

Overview

Our project focused on how the legalization of Marijuana impacted Colorado. Specifically, has the population changed after legalization and have the crime rates been affected by legalization.

Questions

During group discussion and research there was a perception of the general public (based on general Google searches of social media comments prior to 2010) was that once Marijuana was legalized, there would be more people moving to the state. The other general perception described was that there would be fewer families moving to the state and more single adults moving to Colorado. And, with more single adults that were marijuana focused moving to Colorado, crime rates would increase.

Another area of focus was around what the difference in crime might be for areas where only Medical marijuana was legal versus areas where recreational marijuana was available. We selected two areas of similar size, Colorado Springs (Medical Marijuana only) and Aurora (Recreational Marijuana), and did analysis comparing crime statistics for 2010 and earlier to 2011 and later.

Analysis Results

Population did not appear to be impacted by the legalization of marijuana. Prior to 2011, Colorado population data showed fairly consistent growth, averaging around 2 percent per year. Population data from 2011 and beyond showed the same consistent growth over time. In addition, there was not a significant change in the demographic (Juvenile and Adult) before or after legalization. Due to these results, we concluded that Population was not impacted by the legalization of Marijuana and, therefore, population change would not have impacted crime in Colorado based on the data in our analysis.

In order to get a general understanding of Colorado crime rates, we initially compared Colorado crime rates to US crime rates. In relation to US crime rates, Colorado showed no significant impact of marijuana legalization. Although there were significantly higher Property crimes compared to Violent crimes, this was similar to what was found in the US data. The before and after legalization comparison showed no apparent impact on data variation.

The comparison of Colorado Springs and Aurora showed that in both areas before marijuana legalization, crime was trending down, but not so drastically that you would expect a sudden drop in crime to come about. After legalization, in Colorado Springs, a Medical Marijuana only area, property crimes appeared to be trending down and violent crimes were trending up. Again, neither of these trends appeared to be caused or directly linked to the legalization of marijuana.

Although we can infer that legalization of marijuana did not significantly impact crime or population,

additional years of data will need to be collected before a more definitive conclusion can be reached.

Data Source

Our data was sourced from the FBI's Uniform Crime Reports and CBI Crime in Colorado Reports as published by the State of Colorado.

Challenges

The consistency of data collection over time posed a small challenge for our analysis. There was also a change in the way the data was collected in at least one category. Looking at Rape alone, there was a change in how rape data was collected which could make Rape appear to be increasing. This is not the case and is only a result of the additional offenses that are now categorized as Rape. Accuracy of data reporting was also a challenge. For example, Burglary crime type was also reported as Burgary. This type of error in reporting required additional data cleanup to ensure accurate analysis.