

The Effect of Recreational Marijuana Sales Legalization on Workplace Injuries: Evidence from Oregon*

Xiuming (Audrey) Dong[†]

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Abstract

Recreational marijuana will soon be available to nearly 1 in 4 Americans under state statutes. This paper estimates the impact of the recreational marijuana sales legalization (RML) on workplace injuries. Using restricted-use Workers' Compensation claims as a proxy for injuries, I exploit variation in the county level implementation of recreational marijuana law in Oregon. Local governments could implement bans if less than 45% voters in their jurisdiction voted in favor of RML. In order to identify the causal impact of RML, I first utilize Difference-in-Difference strategy to compare the injury rate before and after RML for high exposure counties to the same difference for low exposure counties. To relax the parallel trends assumption, I use a data-driven procedure, known as the Synthetic Control Method to construct suitable comparison groups. Lastly, I exploit variation in the vote share rule near the cutoff under a Regression Discontinuity Design. My estimates suggest workplace injury rate is approximately 5%-20% higher for treated relative to control counties post-RML. It also suggests that RML increases work injury costs roughly by \$7 to \$34 million (or \$5 to \$24 per capita) per year. Overall, my results suggest recreational marijuana sales legalization may come at the expense of workplace injury.

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[†]Dong: Department of Economics, Syracuse University, *xdong102@syr.edu*.