



Rural Education At A Glance, 2017 Edition



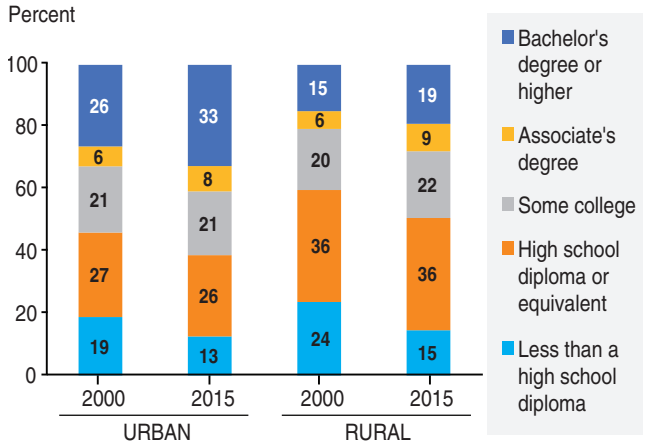
Overview

Education is closely linked with economic outcomes. This report highlights key trends in educational attainment among rural Americans and the relationship between educational attainment and economic prosperity for rural people and places. Rural Americans are increasingly educated, but gains in educational attainment vary across demographic groups. Rural women are increasingly more highly educated than rural men, and educational attainment among rural Whites is higher than that of racial and ethnic minorities in rural areas. Compared with urban areas, rural areas are lagging in the share of adults with college degrees. Urban areas continue to offer employment and earnings advantages (relative to rural areas) for workers with college degrees. For rural counties, low educational attainment is closely related to higher poverty and child poverty rates as well as higher unemployment rates.

Gains in rural educational attainment vary across demographic groups

Recent data show that rural Americans are increasingly well educated. In 1970, more than half (56 percent) of rural adults ages 25 and older did not have a high school diploma. That share declined to 15 percent in 2015, according to the latest educational attainment data from the U.S. Census Bureau. The majority of rural adults now have at least a high school diploma or equivalent, such as a General Educational Development (GED), and nearly 3 out of 10 rural adults now have an associate's or bachelor's degree or higher. Rural areas are converging with urban areas in the share of adults without a high school diploma or equivalent, but the share of adults with at least a bachelor's degree is growing faster in urban areas. Within rural areas, gains in educational attainment are unevenly distributed across demographic groups.

Educational attainment in rural and urban areas, 2000 and 2015



Source: USDA, Economic Research Service using data from the U.S. Census Bureau, Census 2000 and 2015 American Community Survey. Note: Educational attainment for adults ages 25 and older; 2015 metropolitan area definitions from the Office of Management and Budget apply.

The next four sections discuss trends in rural educational attainment using the Census Bureau's 2000 Census and 2015 American Community Survey, the most recent national data on educational attainment available. Both data sources provide estimates of educational attainment in both rural and urban areas for the entire Nation. The 2000 and 2015 estimates are far enough apart to capture an entirely new cohort of residents within 10-year age groups.

The rural-urban gap in college completion is growing

Compared with rural areas, urban areas have historically had a higher share of adults with bachelor's, postgraduate, and professional degrees. Between 2000 and 2015, the share of urban adults with at least a bachelor's degree grew from 26 percent to 33 percent, while in rural areas the share grew from 15 percent to 19 percent. Therefore, the urban-rural gap in the share of adults with bachelor's degrees grew from 11 to 14 percentage points. This gap may be due to the higher pay offered in urban areas to workers with college degrees or the fact that some rural students choose to attend college and subsequently work in urban areas after graduation.

Rural women are increasingly more well educated than rural men

In 2000, a quarter of rural men and 23 percent of rural women did not have a high school diploma. By 2015, those figures had dropped to 16 percent for men and 13 percent for women. During 2000-15, the share of rural women with bachelor's degrees or higher grew by 5 percentage points, versus 3 percentage points for rural men. In terms of associate's degrees, rural women had a slightly higher share in 2000 (6 percent versus 5 percent for rural men), and the share grew by 4 percentage points for women versus 2 percentage points for men between 2000 and 2015. In urban areas, the share of adults with associate's or bachelor's degrees also grew more quickly for women than for men. However, unlike rural areas, roughly the same share of urban men and women had bachelor's degrees in 2015.

