

## CHAPTER 5: EDUCATION

Table 5.1: Educational Attainment of Persons Ages 25 and Over in the Appalachian Region, 2006-2010

Education (Highest Level Attained)	Total Population Ages 25 and Over, 2006-2010	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
<b>United States</b>	<b>199,726,659</b>	<b>15.0</b>	<b>85.0</b>	<b>49.6</b>	<b>7.5</b>	<b>27.9</b>
<b>Appalachian Region</b>	<b>16,911,530</b>	<b>17.1</b>	<b>82.9</b>	<b>54.8</b>	<b>7.3</b>	<b>20.7</b>
<b>Subregions</b>						
Northern Appalachia	5,763,871	12.3	87.7	57.9	8.3	21.6
North Central Appalachia	1,642,078	17.1	82.9	59.5	6.2	17.3
Central Appalachia	1,314,972	28.0	72.0	54.2	5.6	12.1
South Central Appalachia	3,193,421	18.5	81.5	52.9	7.2	21.3
Southern Appalachia	4,997,188	18.9	81.1	51.2	7.1	22.8
<b>County Types</b>						
Large Metros (pop. 1 million +)	3,821,085	12.5	87.5	51.8	7.9	27.8
Small Metros (pop. <1 million)	6,780,281	15.9	84.1	54.3	7.4	22.3
Nonmetro, Adjacent to Large Metros	1,133,096	17.7	82.3	59.0	7.4	15.8
Nonmetro, Adjacent to Small Metros	3,450,597	20.4	79.6	57.7	7.1	14.9
Rural (nonmetro, not adj. to a metro)	1,726,471	24.9	75.1	55.0	6.2	13.9
<b>Alabama</b>	<b>3,108,132</b>	<b>18.6</b>	<b>81.4</b>	<b>52.8</b>	<b>6.9</b>	<b>21.7</b>
Appalachian Alabama	2,011,642	18.5	81.5	52.4	6.8	22.3
Non-Appalachian Alabama	1,096,490	18.8	81.2	53.5	7.0	20.7
<b>Georgia</b>	<b>6,052,410</b>	<b>16.5</b>	<b>83.5</b>	<b>49.7</b>	<b>6.6</b>	<b>27.2</b>
Appalachian Georgia	1,826,511	18.3	81.7	50.4	6.8	24.6
Non-Appalachian Georgia	4,225,899	15.8	84.2	49.4	6.5	28.4
<b>Kentucky</b>	<b>2,856,001</b>	<b>19.0</b>	<b>81.0</b>	<b>54.0</b>	<b>6.6</b>	<b>20.3</b>
Appalachian Kentucky	800,625	28.2	71.8	53.3	5.6	12.8
Non-Appalachian Kentucky	2,055,376	15.5	84.5	54.3	7.0	23.3
<b>Maryland</b>	<b>3,789,931</b>	<b>12.2</b>	<b>87.8</b>	<b>45.7</b>	<b>6.3</b>	<b>35.7</b>
Appalachian Maryland	172,450	16.0	84.0	58.5	7.8	17.7
Non-Appalachian Maryland	3,617,481	12.1	87.9	45.1	6.2	36.6
<b>Mississippi</b>	<b>1,876,719</b>	<b>20.4</b>	<b>79.6</b>	<b>52.6</b>	<b>7.6</b>	<b>19.5</b>
Appalachian Mississippi	402,824	24.1	75.9	52.8	7.1	16.1
Non-Appalachian Mississippi	1,473,895	19.4	80.6	52.5	7.8	20.4
<b>New York</b>	<b>12,914,436</b>	<b>15.6</b>	<b>84.4</b>	<b>44.1</b>	<b>8.2</b>	<b>32.1</b>
Appalachian New York	701,701	12.1	87.9	53.0	11.3	23.7
Non-Appalachian New York	12,212,735	15.8	84.2	43.6	8.0	32.6
<b>North Carolina</b>	<b>6,121,611</b>	<b>16.4</b>	<b>83.6</b>	<b>49.1</b>	<b>8.3</b>	<b>26.1</b>
Appalachian North Carolina	1,156,711	17.9	82.1	51.1	8.4	22.6
Non-Appalachian North Carolina	4,964,900	16.1	83.9	48.7	8.3	26.9
<b>Ohio</b>	<b>7,655,994</b>	<b>12.6</b>	<b>87.4</b>	<b>56.0</b>	<b>7.3</b>	<b>24.1</b>
Appalachian Ohio	1,383,846	15.7	84.3	62.1	6.9	15.3
Non-Appalachian Ohio	6,272,148	11.9	88.1	54.6	7.4	26.1
<b>Pennsylvania</b>	<b>8,558,693</b>	<b>12.6</b>	<b>87.4</b>	<b>53.7</b>	<b>7.3</b>	<b>26.4</b>
Appalachian Pennsylvania	4,005,959	11.6	88.4	57.5	8.1	22.8
Non-Appalachian Pennsylvania	4,552,734	13.4	86.6	50.4	6.6	29.6
<b>South Carolina</b>	<b>2,981,382</b>	<b>17.0</b>	<b>83.0</b>	<b>50.8</b>	<b>8.3</b>	<b>24.0</b>
Appalachian South Carolina	756,211	18.4	81.6	49.5	8.6	23.5
Non-Appalachian South Carolina	2,225,171	16.5	83.5	51.2	8.2	24.1
<b>Tennessee</b>	<b>4,156,132</b>	<b>17.5</b>	<b>82.5</b>	<b>53.8</b>	<b>6.0</b>	<b>22.7</b>
Appalachian Tennessee	1,884,903	19.5	80.5	54.7	6.0	19.8
Non-Appalachian Tennessee	2,271,229	15.9	84.1	53.1	5.9	25.1
<b>Virginia</b>	<b>5,208,536</b>	<b>13.9</b>	<b>86.1</b>	<b>45.6</b>	<b>6.7</b>	<b>33.8</b>
Appalachian Virginia	525,526	22.9	77.1	52.2	7.9	17.1
Non-Appalachian Virginia	4,683,010	12.9	87.1	44.9	6.5	35.7
<b>West Virginia (entire state)</b>	<b>1,282,621</b>	<b>18.1</b>	<b>81.9</b>	<b>58.9</b>	<b>5.8</b>	<b>17.3</b>

