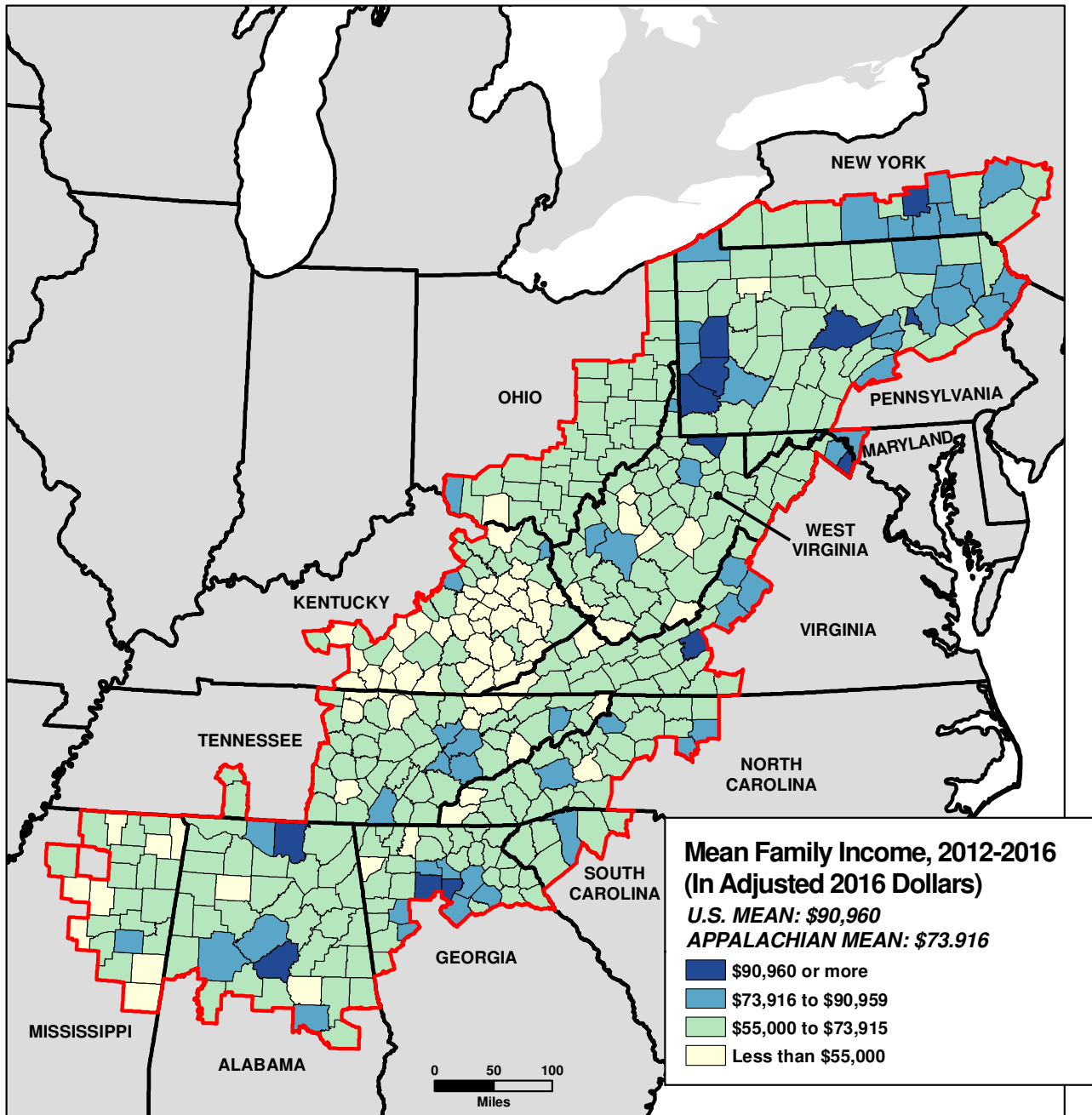
Figure 7.2: Median Household Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016



Map Title: Median Household Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

At \$45,967, median household income in Appalachia (the level at which half the households have higher incomes and the other half have lower incomes) was 83 percent that of the United States (\$55,322) during the 2012-2016 period. There were 21 counties in the Region (all of which were in metropolitan areas) that had household incomes at or above the national median, while another 75 had incomes at or above the regional median. On the other hand, 82 counties in the Region had median household incomes below \$35,000—75 of which were outside metro areas and 49 of which were in Central Appalachia. This distribution is not surprising: median household income was \$36,565 for the most rural counties and \$34,602 for Central Appalachia. It is useful to note that the income levels displayed here reflect income received at least three years after the end of the 2007-2009 economic downturn.

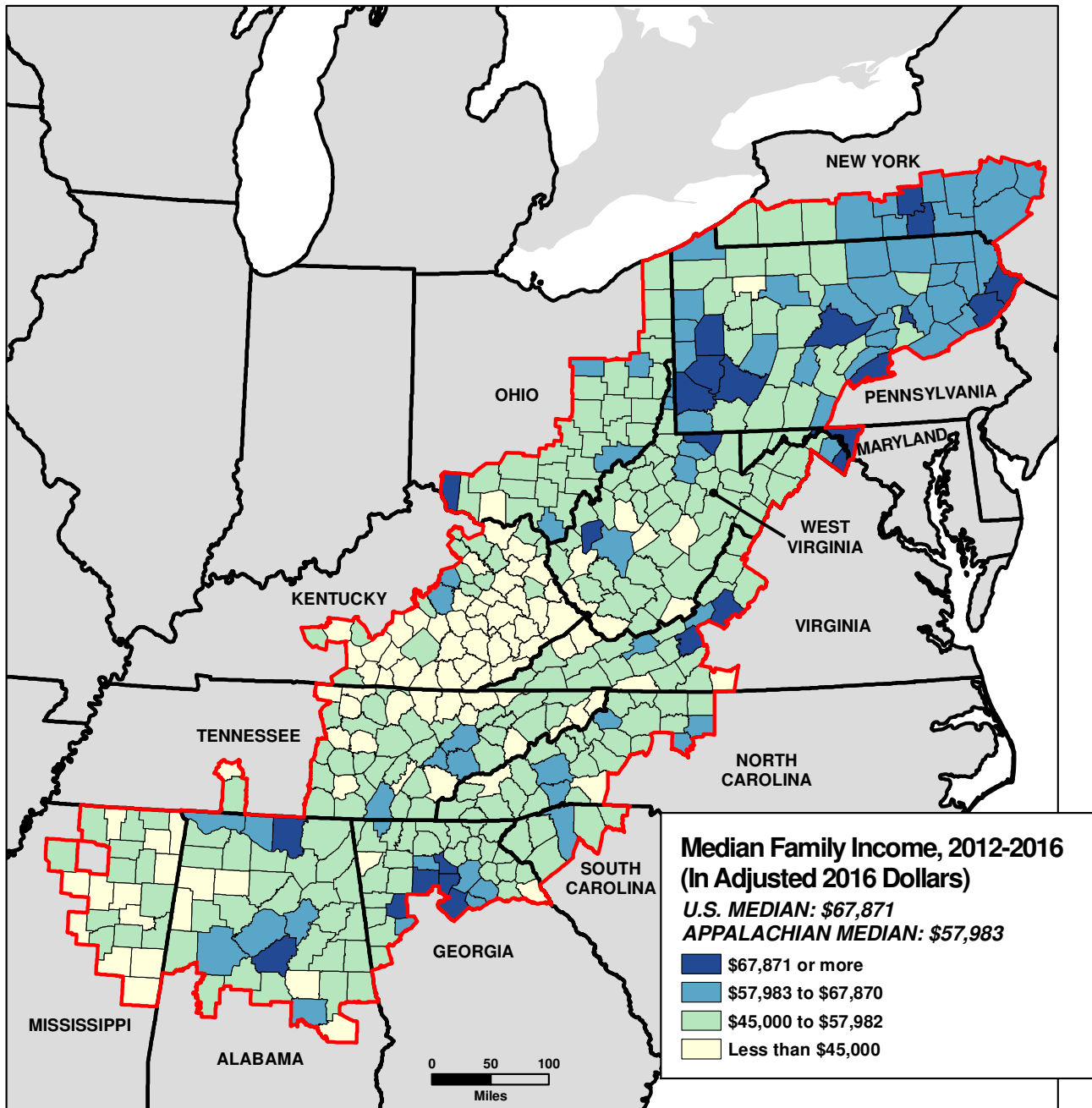
Figure 7.3: Mean Family Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016



Map Title: Mean Family Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In only 13 Appalachian counties (all of which were in metropolitan areas), the average income of families matched or surpassed the U.S. mean of \$90,960 for the 2012-2016 period. And there were just an additional 55 counties (42 of which were part of metro areas) where mean family income was equal to or greater than the average for the Appalachian Region (\$73,916). In contrast, mean family income was less than \$55,000 in 69 Appalachian counties. All but five of these counties were outside metropolitan areas, while nearly two-thirds were in Central Appalachia and 33 were in Kentucky alone. Overall, mean family income over the 2012-2016 period was less than \$66,000 for each of the three nonmetro county types, and just \$57,347 for Central Appalachia, and \$56,341 for Appalachian Kentucky.

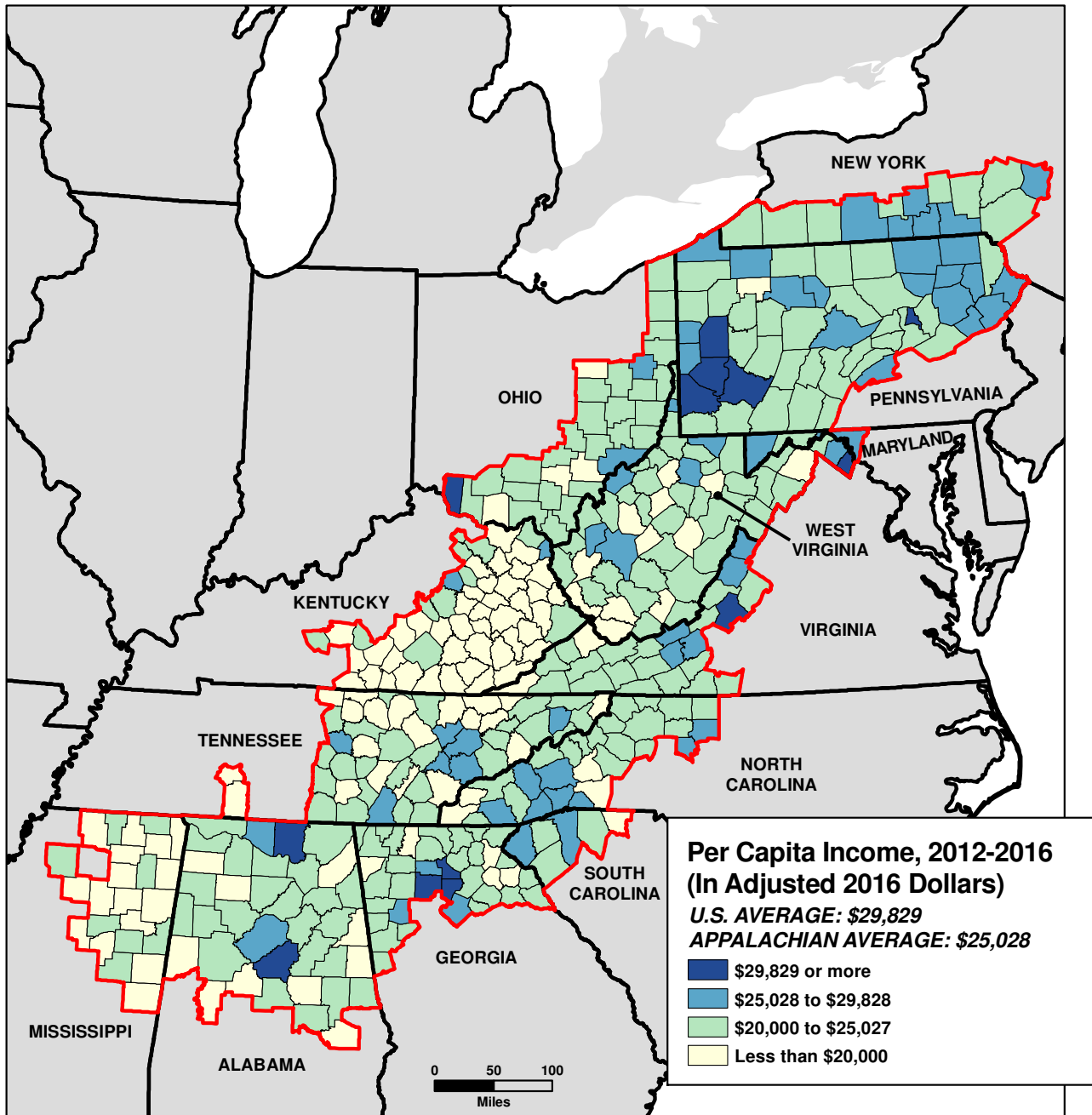
Figure 7.4: Median Family Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016



Map Title: Median Family Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In 25 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 of \$67,871 during the 2012-2016 period. In another 69 counties (41 of which were in metros), median income was at or above the median for families in the Appalachian Region (\$57,983). In contrast, median family income was less than \$45,000 in 90 counties. Of the counties in this latter group, more than half were rural counties not adjacent to a metro area (median family income in those counties as a whole was \$46,454), and 37 were in Appalachian Kentucky (where median family income was \$43,484). It is important to note that the 2012-2016 period seems to include a time of relatively slow economic recovery following the recession of 2007-2009.

Figure 7.5: Per Capita Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016



Map Title: Per Capita Income in the Appalachian Region (In Adjusted 2016 Dollars), 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

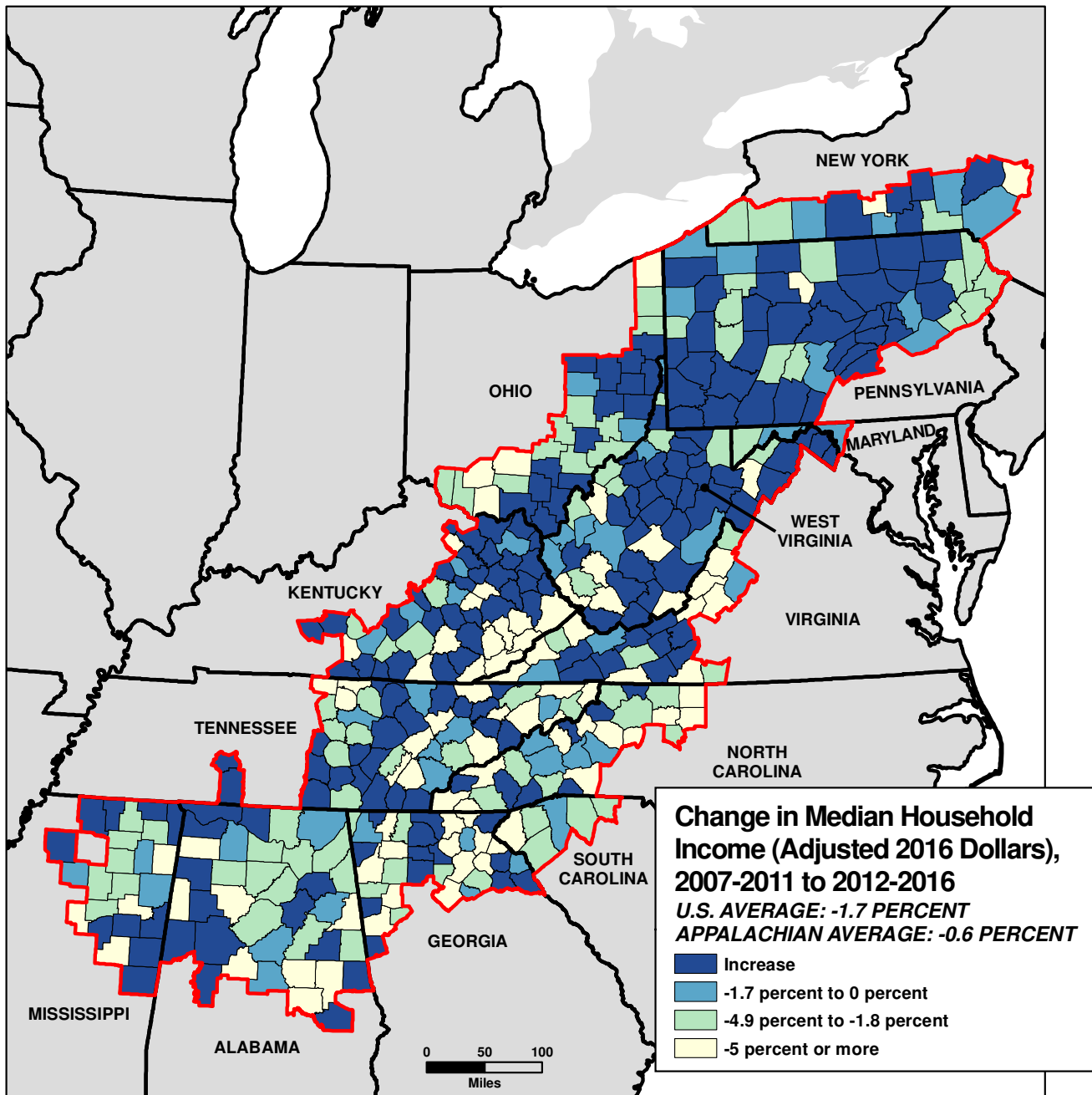
At \$25,028, per capita income in the Appalachian Region was 84 percent that of the U.S. average of \$29,829 during the 2012-2016 period. And there was considerable variation within the Region. Per capita income was the same or higher than the national average in 13 Appalachian counties, including Pittsburgh, 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 nearly half of these were in Northern Appalachia, there were pockets in the South Central and Southern subregions. Yet in 116 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 2012-2016 was only \$20,314 in the most rural Appalachian counties as a whole, and just \$19,687 in Central Appalachia.

Table 7.2: Change in Household, Family, and Per Capita Income in the Appalachian Region (In Adjusted 2016 Dollars), 2007-2011 to 2012-2016

Income	Percent Change in Household Income (In 2016 Dollars)		Percent Change in Family Income (in 2016 Dollars)		Percent Change in Per Capita Income (In 2016 Dollars)
	Mean HH Income	Median HH Income	Mean Family Income	Median Family Income	
United States	+ 0.6	- 1.7	+ 1.0	- 1.1	+ 0.2
Appalachian Region	+ 0.9	- 0.6	+ 1.3	- 0.2	+ 0.9
Subregions					
Northern Appalachia	+ 2.6	+ 1.5	+ 3.3	+ 2.5	+ 3.0
North Central Appalachia	+ 1.8	+ 0.6	+ 1.7	+ 1.3	+ 2.0
Central Appalachia	+ 1.0	- 1.4	+ 0.8	- 1.1	+ 1.4
South Central Appalachia	+ 0.1	- 1.9	+ 0.0	- 1.7	- 0.1
Southern Appalachia	- 0.9	- 1.8	- 0.2	- 1.7	- 1.2
County Types					
Large Metros (pop. 1 million +)	+ 0.8	- 0.2	+ 1.3	+ 0.6	+ 0.7
Small Metros (pop. <1 million)	+ 0.3	- 1.0	+ 0.6	- 0.9	+ 0.2
Nonmetro, Adjacent to Large Metros	+ 1.6	- 1.2	+ 2.6	+ 0.4	+ 2.3
Nonmetro, Adjacent to Small Metros	+ 1.4	- 0.2	+ 1.0	- 0.4	+ 1.3
Rural (nonmetro, not adj. to a metro)	+ 0.9	+ 0.0	+ 1.3	- 0.1	+ 1.2
Alabama	- 1.4	- 2.3	- 0.3	- 1.4	- 1.3
Appalachian Alabama	- 1.3	- 1.5	- 0.5	- 1.2	- 1.3
Non-Appalachian Alabama	- 1.8	- 3.5	- 0.1	- 0.8	- 1.2
Georgia	- 1.0	- 3.8	- 0.5	- 3.0	- 1.5
Appalachian Georgia	- 1.1	- 3.2	- 0.3	- 2.3	- 1.9
Non-Appalachian Georgia	- 1.0	- 3.7	- 0.5	- 3.3	- 1.3
Kentucky	+ 0.8	- 0.6	+ 0.8	- 0.3	+ 0.9
Appalachian Kentucky	- 0.3	- 0.6	- 0.8	- 0.2	+ 0.3
Non-Appalachian Kentucky	+ 0.9	- 0.4	+ 1.2	+ 0.2	+ 0.8
Maryland	- 0.2	- 1.5	- 0.4	- 1.1	- 1.0
Appalachian Maryland	- 1.0	- 2.3	- 0.1	- 3.2	- 2.6
Non-Appalachian Maryland	- 0.3	- 1.2	- 0.5	- 1.4	- 1.0
Mississippi	- 1.9	- 1.9	- 1.2	- 1.3	- 1.1
Appalachian Mississippi	+ 0.7	+ 2.0	+ 0.6	+ 0.9	+ 1.1
Non-Appalachian Mississippi	- 2.6	- 3.0	- 1.6	- 2.0	- 1.7
New York	+ 1.3	+ 0.0	+ 2.1	+ 0.3	+ 0.9
Appalachian New York	+ 1.4	- 0.6	+ 2.2	+ 1.7	+ 1.3
Non-Appalachian New York	+ 1.3	- 0.3	+ 2.0	- 0.1	+ 0.8
North Carolina	- 0.2	- 2.3	+ 0.0	- 2.2	- 0.6
Appalachian North Carolina	- 1.9	- 3.9	- 2.2	- 3.6	- 1.9
Non-Appalachian North Carolina	+ 0.0	- 2.2	+ 0.4	- 1.9	- 0.4
Ohio	+ 0.9	- 1.2	+ 1.9	- 0.6	+ 1.7
Appalachian Ohio	+ 1.2	- 0.8	+ 2.1	+ 1.0	+ 2.1
Non-Appalachian Ohio	+ 0.8	- 1.3	+ 1.8	- 0.5	+ 1.6
Pennsylvania	+ 1.8	- 0.4	+ 2.0	+ 0.7	+ 1.5
Appalachian Pennsylvania	+ 3.2	+ 2.3	+ 3.8	+ 3.4	+ 3.6
Non-Appalachian Pennsylvania	+ 0.7	- 2.0	+ 0.4	- 1.7	- 0.1
South Carolina	- 0.1	- 1.4	+ 0.1	- 1.3	+ 0.3
Appalachian South Carolina	- 0.6	- 2.0	- 0.5	- 2.4	- 0.7
Non-Appalachian South Carolina	+ 0.1	- 1.1	+ 0.3	- 1.1	+ 0.6
Tennessee	+ 1.2	- 0.8	+ 1.4	- 0.4	+ 0.8
Appalachian Tennessee	+ 1.3	- 1.0	+ 1.1	- 1.1	+ 0.6
Non-Appalachian Tennessee	+ 1.0	- 0.5	+ 1.4	- 0.2	+ 0.8
Virginia	- 0.2	- 2.1	+ 0.1	- 1.2	- 0.8
Appalachian Virginia	+ 3.0	+ 0.1	+ 4.3	+ 1.8	+ 3.9
Non-Appalachian Virginia	- 0.5	- 2.2	- 0.4	- 1.6	- 1.3
West Virginia (entire state)	+ 2.2	+ 1.1	+ 1.8	+ 1.0	+ 2.2

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Figure 7.6: Percent Change in Median Household Income in the Appalachian Region (In Adjusted 2016 Dollars), 2007-2011 to 2012-2016



Map Title: Percent Change in Median Household Income in the Appalachian Region (In Adjusted 2016 Dollars), 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 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 just under 1 percent lower in 2012-2016 than it was in 2007-2011, suggesting that incomes have not yet fully recovered from the recent economic downturn. While the decline was not as steep in Appalachia as in the nation as a whole, that was not the case in much of the Region: In 176 counties, real median household income fell more than the national rate; the decline was at least 5 percent in 87 counties. Most of the counties with the sharpest declines were in South Central or Southern Appalachia. On the bright side, however, there were 192 Appalachian counties where median household income rose between 2007-2011 and 2012-2016. The counties in this latter group were scattered throughout the Region.

Table 7.3: Number of Persons in the Appalachian Region in Poverty, by Age Group, 2012-2016

Poverty Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	46,932,225	15,335,783	27,401,015	6,828,933	20,572,082	4,195,427
Appalachian Region	4,126,520	1,278,731	2,457,656	583,602	1,874,054	390,133
Subregions						
Northern Appalachia	1,145,524	341,337	687,972	180,849	507,123	116,215
North Central Appalachia	413,487	119,697	256,742	62,344	194,398	37,048
Central Appalachia	447,507	133,601	269,018	47,964	221,054	44,888
South Central Appalachia	827,821	243,935	502,517	128,428	374,089	81,369
Southern Appalachia	1,292,181	440,161	741,407	164,017	577,390	110,613
County Types						
Large Metros (pop. 1 million +)	772,209	250,823	449,364	96,786	352,578	72,022
Small Metros (pop. <1 million)	1,719,686	526,131	1,040,810	275,782	765,028	152,745
Nonmetro, Adjacent to Large Metros	392,094	123,759	232,278	56,175	176,103	36,057
Nonmetro, Adjacent to Small Metros	697,476	214,799	408,286	82,501	325,785	74,391
Rural (nonmetro, not adj. to a metro)	545,055	163,219	326,918	72,358	254,560	54,918
Alabama	868,666	289,382	502,942	120,323	382,619	76,342
Appalachian Alabama	516,441	171,108	299,094	65,954	233,140	46,239
Non-Appalachian Alabama	352,225	118,274	203,848	54,369	149,479	30,103
Georgia	1,746,894	625,065	995,117	235,391	759,726	126,712
Appalachian Georgia	444,296	159,217	250,268	48,125	202,143	34,811
Non-Appalachian Georgia	1,302,598	465,848	744,849	187,266	557,583	91,901
Kentucky	804,139	255,223	477,123	108,691	368,432	71,793
Appalachian Kentucky	294,620	87,797	177,727	33,467	144,260	29,096
Non-Appalachian Kentucky	509,519	167,426	299,396	75,224	224,172	42,697
Maryland	576,835	176,259	339,521	80,999	258,522	61,055
Appalachian Maryland	33,262	10,485	19,140	4,741	14,399	3,637
Non-Appalachian Maryland	543,573	165,774	320,381	76,258	244,123	57,418
Mississippi	645,553	227,561	362,642	86,190	276,452	55,350
Appalachian Mississippi	137,116	46,514	77,860	20,936	56,924	12,742
Non-Appalachian Mississippi	508,437	181,047	284,782	65,254	219,528	42,608
New York	2,967,564	910,806	1,736,542	387,090	1,349,452	320,216
Appalachian New York	165,518	46,860	105,365	34,043	71,322	13,293
Non-Appalachian New York	2,802,046	863,946	1,631,177	353,047	1,278,130	306,923
North Carolina	1,631,704	539,417	955,430	234,322	721,108	136,857
Appalachian North Carolina	304,288	92,066	181,773	42,989	138,784	30,449
Non-Appalachian North Carolina	1,327,416	447,351	773,657	191,333	582,324	106,408
Ohio	1,732,839	571,996	1,021,733	253,863	767,870	139,110
Appalachian Ohio	342,501	110,407	202,110	43,149	158,961	29,984
Non-Appalachian Ohio	1,390,338	461,589	819,623	210,714	608,909	109,126
Pennsylvania	1,647,762	507,013	974,098	246,285	727,813	166,651
Appalachian Pennsylvania	744,859	215,991	447,829	120,006	327,823	81,039
Non-Appalachian Pennsylvania	902,903	291,022	526,269	126,279	399,990	85,612
South Carolina	806,422	270,105	465,422	112,370	353,052	70,895
Appalachian South Carolina	194,328	63,322	114,185	29,002	85,183	16,821
Non-Appalachian South Carolina	612,094	206,783	351,237	83,368	267,869	54,074
Tennessee	1,100,169	369,296	638,533	147,675	490,858	92,340
Appalachian Tennessee	494,607	149,648	296,374	66,619	229,755	48,585
Non-Appalachian Tennessee	605,562	219,648	342,159	81,056	261,103	43,755
Virginia	921,664	278,352	558,524	152,526	405,998	84,788
Appalachian Virginia	136,624	33,852	88,238	29,109	59,129	14,534
Non-Appalachian Virginia	785,040	244,500	470,286	123,417	346,869	70,254
West Virginia (entire state)	318,060	91,464	197,693	45,462	152,231	28,903

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2012-2016 American Community Survey.