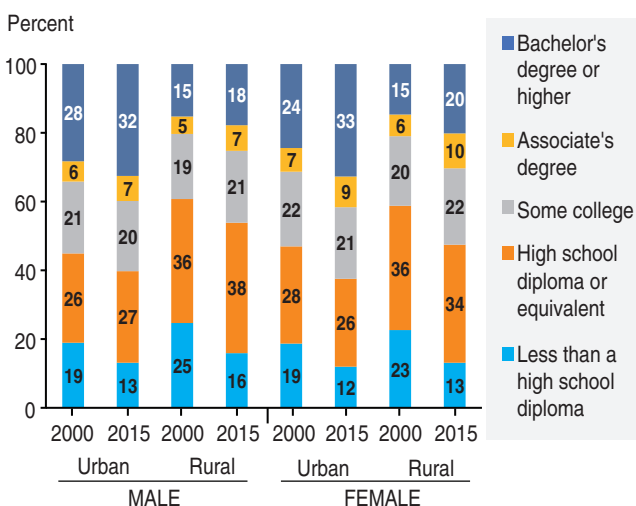
Educational attainment is generally higher for younger age cohorts

In dividing the rural working-age population into three age groups (adults age 25-34, 35-44, and 45-64), the oldest rural group shows the highest share with a high school diploma or less (50 percent). This share is 46 and 45 percent, respectively, for the two younger groups, reflecting increased educational attainment over time. Even so, the share of adults with bachelor's degrees is roughly similar (19-20 percent) across all three age groups. In urban areas, the share of adults with a bachelor's degree is 32 percent for the oldest group and 36 percent for the two younger cohorts.

Racial and ethnic minorities in rural areas lag Whites in educational attainment

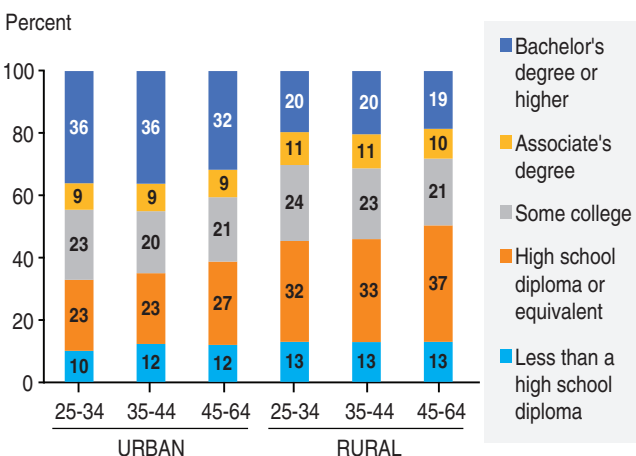
Rural educational attainment varies greatly among people of different races and ethnicities. The educational attainment of racial and ethnic minority groups in rural America is increasing, but these groups continued to be only half as likely as Whites to have a college degree in 2015. The share of Blacks and American Indians/Alaska Natives who have not completed high school fell from 41 and 32 percent, respectively, in 2000 to 24 and 20 percent in 2015, while the share of high school dropouts

Educational attainment by gender, 2000 and 2015



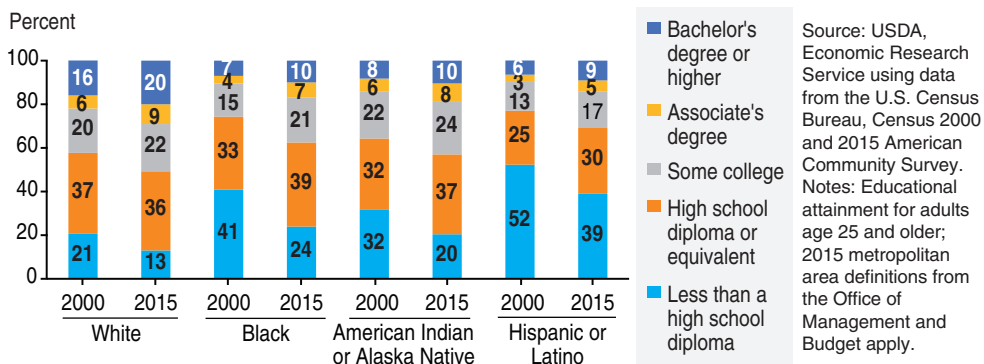
Source: USDA, Economic Research Service using data from the U.S. Census Bureau, Census 2000 and 2015 American Community Survey. Notes: Educational attainment for adults age 25 and older; 2015 metropolitan area definitions from the Office of Management and Budget apply.