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

**Table 5.2: Educational Attainment of Persons Ages 25 to 64 in the Appalachian Region, 2006-2010**

Education (Highest Level Attained)	Total Population Ages 25-64, 2006-2010	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
<b>United States</b>	<b>160,977,246</b>	<b>12.7</b>	<b>87.3</b>	<b>49.1</b>	<b>8.4</b>	<b>29.8</b>
<b>Appalachian Region</b>	<b>13,210,061</b>	<b>13.5</b>	<b>86.5</b>	<b>55.3</b>	<b>8.5</b>	<b>22.7</b>
<b>Subregions</b>						
Northern Appalachia	4,372,683	8.6	91.4	57.0	10.0	24.4
North Central Appalachia	1,281,840	13.0	87.0	60.7	7.3	18.9
Central Appalachia	1,034,353	22.2	77.8	57.9	6.7	13.2
South Central Appalachia	2,458,096	14.7	85.3	54.2	8.4	22.8
Southern Appalachia	4,063,089	15.9	84.1	51.7	8.0	24.4
<b>County Types</b>						
Large Metros (pop. 1 million +)	3,076,103	9.6	90.4	50.7	9.0	30.7
Small Metros (pop. <1 million)	5,286,963	12.6	87.4	54.5	8.6	24.3
Nonmetro, Adjacent to Large Metros	877,174	14.1	85.9	60.0	8.8	17.1
Nonmetro, Adjacent to Small Metros	2,641,753	16.1	83.9	59.5	8.4	16.0
Rural (nonmetro, not adj. to a metro)	1,328,068	20.2	79.8	57.6	7.3	14.9
<b>Alabama</b>	<b>2,472,915</b>	<b>15.4</b>	<b>84.6</b>	<b>53.4</b>	<b>7.9</b>	<b>23.3</b>
Appalachian Alabama	1,603,194	15.3	84.7	52.9	7.8	24.1
Non-Appalachian Alabama	869,721	15.6	84.4	54.4	8.0	22.0
<b>Georgia</b>	<b>5,081,059</b>	<b>14.1</b>	<b>85.9</b>	<b>49.8</b>	<b>7.2</b>	<b>28.9</b>
Appalachian Georgia	1,540,547	16.0	84.0	50.4	7.4	26.1
Non-Appalachian Georgia	3,540,512	13.3	86.7	49.6	7.0	30.1
<b>Kentucky</b>	<b>2,295,967</b>	<b>14.8</b>	<b>85.2</b>	<b>55.4</b>	<b>7.6</b>	<b>22.1</b>
Appalachian Kentucky	634,411	22.5	77.5	57.0	6.7	13.9
Non-Appalachian Kentucky	1,661,556	11.9	88.1	54.9	8.0	25.3
<b>Maryland</b>	<b>3,112,651</b>	<b>9.9</b>	<b>90.1</b>	<b>45.4</b>	<b>6.9</b>	<b>37.8</b>
Appalachian Maryland	133,446	12.2	87.8	59.3	9.2	19.3
Non-Appalachian Maryland	2,979,205	9.8	90.2	44.8	6.8	38.6
<b>Mississippi</b>	<b>1,507,382</b>	<b>17.1</b>	<b>82.9</b>	<b>53.7</b>	<b>8.7</b>	<b>20.5</b>
Appalachian Mississippi	316,423	20.1	79.9	54.6	8.3	16.9
Non-Appalachian Mississippi	1,190,959	16.3	83.7	53.4	8.8	21.5
<b>New York</b>	<b>10,359,108</b>	<b>12.9</b>	<b>87.1</b>	<b>43.0</b>	<b>9.3</b>	<b>34.8</b>
Appalachian New York	538,636	9.4	90.6	51.7	13.1	25.8
Non-Appalachian New York	9,820,472	13.1	86.9	42.6	9.1	35.3
<b>North Carolina</b>	<b>4,953,839</b>	<b>13.6</b>	<b>86.4</b>	<b>49.2</b>	<b>9.3</b>	<b>27.9</b>
Appalachian North Carolina	884,417	14.7	85.3	51.8	9.7	23.8
Non-Appalachian North Carolina	4,069,422	13.4	86.6	48.7	9.2	28.7
<b>Ohio</b>	<b>6,071,295</b>	<b>9.6</b>	<b>90.4</b>	<b>55.5</b>	<b>8.5</b>	<b>26.4</b>
Appalachian Ohio	1,071,619	12.1	87.9	62.6	8.3	17.0
Non-Appalachian Ohio	4,999,676	9.1	90.9	53.9	8.6	28.4
<b>Pennsylvania</b>	<b>6,631,836</b>	<b>9.1</b>	<b>90.9</b>	<b>52.9</b>	<b>8.6</b>	<b>29.4</b>
Appalachian Pennsylvania	3,030,116	7.8	92.2	56.5	9.8	25.9
Non-Appalachian Pennsylvania	3,601,720	10.1	89.9	49.9	7.5	32.5
<b>South Carolina</b>	<b>2,385,946</b>	<b>14.0</b>	<b>86.0</b>	<b>51.6</b>	<b>9.2</b>	<b>25.1</b>
Appalachian South Carolina	602,925	15.2	84.8	50.1	9.6	25.1
Non-Appalachian South Carolina	1,783,021	13.6	86.4	52.2	9.1	25.1
<b>Tennessee</b>	<b>3,341,382</b>	<b>13.9</b>	<b>86.1</b>	<b>54.8</b>	<b>6.8</b>	<b>24.5</b>
Appalachian Tennessee	1,463,278	15.4	84.6	56.4	6.9	21.3
Non-Appalachian Tennessee	1,878,104	12.8	87.2	53.6	6.6	27.0
<b>Virginia</b>	<b>4,279,358</b>	<b>11.2</b>	<b>88.8</b>	<b>45.4</b>	<b>7.3</b>	<b>36.1</b>
Appalachian Virginia	399,590	17.0	83.0	54.6	9.5	18.8
Non-Appalachian Virginia	3,879,768	10.6	89.4	44.4	7.1	37.9
<b>West Virginia (entire state)</b>	<b>991,459</b>	<b>13.8</b>	<b>86.2</b>	<b>60.4</b>	<b>6.8</b>	<b>19.0</b>