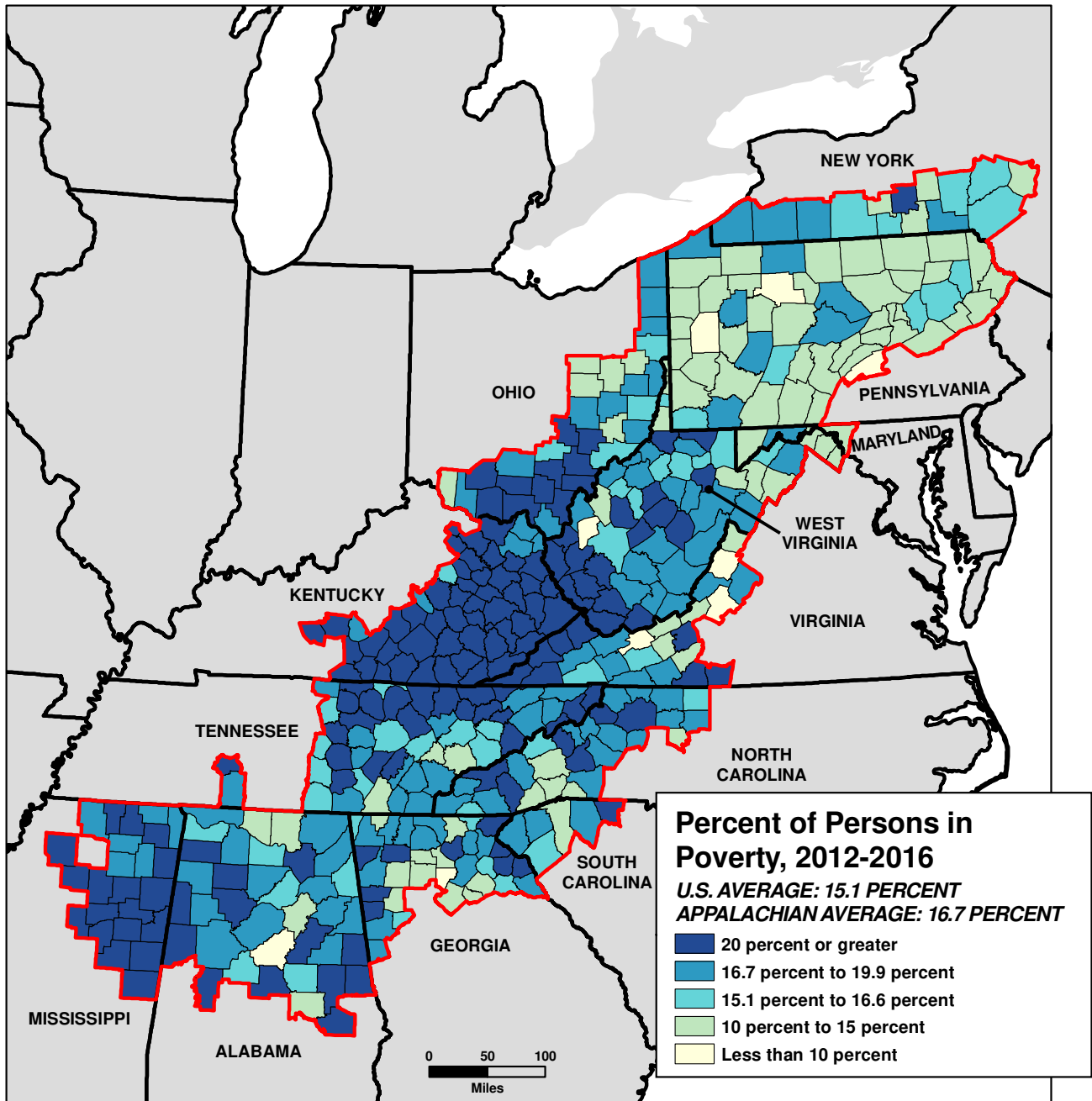
Table 7.4: Percent of Persons in the Appalachian Region in Poverty, by Age Group, 2012-2016

Poverty Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-24	Ages 25-64	
United States	15.1	21.2	14.2	24.3	12.5	9.3
Appalachian Region	16.7	23.6	16.2	27.4	14.4	9.4
Subregions						
Northern Appalachia	14.4	20.9	14.1	26.7	12.0	8.0
North Central Appalachia	17.6	23.9	17.8	30.9	15.7	9.3
Central Appalachia	24.4	33.2	24.0	31.9	22.8	14.5
South Central Appalachia	17.8	25.1	17.7	31.8	15.4	9.6
Southern Appalachia	16.4	23.1	15.3	23.7	13.9	9.9
County Types						
Large Metros (pop. 1 million +)	13.1	18.4	12.3	20.2	11.1	8.4
Small Metros (pop. <1 million)	16.5	23.5	16.2	29.4	14.0	8.8
Nonmetro, Adjacent to Large Metros	18.5	26.5	18.1	30.3	16.0	9.8
Nonmetro, Adjacent to Small Metros	18.2	26.4	17.7	26.6	16.4	10.2
Rural (nonmetro, not adj. to a metro)	22.4	30.8	22.2	34.2	20.2	12.7
Alabama	18.4	26.5	17.3	28.1	15.4	10.6
Appalachian Alabama	17.1	24.7	16.0	24.9	14.5	10.0
Non-Appalachian Alabama	20.7	29.7	19.6	33.1	17.1	11.6
Georgia	17.8	25.4	16.2	26.1	14.5	10.4
Appalachian Georgia	14.6	20.1	13.4	18.4	12.5	9.2
Non-Appalachian Georgia	19.2	27.9	17.4	29.3	15.3	11.0
Kentucky	18.8	25.7	18.0	28.8	16.2	11.4
Appalachian Kentucky	25.9	34.4	25.5	34.6	24.0	15.9
Non-Appalachian Kentucky	16.2	22.7	15.3	26.8	13.4	9.5
Maryland	9.9	13.3	9.2	16.3	8.1	7.7
Appalachian Maryland	14.1	20.6	13.3	22.8	11.7	8.9
Non-Appalachian Maryland	9.7	13.0	9.0	16.0	7.9	7.6
Mississippi	22.3	31.5	20.6	31.9	18.6	13.4
Appalachian Mississippi	22.5	31.6	21.1	35.0	18.4	13.6
Non-Appalachian Mississippi	22.3	31.5	20.5	31.1	18.6	13.3
New York	15.5	21.9	14.2	22.4	12.8	11.4
Appalachian New York	16.7	22.9	17.2	34.2	13.9	7.6
Non-Appalachian New York	15.4	21.9	14.0	21.7	12.8	11.7
North Carolina	16.8	23.9	15.9	27.6	14.0	9.7
Appalachian North Carolina	18.1	26.5	17.9	31.3	15.8	9.6
Non-Appalachian North Carolina	16.6	23.5	15.5	26.9	13.6	9.7
Ohio	15.4	22.1	14.7	26.1	12.9	8.1
Appalachian Ohio	17.6	25.4	17.1	26.6	15.6	9.0
Non-Appalachian Ohio	14.9	21.4	14.2	25.9	12.3	7.8
Pennsylvania	13.3	19.1	12.7	23.7	11.0	8.1
Appalachian Pennsylvania	13.5	19.4	13.2	26.0	11.1	8.0
Non-Appalachian Pennsylvania	13.2	18.8	12.4	21.9	10.9	8.2
South Carolina	17.2	25.3	16.2	27.2	14.3	9.5
Appalachian South Carolina	16.3	23.0	15.7	27.6	13.7	9.1
Non-Appalachian South Carolina	17.5	26.1	16.3	27.1	14.5	9.7
Tennessee	17.2	25.1	16.1	26.2	14.5	9.7
Appalachian Tennessee	17.9	25.4	17.6	28.2	15.8	9.9
Non-Appalachian Tennessee	16.7	24.9	15.1	24.7	13.4	9.4
Virginia	11.4	15.1	10.9	21.9	9.2	7.6
Appalachian Virginia	18.8	24.1	19.7	41.4	15.7	10.5
Non-Appalachian Virginia	10.7	14.4	10.1	19.7	8.6	7.2
West Virginia (entire state)	17.7	24.7	17.9	30.2	16.0	9.0

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2012-2016 American Community Survey.

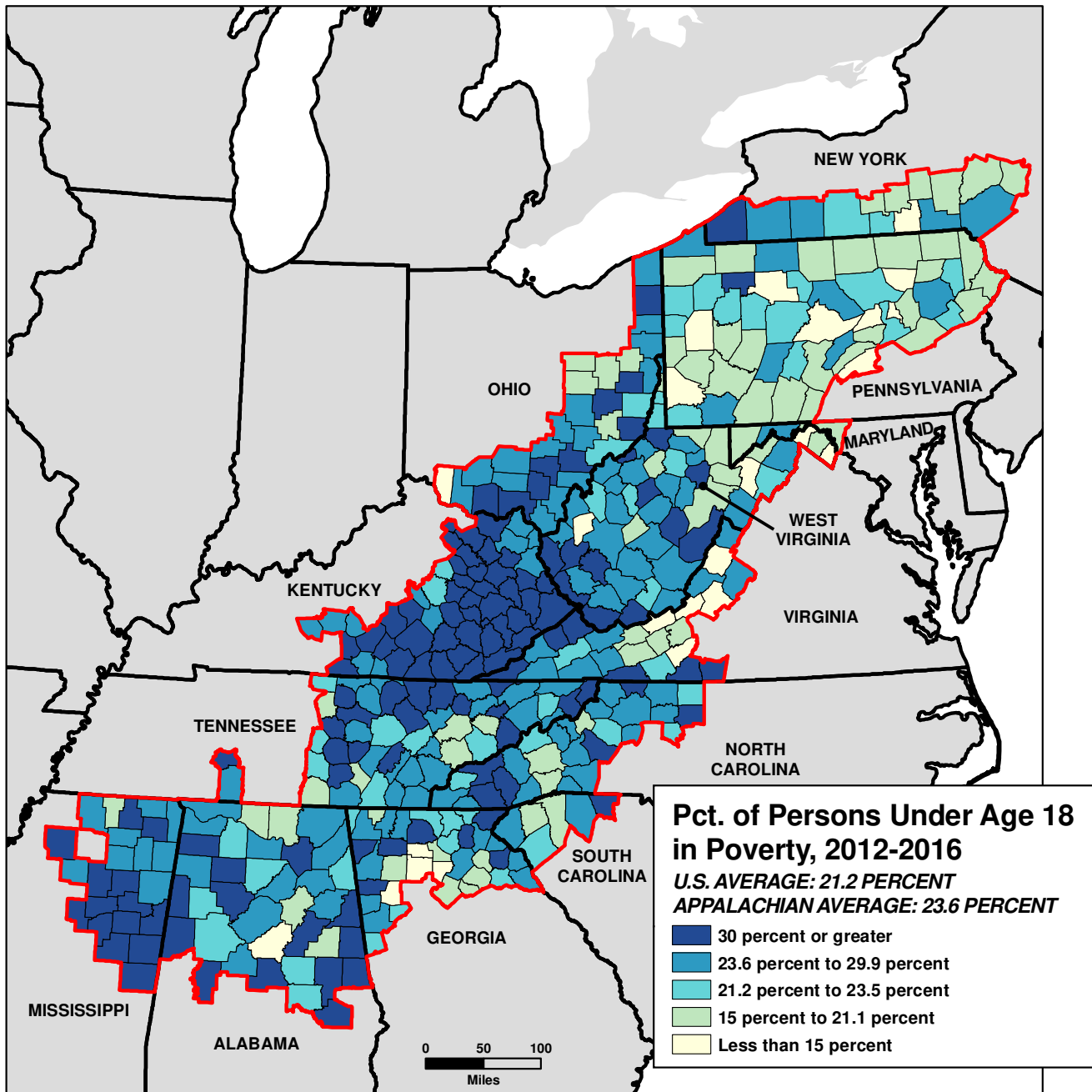
Figure 7.7: Percent of Persons in the Appalachian Region in Poverty, 2012-2016



Map Title: Percent of Persons in the Appalachian Region in Poverty, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Over the 2012-2016 period, almost 17 percent of Appalachian residents lived below the poverty level (income below \$24,339 for a family of two adults and two children in 2016)—close to two percentage points above the U.S. average. But there is a great deal of variation within the Region: In 155 counties, at least 20 percent of persons were poor, yet in another 96 counties the poverty rate was lower than the national average. And there was a geographic and urban/rural pattern: More than four-fifths of the counties with poverty rates at or above 20 percent were outside metropolitan areas, and they were overwhelmingly in Central, South Central, and Southern Appalachia. In contrast, the counties where poverty was below the U.S. rate were mostly in Northern Appalachia and in metropolitan areas.

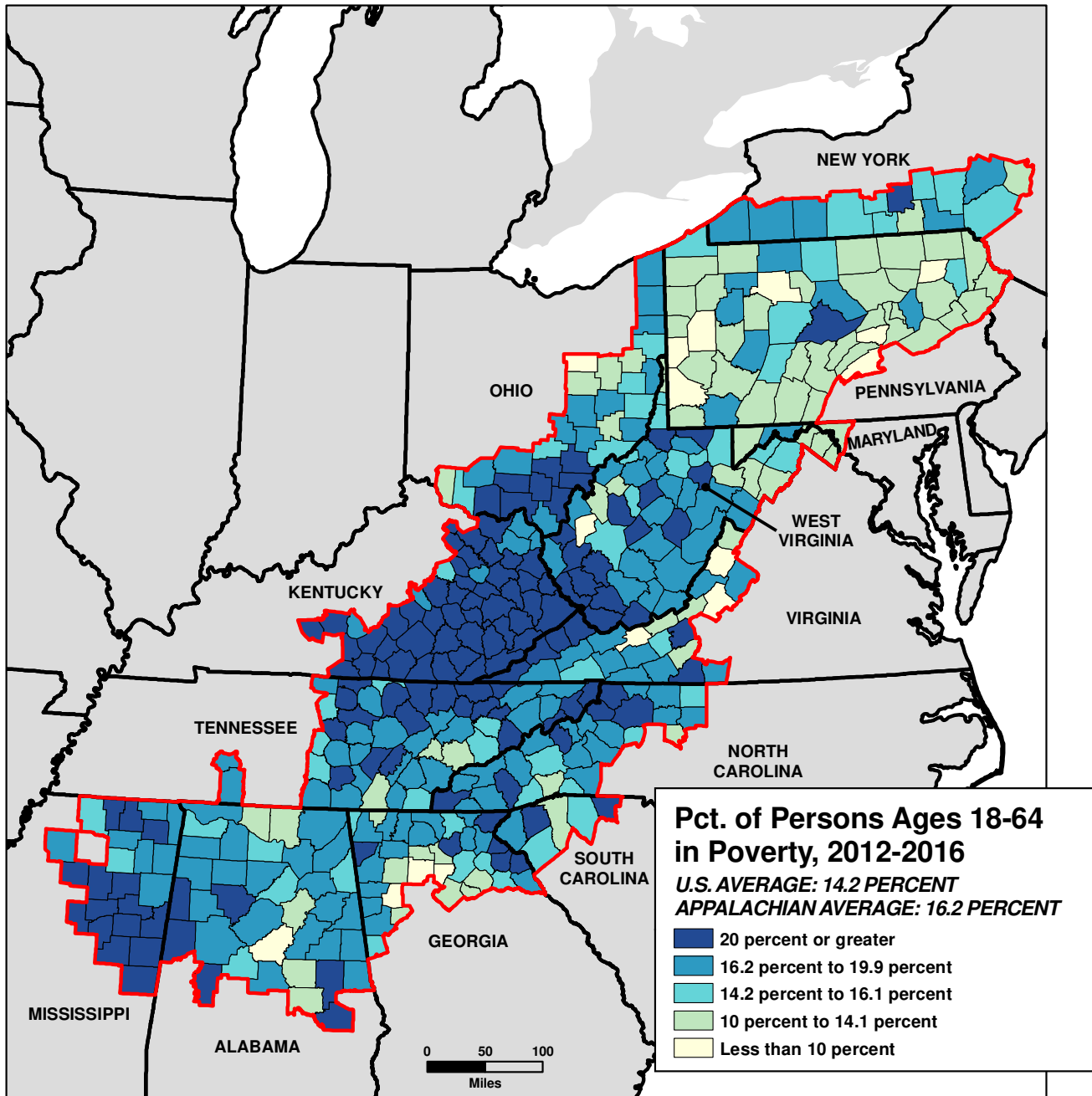
Figure 7.8: Percent of Persons Under Age 18 in the Appalachian Region in Poverty, 2012-2016



Map Title: Percent of Persons Under Age 18 in the Appalachian Region in Poverty, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Child poverty in the Appalachian Region was just under 24 percent in 2012-2016—more than two percentage points above the national rate of 21 percent. And the problem is even more acute in some parts of Appalachia. In 130 counties, at least 30 percent of children under age 18 lived below the poverty level (income below \$24,339 for a family of two adults and two children in 2016). All but 15 of these counties were outside metropolitan areas and nearly half were in the most isolated rural areas. Central Appalachia was home to 56 of the counties with the highest poverty rates, while most of the rest were in South Central and Southern Appalachia. However, there were 96 counties (primarily in Northern Appalachia and in metropolitan areas) where child poverty rates were below the national average. Indeed, 18 of the 24 Appalachian counties where child poverty was less than 15 percent were in metro areas, and nine were in Northern Appalachia.

Figure 7.9: Percent of Persons Ages 18 to 64 in the Appalachian Region in Poverty, 2012-2016

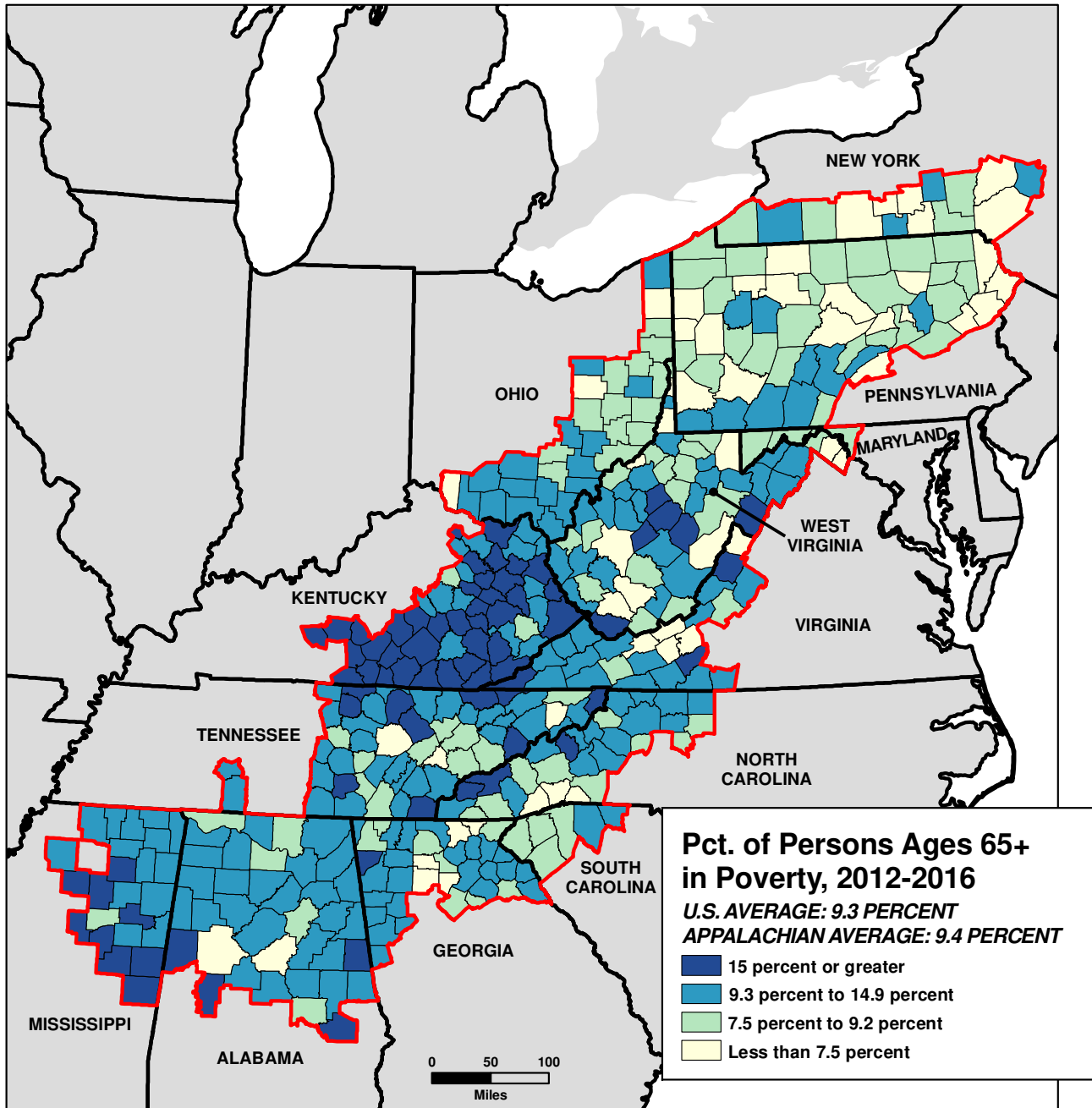


Map Title: Percent of Persons Ages 18 to 64 in the Appalachian Region in Poverty, 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 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 2012-2016 period. Just over 16 percent of Appalachian residents in this age group were below poverty (income of less than \$24,339 for a family of two adults and two children in 2016), and this rate was two percentage points above the U.S. average of 14 percent. Within the Region, there were rural/urban and geographic patterns of poverty concentration. Of the 133 counties where at least one in five 18-to-64-year-olds was poor, 112 were outside metropolitan areas; 114 were in Central, South Central, and Southern Appalachia; and 47 were in Kentucky alone. Conversely, 79 of the 90 counties with rates below the national average were either in metro areas or in Northern Appalachia.

Figure 7.10: Percent of Persons Ages 65 and Over in the Appalachian Region in Poverty, 2012-2016



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region in Poverty, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

The poverty rate for the oldest residents of Appalachia was slightly more than 9 percent in 2012-2016, just barely above the national average. Yet the rate was actually lower than the national share in 156 counties, almost half 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 one in six residents ages 65 and over was poor in 2012-2016. Moreover, the state had more than half of Appalachia’s 74 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 2016 was \$14,507 for a family of two adults headed by someone age 65 or older.)

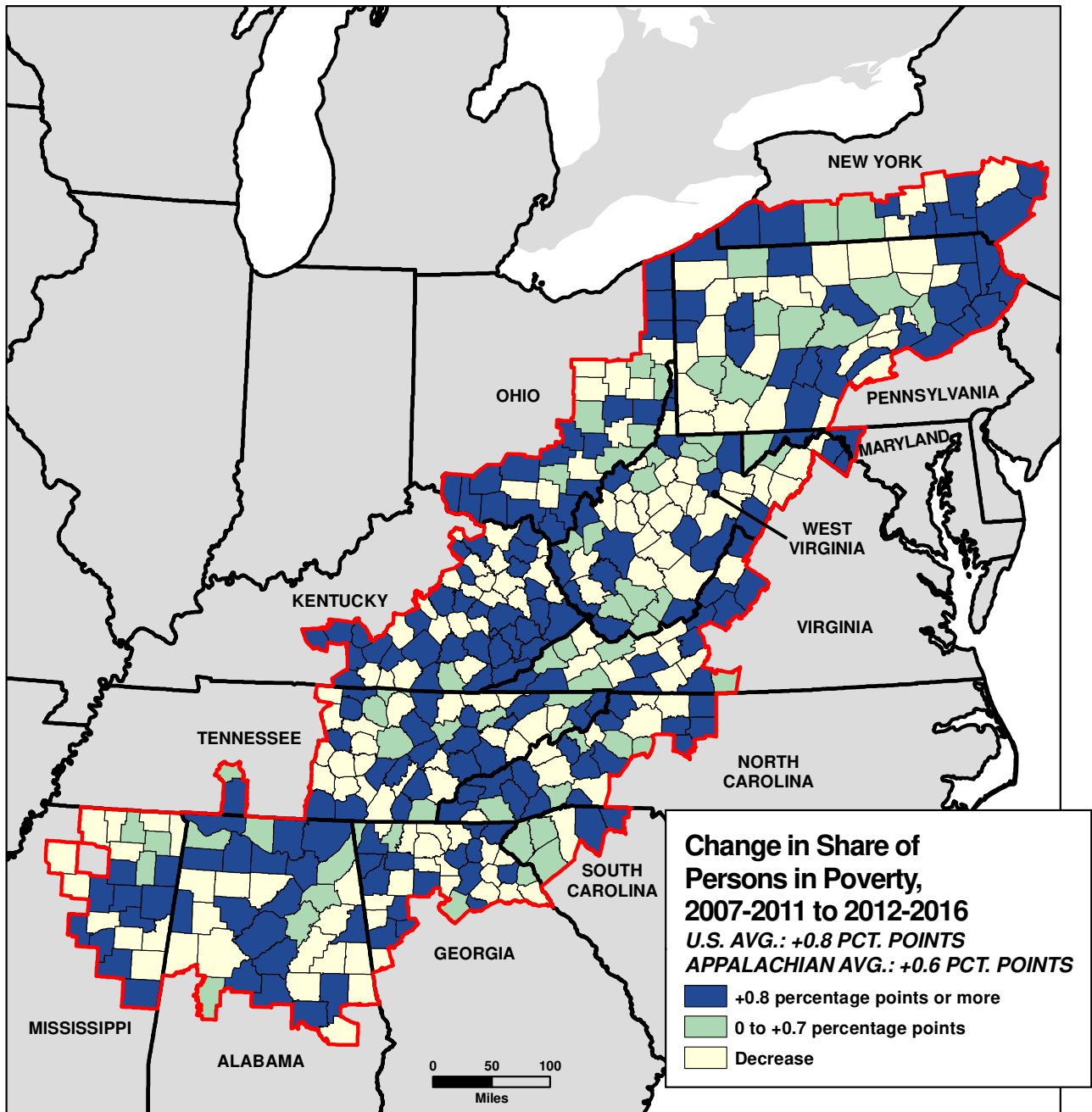
Table 7.5: Percentage Point Change in the Share of Persons in the Appalachian Region in Poverty, by Age Group, 2007-2011 to 2012-2016

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	+ 0.8	+ 1.2	+ 1.1	+ 0.2	+ 1.3	- 0.1
Appalachian Region	+ 0.6	+ 1.1	+ 1.0	- 0.6	+ 1.2	- 0.8
Subregions						
Northern Appalachia	+ 0.6	+ 0.9	+ 1.0	- 0.7	+ 1.2	- 0.5
North Central Appalachia	+ 0.5	+ 0.9	+ 1.1	- 1.2	+ 1.5	- 0.7
Central Appalachia	+ 0.9	+ 1.7	+ 1.8	+ 0.5	+ 1.9	- 2.0
South Central Appalachia	+ 0.8	+ 1.5	+ 1.3	+ 0.4	+ 1.4	- 0.6
Southern Appalachia	+ 0.5	+ 1.2	+ 0.8	- 0.8	+ 1.0	- 0.9
County Types						
Large Metros (pop. 1 million +)	+ 0.6	+ 1.3	+ 0.8	- 1.0	+ 1.1	- 0.3
Small Metros (pop. <1 million)	+ 0.8	+ 1.5	+ 1.1	- 0.7	+ 1.5	- 0.4
Nonmetro, Adjacent to Large Metros	+ 0.2	+ 0.7	+ 0.7	- 1.0	+ 0.9	- 0.8
Nonmetro, Adjacent to Small Metros	+ 0.6	+ 1.2	+ 1.1	+ 0.2	+ 1.3	- 1.3
Rural (nonmetro, not adj. to a metro)	+ 0.5	+ 0.7	+ 1.4	+ 0.9	+ 1.5	- 1.8
Alabama	+ 0.8	+ 1.4	+ 1.3	+ 0.5	+ 1.4	- 0.6
Appalachian Alabama	+ 0.7	+ 1.4	+ 1.0	- 0.8	+ 1.3	- 0.6
Non-Appalachian Alabama	+ 1.0	+ 1.4	+ 1.7	+ 2.4	+ 1.7	- 0.7
Georgia	+ 1.3	+ 2.8	+ 1.4	- 0.3	+ 1.7	- 1.1
Appalachian Georgia	+ 0.7	+ 1.7	+ 0.8	- 1.0	+ 0.9	- 1.0
Non-Appalachian Georgia	+ 1.6	+ 3.3	+ 1.6	+ 0.3	+ 1.9	- 1.0
Kentucky	+ 0.7	+ 0.6	+ 1.4	+ 0.3	+ 1.5	- 0.8
Appalachian Kentucky	+ 1.1	+ 1.5	+ 2.2	+ 1.6	+ 2.2	- 1.9
Non-Appalachian Kentucky	+ 0.6	+ 0.3	+ 1.2	- 0.1	+ 1.4	- 0.4
Maryland	+ 0.9	+ 1.8	+ 0.9	+ 0.0	+ 1.1	- 0.1
Appalachian Maryland	+ 1.7	+ 3.1	+ 1.8	+ 1.8	+ 1.8	+ 0.1
Non-Appalachian Maryland	+ 0.9	+ 1.7	+ 0.9	+ 0.0	+ 1.0	- 0.2
Mississippi	+ 0.7	+ 0.6	+ 1.5	+ 0.4	+ 1.8	- 1.1
Appalachian Mississippi	- 0.4	- 0.4	+ 0.3	- 1.0	+ 0.6	- 2.2
Non-Appalachian Mississippi	+ 1.1	+ 0.8	+ 1.9	+ 0.9	+ 2.0	- 0.8
New York	+ 1.0	+ 1.6	+ 1.2	+ 0.5	+ 1.3	- 0.1
Appalachian New York	+ 0.9	+ 1.4	+ 1.5	- 1.1	+ 1.8	- 0.6
Non-Appalachian New York	+ 1.0	+ 1.6	+ 1.1	+ 0.6	+ 1.3	+ 0.0
North Carolina	+ 0.7	+ 1.3	+ 1.2	+ 0.0	+ 1.4	- 0.6
Appalachian North Carolina	+ 1.2	+ 2.4	+ 1.8	+ 1.0	+ 1.9	- 0.6
Non-Appalachian North Carolina	+ 0.7	+ 1.2	+ 1.1	- 0.2	+ 1.2	- 0.7
Ohio	+ 0.6	+ 0.9	+ 1.0	- 0.3	+ 1.2	+ 0.0
Appalachian Ohio	+ 0.9	+ 0.9	+ 1.5	- 0.4	+ 1.8	- 0.2
Non-Appalachian Ohio	+ 0.6	+ 0.9	+ 0.9	- 0.4	+ 1.1	- 0.1
Pennsylvania	+ 0.7	+ 1.4	+ 0.9	- 0.5	+ 1.1	- 0.3
Appalachian Pennsylvania	+ 0.5	+ 0.8	+ 0.8	- 0.8	+ 1.0	- 0.4
Non-Appalachian Pennsylvania	+ 0.9	+ 1.7	+ 1.0	- 0.2	+ 1.2	- 0.2
South Carolina	+ 0.2	+ 0.9	+ 0.7	+ 0.1	+ 0.7	- 1.4
Appalachian South Carolina	+ 0.2	+ 0.3	+ 0.8	+ 0.9	+ 0.7	- 0.5
Non-Appalachian South Carolina	+ 0.2	+ 1.1	+ 0.6	- 0.2	+ 0.8	- 1.6
Tennessee	+ 0.3	+ 1.1	+ 0.7	- 0.8	+ 1.0	- 1.2
Appalachian Tennessee	+ 0.4	+ 1.1	+ 0.9	- 0.9	+ 1.1	- 1.0
Non-Appalachian Tennessee	+ 0.3	+ 1.0	+ 0.7	- 0.8	+ 0.8	- 1.5
Virginia	+ 0.7	+ 1.0	+ 1.0	+ 0.7	+ 1.1	- 0.5
Appalachian Virginia	+ 0.7	+ 0.6	+ 1.4	+ 2.5	+ 1.1	- 0.8
Non-Appalachian Virginia	+ 0.8	+ 1.2	+ 1.1	+ 0.5	+ 1.2	- 0.4
West Virginia (entire state)	+ 0.2	+ 1.0	+ 0.7	- 1.9	+ 1.1	- 1.3

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2007-2011 and 2012-2016 American Community Surveys.