Educational attainment by age in rural and urban areas, 2015



Source: USDA, Economic Research Service using data from the U.S. Census Bureau 2015 American Community Survey. Note: Educational attainment for adults ages 25 and older; 2015 metropolitan area definitions from the Office of Management and Budget apply.

Educational attainment by race and ethnicity in rural areas, 2000 and 2015



Source: USDA, Economic Research Service using data from the U.S. Census Bureau, Census 2000 and 2015 American Community Survey. Notes: Educational attainment for adults age 25 and older; 2015 metropolitan area definitions from the Office of Management and Budget apply.

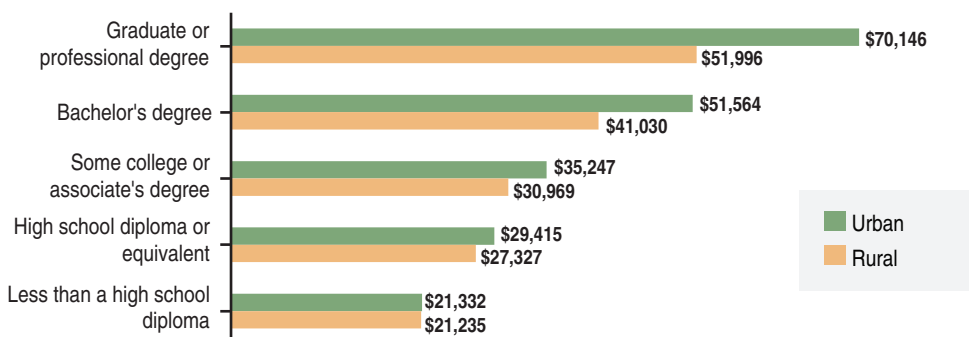
among rural Hispanics or Latinos fell from just over half to 39 percent. Nevertheless, racial and ethnic minorities comprise an increasing share of the rural population without a high school diploma. Adults of all races/ethnicities in urban areas are more likely to have completed high school: just 11 percent of Whites, 14 percent of Blacks, and 34 percent of Hispanics or Latinos in urban areas did not have a high school diploma or equivalent in 2015 (not shown).

Educational attainment relates to economic outcomes

Urban areas offer higher earnings and employment for workers with more education

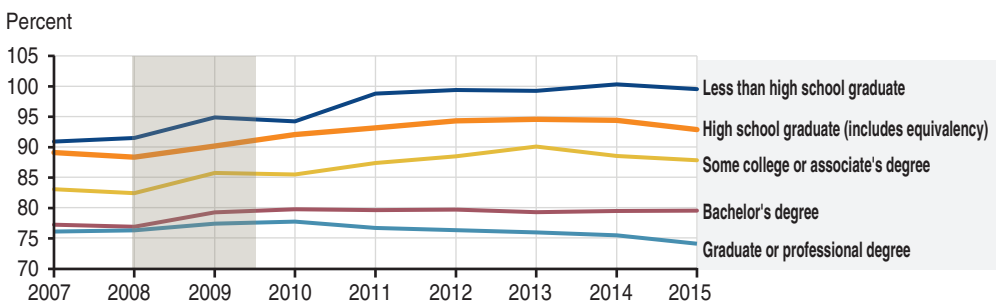
Median earnings rise with educational attainment in both rural and urban areas. Some research attributes the positive relationship between education and earnings to increased worker productivity. Other research suggests that education acts as a signal to employers of an employee's ability. The rise in earnings with educational attainment appears to differ, though, between rural and urban areas. In 2015, median earnings in rural areas were a fraction of those in urban areas for every level of education, with a larger earnings gap at higher levels of education. Employers in urban areas appear to offer higher wages, especially for skilled labor. One potential factor suggested in research is that businesses that provide skill-intensive employment may be concentrated in urban areas, where access to specialized innovations and knowledge is more readily available and where customers and suppliers are closer. On the other hand, these median earnings figures do not account for potential differences between urban and rural workers that could affect wages—such as work experience, job tenure, ability, or race—that are also correlated with education.

