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Contact High

The External Effects of Retail Marijuana Establishments on House Prices

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Attitudes toward marijuana use in the United States have changed considerably in the past few decades. According to Gallup polls, the percentage of adults that support marijuana legalization has increased from only 12 percent in 1969 to 58 percent in 2015. State regulations have also shifted in response to these changing attitudes. Possession of small amounts of marijuana has been decriminalized in 21 states, and over the past two decades 20 states have legalized medical marijuana (MML). In the past four years alone, voters in four states (and Washington, D.C.) legalized recreational marijuana (RML), while voters in an additional four states (out of a possible five) voted to legalize recreational marijuana in the November 2016 elections.

Voters, policymakers, and economists are interested in the ways in which legalizing recreational marijuana affects communities. Despite the interest in the subject, the effects of RML are not well understood at this point because only a handful of states have legalized recreational marijuana, and

all of them within the past four years. Thus, RML remains a controversial issue at least in part because of a lack of data and empirical evidence about its effects. A primary concern of opponents is that legalizing retail marijuana will increase crime in local communities. For example, making recreational marijuana legal may lead to higher rates of driving under the influence, increased theft, and elevated crime rates. Another concern is that legalization will increase use and abuse of marijuana and other drugs, particularly among children. On the other hand, legalizing recreational marijuana may have positive effects on a community. RML may be accompanied by a decrease in alcohol use if marijuana is a substitute for alcohol. If the negative externalities of alcohol exceed those of marijuana, legalization may have a net positive effect. Additionally, by bringing black-market economic activity into legal markets, RML may even reduce drug-related crime. RML may also increase local governments' tax receipts, enabling governments to provide greater services. Thus, the net impact of RML on local communities remains an empirical question.

We add to the debate on RML's effect on local communities by examining the effects of retail marijuana stores on nearby house prices in Denver, Colorado. Analyzing house prices is a useful way to examine the issue because the net effects of RML are likely to be capitalized into house prices. Colorado presents an ideal environment to investigate the relationship between RML and house prices because that state legalized recreational sales beginning on January 1, 2014. Importantly, only existing medical marijuana facilities were allowed to sell recreational marijuana. This restriction allows us to examine the effect of what we refer to as "retail conversion"—a store's conversion from medical to retail marijuana sales—on neighboring house values in Denver.

Using publicly available data from Denver, we compare houses in close proximity to a retail conversion with those slightly farther away before and after recreational sales were legalized. Several features of RML in Denver help us identify the effect of a store's conversion on house prices. First, since only existing medical marijuana stores were allowed to conduct recreational sales, we avoid the potential endogeneity of store location. Given the opportunity, retail marijuana stores would likely choose to locate in certain areas on the basis of neighborhood characteristics that would also affect house prices. However, since only existing medical marijuana stores were allowed to sell retail marijuana, the siting decision was made *before* RML was implemented. Second, the fact that retail sales began at the start of 2014 gives us a clear time for our pretreatment and posttreatment periods—2013 and 2014, respectively. Third, since the list of stores approved for retail sales was not publicly released until the end of 2013, we can consider conversion to retail as an unexpected event. Finally, the data used in our analysis identify each property's neighborhood. This final factor allows us to control for both time-invariant and time-varying neighborhood characteristics that affect property values.

Our results indicate that retail conversion has a large positive effect on neighboring property values after controlling for property attributes and neighborhood characteristics. We find that after the law went into effect, single-family residences close to a retail conversion (within 0.1 miles) increased in value by approximately 8.4 percent relative to houses that are located slightly farther from a conversion (between 0.1 miles and 0.25 miles). A key finding is that the effect of retail

conversion is highly localized. Properties within 0.1 miles of a retail conversion experience a large increase in value; however, properties farther than 0.1 miles appear not to be affected by retail conversion. We also emphasize that the focus of our research is to identify and to quantify the external effects of retail conversions, not the underlying drivers of those effects. Potential explanations include, but are not limited to, a surge in housing demand spurred by marijuana-related employment growth; lower crime rates; and additional amenities locating in close proximity to retail conversions. Identifying and determining the underlying mechanism driving the relationship between retail conversions and house prices remains a puzzle that we leave to future research.

We are also able to examine and estimate the welfare effects of such retail conversions. The obvious direct effect of a retail conversion is the increase in asset value that accrues to an owner of a property, which we approximate to be almost \$27,000 for an average house within 0.1 miles of a conversion. These increases in house values, however, can also have a secondary effect that leads to an increase in property tax revenue, which can add significantly to the local government's revenue from marijuana sales. This potential increase in property tax revenue implies that the net effect of RML can be felt beyond the direct tax revenue from recreational sales.

A few caveats to our analysis are worth noting. First, we are measuring the effect of retail conversion on house prices, not the effect of the store per se. The stores already existed as medical marijuana facilities. Therefore, any effect of the store establishment on property values normally occurred before our study period. Second, our analysis focuses only on Denver, so one should be careful in generalizing our results to other urban areas. Finally, we are investigating relatively short-term effects of retail conversion on nearby house prices because our data extend to only two years after conversion. Our analysis is silent on longer-term effects of retail conversion.

NOTE

This research brief is based on James Conklin, Moussa Diop, and Herman Li, "Contact High: The External Effects of Retail Marijuana Establishments on House Prices," *Real Estate Economics*, September 2017, doi:10.1111/1540-6229.12220.