



Going to pot? The impact of dispensary closures on crime[☆]



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ABSTRACT

Jurisdictions that sanction medical or, more recently, recreational marijuana use often allow retail sales at dispensaries. Dispensaries are controversial as many believe they contribute to local crime. To assess this claim, we analyze the short-term mass closing of hundreds of medical marijuana dispensaries in Los Angeles. Contrary to popular wisdom, we find an immediate increase in crime around dispensaries ordered to close relative to those allowed to remain open. The increase is specific to the type of crime most plausibly deterred by bystanders, and is correlated with neighborhood walkability. We find a similar pattern of results for temporary restaurant closures due to health code violations. A likely common mechanism is that “eyes upon the street” deter some types of crime.

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1. Introduction

One of the most dramatic shifts in public opinion in the U.S. over the past four and a half decades has been a surge in support for marijuana legalization, both medical and, increasingly, recreational. Currently 60% of adults in the U.S. favor broad-based marijuana legalization, compared to only 12% in 1969 (Swift, 2016), and nearly 90% think adults should be allowed to use marijuana for prescribed medical purposes (CNN/ORC, 2014). Despite this support, 44% indicate that they would be somewhat or very concerned if a “store that sold medical marijuana” opened in their area (The Pew Research Center, 2010). In particular, many maintain that these stores, usually called dispensaries, attract or, even, cause crime (McDonald and Pelisek, 2009; National Public Radio, 2010; Reuteman, 2010).

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The idea that marijuana dispensaries attract crime has proved influential with policymakers. For example, an Oregon state senator argued that a law allowing cities to ban dispensaries was important to “empower them to protect our children and families” (Zheng, 2014). In Los Angeles, the setting for this study, the city council cited crime in its 2010 decision to cap the number of dispensaries in the city.¹ Yet, empirical evidence to support any link (positive or negative) between marijuana dispensaries and crime is quite limited. State difference-in-differences estimates find no relationship between medical marijuana laws and crime rates (Morris et al., 2014). Since not all medical marijuana states have operational dispensaries, however, these estimates do not speak directly to the impact of dispensaries on crime. The density of dispensaries across 95 census tracts in Sacramento, CA is uncorrelated with either violent or property crime rates (Kepple and Freisthler, 2012).² Well-known limitations of cross-sectional analyses and a general lack of statistical power in that study suggest the importance of continued work on the topic.

How, in theory, might medical marijuana dispensaries affect crime? First, marijuana use, which may be concentrated around dispensaries if some buyers consume onsite or nearby, may be criminogenic. Similar effects have been cited for alcohol outlets,

¹ See the fifth paragraph of Ordinance 181069 http://clkrep.lacity.org/online/docs/2008/08-0923_ord_181069.pdf.

² The Denver and Colorado Springs Police Departments each analyzed the number of crimes around dispensaries and compared them to the numbers around banks, pharmacies, and other businesses (Ingold, 2010; Rodgers, 2010). Neither found that dispensaries attract crime, although recent work demonstrates that dispensaries in Denver tend to be located in high crime neighborhoods (Boggess et al., 2014).

where openings and availability in Los Angeles and other jurisdictions are associated with increases in crime (Teh, 2008; Scribner et al., 1995; Gorman et al., 1998; Scribner et al., 1999; Gruenewald and Remer, 2006; Gruenewald et al., 2010; Franklin et al., 2010; Grubestic and Pridemore, 2011a, 2011b). In contrast to alcohol, however, some work suggests marijuana may not increase crime commission per se (Pacula and Kilmer, 2003) and may even inhibit aggressive behavior (Myerscough and Taylor, 1985; NAS, 1994; Hoaken and Stewart, 2003).³

Second, given the quasi-legal status of these stores and their products, dispensary customers, employees or owners may resort to violence to resolve disputes (Miron, 1999; Resignato, 2000).⁴ If so, we might expect increases in crimes such as aggravated assault, which increased for such reasons with the emergence of crack cocaine (Grogger and Willis, 2000).

Third, crime could increase near dispensaries as individuals try to finance their purchases through the proceeds of crime (Grogger and Willis, 2000). If so, we would expect theft or other property crimes to increase with dispensaries. Finally, marijuana users and the dispensaries they frequent, which are a direct source of drugs and cash, may offer opportunities that attract criminals. Anecdotal evidence suggests that dispensaries have been subject to break-ins and robberies (e.g., see McDonald and Pelisek, 2009). Thus, we would expect an increase in robbery and burglary around dispensaries.⁵

While these channels seem plausible and have captured public attention, dispensaries could, in principle, decrease crime. Dispensaries tend to have their own security systems and often security guards to protect their assets and resolve disputes. Analyses of business improvement districts find that private security can have large returns in terms of crime reduction (Brooks, 2008; Cook and MacDonald, 2011). Likewise, if police allocate more patrols around dispensaries, they might reduce crime (Di Tella and Schargrodsky, 2004). To the extent that dispensaries increase neighborhood foot traffic, they might prevent crime by increasing “eyes on the street” (Jacobs, 1961). In addition, by legitimizing the marijuana trade, actors in this market may have legal channels to resolve disputes. This last possibility is somewhat less plausible given the ambiguous legality of many aspects of the medical marijuana market, such as large scale distribution.

