



CENTER FOR BUSINESS AND ECONOMIC RESEARCH

ISSUE BRIEF

on topics affecting Kentucky's economy

October 2015

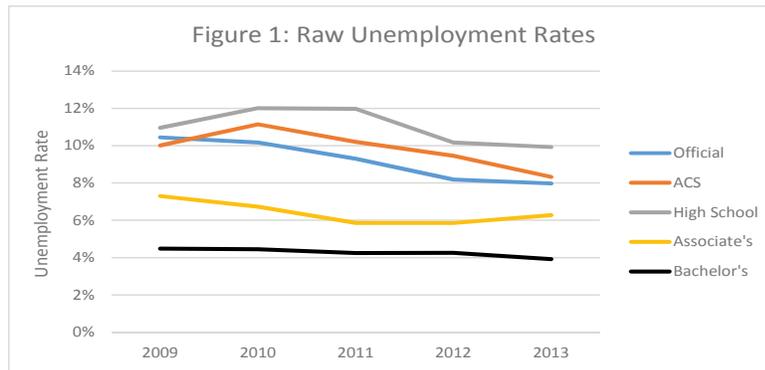
Want a Job? Get a College Degree

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While it is well known that a positive relationship exists between educational attainment and earnings for those who are in the labor market, an important part of how education impacts the well-being of families in Kentucky is the access to employment that it provides. In this brief, we examine the relationship between education and two measures of employment status: unemployment and labor force participation. What we find is quite striking: not only do those with higher education experience less unemployment, they are far more likely to be participating in the labor market. Education leads to better access to employment.

These data are derived from the American Community Survey (ACS) for the years 2009-2013. This annual survey is designed to allow researchers to examine economic and demographic characteristics of the United States population at the national, state, and local level. We use statistical methods designed to isolate the impact of education on our employment measures from the many other known factors such as age and gender which affect earnings as well.

We begin with a brief look at unemployment rates through this period for the state of Kentucky using the compiled data. The official rates, reported by the Bureau of Labor Statistics (BLS), are computed at a monthly level. These data are limited to an annual rate but are similar to those officially reported. Figure 1 shows the simple average annual unemployment rate from the BLS and from our data. The blue line represents the official unemployment rate released by the Bureau of Labor Statistics (averaged across the months), while the orange line represents our estimates based upon the ACS data set. As can be seen in the figure below, they are quite comparable, both in level and in overall trend.



The most important comparison to make via this graphic is to examine the unemployment rates of the various education levels used in the analysis. The grey line represents workers with a high school diploma. The yellow line and the black line represent workers who have either an Associate's or a Bachelor's degree (respectively). In many ways Figure 1 tells the full story: those with a college degree face a much lower unemployment rate than those with only a high school diploma.

Those with an Associate's or Bachelor's degree face a much lower unemployment rate than those with only a high school degree.

In Table 1 (next page), we present our predicted unemployment rates for the entire state of Kentucky and also the four sub-regions (the Urban Triangle, Eastern Kentucky, Western Kentucky and South Central Kentucky**).

*This research was funded by the Council on Postsecondary Education (CPE) to study the relationship between education and outcomes such as income, employment levels, health, public assistance use, and crime.

**The Urban Triangle includes the Louisville, Lexington, and Cincinnati metropolitan areas and surrounding counties. Eastern Kentucky includes Bath, Bell, Boyd, Bracken, Breathitt, Carter, Clay, Fleming, Floyd, Greenup, Harlan, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Magoffin, Martin, Mason, Menifee, Montgomery, Morgan, Owsley, Perry, Pike, Robertson, Rockcastle, Rowan, Whitley, and Wolfe counties. Western Kentucky includes Ballard, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Todd, Trigg, Union, and Webster counties. South Central Kentucky includes Adair, Allen, Barren, Breckinridge, Butler, Casey, Clinton, Cumberland, Edmonson, Grayson, Green, Hart, Larue, Logan, Marion, McCreary, Metcalfe, Monroe, Nelson, Pulaski, Russell, Simpson, Taylor, Warren, Washington, and Wayne counties.