Rural-urban median earnings for earners age 25+ by educational attainment, 2015



Source: USDA, Economic Research Service using data from the U.S. Census Bureau 2015 American Community Survey.
Notes: Educational attainment for adults age 25 and older; 2015 metropolitan area definitions from the Office of Management and Budget.

Rural median earnings as a share of urban median earnings for workers by educational attainment, 2007-15



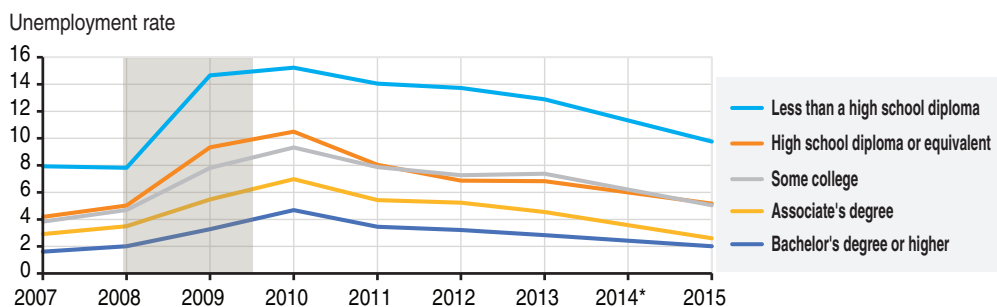
Source: USDA, Economic Research Service using data from the U.S. Census Bureau's American Community Surveys, 2007-15.
Notes: 2003 metropolitan area definitions from the Office of Management and Budget apply to 2007-13 and 2013 metropolitan area definitions apply to 2014-15. Shading indicates the Great Recession.

Earnings for adults in rural areas have gained since the recession relative to urban workers across all educational attainment categories except for those with graduate or professional degrees. In 2007, median earnings for rural workers without a high school diploma were 91 percent of urban earnings; in 2015, earnings were roughly equal. Similarly, rural workers with a bachelor's degree earned 77 percent of urban wages in 2007, and 80 percent in 2015.

As the rural economy has recovered from the 2007-08 recession, unemployment rates have fallen after peaking in 2010. Unemployment across all levels of educational attainment about doubled from 2007 to 2010. Unemployment rates for rural adults are lower for those with more educational attainment. The difference in unemployment rates between rural adults without a high school diploma and those with at least a bachelor's degree grew from roughly 6 percentage points in 2007 to 11 percentage points in 2011. Since the end of the recession, unemployment rates have trended toward pre-recession levels.

Another labor market indicator is the labor force participation rate—the share of the population either employed or actively looking for employment. It reflects population and economic trends and increases by educational attainment for working-age adults. Since the end of the recession, labor force participation rates have fallen in rural areas—especially for workers with a high school diploma or higher—due to the aging of the population and the effects of the recession.

Rural unemployment for adults age 25-64 by educational attainment, 2007-15



Source: USDA, Economic Research Service using data from the Bureau of Labor Statistics, Current Population Survey, 2007-15.

Notes: 2003 metropolitan area definitions from the Office of Management and Budget apply to 2007-13; 2013 metropolitan area definitions apply to 2015. Shading indicates the Great Recession. *Metropolitan area definitions changed in the course of 2014, so the average of 2013 and 2015 values is used for 2014.

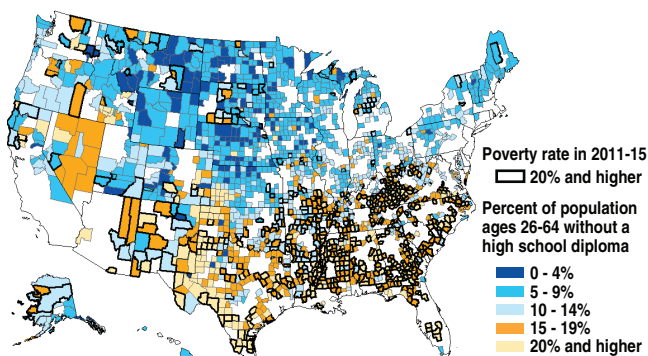
Rural counties with low levels of educational attainment have worse economic outcomes