Figure 7.11: Percentage Point Change in the Share of Persons in the Appalachian Region in Poverty, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region in Poverty, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

The share of Appalachian residents living below the poverty level (income of less than \$24,339 for a family of two adults and two children in 2016) increased by roughly half a percentage point between the 2007-2011 and 2012-2016 periods, slightly less than in the nation as a whole. Yet the increase in the poverty rate was larger in much of the Region: In 189 of Appalachia's 420 counties (scattered throughout the Region), the percentage point increase in the poverty rate was at or above the national average. Conversely, there were 166 counties where poverty rates decreased between the two periods. The overall picture nevertheless suggests that in the aftermath of the Great Recession, poverty rates in much of Appalachia have continued to increase.

Table 7.6: Income-to-Poverty Ratio for Persons in the Appalachian Region, 2012-2016

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	310,629,645	6.7	8.4	18.5	66.4
Appalachian Region	24,678,297	7.2	9.5	20.8	62.5
Subregions					
Northern Appalachia	7,971,534	6.4	8.0	18.8	66.8
North Central Appalachia	2,343,274	7.8	9.8	21.1	61.3
Central Appalachia	1,833,570	10.1	14.3	24.2	51.4
South Central Appalachia	4,662,390	7.6	10.1	22.2	60.1
Southern Appalachia	7,867,529	6.9	9.5	21.0	62.5
County Types					
Large Metros (pop. 1 million +)	5,886,931	5.7	7.4	17.4	69.5
Small Metros (pop. <1 million)	10,399,517	7.3	9.2	20.4	63.1
Nonmetro, Adjacent to Large Metros	2,118,177	7.9	10.6	22.9	58.6
Nonmetro, Adjacent to Small Metros	3,841,696	7.4	10.7	23.7	58.2
Rural (nonmetro, not adj. to a metro)	2,431,976	9.4	13.0	24.3	53.3
Alabama	4,720,592	8.1	10.3	20.8	60.8
Appalachian Alabama	3,022,952	7.2	9.9	20.5	62.4
Non-Appalachian Alabama	1,697,640	9.6	11.1	21.4	57.9
Georgia	9,829,056	8.1	9.7	20.2	62.1
Appalachian Georgia	3,044,302	5.9	8.7	20.6	64.8
Non-Appalachian Georgia	6,784,754	9.1	10.1	20.0	60.8
Kentucky	4,275,202	8.0	10.8	20.3	60.9
Appalachian Kentucky	1,136,310	10.8	15.2	24.2	49.9
Non-Appalachian Kentucky	3,138,892	7.0	9.3	18.9	64.9
Maryland	5,819,563	4.7	5.2	13.1	77.0
Appalachian Maryland	235,349	6.2	7.9	18.5	67.4
Non-Appalachian Maryland	5,584,214	4.7	5.0	12.8	77.4
Mississippi	2,893,091	10.0	12.3	22.8	54.8
Appalachian Mississippi	610,700	8.8	13.7	24.9	52.6
Non-Appalachian Mississippi	2,282,391	10.4	11.9	22.3	55.4
New York	19,186,062	6.9	8.6	16.6	68.0
Appalachian New York	992,152	7.5	9.2	19.7	63.6
Non-Appalachian New York	18,193,910	6.8	8.6	16.4	68.2
North Carolina	9,685,511	7.3	9.5	20.8	62.3
Appalachian North Carolina	1,678,388	7.7	10.5	22.6	59.3
Non-Appalachian North Carolina	8,007,123	7.2	9.3	20.5	63.0
Ohio	11,267,500	7.1	8.2	17.9	66.7
Appalachian Ohio	1,951,090	7.9	9.7	20.8	61.7
Non-Appalachian Ohio	9,316,410	7.0	7.9	17.3	67.8
Pennsylvania	12,369,671	6.0	7.4	16.9	69.8
Appalachian Pennsylvania	5,530,196	5.9	7.5	18.2	68.4
Non-Appalachian Pennsylvania	6,839,475	6.0	7.2	15.9	70.9
South Carolina	4,693,266	7.8	9.4	21.1	61.7
Appalachian South Carolina	1,189,575	7.5	8.8	21.4	62.3
Non-Appalachian South Carolina	3,503,691	7.9	9.6	21.0	61.5
Tennessee	6,386,751	7.5	9.7	21.0	61.8
Appalachian Tennessee	2,768,025	7.5	10.4	22.5	59.6
Non-Appalachian Tennessee	3,618,726	7.5	9.2	19.8	63.4
Virginia	8,060,892	5.4	6.1	15.1	73.4
Appalachian Virginia	726,450	8.6	10.2	21.9	59.3
Non-Appalachian Virginia	7,334,442	5.1	5.7	14.5	74.8
West Virginia (entire state)	1,792,808	7.9	9.9	21.6	60.6

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2012-2016 American Community Survey.

Table 7.7: Number of Persons in the Appalachian Region Below 50% of Poverty Level, by Age Group, 2012-2016

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	20,787,162	6,813,689	12,748,511	3,706,930	9,041,581	1,224,962
Appalachian Region	1,774,599	572,587	1,102,470	335,037	767,433	99,542
Subregions						
Northern Appalachia	509,230	157,084	319,344	108,852	210,492	32,802
North Central Appalachia	182,975	57,477	116,797	36,881	79,916	8,701
Central Appalachia	185,411	65,641	111,211	24,646	86,565	8,559
South Central Appalachia	355,897	107,031	229,026	76,507	152,519	19,840
Southern Appalachia	541,086	185,354	326,092	88,151	237,941	29,640
County Types						
Large Metros (pop. 1 million +)	333,907	109,106	203,016	52,553	150,463	21,785
Small Metros (pop. <1 million)	759,247	237,940	480,806	165,366	315,440	40,501
Nonmetro, Adjacent to Large Metros	166,579	54,360	103,609	31,902	71,707	8,610
Nonmetro, Adjacent to Small Metros	285,463	94,667	173,677	43,543	130,134	17,119
Rural (nonmetro, not adj. to a metro)	229,403	76,514	141,362	41,673	99,689	11,527
Alabama	381,490	137,691	224,837	65,277	159,560	18,962
Appalachian Alabama	218,266	77,199	129,264	34,933	94,331	11,803
Non-Appalachian Alabama	163,224	60,492	95,573	30,344	65,229	7,159
Georgia	795,146	286,081	472,127	131,413	340,714	36,938
Appalachian Georgia	179,776	60,000	109,383	24,326	85,057	10,393
Non-Appalachian Georgia	615,370	226,081	362,744	107,087	255,657	26,545
Kentucky	341,511	118,064	207,270	57,527	149,743	16,177
Appalachian Kentucky	122,387	43,237	73,530	17,254	56,276	5,620
Non-Appalachian Kentucky	219,124	74,827	133,740	40,273	93,467	10,557
Maryland	276,386	83,234	171,154	46,005	125,149	21,998
Appalachian Maryland	14,638	4,766	8,720	2,614	6,106	1,152
Non-Appalachian Maryland	261,748	78,468	162,434	43,391	119,043	20,846
Mississippi	290,625	113,120	164,221	47,020	117,201	13,284
Appalachian Mississippi	53,736	18,575	32,392	11,425	20,967	2,769
Non-Appalachian Mississippi	236,889	94,545	131,829	35,595	96,234	10,515
New York	1,320,485	415,202	814,894	206,138	608,756	90,389
Appalachian New York	74,656	20,123	51,176	21,717	29,459	3,357
Non-Appalachian New York	1,245,829	395,079	763,718	184,421	579,297	87,032
North Carolina	709,029	240,663	433,615	127,666	305,949	34,751
Appalachian North Carolina	128,658	40,293	80,797	25,145	55,652	7,568
Non-Appalachian North Carolina	580,371	200,370	352,818	102,521	250,297	27,183
Ohio	804,354	278,092	485,303	140,452	344,851	40,959
Appalachian Ohio	153,266	54,506	90,811	23,545	67,266	7,949
Non-Appalachian Ohio	651,088	223,586	394,492	116,907	277,585	33,010
Pennsylvania	738,125	231,647	457,082	144,480	312,602	49,396
Appalachian Pennsylvania	328,149	97,856	207,173	72,850	134,323	23,120
Non-Appalachian Pennsylvania	409,976	133,791	249,909	71,630	178,279	26,276
South Carolina	366,391	129,069	218,009	61,226	156,783	19,313
Appalachian South Carolina	89,308	29,580	55,053	17,467	37,586	4,675
Non-Appalachian South Carolina	277,083	99,489	162,956	43,759	119,197	14,638
Tennessee	479,001	168,198	287,592	78,147	209,445	23,211
Appalachian Tennessee	207,903	65,840	130,735	36,247	94,488	11,328
Non-Appalachian Tennessee	271,098	102,358	156,857	41,900	114,957	11,883
Virginia	432,952	129,128	279,570	92,978	186,592	24,254
Appalachian Virginia	62,444	15,737	43,452	20,222	23,230	3,255
Non-Appalachian Virginia	370,508	113,391	236,118	72,756	163,362	20,999
West Virginia (entire state)	141,412	44,875	89,984	27,292	62,692	6,553

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2012-2016 American Community Survey.

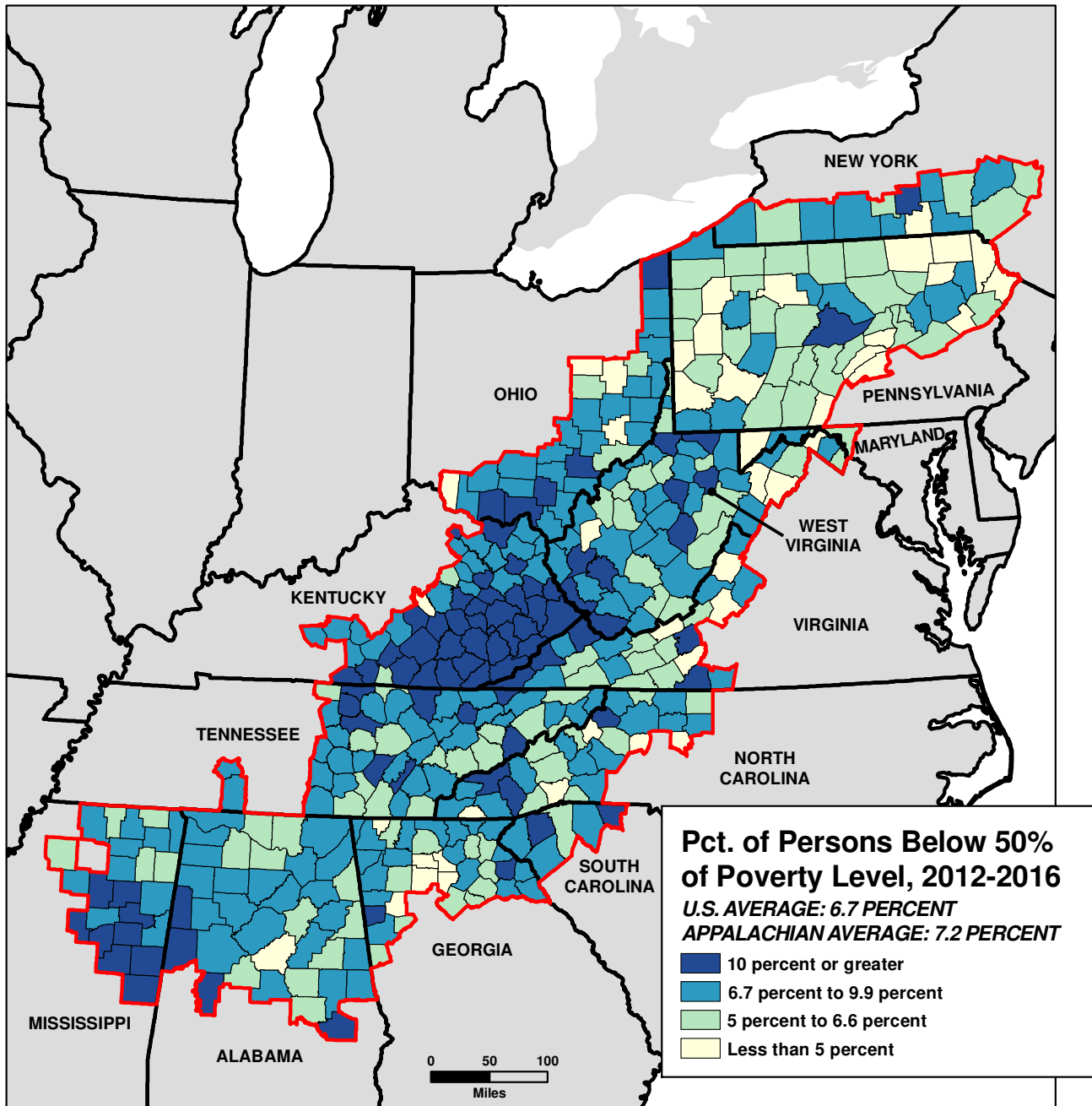
Table 7.8: Percent of Persons in the Appalachian Region Below 50% of Poverty Level, by Age Group, 2012-2016

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	6.7	9.4	6.6	13.2	5.5	2.7
Appalachian Region	7.2	10.6	7.3	15.8	5.9	2.4
Subregions						
Northern Appalachia	6.4	9.6	6.5	16.0	5.0	2.3
North Central Appalachia	7.8	11.5	8.1	18.3	6.4	2.2
Central Appalachia	10.1	16.3	9.9	16.4	8.9	2.8
South Central Appalachia	7.6	11.0	8.1	18.9	6.3	2.3
Southern Appalachia	6.9	9.7	6.7	12.8	5.7	2.6
County Types						
Large Metros (pop. 1 million +)	5.7	8.0	5.5	10.9	4.7	2.5
Small Metros (pop. <1 million)	7.3	10.6	7.5	17.6	5.8	2.3
Nonmetro, Adjacent to Large Metros	7.9	11.6	8.1	17.2	6.5	2.3
Nonmetro, Adjacent to Small Metros	7.4	11.6	7.5	14.0	6.5	2.4
Rural (nonmetro, not adj. to a metro)	9.4	14.4	9.6	19.7	7.9	2.7
Alabama	8.1	12.6	7.7	15.2	6.4	2.6
Appalachian Alabama	7.2	11.1	6.9	13.2	5.9	2.6
Non-Appalachian Alabama	9.6	15.2	9.2	18.5	7.5	2.8
Georgia	8.1	11.6	7.7	14.6	6.5	3.0
Appalachian Georgia	5.9	7.6	5.8	9.3	5.3	2.7
Non-Appalachian Georgia	9.1	13.5	8.5	16.7	7.0	3.2
Kentucky	8.0	11.9	7.8	15.2	6.6	2.6
Appalachian Kentucky	10.8	16.9	10.5	17.9	9.4	3.1
Non-Appalachian Kentucky	7.0	10.2	6.8	14.3	5.6	2.4
Maryland	4.7	6.3	4.6	9.3	3.9	2.8
Appalachian Maryland	6.2	9.4	6.1	12.6	5.0	2.8
Non-Appalachian Maryland	4.7	6.1	4.6	9.1	3.9	2.8
Mississippi	10.0	15.7	9.3	17.4	7.9	3.2
Appalachian Mississippi	8.8	12.6	8.8	19.1	6.8	2.9
Non-Appalachian Mississippi	10.4	16.5	9.5	16.9	8.2	3.3
New York	6.9	10.0	6.7	11.9	5.8	3.2
Appalachian New York	7.5	9.9	8.3	21.8	5.7	1.9
Non-Appalachian New York	6.8	10.0	6.6	11.3	5.8	3.3
North Carolina	7.3	10.7	7.2	15.0	5.9	2.5
Appalachian North Carolina	7.7	11.6	8.0	18.3	6.3	2.4
Non-Appalachian North Carolina	7.2	10.5	7.1	14.4	5.8	2.5
Ohio	7.1	10.7	7.0	14.4	5.8	2.4
Appalachian Ohio	7.9	12.5	7.7	14.5	6.6	2.4
Non-Appalachian Ohio	7.0	10.4	6.8	14.4	5.6	2.4
Pennsylvania	6.0	8.7	6.0	13.9	4.7	2.4
Appalachian Pennsylvania	5.9	8.8	6.1	15.8	4.6	2.3
Non-Appalachian Pennsylvania	6.0	8.6	5.9	12.4	4.8	2.5
South Carolina	7.8	12.1	7.6	14.8	6.4	2.6
Appalachian South Carolina	7.5	10.7	7.6	16.6	6.0	2.5
Non-Appalachian South Carolina	7.9	12.5	7.6	14.2	6.5	2.6
Tennessee	7.5	11.4	7.3	13.8	6.2	2.4
Appalachian Tennessee	7.5	11.2	7.7	15.3	6.5	2.3
Non-Appalachian Tennessee	7.5	11.6	6.9	12.8	5.9	2.6
Virginia	5.4	7.0	5.5	13.3	4.2	2.2
Appalachian Virginia	8.6	11.2	9.7	28.8	6.2	2.3
Non-Appalachian Virginia	5.1	6.7	5.1	11.6	4.1	2.1
West Virginia (entire state)	7.9	12.1	8.2	18.1	6.6	2.1

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2012-2016 American Community Survey.

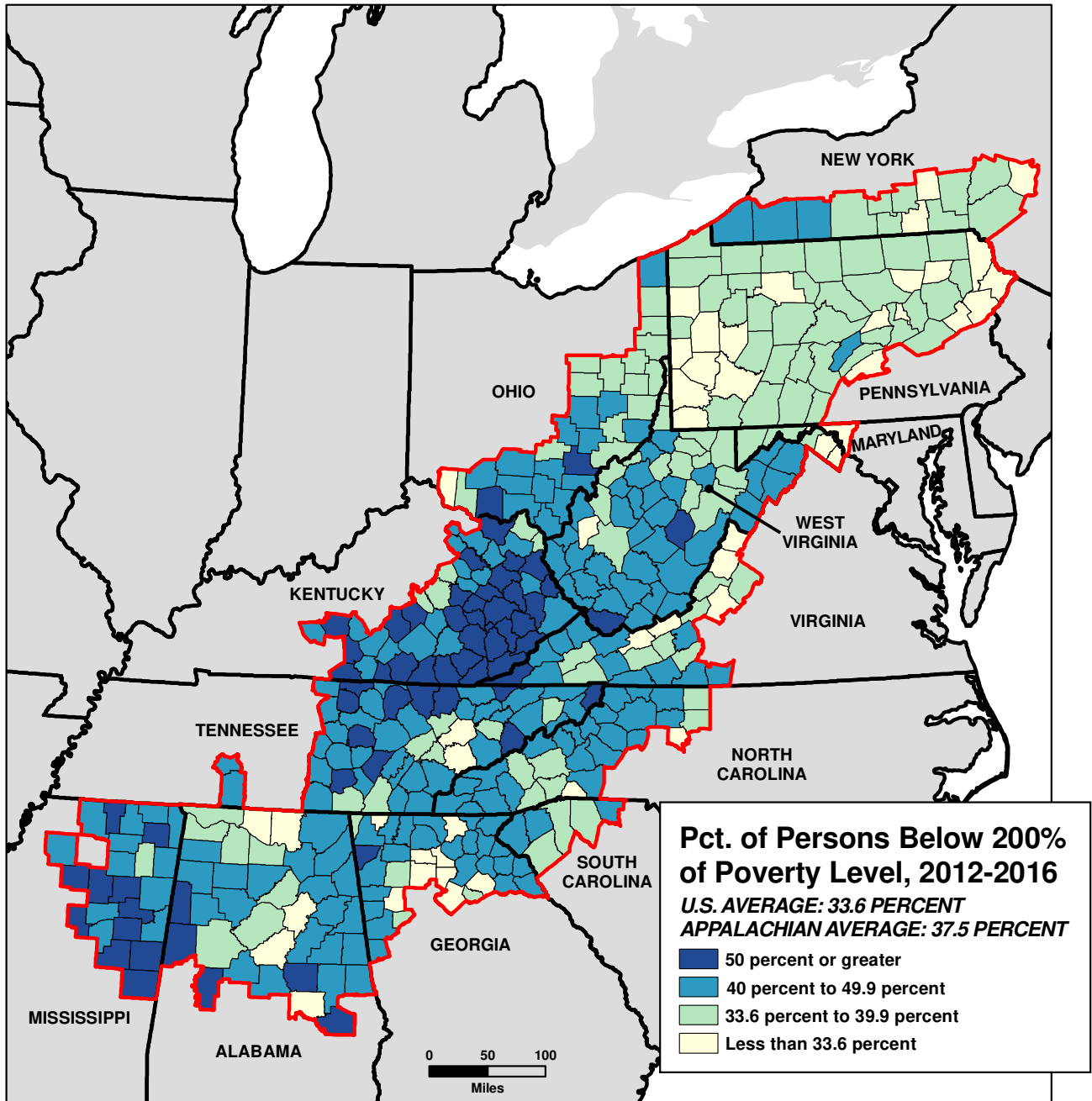
Figure 7.12: Percent of Persons in the Appalachian Region Below 50% of Poverty Level, 2012-2016



Map Title: Percent of Persons in the Appalachian Region Below 50% of Poverty Level, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In the 2012-2016 period, a little more than 7 percent of Appalachian residents were in extreme poverty (incomes below 50 percent of the poverty level, or less than \$12,170 for a family of two adults and two children in 2016). While this was slightly more than the national average of just under 7 percent, the situation was even worse in much of the Region. For example, in 83 Appalachian counties at least one in 10 residents were extremely poor. All but 11 of these counties were outside metropolitan areas, and 45 of them were in Central Appalachia. (Kentucky alone had 33 counties in this group.) In contrast, there were 43 counties in the Region where less than 5 percent of the population had incomes below 50 percent of the poverty level. Almost half of these were in Northern Appalachia, although this group included several Georgia counties that were outside Atlanta.

Figure 7.13: Percent of Persons in the Appalachian Region Below 200% of Poverty Level, 2012-2016



Map Title: Percent of Persons in the Appalachian Region Below 200% of Poverty Level, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

About 38 percent of persons in the Appalachian Region had incomes less than twice the poverty level in 2012-2016, four percentage points higher than the national rate of just under 34 percent. (In 2016 a family of two adults and two children fell in this category if their income was less than \$48,678.) 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 255 of Appalachia's 420 counties, mostly in Central, South Central, and Southern Appalachia. And in 64 Appalachian counties, at least half of residents had incomes below 200 percent of poverty; 39 of these counties were in Central Appalachia and 31 were in Kentucky alone. (Another 11 of these counties were in Mississippi.) In contrast, there were 50 counties in the Region where the share of persons who were poor or low-income was below the national average. Most were in Northern Appalachia, although several were outside Atlanta.

Table 7.9: Percentage Point Change in Share of Persons in the Appalachian Region, by Income-to-Poverty Ratio, 2007-2011 to 2012-2016

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	+ 0.5	+ 0.3	+ 0.1	- 0.9
Appalachian Region	+ 0.5	+ 0.1	- 0.1	- 0.5
Subregions				
Northern Appalachia	+ 0.4	+ 0.1	- 0.8	+ 0.2
North Central Appalachia	+ 0.6	- 0.1	- 0.1	- 0.4
Central Appalachia	+ 0.8	+ 0.1	- 0.5	- 0.4
South Central Appalachia	+ 0.5	+ 0.2	+ 0.6	- 1.3
Southern Appalachia	+ 0.4	+ 0.1	+ 0.3	- 0.9
County Types				
Large Metros (pop. 1 million +)	+ 0.4	+ 0.2	- 0.3	- 0.3
Small Metros (pop. <1 million)	+ 0.5	+ 0.2	+ 0.3	- 1.0
Nonmetro, Adjacent to Large Metros	+ 0.2	+ 0.0	+ 0.1	- 0.3
Nonmetro, Adjacent to Small Metros	+ 0.5	+ 0.0	+ 0.0	- 0.5
Rural (nonmetro, not adj. to a metro)	+ 0.6	- 0.2	- 0.9	+ 0.4
Alabama	+ 0.8	+ 0.1	- 0.1	- 0.7
Appalachian Alabama	+ 0.5	+ 0.3	+ 0.2	- 0.9
Non-Appalachian Alabama	+ 1.2	- 0.2	- 0.6	- 0.4
Georgia	+ 0.7	+ 0.6	+ 0.2	- 1.4
Appalachian Georgia	+ 0.4	+ 0.3	+ 0.7	- 1.3
Non-Appalachian Georgia	+ 0.9	+ 0.6	+ 0.0	- 1.6
Kentucky	+ 0.2	+ 0.5	- 0.3	- 0.5
Appalachian Kentucky	+ 0.5	+ 0.7	- 0.7	- 0.5
Non-Appalachian Kentucky	+ 0.1	+ 0.6	+ 0.0	- 0.6
Maryland	+ 0.4	+ 0.5	+ 0.6	- 1.5
Appalachian Maryland	+ 0.8	+ 0.9	- 0.3	- 1.4
Non-Appalachian Maryland	+ 0.4	+ 0.4	+ 0.6	- 1.6
Mississippi	+ 0.9	- 0.2	- 0.3	- 0.5
Appalachian Mississippi	- 0.5	+ 0.1	- 1.1	+ 1.5
Non-Appalachian Mississippi	+ 1.3	- 0.3	+ 0.0	- 1.0
New York	+ 0.4	+ 0.6	+ 0.0	- 0.9
Appalachian New York	+ 0.1	+ 0.7	+ 0.0	- 0.9
Non-Appalachian New York	+ 0.4	+ 0.6	+ 0.0	- 1.0
North Carolina	+ 0.4	+ 0.3	+ 0.5	- 1.3
Appalachian North Carolina	+ 0.6	+ 0.7	+ 0.7	- 2.0
Non-Appalachian North Carolina	+ 0.3	+ 0.3	+ 0.5	- 1.1
Ohio	+ 0.3	+ 0.2	+ 0.0	- 0.6
Appalachian Ohio	+ 0.8	+ 0.1	- 0.6	- 0.2
Non-Appalachian Ohio	+ 0.3	+ 0.3	+ 0.1	- 0.7
Pennsylvania	+ 0.5	+ 0.3	+ 0.0	- 0.6
Appalachian Pennsylvania	+ 0.4	+ 0.0	- 0.9	+ 0.5
Non-Appalachian Pennsylvania	+ 0.4	+ 0.5	+ 0.8	- 1.7
South Carolina	+ 0.2	+ 0.0	+ 0.2	- 0.4
Appalachian South Carolina	+ 0.4	- 0.2	+ 0.7	- 0.9
Non-Appalachian South Carolina	+ 0.1	+ 0.1	+ 0.0	- 0.2
Tennessee	+ 0.3	+ 0.1	+ 0.3	- 0.6
Appalachian Tennessee	+ 0.4	+ 0.0	+ 0.5	- 1.0
Non-Appalachian Tennessee	+ 0.2	+ 0.1	+ 0.1	- 0.4
Virginia	+ 0.6	+ 0.2	+ 0.5	- 1.3
Appalachian Virginia	+ 1.4	- 0.7	- 0.4	- 0.3
Non-Appalachian Virginia	+ 0.6	+ 0.3	+ 0.7	- 1.5
West Virginia (entire state)	+ 0.6	- 0.3	+ 0.0	- 0.3

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2007-2011 and 2012-2016 American Community Surveys.