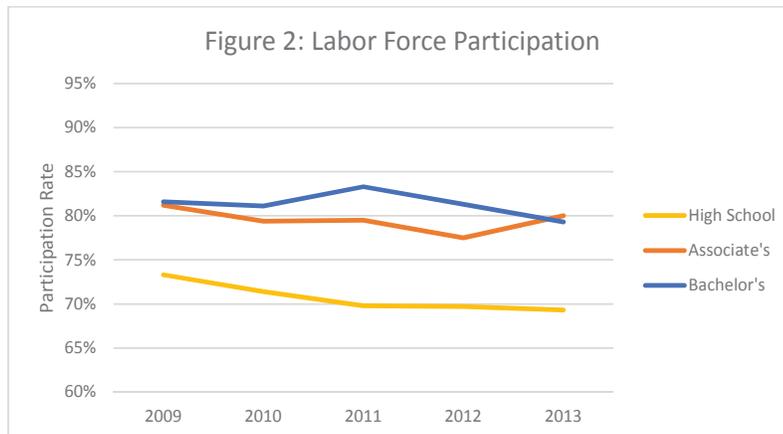
Table 1: Differences in Unemployment Rates by Level of Education

	High School	Associate's (predicted)	Bachelor's (predicted)	Difference between High School and Associate's	Difference between High School and College
Kentucky	9.9%	6.9%	5.1%	-3.00%	-4.80%
Urban Triangle	10.1%	6.8%	5.1%	-3.30%	-5.00%
Western	11.0%	8.5%	7.3%	-2.50%	-3.70%
Eastern	13.0%	11.3%	7.5%	-1.70%	-5.50%
South Central	6.8%	2.8%	2.7%	-4.00%	-4.10%

Even in areas with higher overall unemployment, college graduates are predicted to face decreased chances of unemployment, when compared to people with less education.

We use the 2013 unemployment rate as a baseline. Most important, in every region, the citizens with some postsecondary education faced a substantially lower unemployment rate than those with a high school diploma. Even in Eastern Kentucky, where the unemployment rate was still as high as 13% in 2013, college graduates were facing an unemployment rate of only 7.5%. This rate was lower than the national unemployment rate in 2013 at 8.3%. Our estimates suggest that the total number of unemployed in the state would fall by over 4,600 individuals if Kentucky had the same level of overall educational attainment as the U.S. (1% increase in the number of individuals with an Associate's degree and a 5% increase in Bachelor's degree recipients).

Many have speculated that the college-educated can't find jobs and simply drop out of the labor market in utter despair, which has been coined the "discouraged worker effect." This phenomenon is very real, but the remaining question around this topic is how this effect impacts each educational group. To explore this, we examine labor force participation rates. A person is considered participating in the labor force if they have a job or are classified as unemployed. We focus on individuals between the ages of 20 and 65. Figure 2 presents the baseline labor force participation rates for high school graduates and our model predictions, which isolate the impact of education from other factors.



As can be seen, throughout the entire period, labor force participation for high school graduates fell. While there was some decline for those with a post-secondary education, the decline is less marked and, initially, the rate even rose for college graduates. The evidence is quite clear that those with a post-secondary education are more likely to participate in the labor market, and are less likely to be subject to the discouraged worker effect.

Those with degrees are more likely to be in the labor market and more likely to keep their job through hard times than their high school educated counterparts.

In Table 2, we present our model prediction for labor force participation rates

for the state and for the four regions by education level for 2013. As one might expect, the Urban Triangle has the highest participation rate, in general, at 77.7%, while Eastern Kentucky has the lowest at 52.8%. What is striking is how little the labor force participation rate varies across regions for college graduates. Overall, Bachelor's degree holders participate at a rate of 79% and those with Associate's degrees participate at a rate of 77.2%. Even in Eastern Kentucky, 77.4% of Bachelor's degree holders and 68% of those with Associate's degrees participate in the labor force.

Table 2: Labor Force Participation Rates (2013)

	All	High School	Associate's	College
Kentucky	71.1%	68.4%	77.2%	79.0%
Eastern	52.8%	54.4%	68.0%	77.4%
South Central	67.8%	68.5%	78.4%	77.6%
Urban Triangle	77.7%	73.9%	81.1%	82.9%
Western	66.7%	66.1%	74.8%	80.0%

The conclusion is clear: college education provides access to employment. Those with degrees are more likely to be in the labor market and more likely to keep their job through hard times than high

school graduates.