

State treatment center counts as a market response to substance use prevalence: investigating differences by profit status

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Background:

Two important events coincided in 2013:

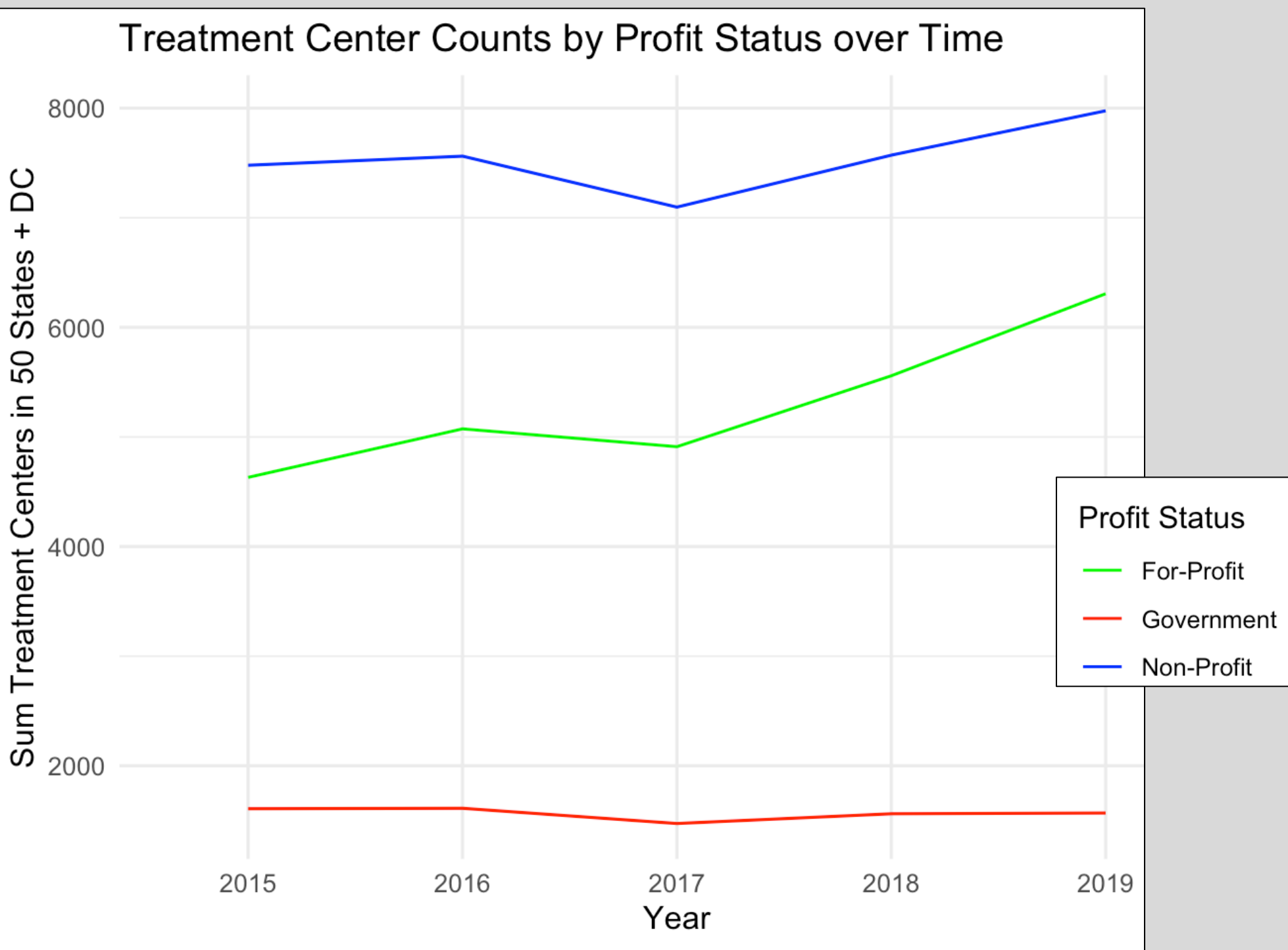
- The Affordable Care Act (ACA) increased insurance coverage of substance use disorders (SUD), and
- Overdose deaths skyrocketed, due largely to fentanyl

Since then, new SUD treatment centers have emerged across the U.S. but face criticism for profit-driven motives. This study investigates *whether the number of SUD treatment centers may be a market response*. Publicly available data from the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) form a panel dataset of 50 states and D.C. over five years (n = 255).



