



## CENTER FOR BUSINESS AND ECONOMIC RESEARCH

# The Effects of Education across the Kentucky Economy

The Center for Business and Economic Research (CBER) (Gatton College, University of Kentucky) was commissioned by Kentucky's Council for Postsecondary Education to examine the implications of education across the Kentucky economy. This study used data on Kentuckians from the American Community Survey (ACS), the Behavioral Risk Factor Surveillance System (BRFSS), the Uniform Crime Reports (UCR), the Bureau of Labor Statistics (BLS), and the Bureau of Economic Analysis (BEA). The focus on Kentucky is unique, as most studies of this kind have used only national data. The results have allowed us to examine how education is related to important outcomes related to the Kentucky economy. These studies have also allowed for the unique opportunity to examine and compare the impact of education within different regions of the Commonwealth.

Seven outcomes were examined in the study: income and earnings, employment, state income tax revenues, Medicaid, health, crime, and participation in the Supplemental Security Income (SSI) and Supplemental Nutrition Assistance Program (SNAP) programs. Overall, the results of each study show that the present educational attainment levels in Kentucky cost the state in myriad ways. According to the 2013 ACS estimates, approximately 21.5% of Kentuckians have a Bachelor's Degree or higher, while the U.S. average sits at 28.8%; similarly, 7% of Kentuckians have earned an Associate's degree, while the U.S. average is 8%. If Kentucky were to obtain the same average education levels as the U.S., per capita earnings would rise by over 3.5% and over 4,600 Kentuckians would move off unemployment rolls.

The benefits of higher income and decreased unemployment have cascading effects throughout the economy. Again, if Kentucky education levels were raised to meet the current U.S. levels, the state income tax revenues would rise by as much as \$500 million, helping to ease state budget crises. In addition, increasing education throughout the state would save over \$200 million in Medicaid expenditures, further easing state budgets and allowing legislators to use those resources for the benefit of the citizens of the Commonwealth.

It's not just state budgets that benefit from increased education; it also significantly improves health outcomes, reduces crime rates, and decreases reliance on public assistance programs. In terms of health, these estimates suggest that we could reduce the costs of chronic disease (specifically heart disease and diabetes) by nearly \$200 million per year. These are costs that accrue to Kentucky citizens and businesses both in health services and in lost work days. Similarly, achieving a higher education level would save the state approximately \$3 million in costs associated with crime. It would also move over 5,000 Kentucky families off food stamps and over 20,000 adults off SSI.

Many have argued that education only benefits citizens in the Urban Triangle (Lexington, Louisville, and Northern Kentucky). This study examined the implications of education at the regional level within Kentucky. Kentucky was divided into four regions: Eastern Kentucky, Western Kentucky, South Central Kentucky, and the Urban Triangle. While the gain from education does vary across the regions, the differences are typically small. A Bachelor's degree in the Urban Triangle adds 52% to an individual's earnings, while in Eastern Kentucky it adds 47%. However, in Eastern Kentucky, an Associate's degree adds 28% to earnings, while this same degree in the Urban Triangle only adds 27%.

The results across regions for employment are also striking. The unemployment rate for college graduates is 4.8% lower than for high school graduates. In the Urban Triangle it is 5% lower, while in Eastern Kentucky it is 5.5% lower! Perhaps more importantly, education has profound effects on labor force participation. Labor force participation for high school graduates ranges from a low of 54.4% in Eastern Kentucky to 73.7% in the Urban Triangle. But the labor force participation for college graduates is 77% in Eastern Kentucky and 83% in the Urban Triangle. College graduates are more likely to have jobs.

A more complete picture of each topic can be found by looking at the briefs in their entirety. They are available on CBERS's web site on the publications tab or from UKnowledge.