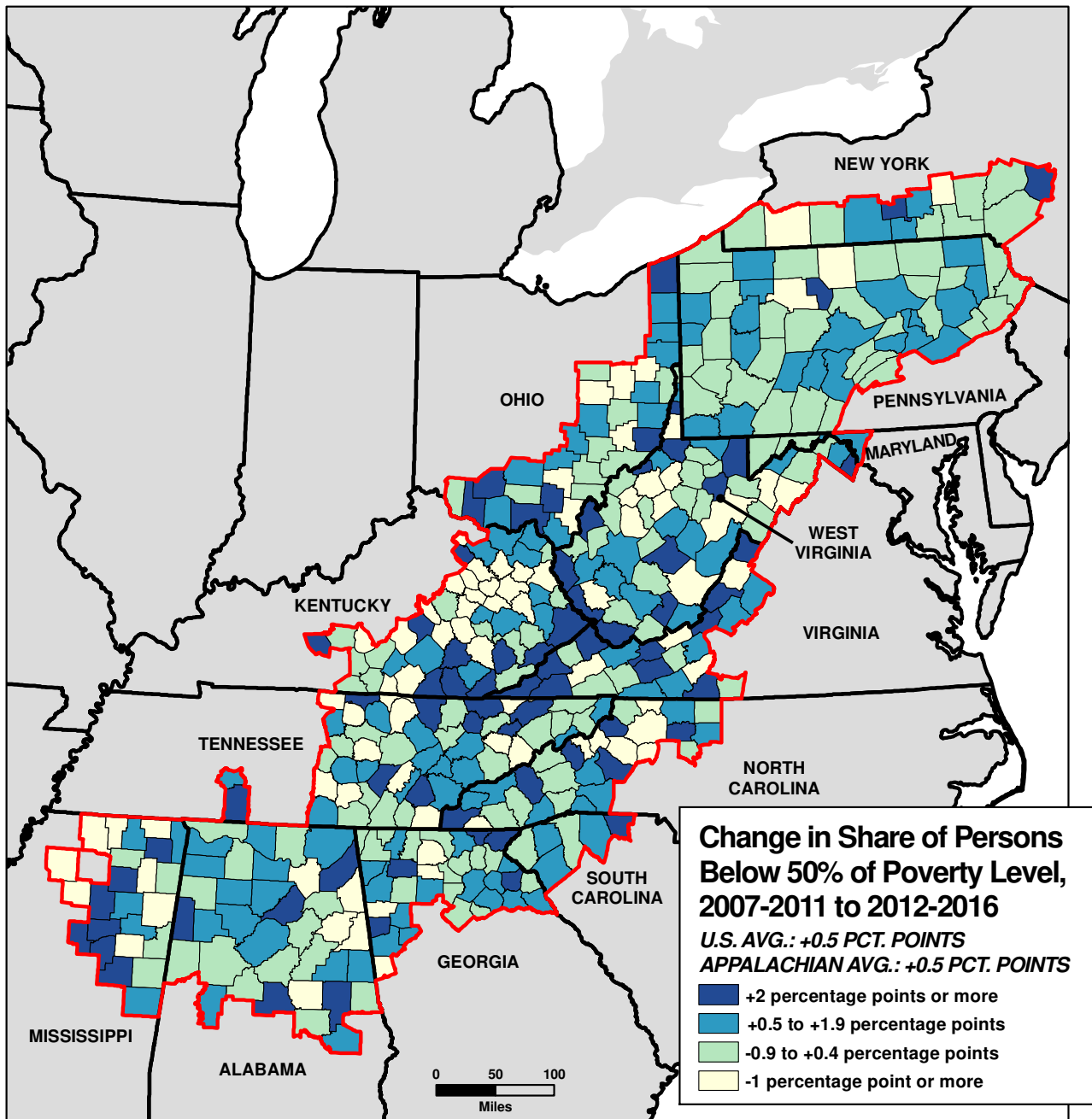
Table 7.10: Percentage Point Change in the Share of Persons in the Appalachian Region Below 50% of Poverty Level, by Age Group, 2007-2011 to 2012-2016

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	+ 0.5	+ 0.6	+ 0.6	+ 0.1	+ 0.7	+ 0.3
Appalachian Region	+ 0.5	+ 0.7	+ 0.7	+ 0.1	+ 0.7	+ 0.3
Subregions						
Northern Appalachia	+ 0.4	+ 0.6	+ 0.5	- 0.2	+ 0.7	+ 0.2
North Central Appalachia	+ 0.6	+ 1.1	+ 0.8	- 0.8	+ 1.0	+ 0.5
Central Appalachia	+ 0.8	+ 1.2	+ 1.1	+ 0.8	+ 1.1	+ 0.0
South Central Appalachia	+ 0.5	+ 0.8	+ 0.8	+ 1.1	+ 0.7	+ 0.3
Southern Appalachia	+ 0.4	+ 0.2	+ 0.5	+ 0.0	+ 0.6	+ 0.3
County Types						
Large Metros (pop. 1 million +)	+ 0.4	+ 0.5	+ 0.5	- 0.5	+ 0.6	+ 0.3
Small Metros (pop. <1 million)	+ 0.5	+ 0.8	+ 0.7	+ 0.0	+ 0.8	+ 0.3
Nonmetro, Adjacent to Large Metros	+ 0.2	+ 0.2	+ 0.4	- 0.3	+ 0.5	+ 0.2
Nonmetro, Adjacent to Small Metros	+ 0.5	+ 0.7	+ 0.7	+ 0.1	+ 0.8	+ 0.2
Rural (nonmetro, not adj. to a metro)	+ 0.6	+ 0.6	+ 1.1	+ 2.0	+ 1.0	+ 0.1
Alabama	+ 0.8	+ 1.2	+ 0.8	+ 0.8	+ 0.9	+ 0.2
Appalachian Alabama	+ 0.5	+ 0.8	+ 0.5	- 0.3	+ 0.8	+ 0.4
Non-Appalachian Alabama	+ 1.2	+ 2.0	+ 1.4	+ 2.6	+ 1.3	+ 0.2
Georgia	+ 0.7	+ 1.4	+ 0.7	- 0.3	+ 0.9	+ 0.3
Appalachian Georgia	+ 0.4	+ 0.3	+ 0.5	+ 0.1	+ 0.6	+ 0.2
Non-Appalachian Georgia	+ 0.9	+ 2.0	+ 0.8	- 0.3	+ 0.9	+ 0.4
Kentucky	+ 0.2	- 0.3	+ 0.5	+ 0.0	+ 0.6	+ 0.0
Appalachian Kentucky	+ 0.5	+ 0.3	+ 1.0	+ 0.8	+ 1.0	- 0.1
Non-Appalachian Kentucky	+ 0.1	- 0.4	+ 0.4	- 0.2	+ 0.5	+ 0.1
Maryland	+ 0.4	+ 0.6	+ 0.4	+ 0.0	+ 0.6	+ 0.5
Appalachian Maryland	+ 0.8	+ 0.1	+ 1.2	+ 2.8	+ 0.9	+ 0.9
Non-Appalachian Maryland	+ 0.4	+ 0.5	+ 0.5	- 0.2	+ 0.6	+ 0.5
Mississippi	+ 0.9	+ 1.3	+ 1.2	+ 1.0	+ 1.3	+ 0.3
Appalachian Mississippi	- 0.5	- 2.1	+ 0.2	- 0.2	+ 0.3	+ 0.3
Non-Appalachian Mississippi	+ 1.3	+ 2.1	+ 1.5	+ 1.4	+ 1.5	+ 0.3
New York	+ 0.4	+ 0.5	+ 0.5	+ 0.0	+ 0.6	+ 0.3
Appalachian New York	+ 0.1	+ 0.0	+ 0.5	- 0.8	+ 0.6	- 0.1
Non-Appalachian New York	+ 0.4	+ 0.5	+ 0.5	+ 0.0	+ 0.6	+ 0.3
North Carolina	+ 0.4	+ 0.7	+ 0.5	- 0.2	+ 0.6	+ 0.4
Appalachian North Carolina	+ 0.6	+ 1.4	+ 0.7	+ 1.4	+ 0.5	+ 0.4
Non-Appalachian North Carolina	+ 0.3	+ 0.5	+ 0.5	- 0.4	+ 0.6	+ 0.3
Ohio	+ 0.3	+ 0.5	+ 0.5	- 0.3	+ 0.7	+ 0.3
Appalachian Ohio	+ 0.8	+ 1.3	+ 0.8	- 0.6	+ 1.0	+ 0.4
Non-Appalachian Ohio	+ 0.3	+ 0.4	+ 0.4	- 0.3	+ 0.6	+ 0.2
Pennsylvania	+ 0.5	+ 0.8	+ 0.5	- 0.3	+ 0.6	+ 0.1
Appalachian Pennsylvania	+ 0.4	+ 0.6	+ 0.5	- 0.2	+ 0.7	+ 0.2
Non-Appalachian Pennsylvania	+ 0.4	+ 0.9	+ 0.5	- 0.3	+ 0.5	+ 0.0
South Carolina	+ 0.2	+ 0.6	+ 0.3	- 0.6	+ 0.5	+ 0.3
Appalachian South Carolina	+ 0.4	+ 0.2	+ 0.8	+ 1.1	+ 0.6	+ 0.5
Non-Appalachian South Carolina	+ 0.1	+ 0.6	+ 0.1	- 1.2	+ 0.4	+ 0.2
Tennessee	+ 0.3	+ 0.4	+ 0.5	- 0.3	+ 0.6	+ 0.1
Appalachian Tennessee	+ 0.4	+ 0.8	+ 0.6	- 0.4	+ 0.7	+ 0.2
Non-Appalachian Tennessee	+ 0.2	+ 0.1	+ 0.3	- 0.1	+ 0.4	+ 0.0
Virginia	+ 0.6	+ 0.7	+ 0.8	+ 0.7	+ 0.7	+ 0.3
Appalachian Virginia	+ 1.4	+ 1.2	+ 2.0	+ 5.7	+ 1.2	+ 0.4
Non-Appalachian Virginia	+ 0.6	+ 0.7	+ 0.7	+ 0.2	+ 0.8	+ 0.2
West Virginia (entire state)	+ 0.6	+ 1.3	+ 0.8	- 0.7	+ 0.9	+ 0.3

Note: Poverty status is determined by a series of income thresholds that are determined by family size and composition. In 2016, the poverty threshold for a family of two adults and two children was \$24,339. 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, 2007-2011 and 2012-2016 American Community Surveys.

Figure 7.14: Percentage Point Change in the Share of Persons in the Appalachian Region Below 50% of Poverty Level, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Share of Persons in the Appalachian Region Below 50% of Poverty Level, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

The share of Appalachian residents living in extreme poverty (50 percent of the poverty level, or earning less than \$12,170 for a family of two adults and two children in 2016) increased by roughly half a percentage point between the 2007-2011 and 2012-2016 periods. And the increase was even greater in nearly half of the 420 counties in the Region; the rate of extreme poverty rose at least two percentage points in 74 counties. Three-fourths of the counties with the greatest increases were in Central, South Central, and Southern Appalachia, and most were outside metropolitan areas. Yet in 82 other counties, extreme poverty rates went down by at least a full percentage point. As was true with poverty rates, extreme poverty rates have also continued to rise since the recession of 2007-2009, with the share of persons in extreme poverty remaining above pre-recession levels in much of the Appalachian Region.

TRENDS IN INCOME AND POVERTY

- Adjusting for inflation, income trends in the Appalachian Region were mixed between the 2007-2011 and 2012-2016 periods (see Tables 7.1 and 7.2).
 - The mean income measures all increased during the two periods. Mean household income, for example, rose 0.9 percent to \$62,299 in 2012-2016. Mean family income was 1.3 percent higher at \$73,916, and per capita income increased 0.9 percent to \$25,028. (All monetary figures are in 2016 dollars.)
 - Meanwhile, the two median income measures—which are not affected by extreme values—have both fallen since 2007-2011. Median household income (the level where half of all households have higher incomes while the other half have lower incomes) fell 0.6 percent to \$45,967 in 2012-2016. Median family income had a smaller decline of 0.2 percent to \$57,983.
- For each measure, the post 2007-2011 income trends were better in Appalachia than they were nationally. That is, income growth was greater in Appalachia for the mean income measures, while the declines in the median income indicators were not as steep. (For example, median household income in the U.S. fell 1.7 percent—compared with only 0.6 percent in Appalachia.)
- Within the Appalachian Region, all income measures increased in Northern and North Central Appalachia after adjusting for inflation, with the Northern subregion registering the largest gains. Meanwhile, all five income indicators fell in Southern Appalachia. Among the county types, the gains in the mean income measures (household, family, and per capita) were greater among nonmetropolitan counties than for those in metro areas.
- Since 2007-2011, the share of Appalachian residents in poverty (incomes below \$24,339 for a family of two adults and two children in 2016) has risen 0.6 percentage points to 16.7 percent in 2012-2016 (see Tables 7.4 and 7.5). Poverty increased in all subregions and among all county types, with the greatest increases occurring in Central and South Central Appalachia. The rise in poverty rates was especially high in the Appalachian portions of Kentucky, Maryland and North Carolina: Poverty increased more than a full percentage point in each state. In contrast, the poverty rate in Appalachian Mississippi declined by nearly half a percentage point between 2007-2011 and 2012-2016.
- Age groups younger than 65 experienced increases in poverty levels in Appalachia: Both child poverty and poverty among adults in the prime working ages (ages 25 to 64) increased just over a full percentage point (to 23.6 percent and 14.4 percent, respectively). And for both of these age groups, Central Appalachia registered the biggest increases—about two percentage points in each case. Poverty rates among young adults (ages 18 to 24) fell in Appalachia, but the decline was not uniform throughout the Region. For example, young adult poverty actually increased in Central and South Central Appalachia, as well as in the Region's most rural counties. And in the Appalachian sections of Kentucky, Maryland, North Carolina, and Virginia, the share of 18-to-24-year-olds in poverty was at least a full percentage point higher in 2012-2016 than in 2007-2011. (The increase exceeded two percentage points in Appalachian Virginia.)
- Poverty declined nearly a full percentage point for older residents (ages 65 and over) between 2007-2011 and 2012-2016, and this decline was evident throughout the Appalachian Region. (Central Appalachia, the region's most rural areas, and the Appalachian portions of Kentucky and Mississippi had the biggest drops in the poverty rate for persons ages 65 and over.)
- In 2012-2016, the share of Appalachian residents below 50 percent of poverty (income below \$12,170 for a family of two adults and two children in 2016) was 7.2 percent, half a percentage point higher than in 2007-2011 (see Tables 7.6 through 7.10). And while the magnitude varied, extreme poverty increased in all subregions, all county types, and virtually every state (Mississippi being the main exception). It also increased among all age groups.
- Overall, the income and poverty trends in the Appalachian Region since 2007-2011 suggest that, for the most part, poverty levels have continued to rise, while median household and median family income have declined, highlighting the slow recovery from the 2007-2009 recession.

CHAPTER 8: HEALTH INSURANCE COVERAGE

Table 8.1: Number of Persons in the Appalachian Region Not Covered by Health Insurance, by Age Group, 2012-2016

Health Insurance Status	All Ages	Under Age 18	Ages 18-24	Ages 25-64	Ages 65 and Over
United States	36,700,246	4,333,068	5,798,589	26,161,651	406,938
Appalachian Region	2,723,680	291,170	424,228	1,991,056	17,226
Subregions					
Northern Appalachia	625,904	85,954	94,348	440,379	5,223
North Central Appalachia	224,610	18,731	36,969	167,965	945
Central Appalachia	207,281	18,633	34,714	153,126	808
South Central Appalachia	581,626	50,585	88,425	440,033	2,583
Southern Appalachia	1,084,259	117,267	169,772	789,553	7,667
County Types					
Large Metros (pop. 1 million +)	613,368	69,345	88,837	449,944	5,242
Small Metros (pop. <1 million)	1,113,267	105,613	176,758	824,496	6,400
Nonmetro, Adjacent to Large Metros	238,819	31,659	37,735	168,289	1,136
Nonmetro, Adjacent to Small Metros	451,018	49,313	68,801	329,976	2,928
Rural (nonmetro, not adj. to a metro)	307,208	35,240	52,097	218,351	1,520
Alabama	552,918	39,111	96,577	414,065	3,165
Appalachian Alabama	339,975	23,768	55,853	258,310	2,044
Non-Appalachian Alabama	212,943	15,343	40,724	155,755	1,121
Georgia	1,565,414	191,483	253,129	1,108,295	12,507
Appalachian Georgia	496,824	68,111	72,323	351,668	4,722
Non-Appalachian Georgia	1,068,590	123,372	180,806	756,627	7,785
Kentucky	415,778	47,178	70,735	295,810	2,055
Appalachian Kentucky	125,912	12,423	22,136	90,842	511
Non-Appalachian Kentucky	289,866	34,755	48,599	204,968	1,544
Maryland	475,885	49,771	69,054	347,619	9,441
Appalachian Maryland	18,288	2,326	2,687	13,014	261
Non-Appalachian Maryland	457,597	47,445	66,367	334,605	9,180
Mississippi	427,828	42,049	79,532	304,830	1,417
Appalachian Mississippi	87,254	7,296	16,834	62,985	139
Non-Appalachian Mississippi	340,574	34,753	62,698	241,845	1,278
New York	1,668,092	135,522	233,280	1,273,948	25,342
Appalachian New York	70,844	11,494	11,576	47,205	569
Non-Appalachian New York	1,597,248	124,028	221,704	1,226,743	24,773
North Carolina	1,290,195	126,126	196,279	960,081	7,709
Appalachian North Carolina	234,733	20,086	35,429	178,146	1,072
Non-Appalachian North Carolina	1,055,462	106,040	160,850	781,935	6,637
Ohio	970,187	121,932	148,740	691,165	8,350
Appalachian Ohio	199,215	30,762	29,926	136,869	1,658
Non-Appalachian Ohio	770,972	91,170	118,814	554,296	6,692
Pennsylvania	1,000,216	129,883	150,047	710,321	9,965
Appalachian Pennsylvania	407,459	49,350	61,075	293,923	3,111
Non-Appalachian Pennsylvania	592,757	80,533	88,972	416,398	6,854
South Carolina	627,973	61,394	97,392	465,175	4,012
Appalachian South Carolina	160,206	18,092	24,762	116,590	762
Non-Appalachian South Carolina	467,767	43,302	72,630	348,585	3,250
Tennessee	757,920	73,047	112,794	567,524	4,555
Appalachian Tennessee	324,867	27,575	48,232	247,674	1,386
Non-Appalachian Tennessee	433,053	45,472	64,562	319,850	3,169
Virginia	864,477	98,748	131,856	622,927	10,946
Appalachian Virginia	83,323	7,214	14,135	61,585	389
Non-Appalachian Virginia	781,154	91,534	117,721	561,342	10,557
West Virginia (entire state)	174,780	12,673	29,260	132,245	602

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

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

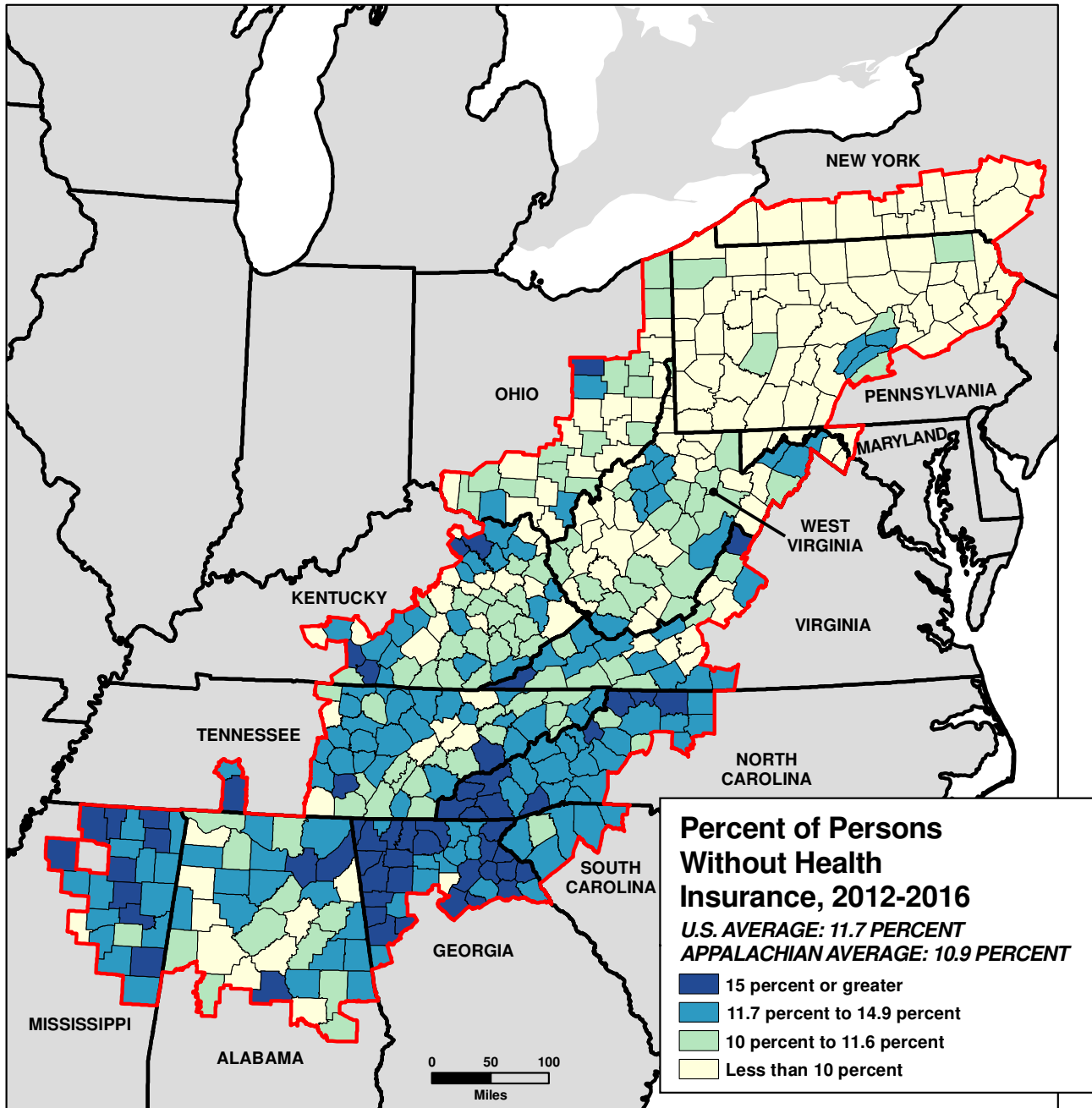
Table 8.2: Percent of Persons in the Appalachian Region Not Covered by Health Insurance, by Age Group, 2012-2016

Health Insurance Status	All Ages	Under Age 18	Ages 18-24	Ages 25-64	Ages 65 and Over
United States	11.7	5.9	19.0	15.9	0.9
Appalachian Region	10.9	5.3	17.6	15.3	0.4
Subregions					
Northern Appalachia	7.7	5.2	11.6	10.5	0.4
North Central Appalachia	9.4	3.6	16.3	13.5	0.2
Central Appalachia	11.2	4.5	21.2	15.8	0.3
South Central Appalachia	12.3	5.1	19.1	18.1	0.3
Southern Appalachia	13.6	6.1	22.6	19.0	0.7
County Types					
Large Metros (pop. 1 million +)	10.3	5.0	17.1	14.2	0.6
Small Metros (pop. <1 million)	10.5	4.6	16.2	15.1	0.4
Nonmetro, Adjacent to Large Metros	11.1	6.7	17.9	15.3	0.3
Nonmetro, Adjacent to Small Metros	11.6	5.9	19.8	16.6	0.4
Rural (nonmetro, not adj. to a metro)	12.4	6.5	21.3	17.4	0.4
Alabama	11.6	3.5	20.8	16.8	0.4
Appalachian Alabama	11.1	3.4	19.3	16.1	0.4
Non-Appalachian Alabama	12.5	3.8	23.2	17.9	0.4
Georgia	15.8	7.7	26.0	21.2	1.0
Appalachian Georgia	16.2	8.5	26.6	21.8	1.2
Non-Appalachian Georgia	15.6	7.3	25.7	20.9	0.9
Kentucky	9.6	4.7	17.0	13.0	0.3
Appalachian Kentucky	10.9	4.8	20.4	15.1	0.3
Non-Appalachian Kentucky	9.1	4.6	15.8	12.3	0.3
Maryland	8.1	3.7	12.7	10.9	1.2
Appalachian Maryland	7.7	4.5	11.8	10.6	0.6
Non-Appalachian Maryland	8.1	3.7	12.8	10.9	1.2
Mississippi	14.6	5.8	26.8	20.5	0.3
Appalachian Mississippi	14.1	4.9	24.8	20.4	0.1
Non-Appalachian Mississippi	14.8	6.0	27.4	20.6	0.4
New York	8.6	3.2	12.0	12.1	0.9
Appalachian New York	6.8	5.5	8.4	9.2	0.3
Non-Appalachian New York	8.7	3.1	12.3	12.3	0.9
North Carolina	13.2	5.5	21.2	18.8	0.5
Appalachian North Carolina	13.8	5.7	22.7	20.3	0.3
Non-Appalachian North Carolina	13.1	5.5	20.9	18.4	0.6
Ohio	8.5	4.6	13.7	11.6	0.5
Appalachian Ohio	10.1	6.9	17.0	13.4	0.5
Non-Appalachian Ohio	8.2	4.2	13.1	11.2	0.5
Pennsylvania	8.0	4.8	12.4	10.7	0.5
Appalachian Pennsylvania	7.2	4.4	11.2	10.0	0.3
Non-Appalachian Pennsylvania	8.5	5.1	13.4	11.3	0.7
South Carolina	13.3	5.7	21.5	18.9	0.5
Appalachian South Carolina	13.2	6.5	20.4	18.7	0.4
Non-Appalachian South Carolina	13.3	5.4	21.8	19.0	0.6
Tennessee	11.8	4.9	18.4	16.8	0.5
Appalachian Tennessee	11.6	4.6	18.4	17.1	0.3
Non-Appalachian Tennessee	11.9	5.1	18.4	16.5	0.7
Virginia	10.7	5.3	17.1	14.3	1.0
Appalachian Virginia	11.2	5.1	16.5	16.4	0.3
Non-Appalachian Virginia	10.6	5.3	17.2	14.2	1.1
West Virginia (entire state)	9.6	3.3	17.5	13.9	0.2

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

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

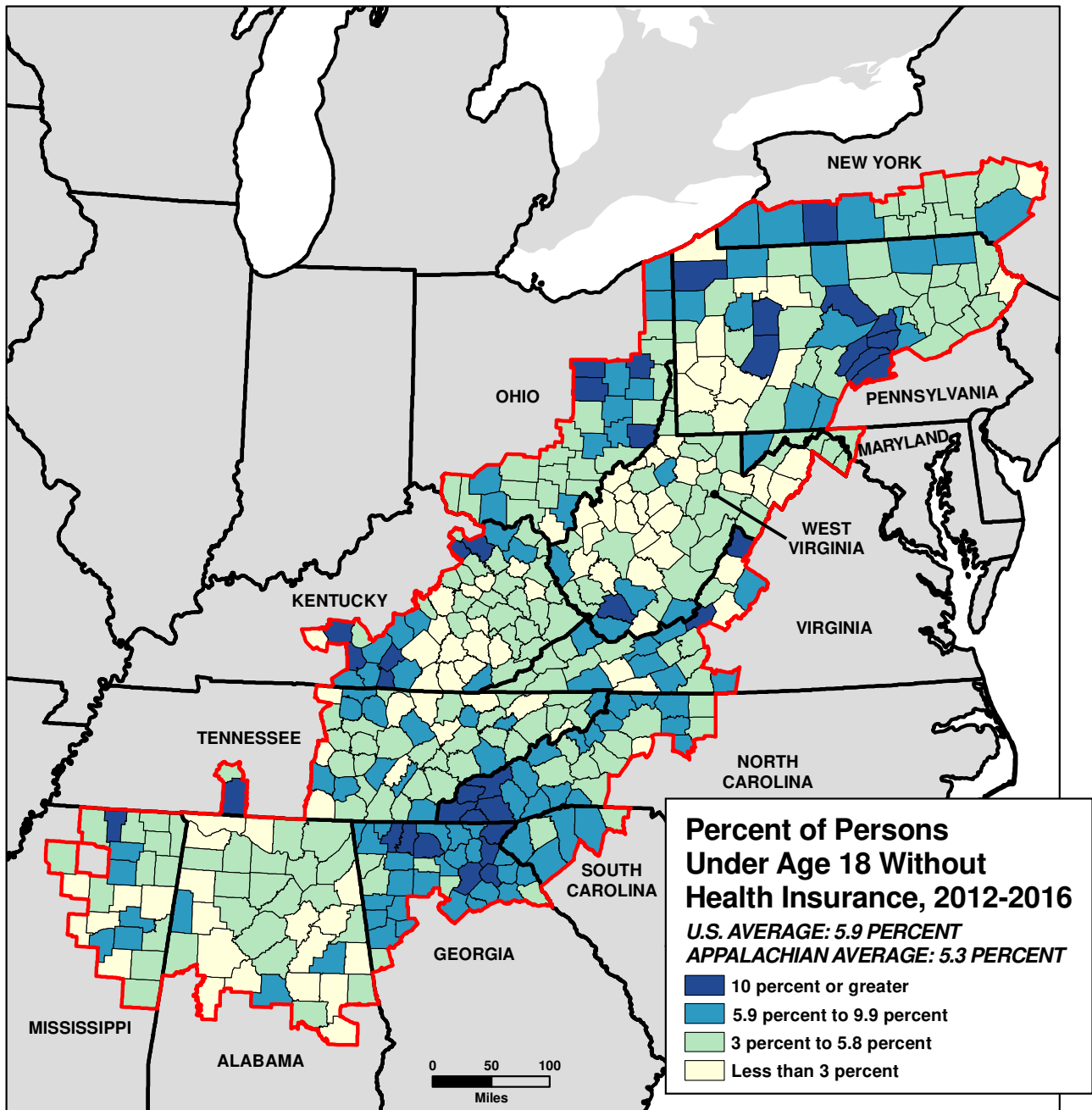
Figure 8.1: Percent of Persons in the Appalachian Region Not Covered by Health Insurance, 2012-2016



Map Title: Percent of Persons in the Appalachian Region Not Covered by Health Insurance, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

There were 2.7 million persons in the Appalachian Region lacking any kind of health insurance coverage in the 2012-2016 period—a figure representing 11 percent of Appalachia’s residents. Although the percentage for the Region is slightly lower than the U.S. share of just under 12 percent, almost half of the 420 Appalachian counties had non-coverage rates that matched or exceeded the national average. In 56 Appalachian counties—including 24 in Georgia—at least 15 percent of residents were not covered by insurance. (Indeed, 16 percent of residents in Appalachian Georgia were not covered by health insurance.) At the other end of the spectrum, 141 counties had uninsured rates below 10 percent, and 61 of these were in either New York, Pennsylvania, or Maryland—the states with the lowest percentages of uninsured residents in Appalachia (each under 8 percent).