Educational attainment is highly correlated with measures of regional economic prosperity. Rural counties with the lowest levels of educational attainment face higher poverty, child poverty, unemployment, and population loss than other rural counties. The map on page 6 shows the share of the adult working-age population with less than a high school diploma in rural counties. Heavy borders indicate counties for which the poverty rate was 20 percent or higher in 2011-15. These counties are mostly clustered in Appalachia, the Mississippi Delta, the Texas border counties, and among Native American reservations. In terms of regional patterns, educational attainment is lowest in the rural South. The rural South has areas of persistently high poverty rates along the Texas-Mexico border, the Mississippi Delta, and in Appalachia. Research indicates that children from poor families are more likely to drop out of school and have lower test scores than children from families with higher incomes. Lower educational attainment also contributes to poverty, so higher poverty in the South is both a cause and consequence of lower educational attainment.

ERS classifies 467 counties as “low education” counties—those where 20 percent or more of adults age 25 to 64 do not have a high school diploma or equivalent; nearly 4 out of 5 of these counties (79 percent) are rural. (These counties are shown in dark gold on the map). Data from the 2011-2015 American Community Survey (the most recent data available for all counties)

show that average poverty rates in rural low-education counties are roughly 8 percentage points higher than all other rural counties. In 2011-2015, rural low-education counties averaged poverty rates of 24 percent, versus 16 percent for all other rural counties. Furthermore, 40 percent of rural low-education counties are also persistent-poverty counties, with poverty rates of 20 percent or higher consistently since 1980 (not shown).

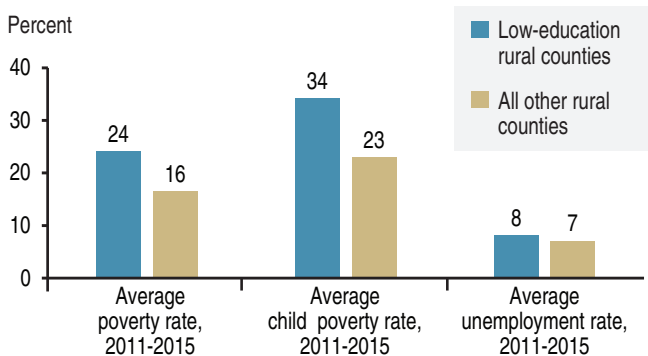
Correlation between low education and poverty in rural counties, 2011-15



Source: USDA, Economic Research Service using data from the Census Bureau's 2008-12 and 2011-15 American Community Surveys.
 Note: 2013 metropolitan area definitions from the Office of Management and Budget apply. White areas denote urban counties.

In addition to higher poverty rates, rural counties with low levels of educational attainment tend to have high unemployment rates. Since 2007, rural low-education counties on average have experienced unemployment rates roughly 2 percentage points higher than other rural counties. Unemployment rates for both groups of rural counties peaked in 2010, then began to decline in the recovery period. Between 2011 and 2015, unemployment rates were, on average,

Economic outcomes for low-education rural counties and all other rural counties, 2011-15



Source: USDA, Economic Research Service using data from the U.S. Census Bureau, 2011-2015 American Community Survey and Bureau of Economic Analysis' Regional Economic Information System.
 Note: 2013 metropolitan area definitions from the Office of Management and Budget apply.

1 percentage point higher in rural low-education counties than in other rural counties. Despite reductions in average unemployment rates between the two groups, low-education counties in rural areas are faring worse than other rural counties in the post-recession recovery period.

Data sources

- American Community Survey, Census Bureau, U.S. Department of Commerce.
- Current Population Survey, Bureau of Labor Statistics, U.S. Department of Labor.
- Local Area Unemployment Statistics, Bureau of Labor Statistics, U.S. Department of Labor.

ERS Website and Contact Person

Information on rural education is available on the ERS website at <http://ers.usda.gov/topics/rural-economy-population/employment-education/rural-education.aspx>. For more information, contact **Alexander W. Marré** at amarre@ers.usda.gov or (202) 694-5338.

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