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CENTER FOR BUSINESS AND ECONOMIC RESEARCH

ISSUE BRIEF

on topics affecting Kentucky's economy

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Crime and Punishment and Education

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Overall, higher education is associated with lower crime rates in the general population.

Crime impacts the lives of Kentuckians in myriad ways. It has direct costs to victims and indirect costs through property values and business activity. Citizens and policymakers alike desire to reduce and limit crime. In this brief, we investigate the link between crime rates in Kentucky's counties and the aggregate level of education. Perhaps surprisingly, higher education, and specifically the percent of the population with a Bachelor's degree, is associated with lower crime. We find that increasing educational attainment in Kentucky to the U.S. levels could reduce the costs of crime by over \$3 million annually.

We use data from the Uniform Crime Reporting Program Data Series (UCR) as well as data from the Bureau of Economic Analysis to estimate the relationship between higher education and crime. Our results use statistical techniques which allow us to isolate how changes within a county in the education level will impact the crime rate. Our models focus on the total crime rate**, violent crime rate***, and property crime rate**** for counties in the state of Kentucky. The average rate of violent crime for the state of Kentucky across this time was 0.15%, or 15 violent crimes per 10,000 people. The average property crime rate was 0.29%, or 29 property crimes per 10,000 people.

If higher education rates increased by 1%, all crime would drop. If more individuals earned a Bachelor's degree, total crime could be reduced by as much as 20 crimes per 10,000 people.

Figure 1: Predicted Crime Rates and Education Levels

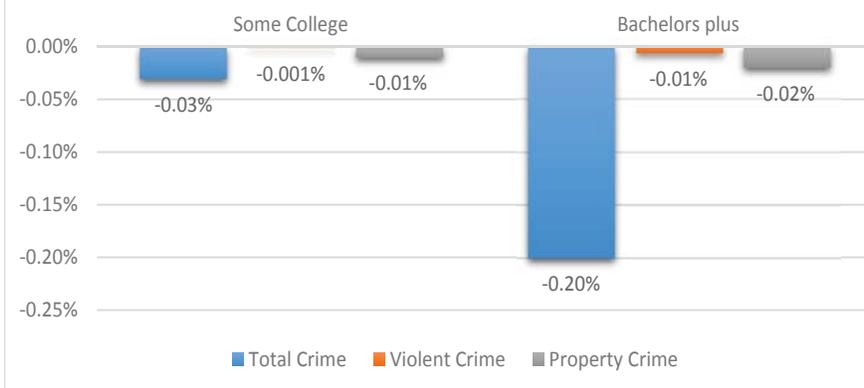


Figure 1 presents the model estimates of how predicted crime rates would change as 1% of the people in a county were to move from having a high school diploma to obtain either some college (typically an Associate's degree) or a Bachelor's degree (or higher). By moving 1% of the population into a Bachelor's degree, we would reduce vio-

lent crime by about 1 crime per 10,000 people.

*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.

**Total crime includes violent crimes and property crimes below, plus: other assaults, forgery/counterfeiting, fraud, embezzlement, having stolen property (buying, receiving, or possessing), vandalism, weapons violations, prostitution, sex offenses, drug abuse and violations (several categories), gambling, alcohol related issues like drunk and disorderly or DUIs, loitering, and runaways.

***"Violent crime is composed of four offenses: murder and nonnegligent manslaughter, rape, robbery, and aggravated assault. Violent crimes are defined in the UCR Program as those offenses which involve force or threat of force." (FBI Uniform Crime Reports, 2013)

****"Property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. The object of the theft-type offenses is the taking of money or property, but there is no force or threat of force against the victims." (FBI Uniform Crime Reports, 2013)



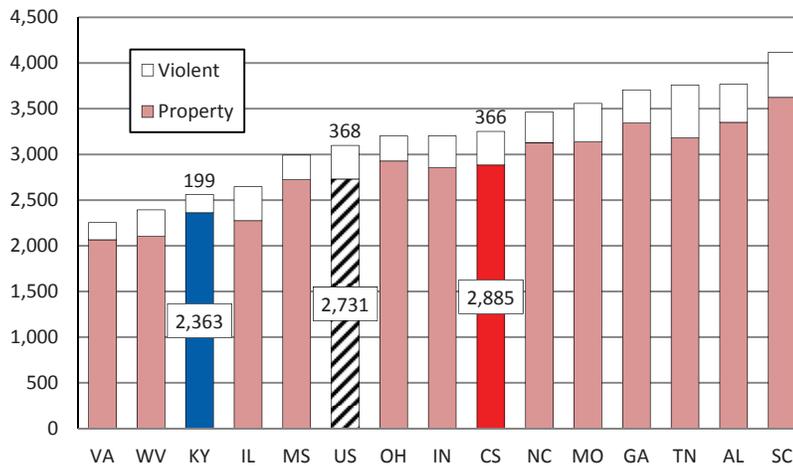
Similarly property crime would fall by about 2 crimes per 10,000 people. Total crime makes the most dramatic shift between high school and college, falling approximately 20 crimes per 10,000.

Economists have long provided estimates of the societal costs of crime. Using those estimates, violent crime costs Kentucky \$2.7 billion in a typical year, while property crime costs \$1.3 billion. Our estimates suggest that simply moving 1% of the population from high school to Bachelor's degrees would reduce violent crime costs by \$160,000 each year and property crime costs by \$540,000 each year. Were we to achieve U.S. levels of education, we would reduce violent crime costs by nearly \$1 million and property crime costs by over \$2.5 million.

While Kentucky is generally a safe place to live, our crime rate is lower than the U.S. average and most of the competitor states, as depicted in the graph below from the CBER Annual Report. By increasing education, we can further reduce crime throughout the Commonwealth and its price tag to communities.

Increasing higher education would also translate into dollars saved by the state in terms of costs associated with crime. For the state of Kentucky, if U.S. education levels were achieved costs associated with crime could be reduced by almost \$3.5 million.

**Crime Rate,
 Kentucky, Competitor States, and the U.S., 2013**
 (rate per 100,000 persons)



Source: US Federal Bureau of Investigation