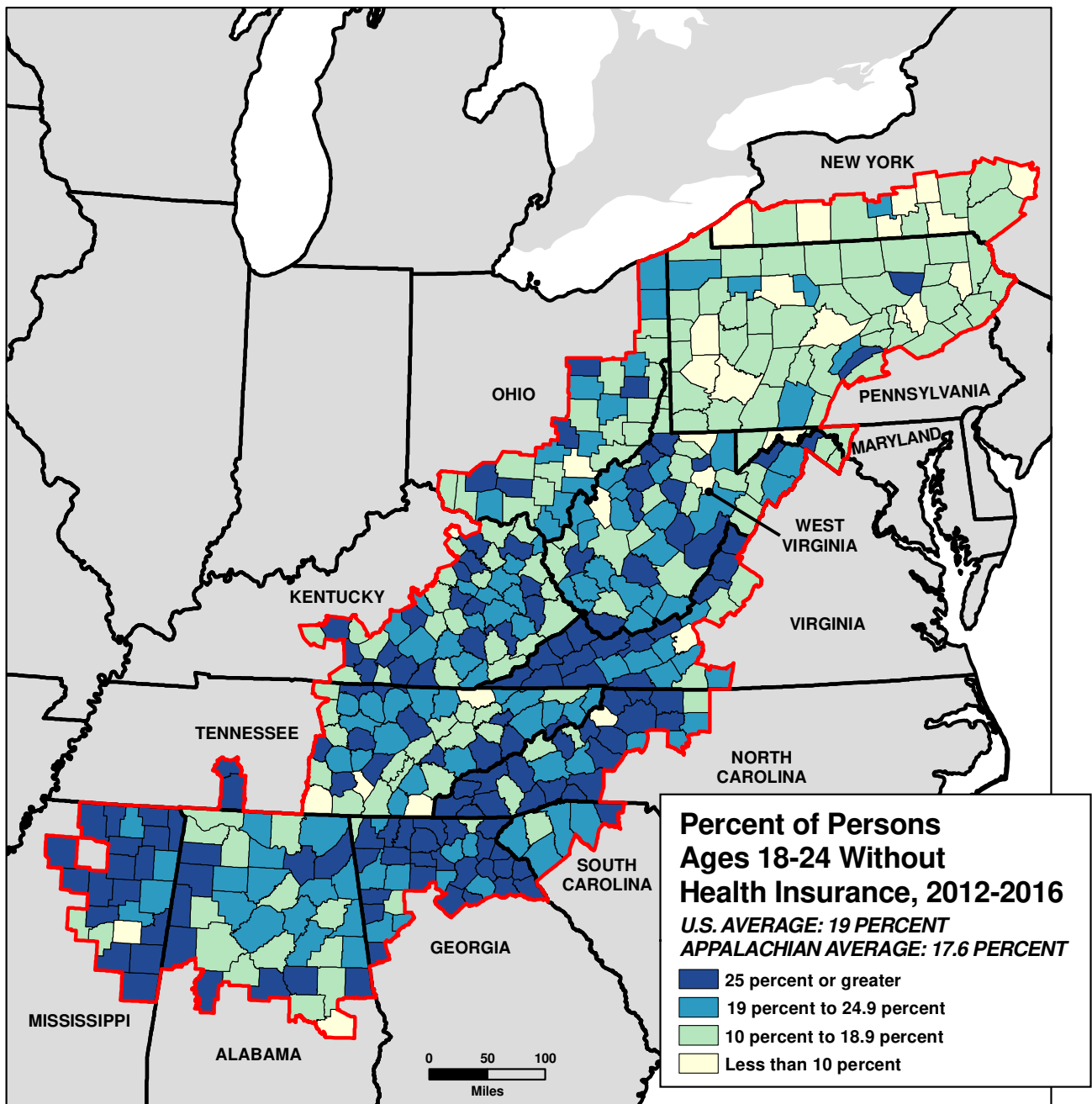
Figure 8.2: Percent of Persons Under Age 18 in the Appalachian Region Not Covered by Health Insurance, 2012-2016



Map Title: Percent of Persons Under Age 18 in the Appalachian Region Not Covered by Health Insurance, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Just over 5 percent of Appalachia’s children under age 18 were uninsured during 2012-2016, half a percentage point below the national average. But the rate varied throughout the Region. On one hand, 89 counties had non-coverage rates under 3 percent; nearly half were in West Virginia and Alabama—the two states in the Region where less than 4 percent of children were without health insurance. Conversely, at least one in 10 children lacked health insurance in 37 other counties. While the counties in the latter group were scattered throughout Appalachia, all but seven of them were outside metropolitan areas.

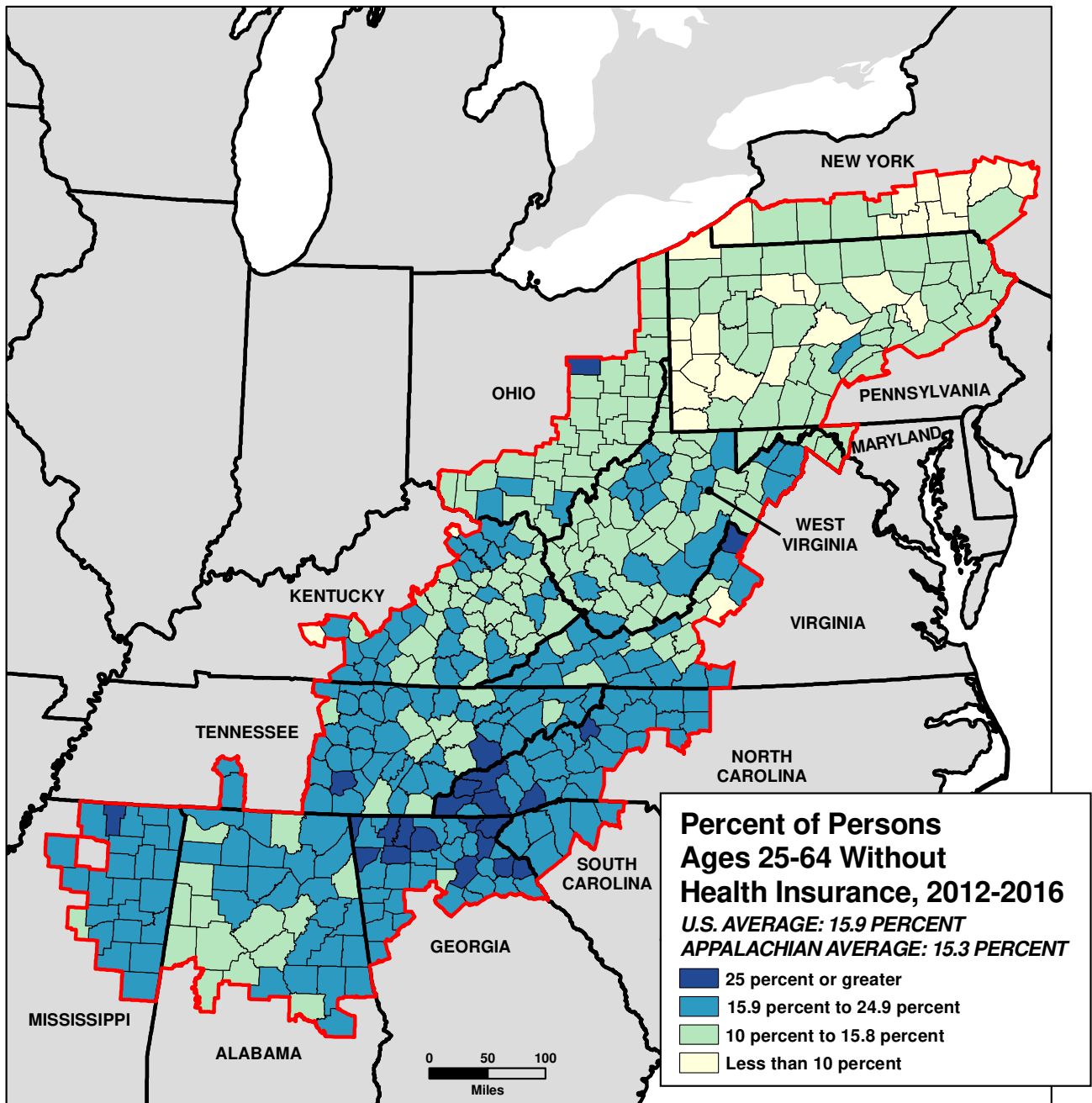
Figure 8.3: Percent of Persons Ages 18 to 24 in the Appalachian Region Not Covered by Health Insurance, 2012-2016



Map Title: Percent of Persons Ages 18 to 24 in the Appalachian Region Not Covered by Health Insurance, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Lack of health insurance coverage was highest among young adults—one in six Appalachian residents ages 18 to 24 were uninsured during the 2012-2016 period. Although Appalachia’s rate was slightly lower than the national average, the non-coverage problem was especially prevalent in much of Central and Southern Appalachia, as well as in the Region’s most rural counties: In each of these three areas, more than one-fifth of young adults did not have coverage. This situation was especially dire in 137 counties, where non-coverage rates among 18-to-24-year-olds were 25 percent or higher. Among these counties, 79 were in the five states with uninsured rates for young adults exceeding 20 percent (Georgia, Kentucky, Mississippi, and the Carolinas), and 103 were outside metropolitan areas. In contrast, 29 Appalachian counties had less than 10 percent of young adults without health insurance; most of these were in Northern Appalachia, in metro areas, and/or had a four-year college or university within their boundaries.

Figure 8.4: Percent of Persons Ages 25 to 64 in the Appalachian Region Not Covered by Health Insurance, 2012-2016



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region Not Covered by Health Insurance, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In 2012-2016, 15 percent of Appalachia’s working-age population were not covered by health insurance. While this rate was slightly below that for the nation, there was great variation within the Region. For example, more than one-fifth of 25-to-64-year-olds in the Appalachian sections of Georgia, Mississippi, and North Carolina were uninsured; these three states accounted for 19 of the 23 counties with non-coverage rates of at least 25 percent for this age group. (Georgia alone had 12 of these counties.) By comparison, there were 27 Appalachian counties where less than 10 percent of working-age residents were not insured; all but three of the counties in this latter group were in New York or Pennsylvania.

CHAPTER 9: DISABILITY STATUS

Table 9.1: Number of Persons in the Appalachian Region With a Disability, by Age Group, 2012-2016

Disability Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-34	Ages 35-64	
United States	39,272,529	3,042,011	20,188,257	4,350,319	15,837,938	16,042,261
Appalachian Region	4,020,308	271,660	2,147,308	408,202	1,739,106	1,601,340
Subregions						
Northern Appalachia	1,224,086	91,616	618,036	128,141	489,895	514,434
North Central Appalachia	437,185	29,219	241,800	46,250	195,550	166,166
Central Appalachia	435,816	25,198	256,805	41,786	215,019	153,813
South Central Appalachia	787,703	47,221	414,625	75,112	339,513	325,857
Southern Appalachia	1,135,518	78,406	616,042	116,913	499,129	441,070
County Types						
Large Metros (pop. 1 million +)	762,611	56,530	401,098	80,074	321,024	304,983
Small Metros (pop. <1 million)	1,657,326	113,632	878,528	173,741	704,787	665,166
Nonmetro, Adjacent to Large Metros	364,001	25,201	197,285	37,165	160,120	141,515
Nonmetro, Adjacent to Small Metros	731,680	46,009	388,932	69,820	319,112	296,739
Rural (nonmetro, not adj. to a metro)	504,690	30,288	281,465	47,402	234,063	192,937
Alabama	777,592	51,866	424,918	81,970	342,948	300,808
Appalachian Alabama	492,844	31,525	270,223	50,922	219,301	191,096
Non-Appalachian Alabama	284,748	20,341	154,695	31,048	123,647	109,712
Georgia	1,223,531	98,351	670,053	137,071	532,982	455,127
Appalachian Georgia	357,756	27,702	192,204	38,075	154,129	137,850
Non-Appalachian Georgia	865,775	70,649	477,849	98,996	378,853	317,277
Kentucky	745,988	55,638	424,996	82,649	342,347	265,354
Appalachian Kentucky	268,127	16,422	159,957	26,931	133,026	91,748
Non-Appalachian Kentucky	477,861	39,216	265,039	55,718	209,321	173,606
Maryland	625,691	51,674	318,481	70,456	248,025	255,536
Appalachian Maryland	39,224	3,605	20,849	4,737	16,112	14,770
Non-Appalachian Maryland	586,467	48,069	297,632	65,719	231,913	240,766
Mississippi	478,109	34,154	263,938	49,790	214,148	180,017
Appalachian Mississippi	108,391	6,782	59,723	10,121	49,602	41,886
Non-Appalachian Mississippi	369,718	27,372	204,215	39,669	164,546	138,131
New York	2,187,789	161,316	1,082,491	234,629	847,862	943,982
Appalachian New York	149,864	12,263	78,134	18,259	59,875	59,467
Non-Appalachian New York	2,037,925	149,053	1,004,357	216,370	787,987	884,515
North Carolina	1,331,570	101,431	706,159	140,742	565,417	523,980
Appalachian North Carolina	265,306	16,151	134,266	23,817	110,449	114,889
Non-Appalachian North Carolina	1,066,264	85,280	571,893	116,925	454,968	409,091
Ohio	1,571,654	129,502	836,051	174,618	661,433	606,101
Appalachian Ohio	325,768	22,971	178,916	34,447	144,469	123,881
Non-Appalachian Ohio	1,245,886	106,531	657,135	140,171	516,964	482,220
Pennsylvania	1,719,069	140,174	871,015	191,221	679,794	707,880
Appalachian Pennsylvania	845,631	63,383	420,501	87,105	333,396	361,747
Non-Appalachian Pennsylvania	873,438	76,791	450,514	104,116	346,398	346,133
South Carolina	691,835	48,403	367,911	70,304	297,607	275,521
Appalachian South Carolina	176,527	12,397	93,892	17,795	76,097	70,238
Non-Appalachian South Carolina	515,308	36,006	274,019	52,509	221,510	205,283
Tennessee	989,612	67,563	545,573	106,204	439,369	376,476
Appalachian Tennessee	497,981	29,718	270,883	47,663	223,220	197,380
Non-Appalachian Tennessee	491,631	37,845	274,690	58,541	216,149	179,096
Virginia	915,366	70,223	472,291	102,669	369,622	372,852
Appalachian Virginia	137,639	6,965	73,585	13,423	60,162	57,089
Non-Appalachian Virginia	777,727	63,258	398,706	89,246	309,460	315,763
West Virginia (entire state)	355,250	21,776	194,175	34,907	159,268	139,299

Note: The ACS defines persons with a disability 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. The disability universe consists of the civilian noninstitutional population.

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

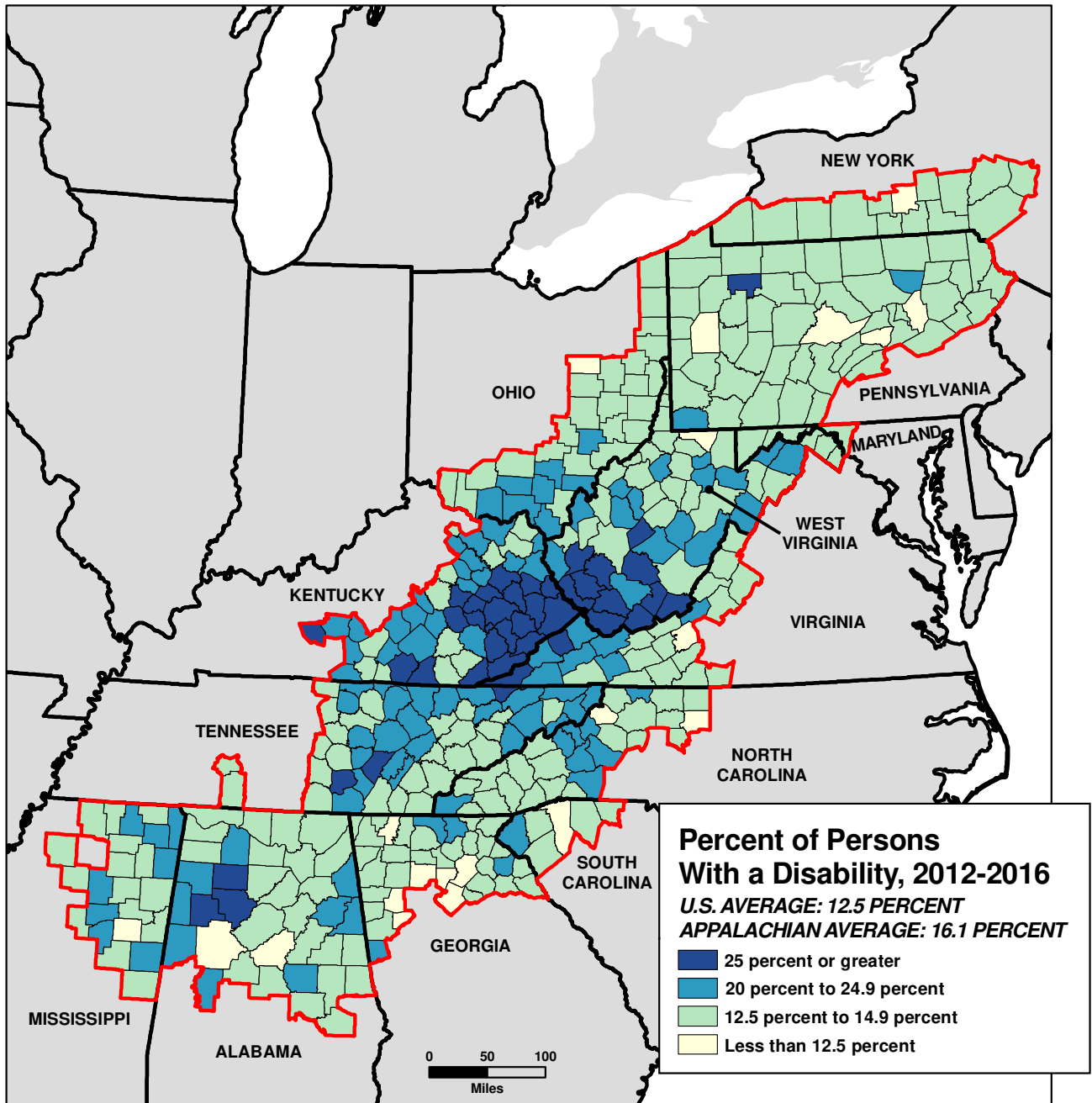
Table 9.2: Percent of Persons in the Appalachian Region With a Disability, by Age Group, 2012-2016

Disability Status	All Ages	Under Age 18	Ages 18-64			Ages 65 and Over
			Total	Ages 18-34	Ages 35-64	
United States	12.5	4.1	10.3	6.0	12.9	35.7
Appalachian Region	16.1	4.9	13.9	7.6	17.3	38.8
Subregions						
Northern Appalachia	15.1	5.5	12.3	7.3	15.0	35.5
North Central Appalachia	18.4	5.7	16.5	9.1	20.4	41.6
Central Appalachia	23.5	6.2	22.6	11.2	28.2	49.6
South Central Appalachia	16.6	4.8	14.3	7.5	17.9	38.2
Southern Appalachia	14.3	4.1	12.6	6.7	15.8	39.4
County Types						
Large Metros (pop. 1 million +)	12.8	4.1	10.8	6.3	13.3	35.4
Small Metros (pop. <1 million)	15.7	5.0	13.4	7.3	16.8	38.2
Nonmetro, Adjacent to Large Metros	16.9	5.3	15.1	8.3	18.7	38.5
Nonmetro, Adjacent to Small Metros	18.8	5.5	16.6	9.1	20.3	40.8
Rural (nonmetro, not adj. to a metro)	20.4	5.6	18.7	9.1	23.8	44.6
Alabama	16.3	4.7	14.5	7.6	18.4	41.6
Appalachian Alabama	16.1	4.5	14.3	7.5	18.1	41.3
Non-Appalachian Alabama	16.7	5.0	14.8	7.9	19.0	42.2
Georgia	12.3	3.9	10.8	6.0	13.7	37.4
Appalachian Georgia	11.7	3.5	10.2	5.9	12.5	36.4
Non-Appalachian Georgia	12.6	4.2	11.1	6.0	14.2	37.9
Kentucky	17.2	5.5	15.8	8.6	19.9	42.1
Appalachian Kentucky	23.3	6.3	22.5	11.2	28.4	50.2
Non-Appalachian Kentucky	15.1	5.2	13.4	7.7	16.7	38.8
Maryland	10.7	3.8	8.6	5.3	10.4	32.1
Appalachian Maryland	16.5	6.9	14.4	9.5	17.0	36.0
Non-Appalachian Maryland	10.4	3.7	8.3	5.1	10.1	31.9
Mississippi	16.4	4.7	14.8	7.4	19.3	43.5
Appalachian Mississippi	17.5	4.6	15.9	7.1	21.2	44.6
Non-Appalachian Mississippi	16.0	4.7	14.5	7.5	18.8	43.2
New York	11.2	3.8	8.7	5.0	11.0	33.7
Appalachian New York	14.5	5.9	12.0	7.3	15.0	34.2
Non-Appalachian New York	11.1	3.7	8.5	4.8	10.8	33.7
North Carolina	13.7	4.4	11.7	6.5	14.6	37.0
Appalachian North Carolina	15.6	4.6	13.0	6.9	16.1	36.3
Non-Appalachian North Carolina	13.3	4.4	11.4	6.4	14.3	37.1
Ohio	13.8	4.9	11.9	6.9	14.6	35.1
Appalachian Ohio	16.5	5.2	15.0	8.6	18.1	37.2
Non-Appalachian Ohio	13.2	4.9	11.2	6.6	13.9	34.6
Pennsylvania	13.7	5.2	11.1	6.8	13.5	34.5
Appalachian Pennsylvania	15.0	5.6	12.1	7.2	14.7	35.6
Non-Appalachian Pennsylvania	12.6	4.9	10.4	6.5	12.6	33.3
South Carolina	14.6	4.5	12.6	6.7	16.1	37.0
Appalachian South Carolina	14.6	4.4	12.6	6.5	16.1	38.0
Non-Appalachian South Carolina	14.6	4.5	12.7	6.7	16.0	36.7
Tennessee	15.4	4.5	13.6	7.3	17.2	39.4
Appalachian Tennessee	17.8	5.0	15.8	8.1	19.9	40.2
Non-Appalachian Tennessee	13.5	4.2	12.0	6.8	15.2	38.5
Virginia	11.3	3.8	9.2	5.5	11.4	33.3
Appalachian Virginia	18.5	4.9	15.9	8.1	20.3	41.1
Non-Appalachian Virginia	10.6	3.7	8.6	5.2	10.5	32.2
West Virginia (entire state)	19.5	5.7	17.4	9.2	21.5	43.6

Note: The ACS defines persons with a disability 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. The disability universe consists of the civilian noninstitutional population.

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

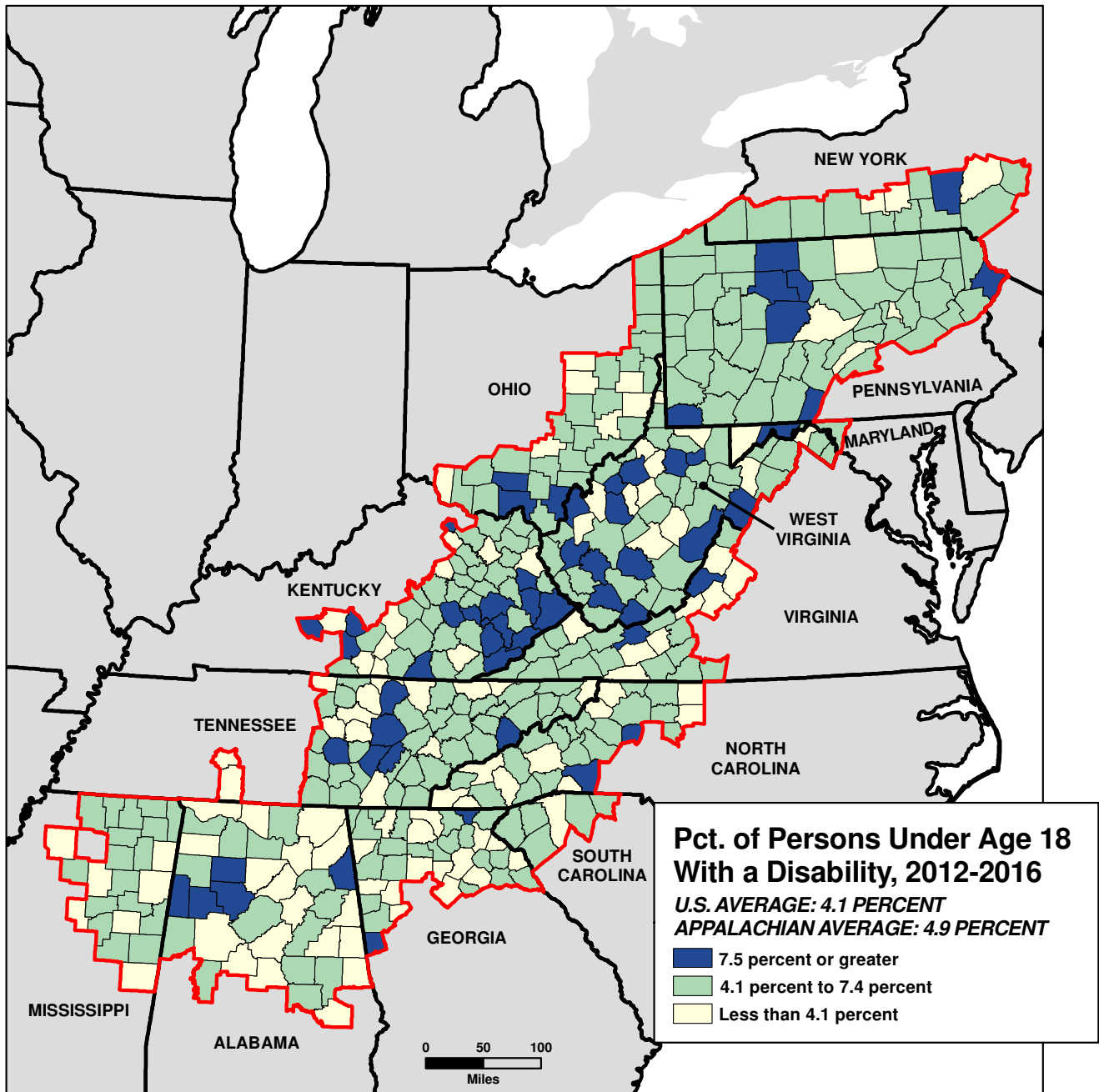
Figure 9.1: Percent of Persons in the Appalachian Region With a Disability, 2012-2016



Map Title: Percent of Persons in the Appalachian Region With a Disability, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In the 2012-2016 period, about 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 41 counties, 23 of which were in Appalachia’s most rural counties (where the overall disability rate was 20 percent). Kentucky and West Virginia—the two states with the highest levels of disability in the Region—combined for 32 of these counties. Appalachia’s relatively high disability rate corresponds to the population’s older age structure: Among the 41 counties with the highest disability prevalence levels, the share of residents age 65 or older exceeded the national average (15.2 percent in mid-2016) in 39 of them. And in 10 of these counties, the share of older persons was at least 20 percent.