Finally, if marijuana is a substitute for alcohol, as suggested by Anderson et al. (2013) and Crost and Rees (2013), increased access to marijuana could reduce crime since drinking increases arrests for both property crime (Carpenter, 2007) and violent crime (Carpenter and Dobkin, 2015). Ultimately, given the range of theoretical predictions, the impact of dispensaries on crime is an empirical question.

³ The correlation between marijuana use and non-drug crime, although positive, is generally small (Bennett et al., 2008) and largely inconclusive (Pedersen and Skardhamar, 2010; Farrington, 2010). Longitudinal studies that find clearer positive relationships, such as Green et al. (2010), cannot rule out that third factors affect both the commission of non-drug crime and marijuana use (Caulkins et al., 2012).

⁴ We describe dispensaries as quasi-legal for several reasons. First, although medical marijuana use is legal in California, large-scale production and sales are not. Second, while cooperatives are allowed under California law, localities can tightly regulate and, in some cases ban, their operations. Finally, under federal law, it remains illegal to manufacture, distribute or possess marijuana. Consequently, dispensaries have been targeted and raided by federal law enforcement.

⁵ In this case, dispensaries may affect the spatial distribution of crime rather than increase the overall level. Such a change has clear negative implications for dispensary neighbors, but may not have broader societal implications. The welfare impact of geographic redistribution of crime depends on such factors as heterogeneous effects (e.g., different costs across neighborhoods), multiplicative effects (if two crimes in one area impose higher costs than one crime in each of two areas) and economies of scale (if the impact of two crimes in one area is less costly than one crime in each of two areas).

To evaluate the claim that dispensaries attract or otherwise contribute to crime, we exploit a plausibly exogenous source of variation in dispensary activity – the temporary shutdown of medical marijuana dispensaries in the City of Los Angeles. On June 7, 2010, roughly 70% of the nearly 600 shops operating in the city of Los Angeles were ordered to close (Hoeffel, 2010a). The shutdown came after years of concern and indecision over how to handle the burgeoning medical marijuana dispensary business in the city. In September 2007, the city adopted an “Interim Control Ordinance” (ICO), placing a temporary moratorium on new dispensaries and requiring existing dispensaries to register with the city by November 13, 2007 (see Appendix Table 1 for a timeline).

Given the limited time that dispensaries had to submit a registration form along with the required city business tax registration certificate, registration was quite ad hoc. How the city would use the registrations was unclear and the market continued to grow for several years despite the moratorium. In January 2010, final regulations, including closure orders, were adopted. The new ordinance set the number of dispensaries in the city at 70. Dispensaries that had registered between September and November 2007 and had been operating legally since that time were grandfathered, meaning that the number of legal dispensaries in the city could exceed 70 in the short run.

Consistent with the seeming arbitrariness of the closure criteria, we find that dispensaries ordered to close and those allowed to remain open look similar on observable dimensions. In other words, closure orders were not correlated with observable dispensary characteristics (including the level of or trend in crime around specific dispensaries). We leverage the quasi-random nature of closure orders using a difference-in-differences framework and detailed data on exact dispensary locations and crime reports by city block to compare daily crime counts within varying radii (as small as 1/8 of a mile) around dispensaries ordered to close and those allowed to remain open. If dispensaries attract crime, then crime should decrease around dispensaries subject to closure relative to those allowed to remain open.⁶

Contrary to conventional wisdom, we find no evidence that closures decreased crime. Instead, we find a significant relative increase in crime around closed dispensaries. Like compliance with the closures orders themselves, which first was high, fell off with legal challenges and collapsed after a December 2010 injunction (Hoeffel, 2010b), the increase in crime is temporary. Relative crime rates return to normal within four weeks. The increase is also very local – the estimated crime effects decrease rapidly and monotonically with distance around dispensaries. Bearing in mind that our analysis captures short-run effects, these findings imply that closing medical marijuana dispensaries is unlikely to reduce crime. Although there may be a myriad of reasons to regulate the number of marijuana dispensaries, protection from crime is one that seems difficult to substantiate.

We perform several analyses to better understand how dispensary closures affect crime. First, we analyze crime by categories. We find that the increase in crime is strongest and most precise for the type of crime most plausibly deterred by the presence of bystanders – property crime and theft from vehicles, specifically. Second, we analyze the interaction between closures and neighborhood foot traffic. We proxy for foot traffic using Walk Scores, a proprietary measure that scores each address based on the walking time to amenities, population density, block length and the density of street intersections. We find that the magnitude of the crime effect varies in a non-linear way with Walk Scores. Specifically, the

⁶ An alternative question, not explicitly evaluated here, is how dispensaries affect crime relative to alternative business types (e.g., ice cream parlors, convenience stores or banks.) While we cannot speak to this directly, our analyses of temporary restaurant closures shed some light on this issue.

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