

IBM Data Science Capstone Project

Does post-secondary education affect the rate of crime in cities?

An investigation of the relation between the increase in the number of academic centers and libraries and a decrease in the rate of crime in American cities.

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1. Introduction (Business Problem)

Everyday many different types of crimes are committed in the cities. Among the developed countries the United States suffers from one of the highest crime rates. In fact, in 2020 the crime index of the United States has been determined as 47.7. This is although the rate of crime has decreased significantly in the US in the past few years. In 2012 United states was considered as one of the creepiest countries in the world, with a crime index of 64.93 (1).

This high rate of crime can be considered as a major issue threatening safety in American cities. The crimes in the cities are divided into two main groups of violent crime and property crime. A violent crime according to the definition is considered as where the offender uses or intimidates to use force on the victim. Such violence can be objective like in the case of rape or murder, or as a form of coercion. Violent crime range extends from harassment to homicide, and not all of them involve using weapons. Some of the more well-known violent crime types include robbery, hijacking, carjacking, rape, kidnapping, shooting, torture, ... (2).

On the other hand, Property crime as its name points to usually deals with private property, and it is committed to obtaining money or any other similar benefit. The more known types of property crimes include theft, shoplifting, vandalism, larceny, and burglary (3).

Many problems could be argued as the possible reasons behind the high rate of crime in American cities. The economic issues that the people under the poverty line would struggle with can be considered as the major motivation. Also, gun freedom is considered as one of the reasons behind the high rate of violent crime in these cities. However, it is commonly believed that an increase in the level of education of people may play a major effect on decreasing the cities' crime rates. So, in this study, it is endeavored to scrutinize the existence of such a correlation. It should be added that even a possible correlation may not point to the existence of causation.

To measure the level of education in the cities, one may consider the number of academic and educational institutions per capita as a possible measure of the education level in a city. To make

it more specific we can account for the number of pos-secondary academic institutions as a measure of the education level of people in the vicinity. Although many people may leave that city after graduation intendedly or unwantedly to pursue their careers still it can be assumed that most of the people would remain in the same city upon graduation.

References

1. https://www.numbeo.com/crime/rankings_by_country.jsp?title=2016
<https://worldpopulationreview.com/country-rankings/crime-rate-by-country>
2. https://en.wikipedia.org/wiki/Violent_crime
3. https://en.wikipedia.org/wiki/Property_crime