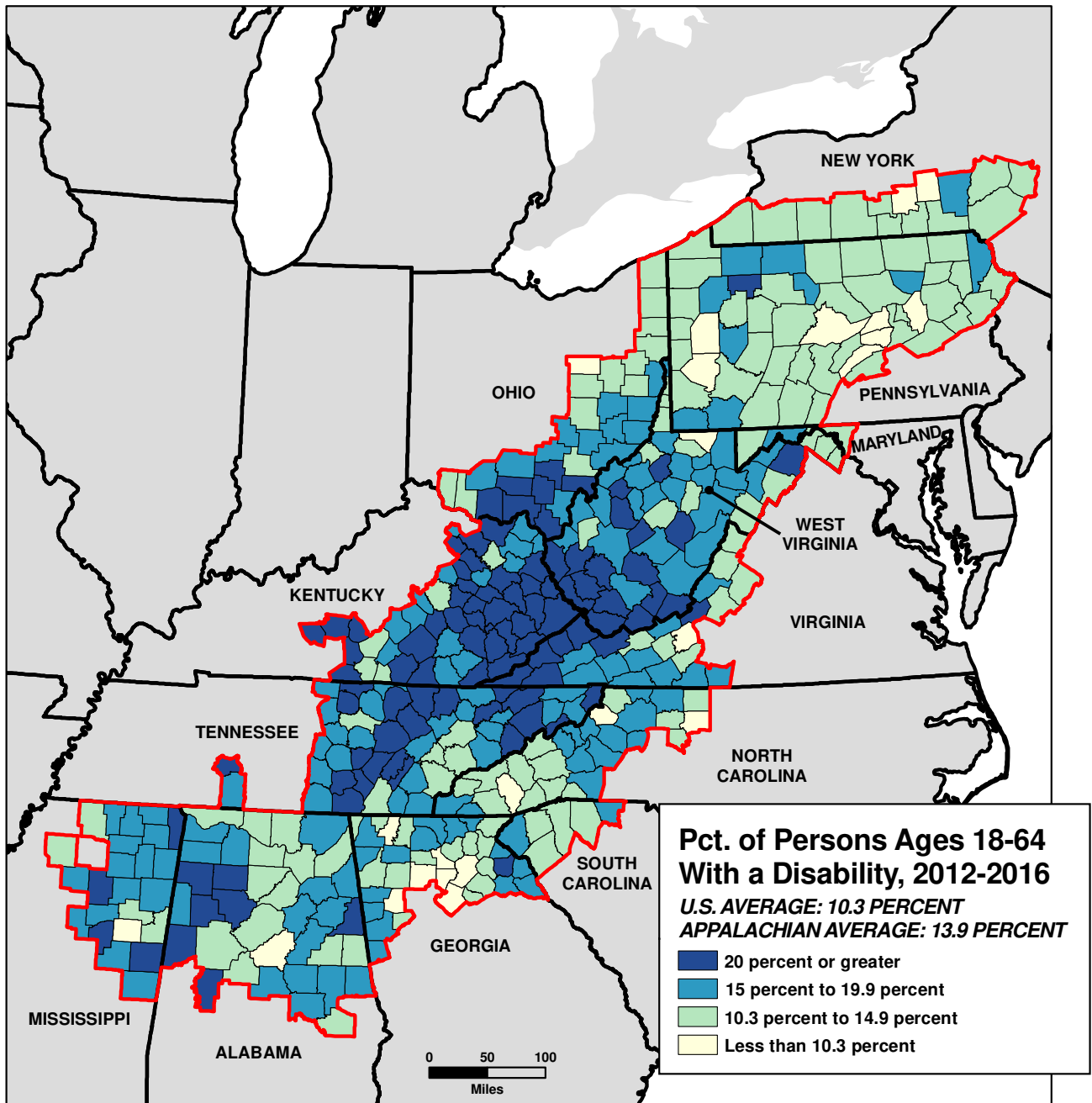
Figure 9.2: Percent of Persons Under Age 18 in the Appalachian Region With a Disability, 2012-2016



Map Title: Percent of Persons Under Age 18 in the Appalachian Region With a Disability, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

At almost 5 percent, the prevalence of disability among children under age 18 in Appalachia was slightly higher than the national average during the 2012-2016 period. But there was variation within the Region. For example, the rate was at least 7.5 percent in 57 counties, 47 of which were outside metropolitan areas. In 111 other counties, however, the disability prevalence was below the national average of just over 4 percent. Nearly three-fifths of the counties in the latter group were in South Central and Southern Appalachia. In fact, at just over 4 percent, Southern Appalachia was the only subregion where the disability rate among the under-18 population was not greater than the national average.

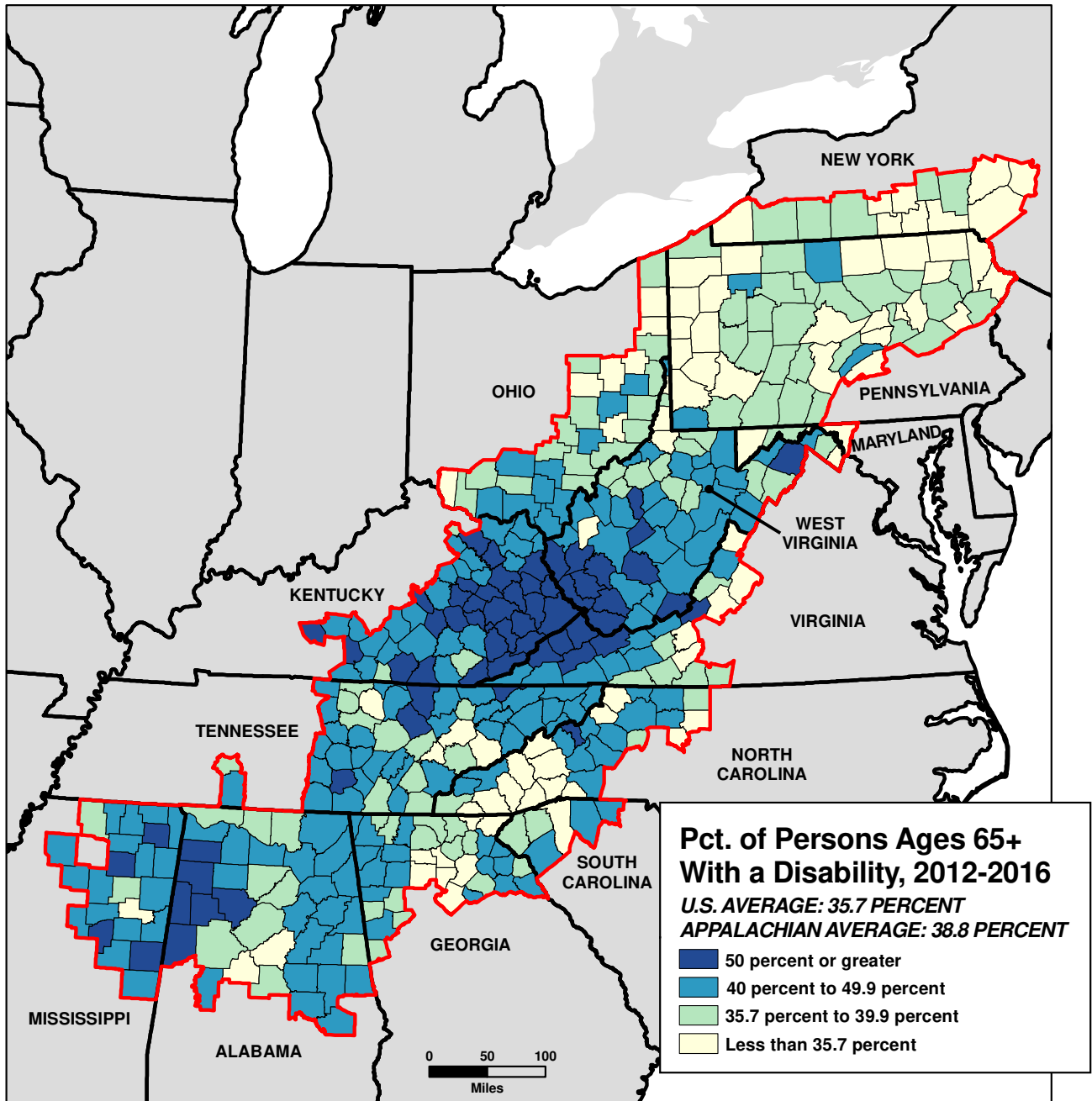
Figure 9.3: Percent of Persons Ages 18 to 64 in the Appalachian Region With a Disability, 2012-2016



Map Title: Percent of Persons Ages 18 to 64 in the Appalachian Region With a Disability, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In the 2012-2016 period, approximately one in seven adults ages 18 to 64 in Appalachia reported a disability, compared with about one in 10 nationally. Disability prevalence was particularly high in some parts of the Region: In Central Appalachia, for example, more than one-fifth of working-age adults had a disability. Indeed, Central Appalachia had 56 of the 101 Appalachian counties where the disability rate among 18-to-64-year-olds was 20 percent or higher. 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.

Figure 9.4: Percent of Persons Ages 65 and Over in the Appalachian Region With a Disability, 2012-2016



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region With a Disability, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Two-fifths of adults ages 65 and over in the Appalachian Region reported a disability in the 2012-2016 period, slightly higher than the national share. And the prevalence was even greater in some parts of the Region: Nearly half of the older residents of Central Appalachia—and half of older persons in Appalachian Kentucky—had at least one disability. Indeed, Central Appalachia had 43 of the 61 counties where at least half of older residents reported a disability. (Kentucky alone had 28 of these counties.) And there are signs that disabled adults in the Region may be aging in place: In 29 of these 61 counties, the share of 18- to 64-year-olds with a disability was at or above 25 percent—twice the national average for that age group. Yet there are 81 other Appalachian counties where the disability rate for the older population was actually lower than the national average. More than half of these low-prevalence counties were in Northern Appalachia—the only subregion where the disability prevalence rate for older residents was below the national average of just under 36 percent.

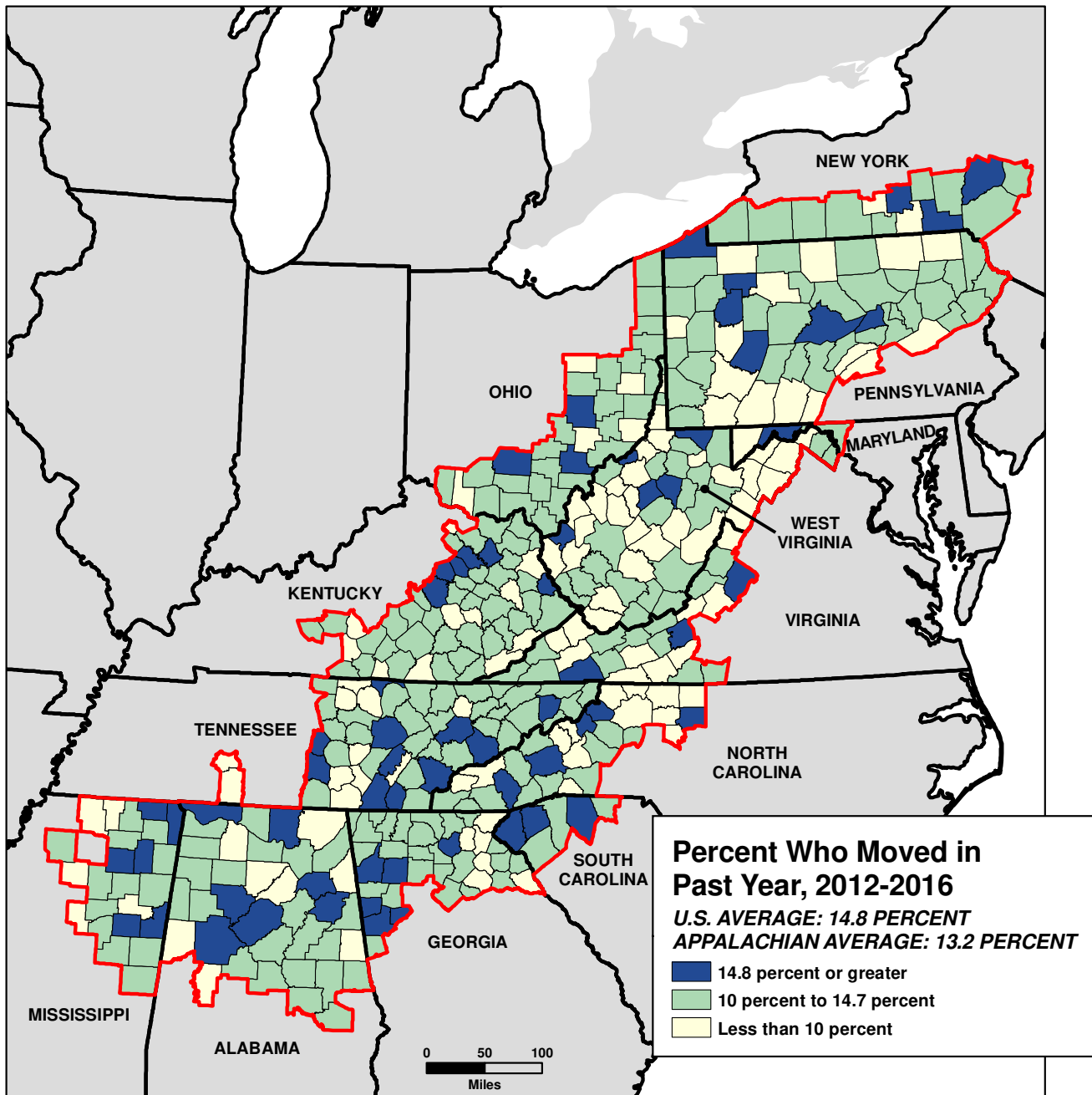
CHAPTER 10: MIGRATION

Table 10.1: Mobility Status of Persons Ages 1 and Over in the Appalachian Region, 2012-2016

Mobility Status in the Last Year	Total Population Ages 1 and Over, 2012-2016	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	314,813,229	85.2	14.8	8.6	6.2	3.2	3.0
Appalachian Region	25,190,817	86.8	13.2	7.5	5.7	3.3	2.4
Subregions							
Northern Appalachia	8,225,560	87.5	12.5	7.5	5.0	2.9	2.1
North Central Appalachia	2,397,141	87.4	12.6	7.0	5.7	3.2	2.5
Central Appalachia	1,874,595	87.7	12.3	6.7	5.6	3.7	1.9
South Central Appalachia	4,749,223	86.1	13.9	7.6	6.3	3.6	2.8
Southern Appalachia	7,944,298	86.2	13.8	7.7	6.1	3.6	2.5
County Types							
Large Metros (pop. 1 million +)	5,929,554	87.2	12.8	7.2	5.6	3.2	2.4
Small Metros (pop. <1 million)	10,647,072	85.9	14.1	8.0	6.1	3.3	2.8
Nonmetro, Adjacent to Large Metros	2,176,213	87.1	12.9	7.7	5.2	3.6	1.6
Nonmetro, Adjacent to Small Metros	3,933,913	88.2	11.8	6.6	5.2	3.3	1.9
Rural (nonmetro, not adj. to a metro)	2,504,065	87.5	12.5	6.9	5.7	3.8	1.9
Alabama	4,785,876	85.5	14.5	8.7	5.8	3.2	2.6
Appalachian Alabama	3,063,986	85.8	14.2	8.5	5.7	3.4	2.3
Non-Appalachian Alabama	1,721,890	85.1	14.9	9.0	5.9	2.8	3.1
Georgia	9,973,670	84.0	16.0	7.9	8.1	4.7	3.4
Appalachian Georgia	3,051,351	87.1	12.9	6.3	6.6	4.0	2.6
Non-Appalachian Georgia	6,922,319	82.7	17.3	8.6	8.7	5.0	3.7
Kentucky	4,359,829	84.5	15.5	8.7	6.8	3.9	2.9
Appalachian Kentucky	1,163,855	86.9	13.1	7.3	5.9	4.0	1.8
Non-Appalachian Kentucky	3,195,974	83.7	16.3	9.3	7.1	3.8	3.3
Maryland	5,890,982	86.5	13.5	7.3	6.2	2.8	3.4
Appalachian Maryland	249,824	86.3	13.7	8.1	5.6	3.2	2.5
Non-Appalachian Maryland	5,641,158	86.5	13.5	7.2	6.2	2.7	3.5
Mississippi	2,954,210	86.1	13.9	7.6	6.3	3.7	2.6
Appalachian Mississippi	622,047	85.8	14.2	8.3	5.9	3.8	2.1
Non-Appalachian Mississippi	2,332,163	86.2	13.8	7.4	6.4	3.6	2.8
New York	19,477,011	89.3	10.7	6.2	4.6	2.4	2.1
Appalachian New York	1,040,329	85.5	14.5	8.5	6.0	3.6	2.4
Non-Appalachian New York	18,436,682	89.5	10.5	6.0	4.5	2.4	2.1
North Carolina	9,827,514	84.7	15.3	8.2	7.0	3.6	3.5
Appalachian North Carolina	1,708,763	86.9	13.1	7.0	6.1	3.5	2.6
Non-Appalachian North Carolina	8,118,751	84.3	15.7	8.5	7.2	3.6	3.6
Ohio	11,456,292	85.1	14.9	9.4	5.5	3.4	2.1
Appalachian Ohio	1,994,732	87.4	12.6	7.7	4.9	3.2	1.7
Non-Appalachian Ohio	9,461,560	84.6	15.4	9.8	5.6	3.4	2.2
Pennsylvania	12,646,855	87.8	12.2	7.3	4.9	2.6	2.3
Appalachian Pennsylvania	5,697,903	87.8	12.2	7.3	4.9	2.8	2.1
Non-Appalachian Pennsylvania	6,948,952	87.8	12.2	7.2	5.0	2.5	2.5
South Carolina	4,779,653	84.9	15.1	8.1	7.0	3.2	3.8
Appalachian South Carolina	1,206,914	84.9	15.1	8.8	6.3	3.2	3.1
Non-Appalachian South Carolina	3,572,739	84.9	15.1	7.9	7.3	3.2	4.0
Tennessee	6,471,055	84.9	15.1	8.8	6.3	3.1	3.2
Appalachian Tennessee	2,810,620	86.1	13.9	7.9	6.0	3.3	2.7
Non-Appalachian Tennessee	3,660,435	84.0	16.0	9.6	6.4	2.9	3.6
Virginia	8,210,448	84.3	15.7	6.7	9.0	5.0	4.0
Appalachian Virginia	752,651	85.9	14.1	6.6	7.5	4.7	2.8
Non-Appalachian Virginia	7,457,797	84.1	15.9	6.7	9.2	5.0	4.2
West Virginia (entire state)	1,827,842	88.2	11.8	6.4	5.4	2.6	2.8

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

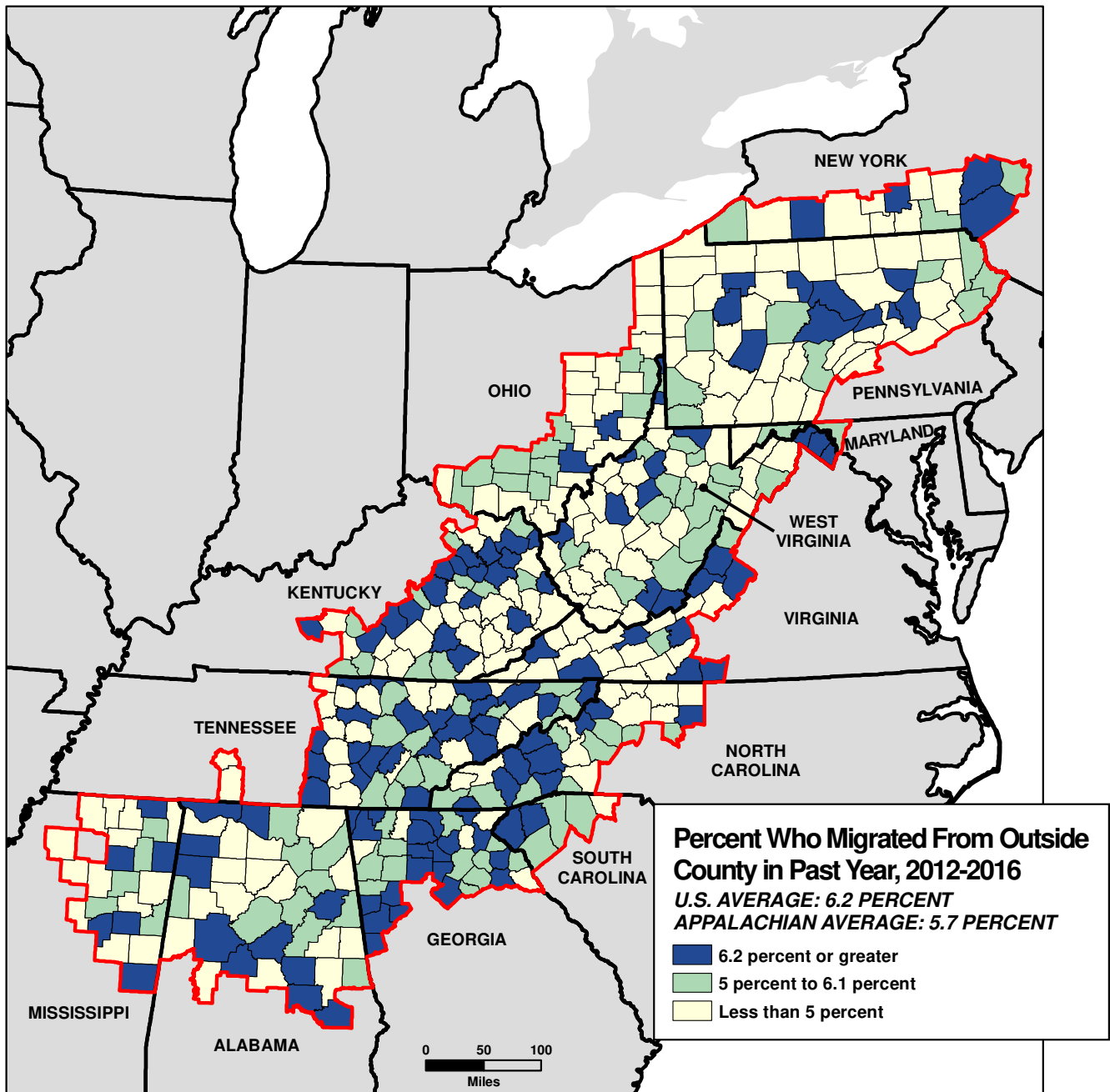
Figure 10.1: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Moved in the Past Year, 2012-2016



Map Title: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Moved in the Past Year, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 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 65 of the Region’s counties—40 of which were in South Central or Southern Appalachia. Most also were counties in major metropolitan areas, those that housed a four-year college or university, or rural counties that were likely retirement or recreational destinations. Yet in 115 Appalachian counties, less than 10 percent of the residents had moved in the previous 12 months; almost three-fourths of these counties were outside metro areas.

Figure 10.2: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their County of Residence in the Past Year, 2012-2016

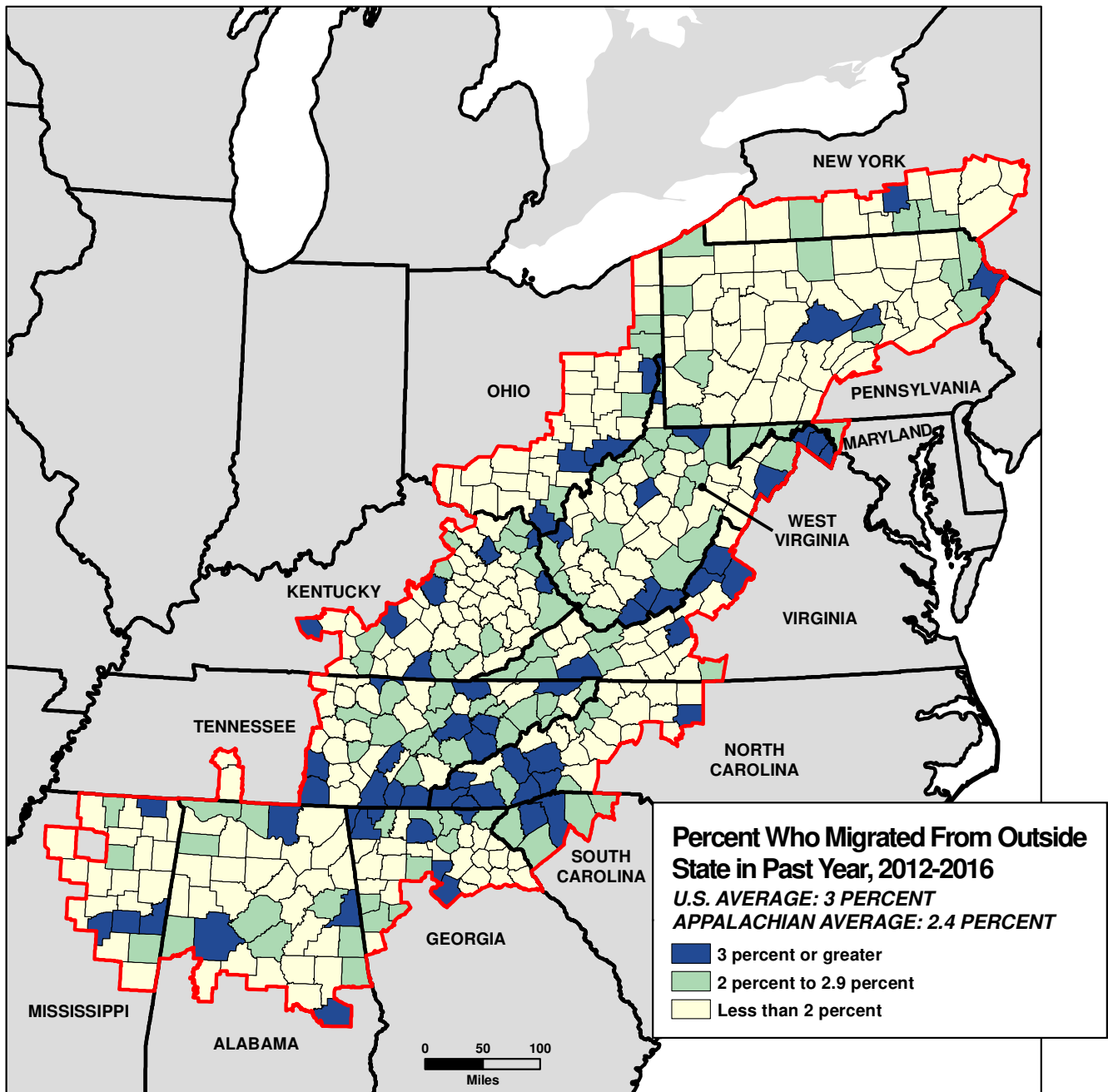


Map Title: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their County of Residence in the Past Year, 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

While people in Appalachia were slightly less likely to have migrated from outside their county of residence in the 2012-2016 period than Americans as a whole, residents in 127 of the Region’s counties had migration rates at or above the national average. These counties were scattered throughout Appalachia and were distributed across all urban/rural types. In 190 counties, however, less than 5 percent of the residents had migrated from another county. Almost three-fourths of these counties were outside metropolitan areas, and more than one-third of those nonmetro counties were rural counties not adjacent to a metro area.