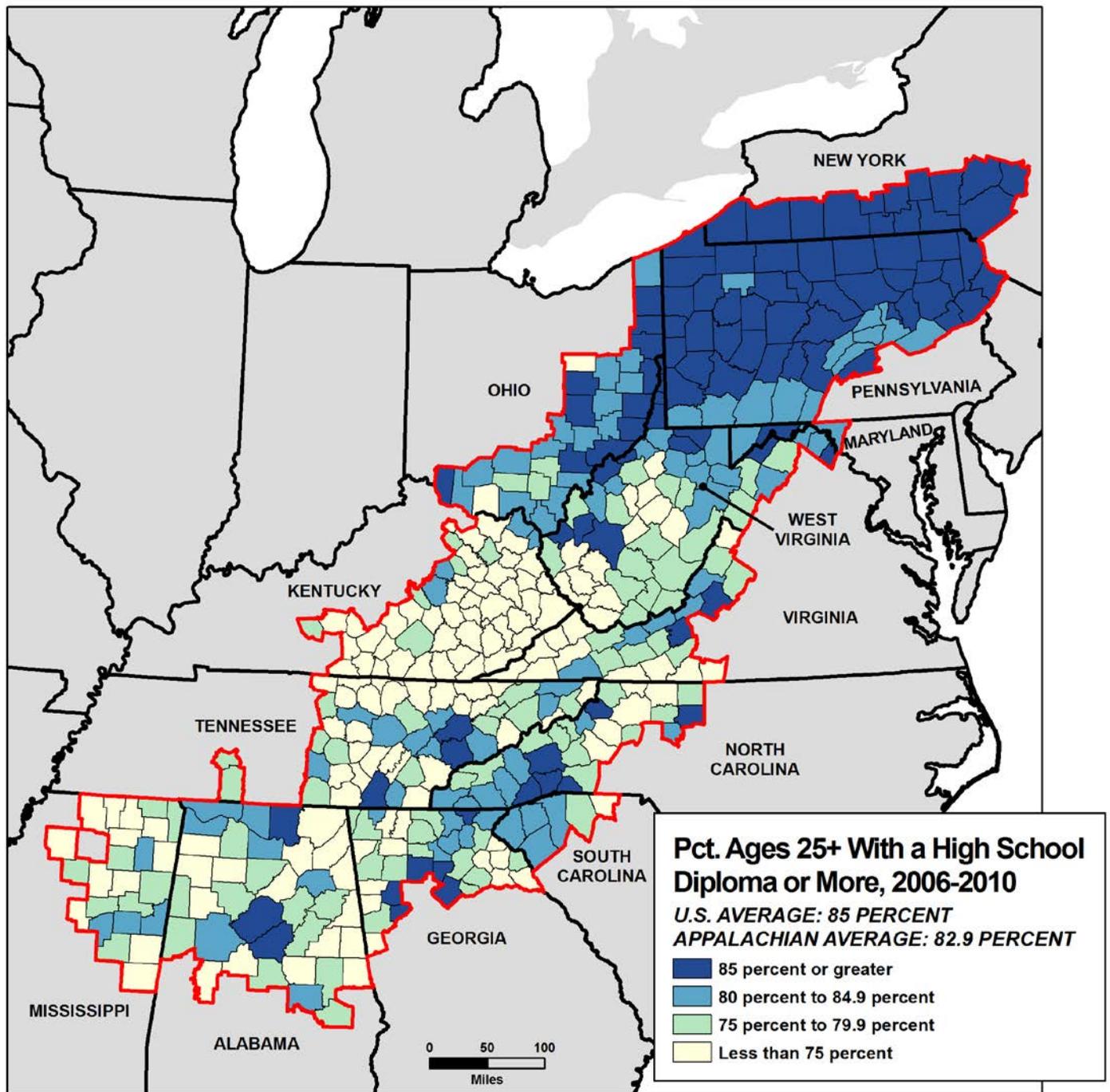
Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

