

# ONCE UPON A TIME IN CALIFORNIA

**TITLE OF THESIS: “HOW MUCH SHOULD YOU FINE PEOPLE FOR WATERING THEIR LAWNS?”**

**RUIXUE LI**

**ADVISOR: LUDOVICA GAZZE**

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# BACKGROUND

- California has been having water issues
- So one city made it illegal for people to use water...
- ...during certain times of day and on certain days
- And they recently started giving out fines automatically based on electronic water meter data



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# **BACKGROUND**

- **Urban labs partnered with the city to run a RCT to implement and evaluate the the program**
- **Research question: what's the best way to implement the policy?**

# EXPERIMENT

- **Over 100,000 households**
- **12 groups**
- **9 treatment groups: 3 different amounts of fine, 3 different levels of threshold**
- **3 control groups: receive visual inspection, 3 different amounts of fine**
- **July to September, 2018**

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# EXPERIMENT

Visual Inspection	300 gal/hr	500 gal/hr	700 gal/hr
100%	100%	100%	100%
50%	50%	50%	50%
25%	25%	25%	25%

# DATA

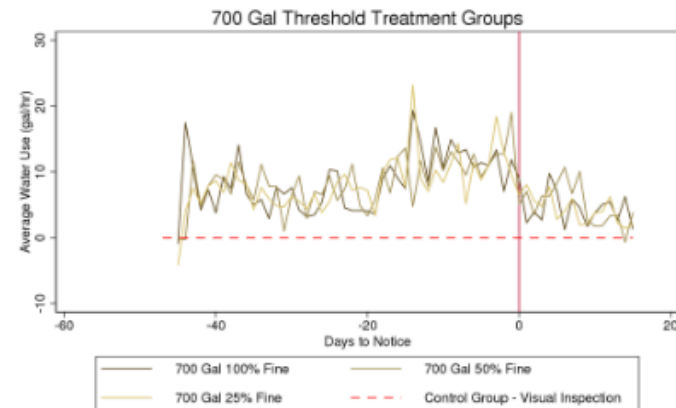
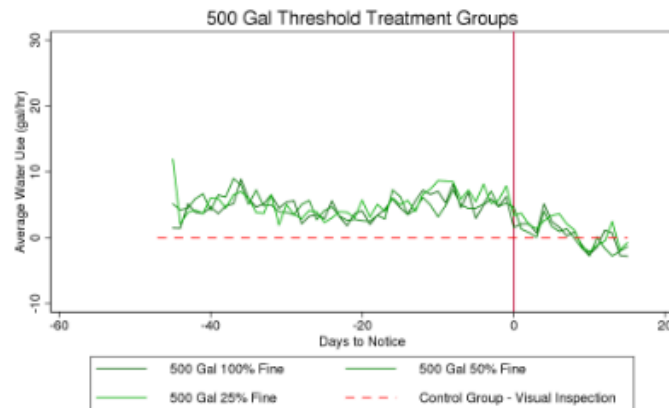
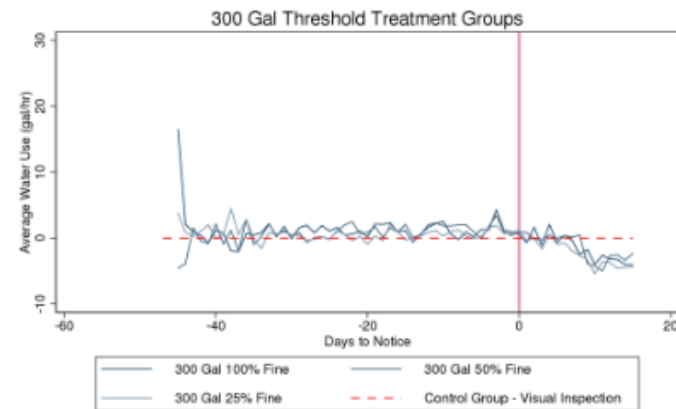
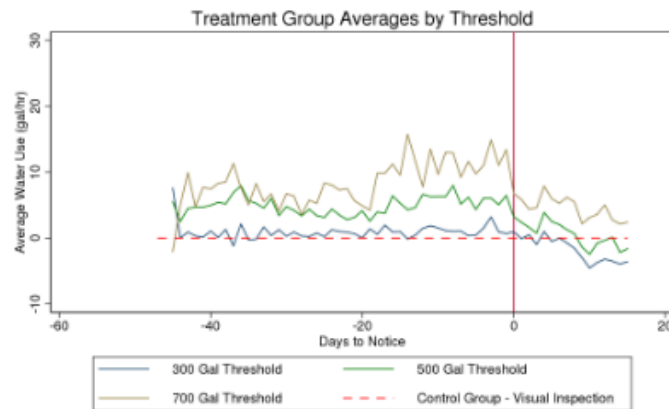
- Hourly household level water used (gal/hr)
- Amount and date of the fines



# SOME RESULTS

## Event Study for Average Hourly Water Use during Prohibited Hours

July 17th 2018 to August 2nd 2018



# **SOME TAKEAWAYS**

- **Hire enough software engineers (or MACSS students)**
- **...and make sure that they test their code**
- **Running an experiment or implementing a policy is hard**