Figure 10.3: Percent of Persons Ages 1 and Over in the Appalachian Region Who Had Migrated From Outside Their State of Residence in the Past Year, 2012-2016



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, 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

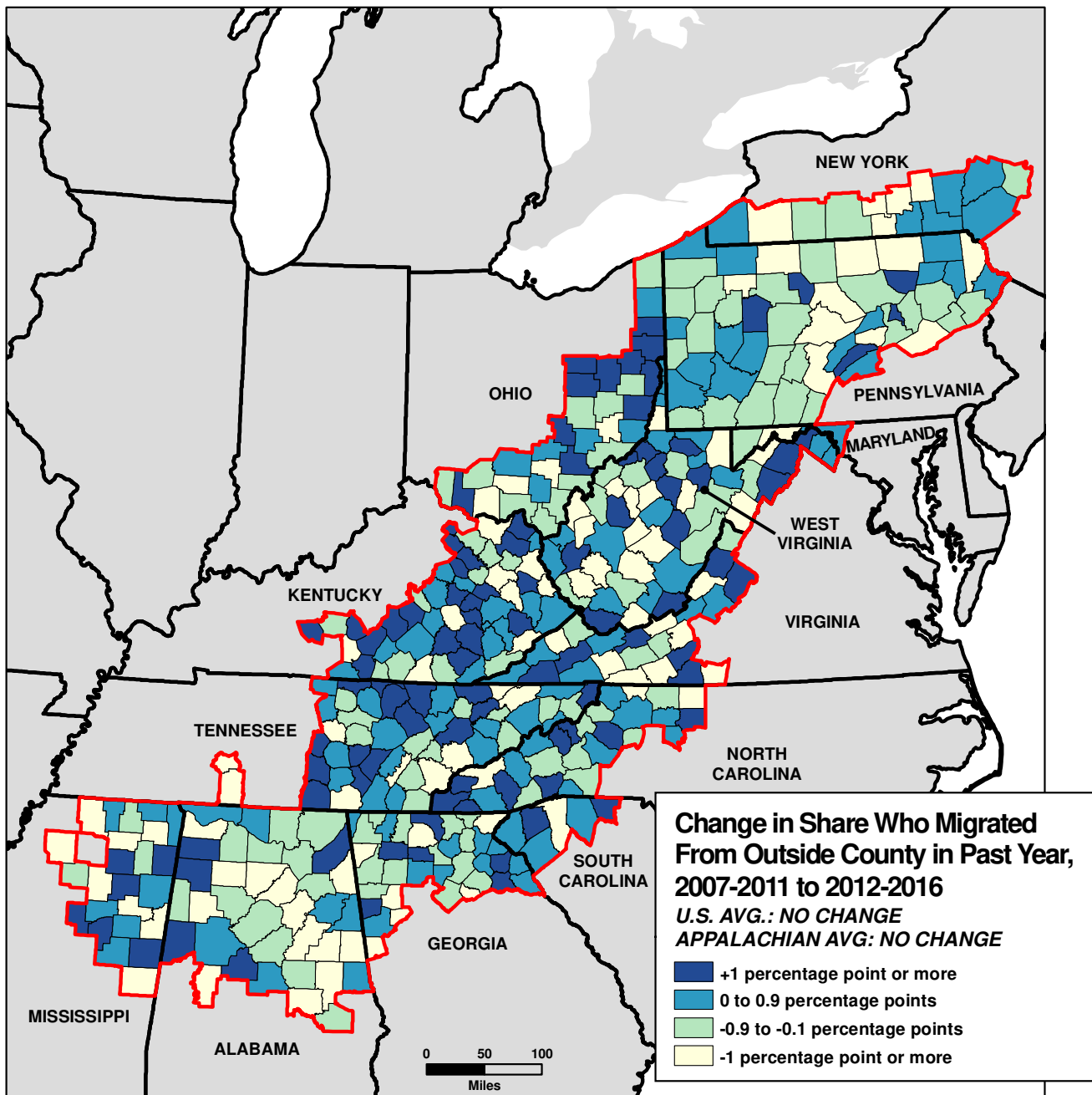
The share of people in the Appalachian Region who had migrated from outside their state of residence was 2.4 percent in the 2012-2016 period, compared with 3 percent of all Americans. Yet in 70 of Appalachia's 420 counties, out-of-state migration levels were at or above the U.S. average. Most of these counties were in Southern and South Central 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 and Ithaca College), Centre County, Pennsylvania, (Penn State University), and Monongalia County, West Virginia (West Virginia University). In contrast, there were 251 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 10.2: Percentage Point Change in Mobility Status of Persons Ages 1 and Over in the Appalachian Region, 2007-2011 to 2012-2016

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	+ 0.6	- 0.6	- 0.7	+ 0.0	+ 0.0	+ 0.1
Appalachian Region	+ 0.4	- 0.4	- 0.4	+ 0.0	+ 0.1	+ 0.0
Subregions						
Northern Appalachia	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.1	+ 0.0
North Central Appalachia	+ 0.5	- 0.5	- 0.4	+ 0.0	+ 0.1	- 0.1
Central Appalachia	- 0.2	+ 0.2	- 0.4	+ 0.6	+ 0.7	- 0.1
South Central Appalachia	+ 0.3	- 0.3	- 0.5	+ 0.2	+ 0.3	+ 0.0
Southern Appalachia	+ 1.3	- 1.3	- 1.0	- 0.3	- 0.2	- 0.1
County Types						
Large Metros (pop. 1 million +)	+ 0.9	- 0.9	- 0.8	+ 0.0	- 0.1	+ 0.0
Small Metros (pop. <1 million)	+ 0.3	- 0.3	- 0.4	+ 0.1	+ 0.1	- 0.1
Nonmetro, Adjacent to Large Metros	+ 0.8	- 0.8	- 0.7	- 0.2	+ 0.1	- 0.2
Nonmetro, Adjacent to Small Metros	+ 0.5	- 0.5	- 0.4	+ 0.0	+ 0.2	- 0.2
Rural (nonmetro, not adj. to a metro)	+ 0.0	+ 0.0	- 0.1	+ 0.3	+ 0.3	- 0.1
Alabama	+ 1.0	- 1.0	- 0.6	- 0.4	- 0.1	- 0.3
Appalachian Alabama	+ 1.0	- 1.0	- 0.7	- 0.3	- 0.1	- 0.2
Non-Appalachian Alabama	+ 1.2	- 1.2	- 0.5	- 0.7	- 0.1	- 0.5
Georgia	+ 1.0	- 1.0	- 0.7	- 0.3	- 0.2	- 0.1
Appalachian Georgia	+ 2.0	- 2.0	- 1.7	- 0.3	- 0.3	+ 0.0
Non-Appalachian Georgia	+ 0.6	- 0.6	- 0.3	- 0.3	- 0.2	- 0.1
Kentucky	- 0.2	+ 0.2	+ 0.0	+ 0.2	+ 0.4	- 0.2
Appalachian Kentucky	- 0.2	+ 0.2	- 0.3	+ 0.6	+ 0.7	- 0.2
Non-Appalachian Kentucky	- 0.1	+ 0.1	+ 0.2	+ 0.0	+ 0.2	- 0.2
Maryland	+ 0.1	- 0.1	+ 0.1	- 0.2	+ 0.0	- 0.2
Appalachian Maryland	+ 0.4	- 0.4	- 0.2	- 0.2	+ 0.4	- 0.5
Non-Appalachian Maryland	+ 0.0	+ 0.0	+ 0.1	- 0.2	- 0.1	- 0.1
Mississippi	+ 0.9	- 0.9	- 0.7	- 0.2	+ 0.0	- 0.2
Appalachian Mississippi	- 0.4	+ 0.4	+ 0.4	+ 0.0	- 0.1	+ 0.0
Non-Appalachian Mississippi	+ 1.3	- 1.3	- 1.0	- 0.3	- 0.1	- 0.2
New York	+ 0.8	- 0.8	- 0.6	- 0.1	- 0.1	- 0.1
Appalachian New York	+ 0.2	- 0.2	+ 0.0	- 0.2	- 0.2	- 0.1
Non-Appalachian New York	+ 0.8	- 0.8	- 0.7	- 0.1	+ 0.0	- 0.1
North Carolina	+ 0.8	- 0.8	- 0.7	- 0.2	+ 0.1	- 0.2
Appalachian North Carolina	- 0.1	+ 0.1	- 0.4	+ 0.5	+ 0.4	+ 0.1
Non-Appalachian North Carolina	+ 1.0	- 1.0	- 0.7	- 0.3	+ 0.0	- 0.3
Ohio	- 0.2	+ 0.2	- 0.2	+ 0.4	+ 0.2	+ 0.2
Appalachian Ohio	- 0.3	+ 0.3	+ 0.0	+ 0.4	+ 0.3	+ 0.1
Non-Appalachian Ohio	- 0.2	+ 0.2	- 0.2	+ 0.4	+ 0.2	+ 0.2
Pennsylvania	+ 0.1	- 0.1	+ 0.0	+ 0.0	+ 0.0	- 0.1
Appalachian Pennsylvania	+ 0.1	- 0.1	+ 0.0	- 0.1	+ 0.0	- 0.1
Non-Appalachian Pennsylvania	+ 0.1	- 0.1	- 0.2	+ 0.1	+ 0.1	+ 0.0
South Carolina	+ 0.2	- 0.2	- 0.2	+ 0.0	+ 0.1	- 0.1
Appalachian South Carolina	+ 0.8	- 0.8	- 0.8	+ 0.0	+ 0.2	- 0.2
Non-Appalachian South Carolina	+ 0.0	+ 0.0	+ 0.1	+ 0.0	+ 0.1	- 0.1
Tennessee	+ 0.8	- 0.8	- 0.9	+ 0.1	+ 0.1	+ 0.0
Appalachian Tennessee	+ 0.3	- 0.3	- 0.6	+ 0.3	+ 0.4	+ 0.0
Non-Appalachian Tennessee	+ 1.2	- 1.2	- 1.1	- 0.1	- 0.1	+ 0.0
Virginia	+ 0.0	+ 0.0	+ 0.1	+ 0.0	+ 0.1	- 0.1
Appalachian Virginia	+ 0.5	- 0.5	- 0.4	- 0.2	- 0.2	+ 0.1
Non-Appalachian Virginia	- 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.1	- 0.1
West Virginia (entire state)	+ 0.5	- 0.5	- 0.4	- 0.1	+ 0.1	- 0.1

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Figure 10.4: 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, 2007-2011 to 2012-2016



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, 2007-2011 to 2012-2016
 Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Both in Appalachia and the nation as a whole, the share of individuals migrating from outside their county of residence did not change between the 2007-2011 and 2012-2016 periods. Within the Region, however, there was change. In 101 counties, for example, the share of residents who migrated from another county increased at least a full percentage point. Yet in 94 other counties, the share of migrants from another county fell a percentage point or more from 2007-2011 and 2012-2016. The Appalachian sections of Kentucky, North Carolina, Ohio, and Tennessee had the largest increases among the states (0.3 percentage points or more), while Appalachian Alabama and Georgia had the sharpest declines (0.3 percentage points each).

TRENDS IN MIGRATION

- Like Americans as a whole, Appalachian residents were slightly less mobile in 2012-2016 than they were in 2007-2011. Between the two periods, the share of persons in the Region who had moved from a different residence in the past year decreased by almost half a percentage point to just over 13 percent in 2012-2016 (see Tables 10.1 and 10.2). However, this decline was absorbed by within-county movement; there was no change in the share of residents who migrated from outside their county and their state of residence between the two periods.
- Within the Region, the decline in residential mobility was greatest in Southern Appalachia, where the share of residents who had moved in the previous year fell more than a full percentage point between 2007-2011 and 2012-2016. Smaller declines were felt in North Central Appalachia and among counties both within and adjacent to large metropolitan areas. Yet in Central Appalachia, as well as the Appalachian sections of Kentucky, Mississippi, North Carolina, and Ohio, mobility shares actually increased slightly (by less than one-third of a percentage point in each case).
- Appalachia's lack of change in the percentage of residents migrating from outside their county of residence from 2007-2011 to 2012-2016 actually masked changes within the Region. For example, the share increased in both Central Appalachia and the Region's most rural counties. And among the states, the share migrating from another county increased 0.6 percentage points in Appalachian Kentucky, with smaller increases in Appalachian North Carolina, Ohio, and Tennessee. Meanwhile, there were small declines of at least 0.2 percentage points in the Appalachian sections of Alabama, Georgia, Maryland, New York, and Virginia.

CHAPTER 11: VETERAN STATUS

Table 11.1: Veteran Status of Adult Civilians in the Appalachian Region, by Age Group, 2012-2016

Veteran Status	Civilian Population				Percent Who Are Veterans			
	Ages 18 and Over	Ages 18-34	Ages 35-64	Ages 65 and Over	Ages 18 and Over	Ages 18-34	Ages 35-64	Ages 65 and Over
United States	243,935,157	73,933,581	123,820,944	46,180,632	8.0	2.3	6.9	20.3
Appalachian Region	19,931,033	5,495,429	10,170,433	4,265,171	9.0	2.1	7.5	21.4
Subregions								
Northern Appalachia	6,638,219	1,802,365	3,326,709	1,509,145	9.5	2.2	7.6	22.6
North Central Appalachia	1,906,232	519,087	975,006	412,139	9.8	2.4	8.5	22.3
Central Appalachia	1,483,212	386,171	776,766	320,275	7.7	2.0	6.3	18.2
South Central Appalachia	3,805,056	1,019,961	1,908,623	876,472	9.2	2.1	7.5	21.2
Southern Appalachia	6,098,314	1,767,845	3,183,329	1,147,140	8.4	2.1	7.4	20.6
County Types								
Large Metros (pop. 1 million +)	4,613,945	1,289,372	2,439,707	884,866	8.5	2.0	7.1	21.6
Small Metros (pop. <1 million)	8,468,988	2,411,957	4,256,890	1,800,141	9.3	2.2	8.0	21.8
Nonmetro, Adjacent to Large Metros	1,719,803	463,661	875,184	380,958	9.3	2.1	7.9	21.3
Nonmetro, Adjacent to Small Metros	3,141,261	792,253	1,597,646	751,362	9.6	2.4	7.6	21.6
Rural (nonmetro, not adj. to a metro)	1,987,036	538,186	1,001,006	447,844	8.1	2.0	6.4	19.2
Alabama	3,723,825	1,093,989	1,887,442	742,394	9.4	2.6	8.8	21.1
Appalachian Alabama	2,394,288	692,691	1,225,845	475,752	9.0	2.4	8.2	20.8
Non-Appalachian Alabama	1,329,537	401,298	661,597	266,642	10.2	3.0	9.9	21.5
Georgia	7,555,386	2,356,372	3,952,719	1,246,295	8.8	2.7	8.6	20.8
Appalachian Georgia	2,285,340	655,714	1,244,272	385,354	7.8	1.8	6.9	20.9
Non-Appalachian Georgia	5,270,046	1,700,658	2,708,447	860,941	9.2	3.0	9.4	20.7
Kentucky	3,383,064	983,510	1,746,554	653,000	8.6	2.4	7.7	20.2
Appalachian Kentucky	915,076	248,154	477,214	189,708	7.5	2.0	6.2	18.0
Non-Appalachian Kentucky	2,467,988	735,356	1,269,340	463,292	9.0	2.6	8.3	21.0
Maryland	4,584,055	1,361,396	2,402,609	820,050	8.6	2.7	8.0	20.1
Appalachian Maryland	199,825	55,475	100,890	43,460	10.0	2.5	9.2	21.6
Non-Appalachian Maryland	4,384,230	1,305,921	2,301,719	776,590	8.5	2.7	7.9	20.0
Mississippi	2,246,662	689,132	1,130,898	426,632	8.0	2.4	7.4	18.7
Appalachian Mississippi	478,301	144,321	236,847	97,133	7.1	2.0	6.2	17.1
Non-Appalachian Mississippi	1,768,361	544,811	894,051	329,499	8.3	2.5	7.8	19.2
New York	15,448,079	4,780,631	7,773,647	2,893,801	5.1	1.2	3.8	15.1
Appalachian New York	839,794	255,311	403,530	180,953	9.0	2.1	7.8	21.5
Non-Appalachian New York	14,608,285	4,525,320	7,370,117	2,712,848	4.9	1.1	3.6	14.7
North Carolina	7,570,164	2,196,976	3,913,858	1,459,330	9.0	2.9	8.2	20.4
Appalachian North Carolina	1,369,514	351,900	691,570	326,044	9.1	1.9	7.1	21.0
Non-Appalachian North Carolina	6,200,650	1,845,076	3,222,288	1,133,286	9.0	3.1	8.5	20.3
Ohio	8,938,977	2,563,250	4,579,390	1,796,337	8.7	2.1	7.5	21.3
Appalachian Ohio	1,570,206	410,260	812,162	347,784	9.7	2.2	8.1	22.6
Non-Appalachian Ohio	7,368,771	2,152,990	3,767,228	1,448,553	8.5	2.1	7.4	21.0
Pennsylvania	10,074,933	2,861,807	5,079,879	2,133,247	8.3	1.9	6.5	21.4
Appalachian Pennsylvania	4,618,465	1,248,027	2,316,475	1,053,963	9.5	2.2	7.4	22.7
Non-Appalachian Pennsylvania	5,456,468	1,613,780	2,763,404	1,079,284	7.4	1.6	5.7	20.1
South Carolina	3,718,496	1,080,432	1,876,384	761,680	10.1	3.2	9.2	21.8
Appalachian South Carolina	940,385	275,119	476,365	188,901	8.6	2.1	7.3	21.3
Non-Appalachian South Carolina	2,778,111	805,313	1,400,019	572,779	10.6	3.5	9.9	22.0
Tennessee	5,035,151	1,475,255	2,575,447	984,449	9.0	2.6	8.1	20.8
Appalachian Tennessee	2,238,109	598,850	1,133,823	505,436	9.4	2.3	7.9	21.3
Non-Appalachian Tennessee	2,797,042	876,405	1,441,624	479,013	8.6	2.8	8.2	20.3
Virginia	6,333,433	1,901,874	3,286,742	1,144,817	11.0	4.2	11.0	22.2
Appalachian Virginia	616,339	172,254	301,526	142,559	8.1	1.8	6.4	19.3
Non-Appalachian Virginia	5,717,094	1,729,620	2,985,216	1,002,258	11.3	4.5	11.5	22.7
West Virginia (entire state)	1,465,391	387,353	749,914	328,124	9.9	2.4	8.4	22.2

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, 2012-2016 American Community Survey.

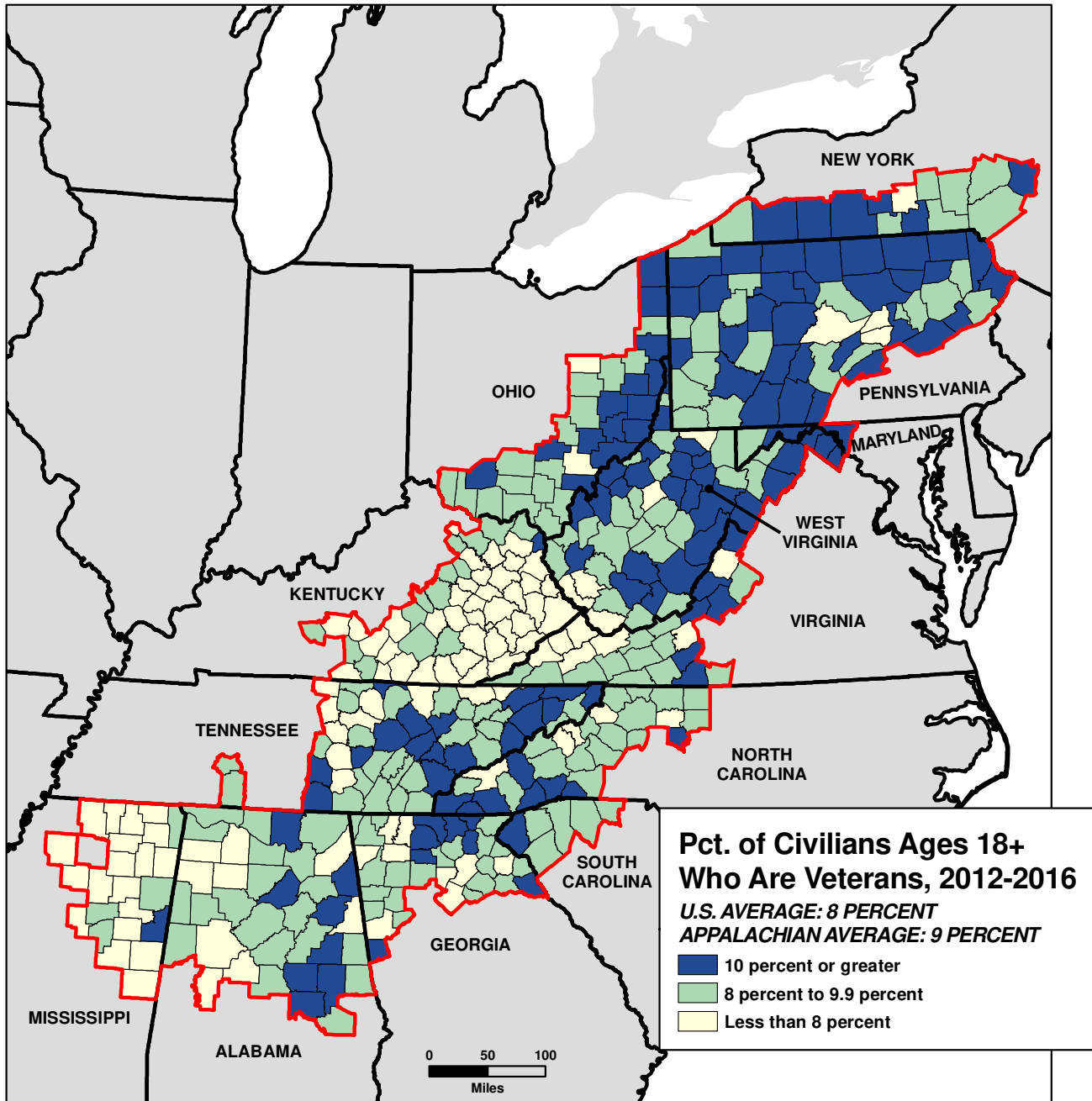
Table 11.2: Veteran Status of Adult Civilians in the Appalachian Region, by Gender, 2012-2016

Veteran Status	Civilian Population Ages 18 and Over			Percent Who Are Veterans		
	Both Sexes	Males	Females	Both Sexes	Males	Females
United States	243,935,157	118,282,755	125,652,402	8.0	15.2	1.3
Appalachian Region	19,931,033	9,674,858	10,256,175	9.0	17.4	1.1
Subregions						
Northern Appalachia	6,638,219	3,249,105	3,389,114	9.5	18.4	1.1
North Central Appalachia	1,906,232	937,343	968,889	9.8	18.8	1.1
Central Appalachia	1,483,212	727,752	755,460	7.7	15.0	0.8
South Central Appalachia	3,805,056	1,833,245	1,971,811	9.2	17.9	1.2
Southern Appalachia	6,098,314	2,927,413	3,170,901	8.4	16.1	1.2
County Types						
Large Metros (pop. 1 million +)	4,613,945	2,214,940	2,399,005	8.5	16.4	1.1
Small Metros (pop. <1 million)	8,468,988	4,098,829	4,370,159	9.3	17.9	1.2
Nonmetro, Adjacent to Large Metros	1,719,803	847,115	872,688	9.3	17.8	1.1
Nonmetro, Adjacent to Small Metros	3,141,261	1,538,977	1,602,284	9.6	18.5	1.1
Rural (nonmetro, not adj. to a metro)	1,987,036	974,997	1,012,039	8.1	15.5	0.9
Alabama	3,723,825	1,772,189	1,951,636	9.4	18.2	1.5
Appalachian Alabama	2,394,288	1,143,715	1,250,573	9.0	17.5	1.3
Non-Appalachian Alabama	1,329,537	628,474	701,063	10.2	19.4	1.8
Georgia	7,555,386	3,607,940	3,947,446	8.8	16.3	1.9
Appalachian Georgia	2,285,340	1,104,380	1,180,960	7.8	14.9	1.2
Non-Appalachian Georgia	5,270,046	2,503,560	2,766,486	9.2	16.9	2.1
Kentucky	3,383,064	1,639,167	1,743,897	8.6	16.4	1.2
Appalachian Kentucky	915,076	447,179	467,897	7.5	14.5	0.8
Non-Appalachian Kentucky	2,467,988	1,191,988	1,276,000	9.0	17.1	1.3
Maryland	4,584,055	2,177,423	2,406,632	8.6	15.9	1.9
Appalachian Maryland	199,825	101,737	98,088	10.0	18.2	1.5
Non-Appalachian Maryland	4,384,230	2,075,686	2,308,544	8.5	15.8	1.9
Mississippi	2,246,662	1,069,277	1,177,385	8.0	15.4	1.4
Appalachian Mississippi	478,301	228,375	249,926	7.1	13.9	1.0
Non-Appalachian Mississippi	1,768,361	840,902	927,459	8.3	15.8	1.5
New York	15,448,079	7,374,259	8,073,820	5.1	10.0	0.6
Appalachian New York	839,794	411,055	428,739	9.0	17.2	1.2
Non-Appalachian New York	14,608,285	6,963,204	7,645,081	4.9	9.6	0.6
North Carolina	7,570,164	3,592,432	3,977,732	9.0	17.2	1.6
Appalachian North Carolina	1,369,514	655,185	714,329	9.1	17.7	1.1
Non-Appalachian North Carolina	6,200,650	2,937,247	3,263,403	9.0	17.1	1.7
Ohio	8,938,977	4,316,221	4,622,756	8.7	16.8	1.2
Appalachian Ohio	1,570,206	769,812	800,394	9.7	18.8	1.0
Non-Appalachian Ohio	7,368,771	3,546,409	3,822,362	8.5	16.4	1.2
Pennsylvania	10,074,933	4,865,992	5,208,941	8.3	16.2	1.0
Appalachian Pennsylvania	4,618,465	2,259,820	2,358,645	9.5	18.3	1.1
Non-Appalachian Pennsylvania	5,456,468	2,606,172	2,850,296	7.4	14.4	0.9
South Carolina	3,718,496	1,771,542	1,946,954	10.1	19.2	1.8
Appalachian South Carolina	940,385	450,943	489,442	8.6	16.8	1.0
Non-Appalachian South Carolina	2,778,111	1,320,599	1,457,512	10.6	20.0	2.0
Tennessee	5,035,151	2,412,799	2,622,352	9.0	17.2	1.4
Appalachian Tennessee	2,238,109	1,080,178	1,157,931	9.4	18.3	1.2
Non-Appalachian Tennessee	2,797,042	1,332,621	1,464,421	8.6	16.2	1.6
Virginia	6,333,433	3,041,111	3,292,322	11.0	20.0	2.7
Appalachian Virginia	616,339	305,427	310,912	8.1	15.3	0.9
Non-Appalachian Virginia	5,717,094	2,735,684	2,981,410	11.3	20.5	2.9
West Virginia (entire state)	1,465,391	717,052	748,339	9.9	19.1	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, 2012-2016 American Community Survey.

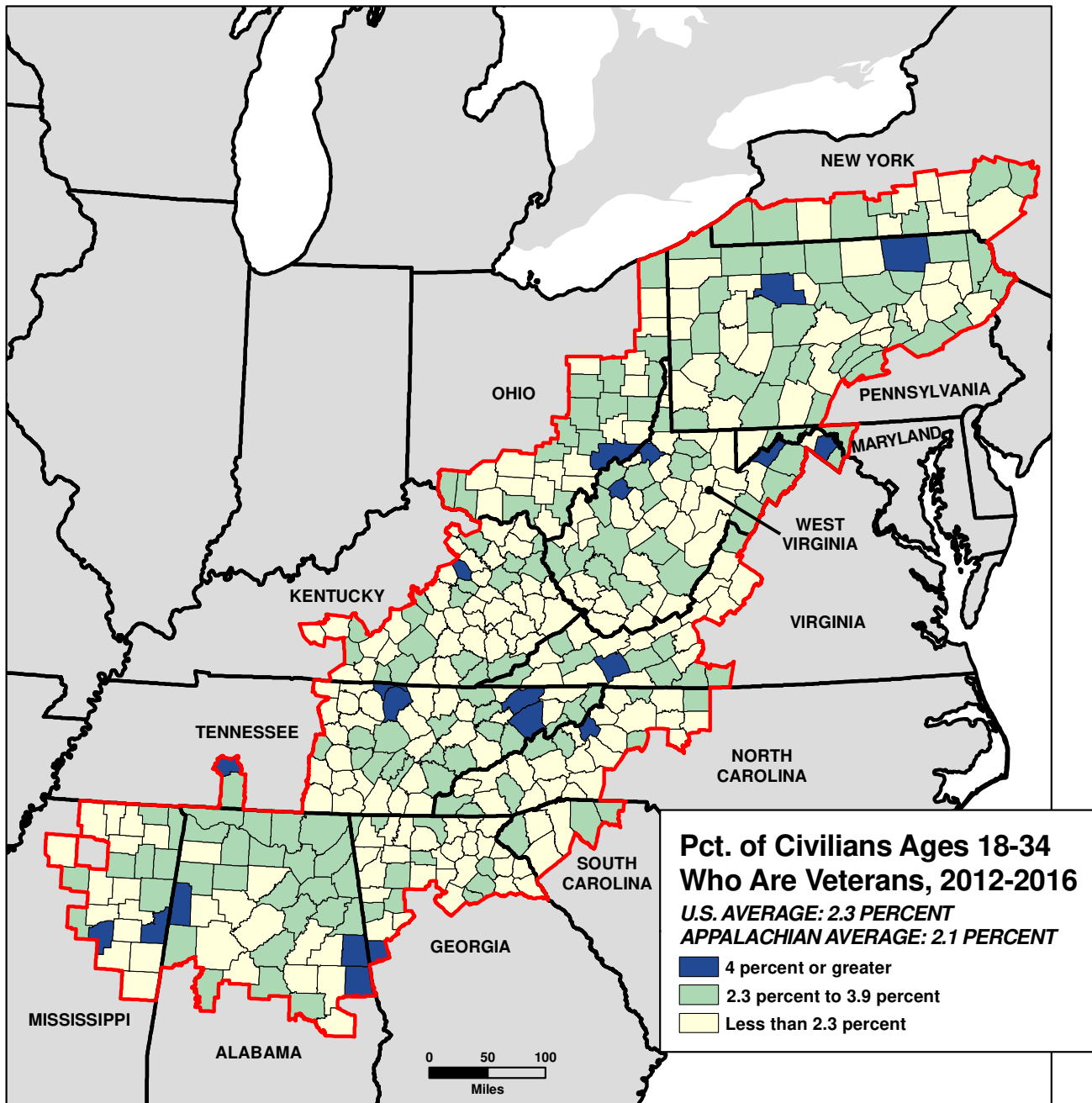
Figure 11.1: Percent of Adult Civilians in the Appalachian Region Who Are Veterans, 2012-2016



Map Title: Percent of Adult Civilians in the Appalachian Region Who Are Veterans, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In 2012-2016, 9 percent of adult civilians ages 18 and over in the Appalachian Region 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 slightly higher than the national average, there was considerable variation throughout the Region. In 131 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 Northern and North Central Appalachia, although there were pockets of high concentration further south. In contrast, the veteran prevalence rate was lower than the national average in 109 counties; nearly half the counties in this group were in Central Appalachia—and 39 of them were in Kentucky alone. Another 19 of these counties were in Appalachian Mississippi—the state that had the Region’s lowest share of veterans among adult civilians.