**Table 5.3: Educational Attainment of Persons Ages 65 and Over in the Appalachian Region, 2006-2010**

Education (Highest Level Attained)	Total Population Ages 65 and Over, 2006-2010	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
<b>United States</b>	<b>38,749,413</b>	<b>24.3</b>	<b>75.7</b>	<b>51.6</b>	<b>3.9</b>	<b>20.1</b>
<b>Appalachian Region</b>	<b>3,701,469</b>	<b>30.0</b>	<b>70.0</b>	<b>53.3</b>	<b>3.0</b>	<b>13.8</b>
<b>Subregions</b>						
Northern Appalachia	1,391,188	23.7	76.3	60.4	3.0	12.9
North Central Appalachia	360,238	31.4	68.6	55.0	2.3	11.4
Central Appalachia	280,619	49.5	50.5	40.5	1.8	8.2
South Central Appalachia	735,325	31.5	68.5	48.7	3.4	16.4
Southern Appalachia	934,099	31.7	68.3	49.4	3.3	15.6
<b>County Types</b>						
Large Metros (pop. 1 million +)	744,982	24.3	75.7	56.5	3.2	16.1
Small Metros (pop. <1 million)	1,493,318	27.6	72.4	53.9	3.3	15.3
Nonmetro, Adjacent to Large Metros	255,922	30.2	69.8	55.7	2.8	11.3
Nonmetro, Adjacent to Small Metros	808,844	34.3	65.7	51.9	2.6	11.1
Rural (nonmetro, not adj. to a metro)	398,403	40.6	59.4	46.1	2.5	10.7
<b>Alabama</b>	<b>635,217</b>	<b>31.2</b>	<b>68.8</b>	<b>50.4</b>	<b>3.0</b>	<b>15.4</b>
Appalachian Alabama	408,448	31.4	68.6	50.4	2.9	15.3
Non-Appalachian Alabama	226,769	30.9	69.1	50.3	3.2	15.6
<b>Georgia</b>	<b>971,351</b>	<b>29.2</b>	<b>70.8</b>	<b>48.9</b>	<b>3.5</b>	<b>18.4</b>
Appalachian Georgia	285,964	30.5	69.5	50.0	3.5	16.1
Non-Appalachian Georgia	685,387	28.7	71.3	48.4	3.5	19.4
<b>Kentucky</b>	<b>560,034</b>	<b>36.5</b>	<b>63.5</b>	<b>48.2</b>	<b>2.4</b>	<b>12.9</b>
Appalachian Kentucky	166,214	50.2	49.8	39.5	1.7	8.6
Non-Appalachian Kentucky	393,820	30.6	69.4	51.8	2.7	14.8
<b>Maryland</b>	<b>677,280</b>	<b>23.0</b>	<b>77.0</b>	<b>47.2</b>	<b>3.7</b>	<b>26.2</b>
Appalachian Maryland	39,004	28.8	71.2	55.8	3.2	12.3
Non-Appalachian Maryland	638,276	22.7	77.3	46.6	3.7	27.0
<b>Mississippi</b>	<b>369,337</b>	<b>33.8</b>	<b>66.2</b>	<b>47.9</b>	<b>3.2</b>	<b>15.0</b>
Appalachian Mississippi	86,401	38.6	61.4	46.0	2.4	12.9
Non-Appalachian Mississippi	282,936	32.4	67.6	48.5	3.5	15.7
<b>New York</b>	<b>2,555,328</b>	<b>26.2</b>	<b>73.8</b>	<b>48.5</b>	<b>3.9</b>	<b>21.4</b>
Appalachian New York	163,065	20.9	79.1	57.1	5.3	16.6
Non-Appalachian New York	2,392,263	26.5	73.5	47.9	3.8	21.8
<b>North Carolina</b>	<b>1,167,772</b>	<b>28.4</b>	<b>71.6</b>	<b>48.7</b>	<b>4.3</b>	<b>18.7</b>
Appalachian North Carolina	272,294	28.4	71.6	48.7	4.0	18.9
Non-Appalachian North Carolina	895,478	28.4	71.6	48.7	4.3	18.6
<b>Ohio</b>	<b>1,584,699</b>	<b>23.9</b>	<b>76.1</b>	<b>57.8</b>	<b>2.8</b>	<b>15.5</b>
Appalachian Ohio	312,227	28.1	71.9	60.2	2.0	9.7
Non-Appalachian Ohio	1,272,472	22.8	77.2	57.2	3.0	17.0
<b>Pennsylvania</b>	<b>1,926,857</b>	<b>24.7</b>	<b>75.3</b>	<b>56.5</b>	<b>2.9</b>	<b>15.8</b>
Appalachian Pennsylvania	975,843	23.5	76.5	60.7	2.8	13.1
Non-Appalachian Pennsylvania	951,014	26.0	74.0	52.2	3.1	18.7
<b>South Carolina</b>	<b>595,436</b>	<b>28.8</b>	<b>71.2</b>	<b>47.2</b>	<b>4.6</b>	<b>19.4</b>
Appalachian South Carolina	153,286	31.1	68.9	47.3	4.6	17.1
Non-Appalachian South Carolina	442,150	28.1	71.9	47.1	4.6	20.2
<b>Tennessee</b>	<b>814,750</b>	<b>32.2</b>	<b>67.8</b>	<b>49.8</b>	<b>2.8</b>	<b>15.3</b>
Appalachian Tennessee	421,625	33.8	66.2	48.7	2.9	14.6
Non-Appalachian Tennessee	393,125	30.5	69.5	50.9	2.6	16.0
<b>Virginia</b>	<b>929,178</b>	<b>26.5</b>	<b>73.5</b>	<b>46.6</b>	<b>3.6</b>	<b>23.4</b>
Appalachian Virginia	125,936	41.6	58.4	44.3	2.7	11.4
Non-Appalachian Virginia	803,242	24.1	75.9	46.9	3.7	25.3
<b>West Virginia (entire state)</b>	<b>291,162</b>	<b>32.8</b>	<b>67.2</b>	<b>53.6</b>	<b>2.4</b>	<b>11.2</b>

