The Local Effects of Medical Cannabis
Disproving the Myth that Medicinal Cannabis Dispensaries Attract and Cause Violent Crime

OVERVIEW

On Nov. 6, 2012 Massachusetts approved Question 3, becoming the 18th state to legalize cannabis for medical use. Although the measure passed with a significant majority of 63%, multiple towns have already banned dispensaries from opening within their communities. Cities such as Wakefield and Reading regulated and facilitated the introduction of cannabis dispensaries, with only around 25 years of medical cannabis in California.

METHODS

After adding data of all crime report locations from 2003 and 2011, I narrowed down the crime types to only represent assaults. I then created point density raster layers of the assault locations, and I reclassified the distribution of densities so that I would be able to subtract the densities of 2011 from 2003 on the same scale. This way, a location with a low density of assaults in 2011 subtracted from a higher density in 2003 would result in a high value in the final raster, a decrease in violent crime, and vice versa. I combined the analysis of bus stops and parks so that locations near bus stops would get better scores so that the dispensaries are more convenient for bus-users and locations closer to parks would get lower scores so that cannabis use was further from children playing. Additionally, all locations within 1,000 ft. of a school were deemed unsuitable. This combination of factors produced ratings of the best locations for dispensary.

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To achieve the simplified map of increases and decreases in violent crime, I created two boolean rasters. The values/locations of increases in violent crime were converted into one boolean raster, represented in blue and the values/locations of decreases in violent crime were converted into a boolean raster represented in orange. Like the first map, the uncolored values represent no change in violent crime.

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In fact, most collectives are located in places where violent crime decreased. However, it is difficult to assess whether this trend is statistically significant, because of the various counterexamples located in no-change and increased violent crime areas.

CONCLUSION

From the data and analysis on this project, it is safe to conclude that medical cannabis dispensaries do not cause or attract an increase in violent crime. Comparing the results of over twenty clubs in different parts of the city, ranging from some that opened up ten years ago to others that have opened in the last couple years, it can also be inferred that violent crime does not significantly change despite how long the dispensary has been there.

The evidence of the last fifteen years of medical cannabis in California should dismiss the concerns of Massachusetts’ residents that dispensaries draw violent crime. That being said, this study did not evaluate the correlation between dispensaries and other types of crime. However, if Massachusetts’ towns are worried about businesses in their neighborhoods causing crime, it would be most beneficial to start with the places that do cause violent crime like liquor stores.