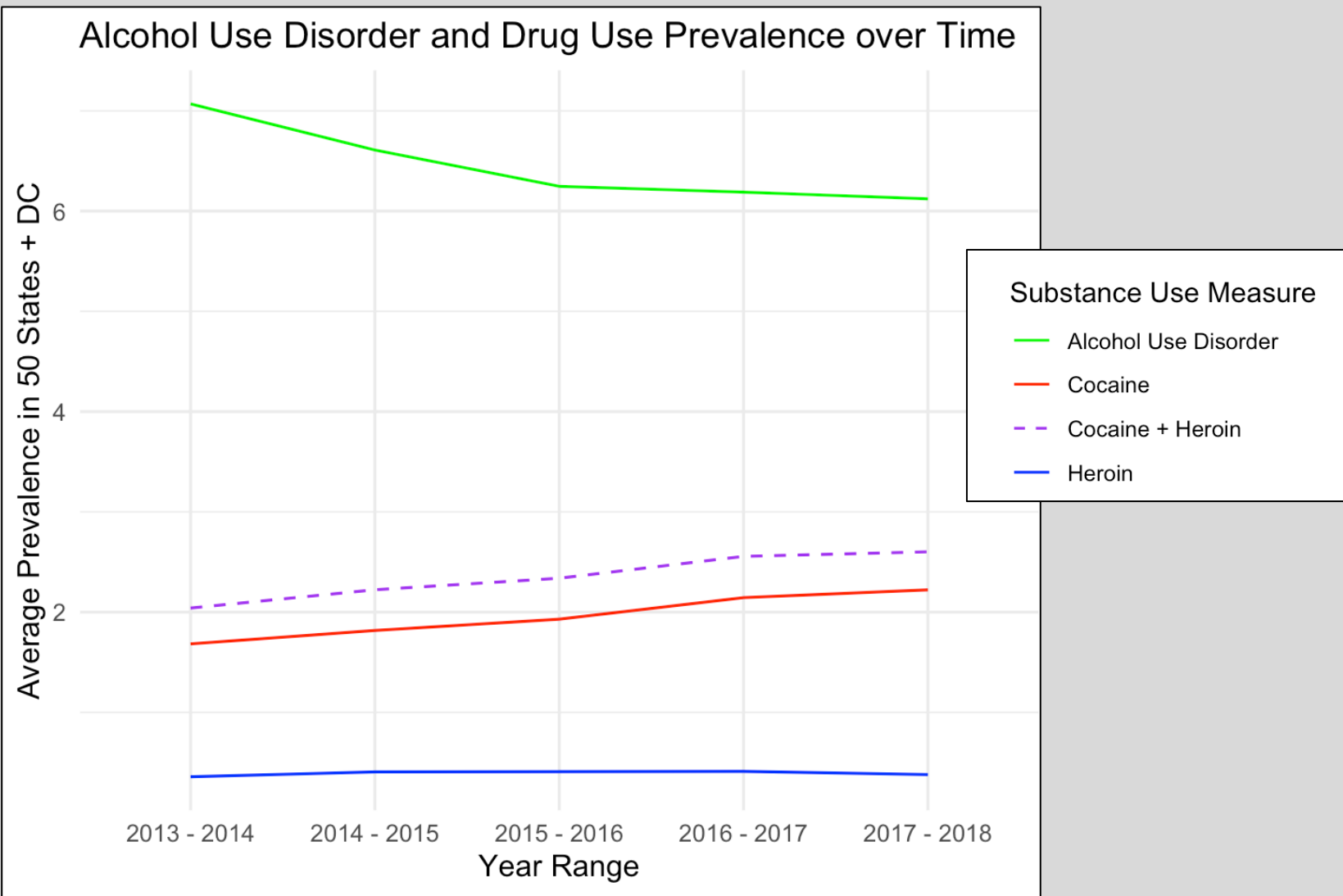
Supply Measure:

The National Survey on Substance Abuse Treatment Services (NSSATS) surveys treatment centers from all 50 United States and the District of Columbia. For-profit treatment center counts are increasing fastest.



Demand Measure:

SAMHSA’s National Survey on Drug Use and Health (NSDUH) surveys Americans about substance use and aggregates to two-year periods in each state. Measures of interest were adults reporting alcohol use disorder (AUD) criteria and illicit drug use (cocaine + heroin) in each state-year.