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

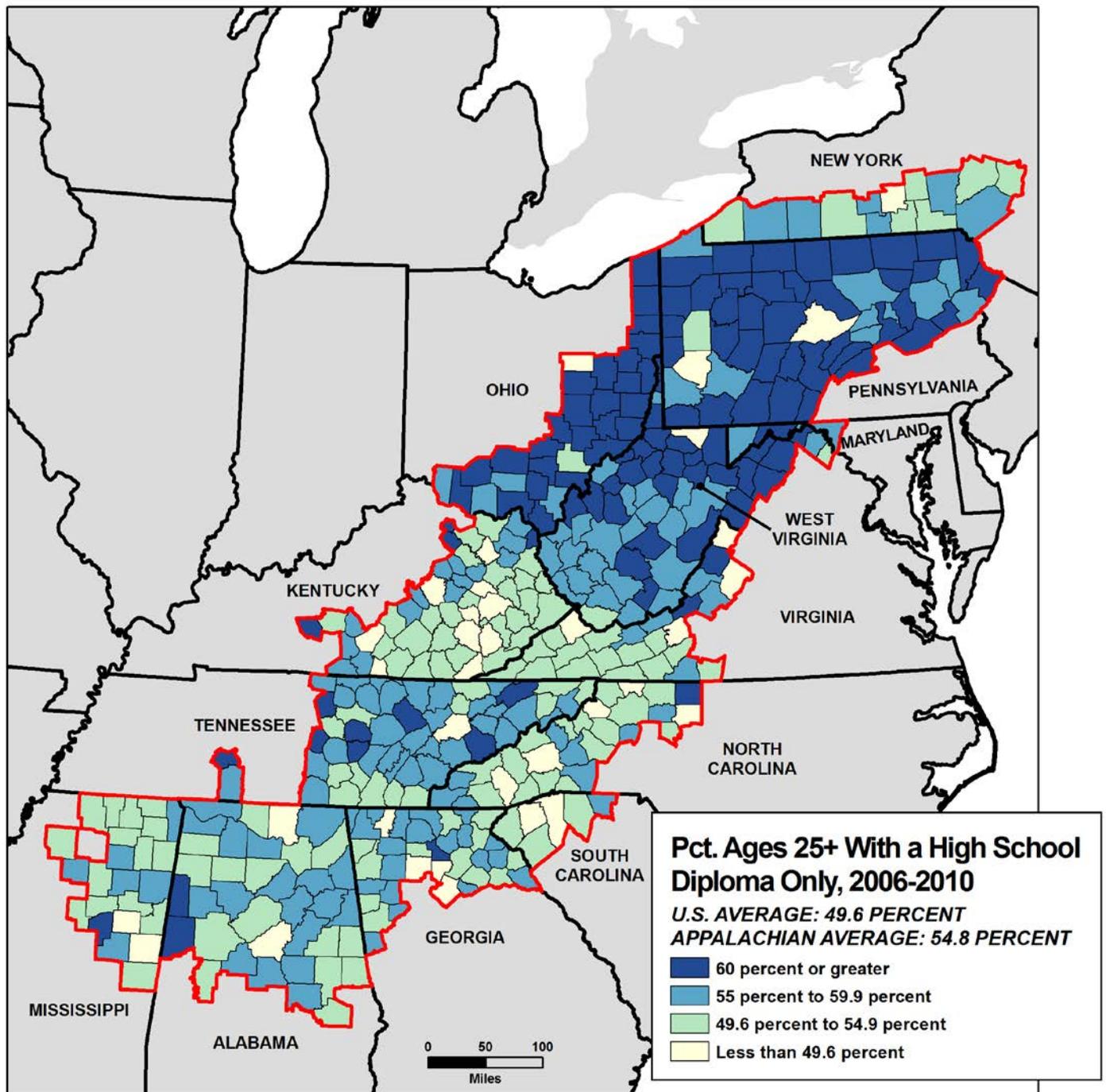
**Figure 5.1: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2006-2010**



Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma or More, 2006-2010  
 Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

Although the share of Appalachian adults with at least a high school diploma was slightly below the national average over the 2006-2010 period, it exceeded the national share in 99 counties in the region—two-thirds of them in northern Appalachia and three-fifths in metro areas. And both the regional and national shares were slightly higher than they were in the 2005-2009 period, possibly suggesting a continued trend toward high school completion among entering cohorts (at least between the non-overlapping years of 2005 and 2010). Yet in 141 counties, less than three-fourths of adults had completed high school; 112 of those were nonmetropolitan counties located in central, south central, and southern Appalachia.