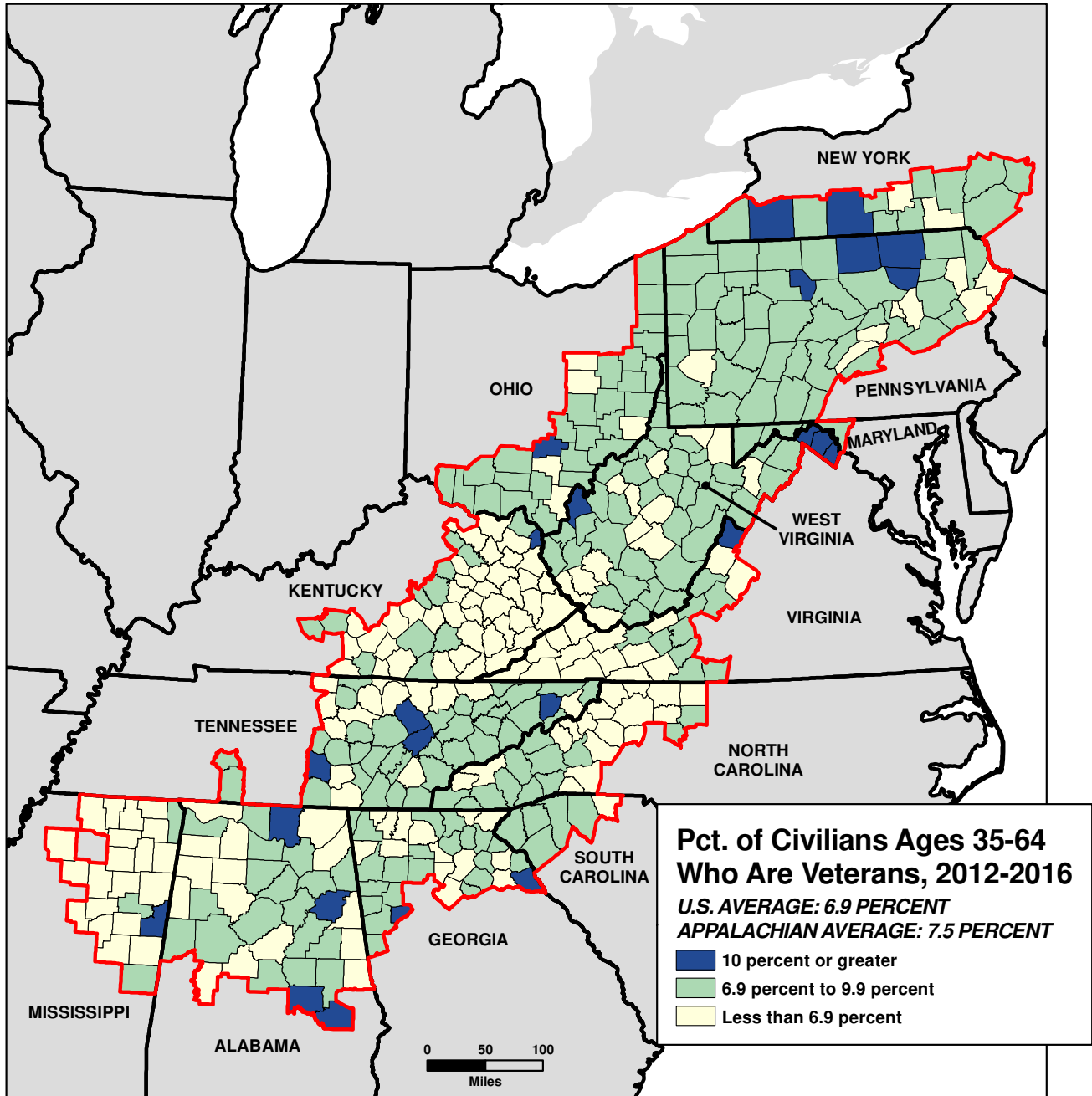
Figure 11.2: Percent of Civilians Ages 18 to 34 in the Appalachian Region Who Are Veterans, 2012-2016



Map Title: Percent of Civilians Ages 18 to 34 in the Appalachian Region Who Are Veterans, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

Military veterans accounted for just 2.1 percent of Appalachia’s young adult (ages 18-34) civilian population in the 2012-2016 period, compared to 2.3 percent for the nation as a whole. Yet in 187 of the Region’s 420 counties, the prevalence was at or above the national rate. In fact, there were 21 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 in this age group.

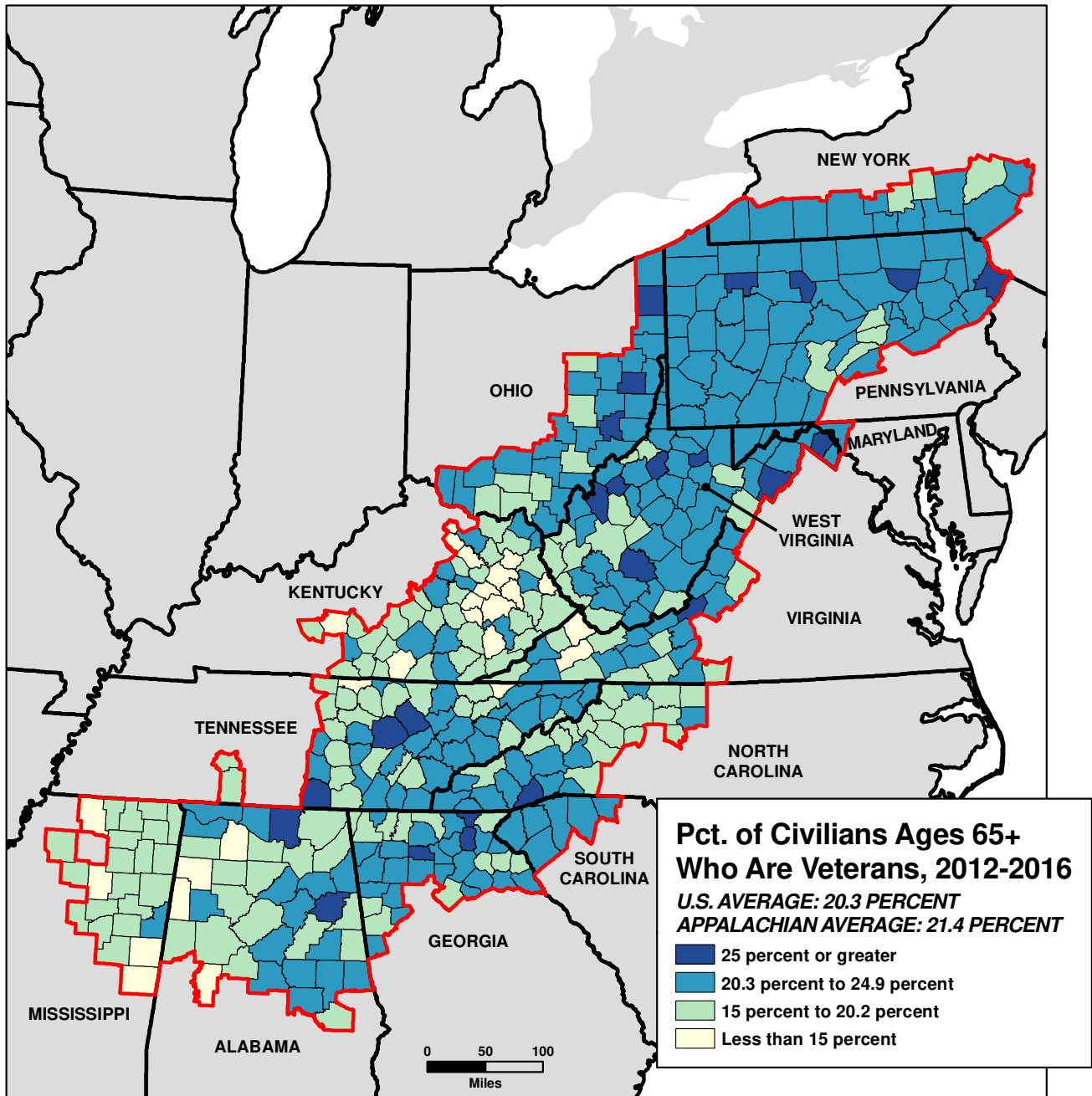
Figure 11.3: Percent of Civilians Ages 35 to 64 in the Appalachian Region Who Are Veterans, 2012-2016



Map Title: Percent of Civilians Ages 35 to 64 in the Appalachian Region Who Are Veterans, 2012-2016
 Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In the Appalachian Region, 7.5 percent of 35-to-64-year-old civilian residents were military veterans in 2012-2016, slightly above the U.S. rate of just under 7 percent. The prevalence was even higher in some counties: In 24 of them, veterans comprised at least one in 10 civilians ages 35 to 64. These counties were scattered throughout the Region. In 165 counties, however, the veteran prevalence rate was lower than the national average; 141 counties in this latter group were in Central, South Central, and Southern Appalachia. Most veterans of the 1991 Gulf War fall in this age group, as do the youngest Vietnam veterans.

Figure 11.4: Percent of Civilians Ages 65 and Over in the Appalachian Region Who Are Veterans, 2012-2016



Map Title: Percent of Civilians Ages 65 and Over in the Appalachian Region Who Are Veterans, 2012-2016

Data Source: U.S. Census Bureau, 2012-2016 American Community Survey.

In 2012-2016, more than one-fifth 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 25 percent of older civilians were veterans in 24 counties—14 of which were in Northern and North Central Appalachia, the subregions with the highest prevalence rates in this age group. By contrast, there were 26 counties where veterans comprised less than 15 percent of the older civilian residents. Kentucky had 14 of the counties in this latter group; veterans were just 18 percent of older civilians in the state’s Appalachian section. (Among the states, only Appalachian Mississippi had a lower share at 17 percent.)

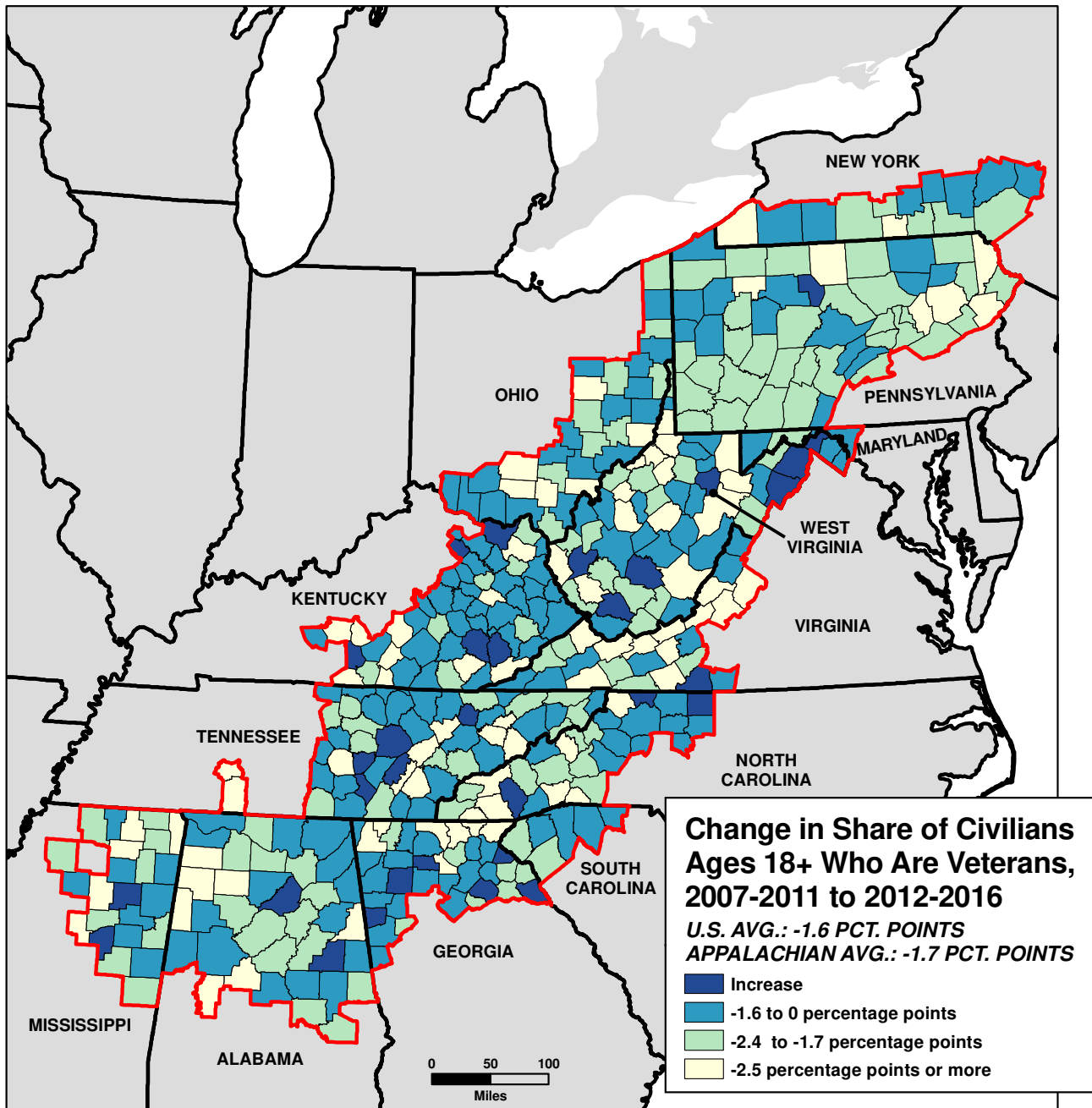
Table 11.3: Percentage Point Change in Veteran Status of Adult Civilians in the Appalachian Region, by Age Group and Gender, 2007-2011 to 2012-2016

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	-1.6	-0.2	-2.4	-2.8	-3.3	+0.0
Appalachian Region	-1.7	-0.3	-2.8	-2.1	-3.4	-0.1
Subregions						
Northern Appalachia	-1.9	-0.3	-2.8	-2.6	-3.9	+0.0
North Central Appalachia	-1.5	-0.5	-2.6	-1.6	-3.1	-0.1
Central Appalachia	-1.4	-0.3	-2.4	-1.5	-2.8	+0.0
South Central Appalachia	-1.6	-0.2	-3.0	-1.7	-3.4	+0.1
Southern Appalachia	-1.5	-0.3	-2.7	-2.0	-3.2	-0.1
County Types						
Large Metros (pop. 1 million +)	-1.6	-0.4	-2.5	-2.6	-3.5	-0.1
Small Metros (pop. <1 million)	-1.6	-0.3	-2.8	-2.2	-3.5	+0.0
Nonmetro, Adjacent to Large Metros	-1.7	-0.3	-2.9	-2.3	-3.6	+0.0
Nonmetro, Adjacent to Small Metros	-1.6	-0.1	-2.8	-1.6	-3.2	+0.0
Rural (nonmetro, not adj. to a metro)	-1.5	-0.4	-2.7	-1.7	-3.3	+0.0
Alabama	-1.8	-0.5	-2.9	-2.4	-3.7	-0.1
Appalachian Alabama	-1.8	-0.2	-3.0	-2.3	-3.6	-0.1
Non-Appalachian Alabama	-1.8	-0.9	-2.6	-2.6	-4.0	-0.1
Georgia	-1.1	+0.0	-2.3	-1.9	-2.5	+0.1
Appalachian Georgia	-1.3	-0.5	-2.4	-1.6	-2.5	+0.0
Non-Appalachian Georgia	-1.1	+0.1	-2.1	-2.1	-2.5	+0.0
Kentucky	-1.3	-0.2	-2.3	-1.4	-2.8	+0.0
Appalachian Kentucky	-1.2	-0.1	-2.3	-1.1	-2.5	+0.1
Non-Appalachian Kentucky	-1.4	-0.2	-2.4	-1.6	-3.0	-0.1
Maryland	-1.6	-0.5	-2.2	-3.2	-3.4	-0.1
Appalachian Maryland	-1.2	+0.0	-1.4	-3.5	-2.6	+0.1
Non-Appalachian Maryland	-1.6	-0.5	-2.2	-3.1	-3.5	-0.1
Mississippi	-1.6	-0.4	-2.4	-2.5	-3.2	+0.0
Appalachian Mississippi	-1.6	-0.5	-2.3	-2.1	-3.5	+0.1
Non-Appalachian Mississippi	-1.5	-0.4	-2.3	-2.6	-3.2	+0.0
New York	-1.5	-0.2	-2.0	-3.2	-3.2	-0.1
Appalachian New York	-1.9	-0.2	-2.9	-3.0	-4.0	+0.1
Non-Appalachian New York	-1.5	-0.2	-1.9	-3.2	-3.1	+0.0
North Carolina	-1.5	-0.1	-2.7	-2.0	-3.1	-0.1
Appalachian North Carolina	-1.6	-0.1	-3.0	-1.8	-3.4	+0.0
Non-Appalachian North Carolina	-1.5	-0.1	-2.6	-2.0	-3.1	-0.1
Ohio	-1.7	-0.2	-2.7	-2.4	-3.7	+0.0
Appalachian Ohio	-1.6	-0.2	-2.9	-1.4	-3.4	+0.0
Non-Appalachian Ohio	-1.7	-0.1	-2.7	-2.6	-3.7	+0.0
Pennsylvania	-1.9	-0.3	-2.7	-2.9	-4.0	-0.1
Appalachian Pennsylvania	-1.9	-0.3	-2.8	-2.8	-4.1	+0.0
Non-Appalachian Pennsylvania	-1.8	-0.3	-2.6	-3.0	-3.8	-0.1
South Carolina	-1.4	-0.1	-2.7	-2.5	-3.1	+0.1
Appalachian South Carolina	-1.7	-0.3	-3.0	-2.3	-3.5	-0.2
Non-Appalachian South Carolina	-1.3	-0.1	-2.5	-2.5	-3.1	+0.1
Tennessee	-1.5	+0.0	-2.7	-1.8	-3.2	+0.0
Appalachian Tennessee	-1.5	-0.1	-2.9	-1.5	-3.2	+0.0
Non-Appalachian Tennessee	-1.5	+0.0	-2.7	-2.1	-3.3	+0.0
Virginia	-1.5	-0.5	-2.2	-2.5	-3.2	+0.0
Appalachian Virginia	-2.0	-0.6	-3.1	-2.8	-4.3	-0.1
Non-Appalachian Virginia	-1.4	-0.4	-2.1	-2.4	-3.1	+0.0
West Virginia (entire state)	-1.5	-0.7	-2.6	-1.4	-3.1	-0.1

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 Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

Figure 11.5: Percentage Point Change in the Share of Adult Civilians in the Appalachian Region Who Are Veterans, 2007-2011 to 2012-2016



Map Title: Percentage Point Change in the Share of Adult Civilians in the Appalachian Region Who Are Veterans, 2007-2011 to 2012-2016

Data Sources: U.S. Census Bureau, 2007-2011 and 2012-2016 American Community Surveys.

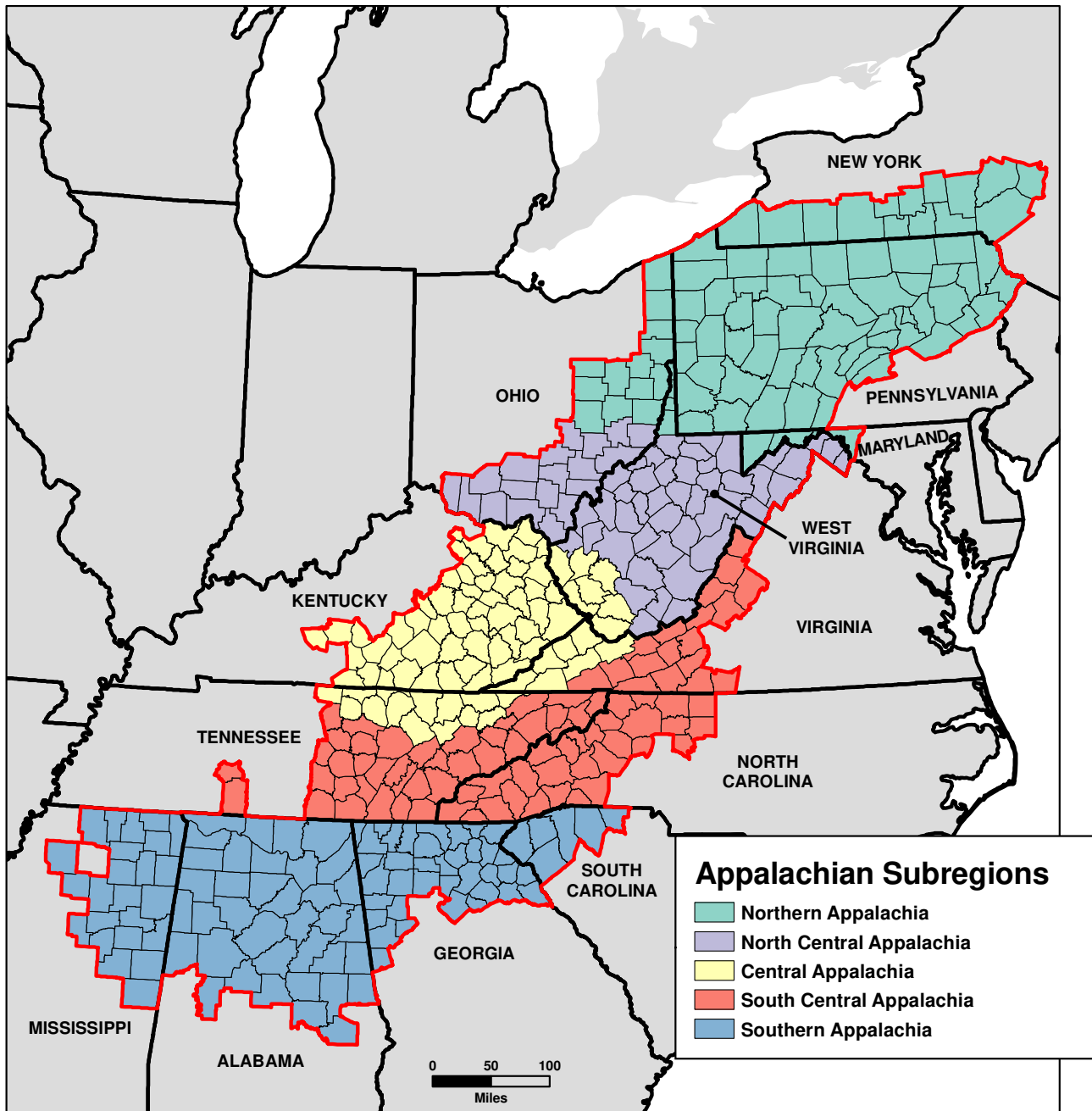
The share of Appalachia’s adult civilians ages 18 and over who were military veterans was almost two percentage points lower in the 2012-2016 period than it was in 2007-2011. And the magnitude of the decrease varied little among the subregions, county types, and the Appalachian versus non-Appalachian portions of most of the 13 states (Virginia being a notable exception). Yet there was significant variation at the county level. For example, in 85 Appalachian counties (spread throughout the Region), veterans’ share of the population fell by at least 2.5 percentage points. Yet the share actually increased in 32 counties—26 of which were in Central, South Central, and Southern Appalachia. Veterans were at least 10 percent of the civilian population in almost half of the counties where the share increased, compared to just one-fourth of the counties with the largest decreases.

TRENDS IN VETERAN STATUS

- In Appalachia, the share of adult civilians who were military veterans declined almost two percentage points between 2007-2011 and 2012-2016, falling to 9 percent (see Tables 11.1 and 11.3). There was little difference in the decrease among the subregions, county types, and the Appalachian versus non-Appalachian portions of the 13 states. (Virginia was a notable exception: The veteran prevalence rate fell two percentage points in that state's Appalachian portion, compared to a decrease of 1.4 points in the rest of the state.)
- The decrease in veteran status was more pronounced among middle-aged and older civilians than among younger ones. While the share of veterans fell less than half a percentage point among younger civilians ages 18 to 34, it declined more than two percentage points among civilians ages 35 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 also is 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 more than three percentage points between 2007-2011 and 2012-2016, while the share among women barely dropped. Of course, men remain far more likely than women to be military veterans—the respective rates in Appalachia were 17 percent and 1 percent (see Table 11.2).

APPENDIX A: REFERENCE MAPS

Figure A.1: Appalachian Subregions

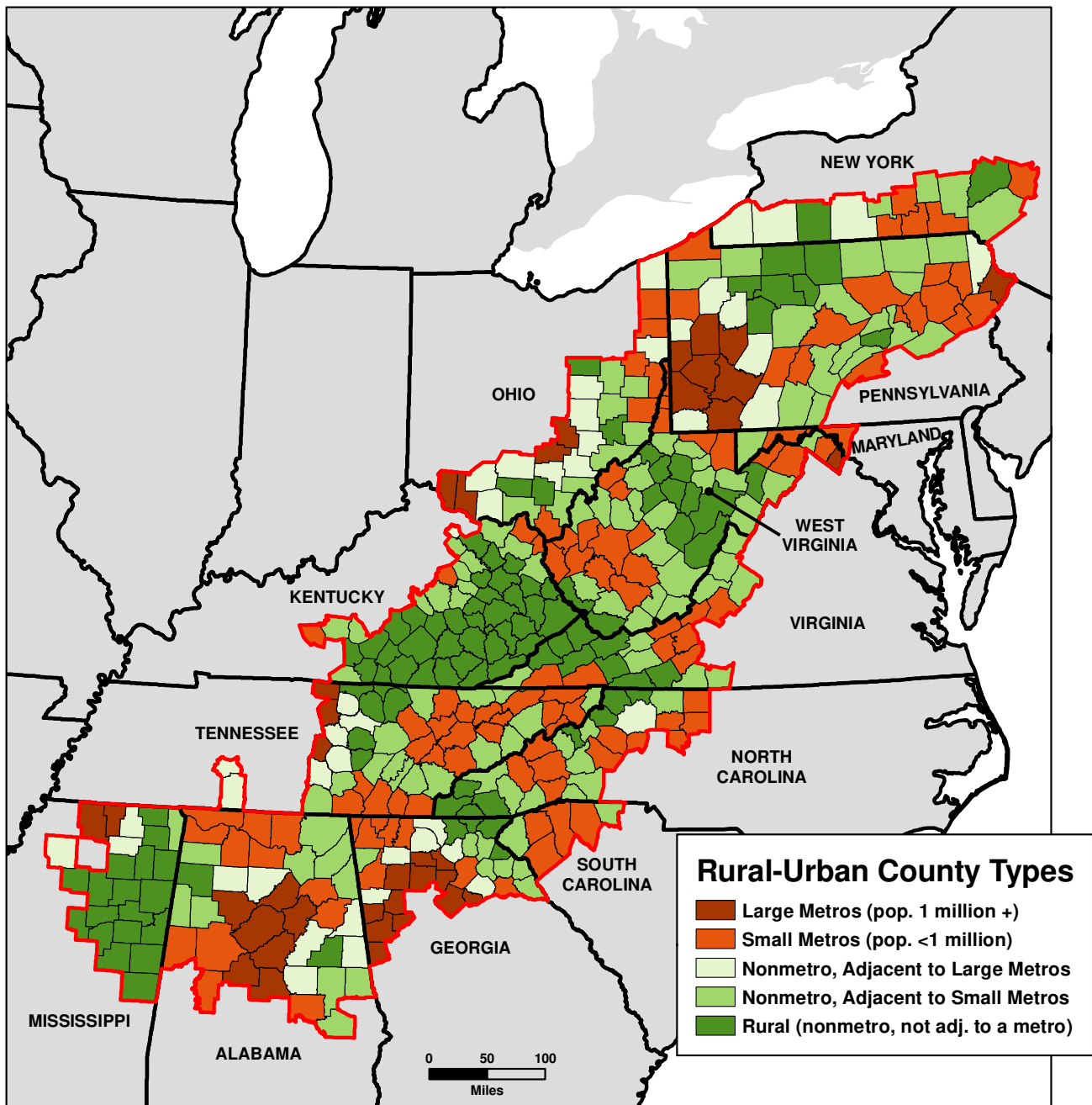


Map Title: Appalachian Subregions

Data Source: Appalachian Regional Commission.

The Appalachian Region covers 205,000 square miles and includes all of West Virginia and portions of 12 other states from New York to Mississippi. The 420 counties of the Region are grouped into five subregions, based on similarities in economic and demographic characteristics and geographic location.

Figure A.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.