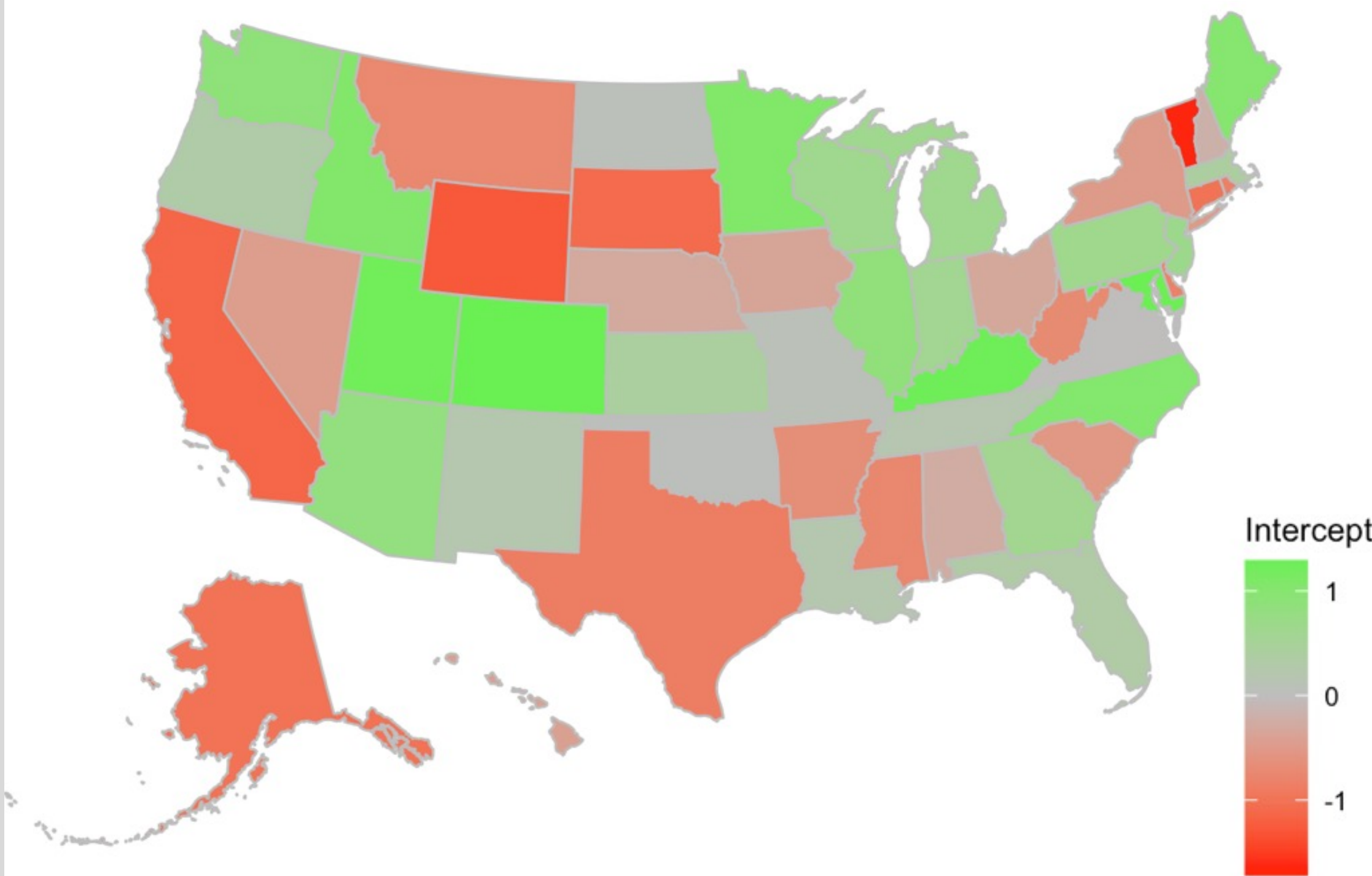
Methods:

Three negative binomial distributions modeled the relationship between NSDUH substance use prevalence and 1) for-profit, 2) non-profit, and 3) government NSSATS treatment center counts, after controlling for population and with random effects for year and state.

Demand measures were lagged because administrative barriers prohibit a treatment center from responding to demand in the same year it emerges.

Fixed Effects on For-Profit Negative Binomial Model			
	Estimate	Std. Error	P. value
Intercept	3.60710	0.21484	< 0.001
Lagged Drug Use	0.07862	0.03853	0.0413
Lagged AUD	-0.04868	0.02176	0.0253
Population (millions)	0.09900	0.01543	< 0.001

State Random Effects on For-Profit Model



Findings:

- For-profit treatment center counts are **positively associated with drug use**, indicating a potential market response to the “demand” of drug use post-ACA.
- For-profit treatment center counts are **negatively associated with AUD**, suggesting this uptick is not a market response to AUD rates.
- Random effects show surprising variation across states. Notably, California shows a negative random effect although it has been widely criticized for its for-profit SUD treatment industry

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github.com/baileywellen/sud_treatment_profitstatus