**Figure 5.2: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2006-2010**

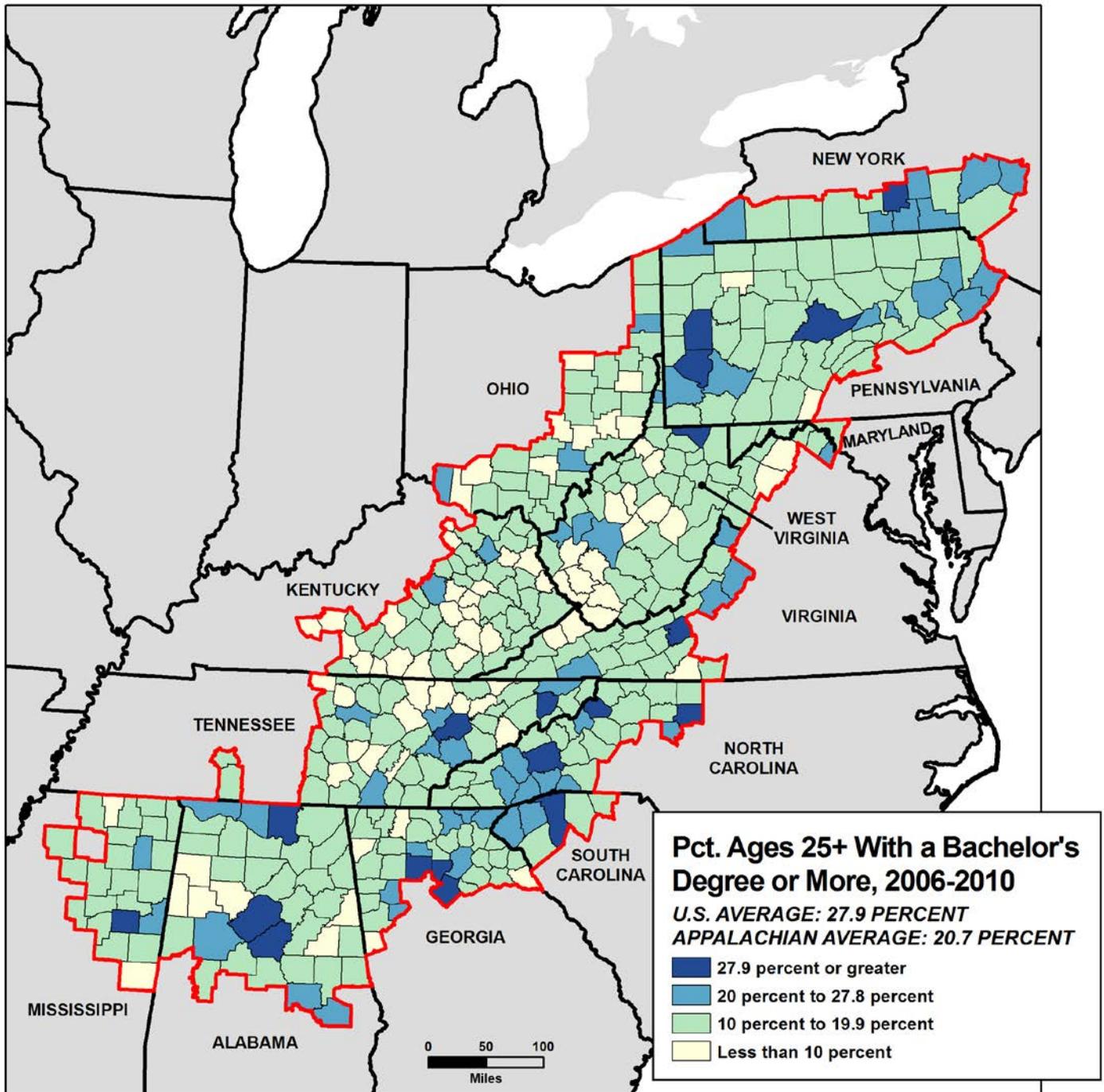


Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a High School Diploma but With No Postsecondary Degree, 2006-2010

Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

In nine out of 10 Appalachian counties, at least half of the adult population had a high school diploma, but no postsecondary degree (including an associate’s degree) during the 2006-2010 period. Many of these adults had attended college but did not graduate, while others acquired vocational training. Conversely, many of the adults outside of this group did earn an associate’s or bachelor’s degree, while others never finished high school at all.

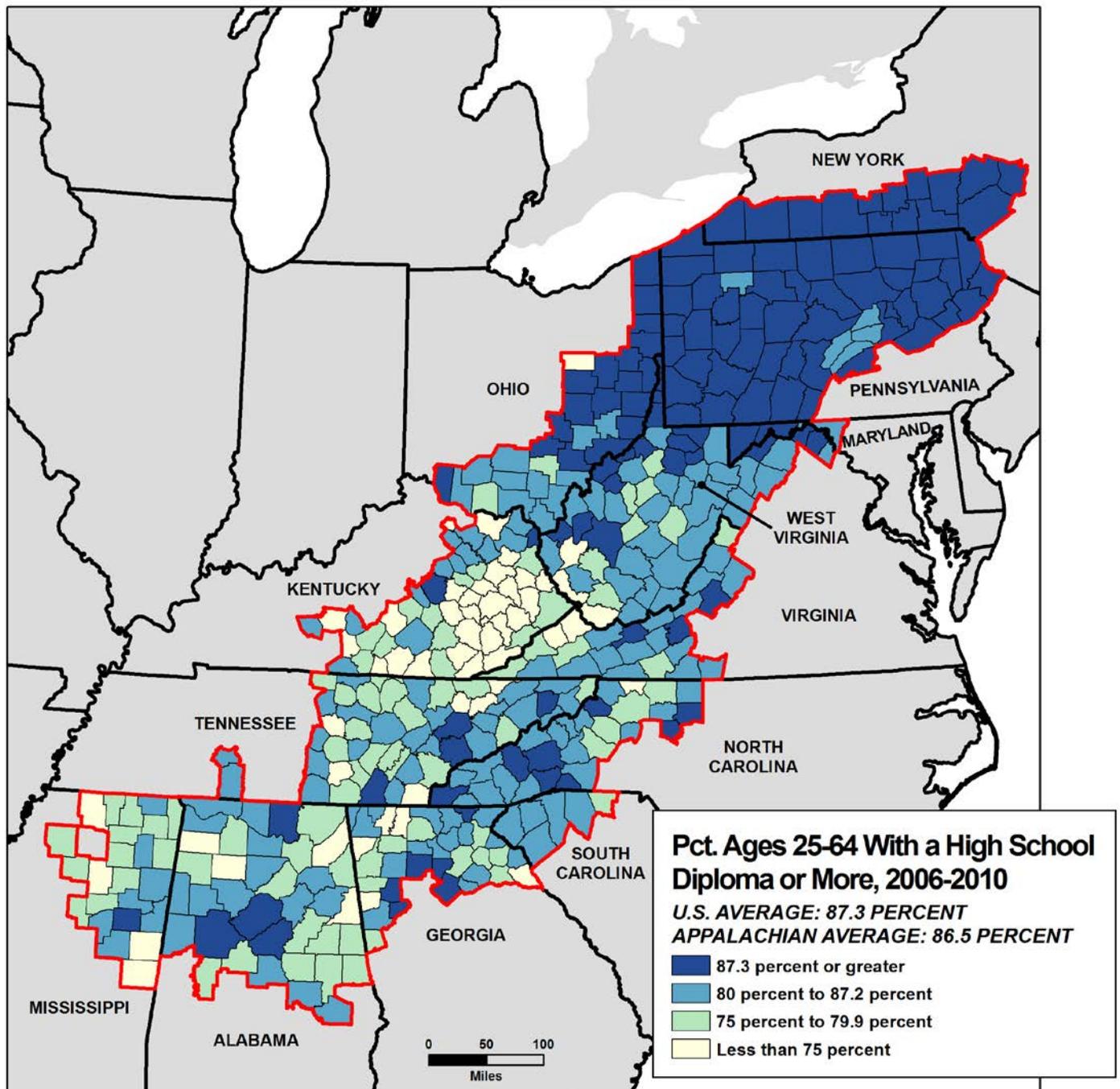
**Figure 5.3: Percent of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2006-2010**



Map Title: Percent of Persons Ages 25 and Over in the Appalachian Region With a Bachelor's Degree or More, 2006-2010  
 Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

In 401 of Appalachia's 420 counties, the share of adults with a bachelor's degree or more in the 2006-2010 period was lower than the national average of 28 percent. In fact, less than one-fifth of persons ages 25 and over were graduates of a four-year college or university in 342 Appalachian counties. And in 75 counties—nearly all of which were outside metropolitan areas and nearly half in central Appalachia—less than one in 10 adults had at least a bachelor's degree. The 19 counties where the percentage of college graduates matched or surpassed the national average were either in metropolitan areas or home to a well-known college or university. Most of these counties also experienced higher than average residential mobility rates. It is interesting to note that the share of adults with a four-year degree was slightly higher in the 2006-2010 period than it was in 2005-2009, which possibly suggests a continued trend toward greater educational attainment among cohorts entering this age group.

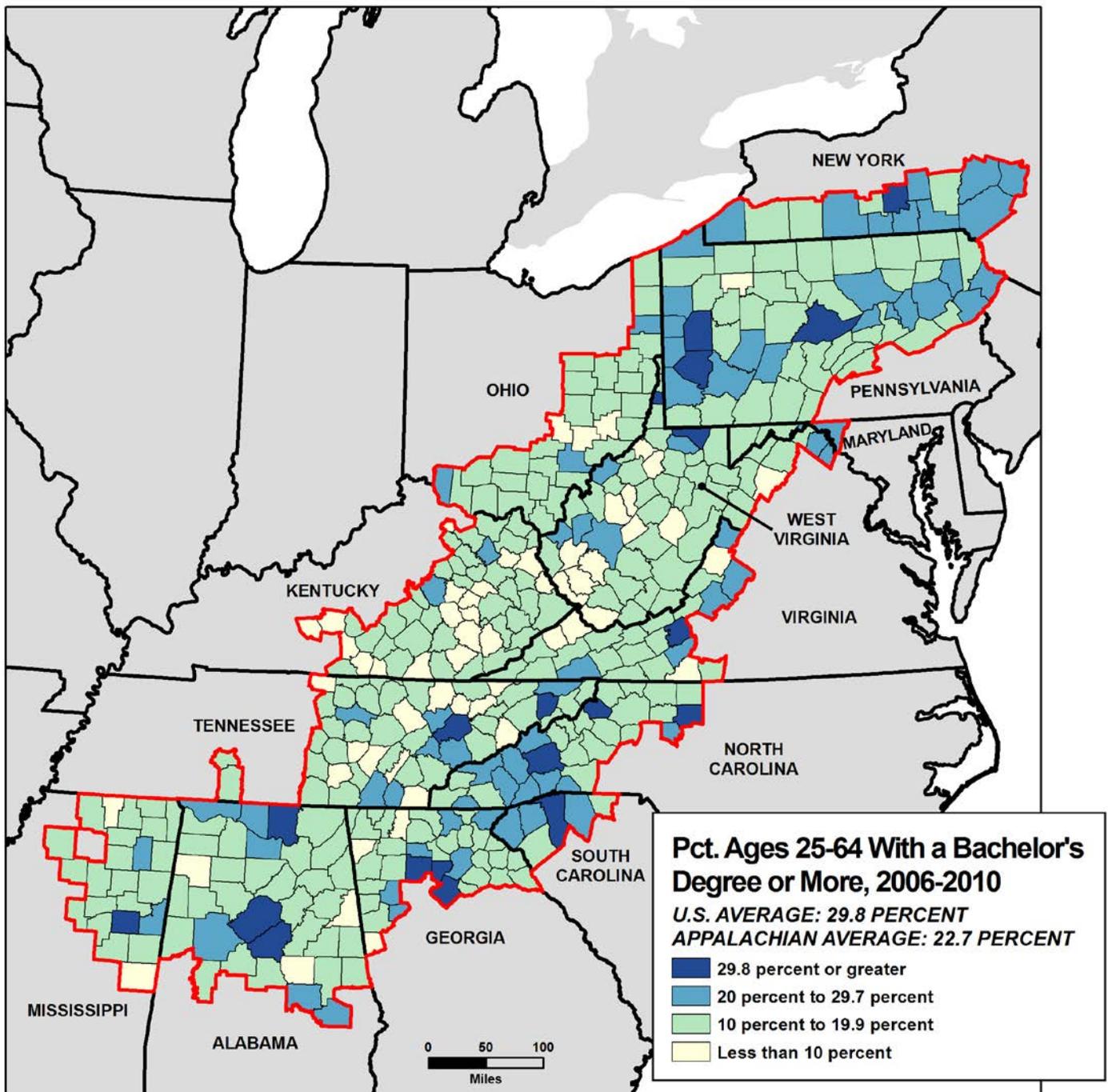
**Figure 5.4: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma or More, 2006-2010**



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a High School Diploma or More, 2006-2010  
 Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

In the 2006-2010 period, the percentage of working-age adults (ages 25 to 64) in the Appalachian region with at least a high school diploma was only slightly below the national average of just over 87 percent. (And both shares were slightly higher than they were in the 2005-2009 period.) In 127 of Appalachia’s 420 counties, the share matched or exceeded the national average. Nearly half of these 127 counties were outside metropolitan areas, and most were in northern or north central Appalachia. At the other end of the spectrum, less than three in four working-age adults had finished high school in 53 Appalachian counties—almost all of which were outside metropolitan areas, and more than half of which were in central Appalachia.

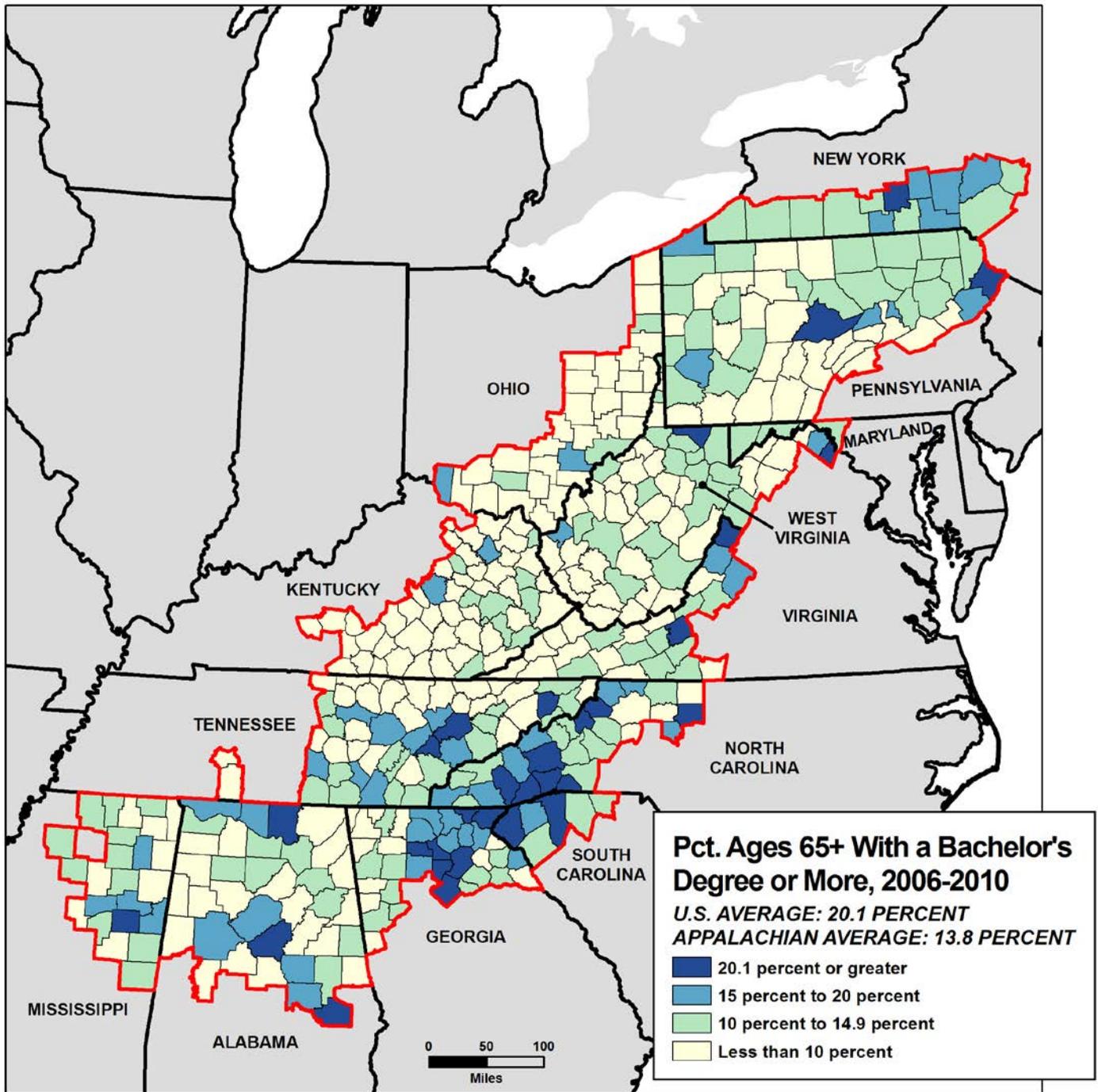
**Figure 5.5: Percent of Persons Ages 25 to 64 in the Appalachian Region With a Bachelor's Degree or More, 2006-2010**



Map Title: Percent of Persons Ages 25 to 64 in the Appalachian Region With a Bachelor's Degree or More, 2006-2010  
 Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

Only 23 percent of the working age population in Appalachia had a bachelor's degree or more—seven percentage points lower than the U.S. average of 30 percent. This is a striking indicator of the lower educational level of the Appalachian workforce. Just 13 percent of working-age adults in central Appalachia had a bachelor's degree, as did only 15 percent of residents of rural Appalachian counties that were not adjacent to metro areas. In just 20 Appalachian counties—all either in metropolitan areas or home to a four-year college or university—the share of working-age adults ages 25 to 64 with at least a bachelor's degree matched or exceeded the national average in the 2006-2010 period. In contrast, there were 58 counties where less than one in 10 adults had a four-year degree. Of these, 48 were outside metropolitan areas, and 38 of those nonmetropolitan counties were in central, south central, and southern Appalachia. On the positive side, educational attainment levels for the United States and Appalachia were slightly higher than they were in the 2005-2009 period.

**Figure 5.6: Percent of Persons Ages 65 and Over in the Appalachian Region With a Bachelor's Degree or More, 2006-2010**



Map Title: Percent of Persons Ages 65 and Over in the Appalachian Region With a Bachelor's Degree or More, 2006-2010  
 Data Source: U.S. Census Bureau, 2006-2010 American Community Survey.

While one in five older Americans (ages 65 and over) had attained at least a bachelor's degree in the 2006-2010 period, less than one in 10 older adults had done so in nearly half of Appalachia's 420 counties. Not surprisingly, most of these were outside metropolitan areas and nearly one-third were in central Appalachia. (Just 8 percent of central Appalachia's older adults were college graduates.) Yet in 31 Appalachian counties, the share of older adults with a bachelor's degree or higher was at or above the national average. Most of these were in metropolitan areas or home to a college or university, but some others may be rural counties with significant retirement or seasonal activity, as suggested by the fact that much (if not most) of their vacant housing was for seasonal or occasional use.