# Wildfires and the Resilience of Commercial Activity

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Discussant Chris Cunningham – Federal Reserve Bank of Atlanta

# Data

- DataAxle (InfoUSA) tracks establishments over time and space
- CoStar tracks commercial property sales and rents
- SafeGraph foot traffic (track people from their home to establishment using their phone)
- Burn data by location and time from CA and smoke plumes from NOAA.

# Specification:

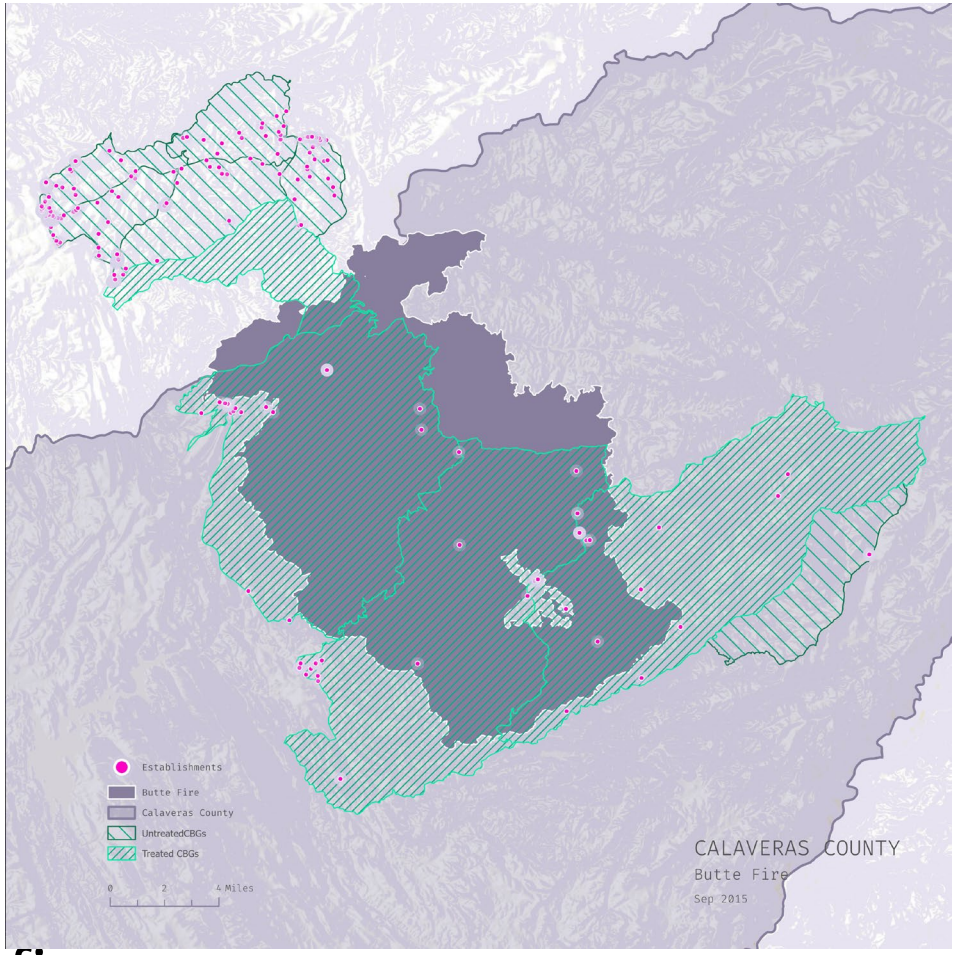
$$estab_{cft} = \beta_1 \times CBGTreat_{cft} + \beta_2 \times CBGTreatPost_{cft} + \delta_{ft} + \alpha_{cf} + \epsilon_{cft}$$

Number of establishments

Burned CBG

Treatment effect

Unburned abutting CBG




- Baseline control group is abutting un-burned fire zones.
- Perhaps lead with the CBGs in similar but un-burned fire zones?
- In the case of smoke or loss of homes and thus a smaller customer-shed?

# Findings

- There is a reduction is establishments of 2-3%, 2-3 years after the fire.
- Results robust to alternative specifications
- Establishments appear to recover after 4 years

# Possible confounders

- Fire department resources may be deployed to protect denser, more valuable commercial establishments?
- Denser settlements will have less brush around them, perhaps tend to be the bottoms of valleys and thus less likely to burn?
- Perhaps replicate with OLS (avoid parametrizing the error)?
- Does fire reduce the chance of subsequent fire?

# The impact of 2019 changes to Texas' flood disclosure requirements on house prices

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# Overview

- Texas law change requiring seller to inform buyers if they’re in a 500 hundred-year flood zone. Previously only 100-year zones had to disclose (and had to purchase flood insurance)
- Newly disclosed 500-year zone experience a 4.3% relative price decline
- Home in 100-year zone actually appreciate faster?
- Many more homes in the 500-year zone purchase flood insurance

# Data

- 2 million home sales with flood zone identified at time of transaction
- 2017-2022 (omitting 2012-2016)
- Number of insurance policies active
- FEMA Flood maps

# Specification:

$$Y_i = \alpha_1 \, Post_i + \gamma \, Treatment_i + \theta \, Post_i * Treatment_i + \beta X_i + \mu + \delta + \epsilon_i,$$

ln(Sales price) and weeks on market

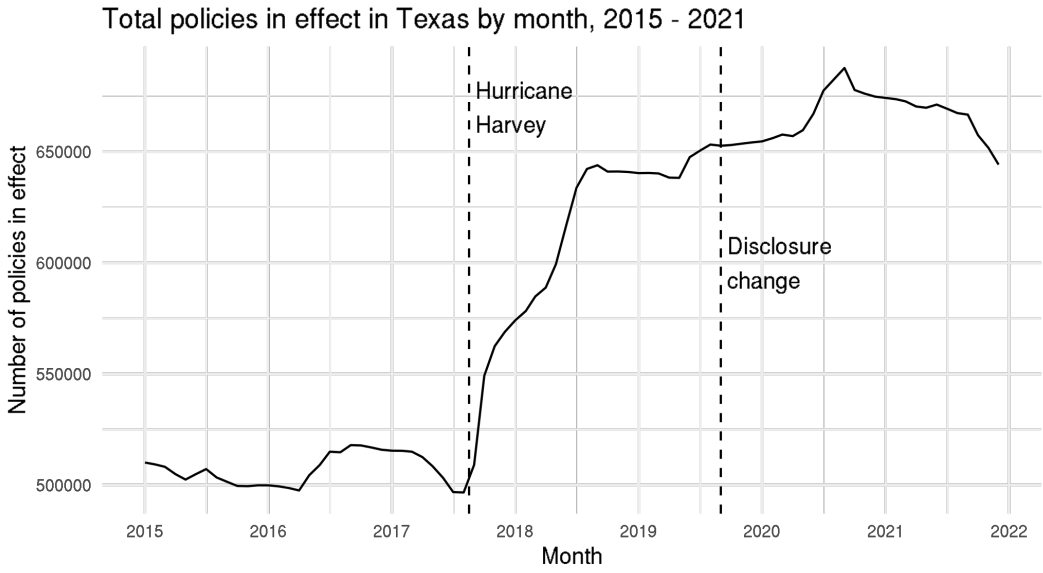
500-year zone or 100-year or claim status

treatment effect

- Maybe run separate regressions 500 vs 100, 500 vs negligible, negligible with claims vs not with claims?
- 2M observations… perhaps house fixed effects?

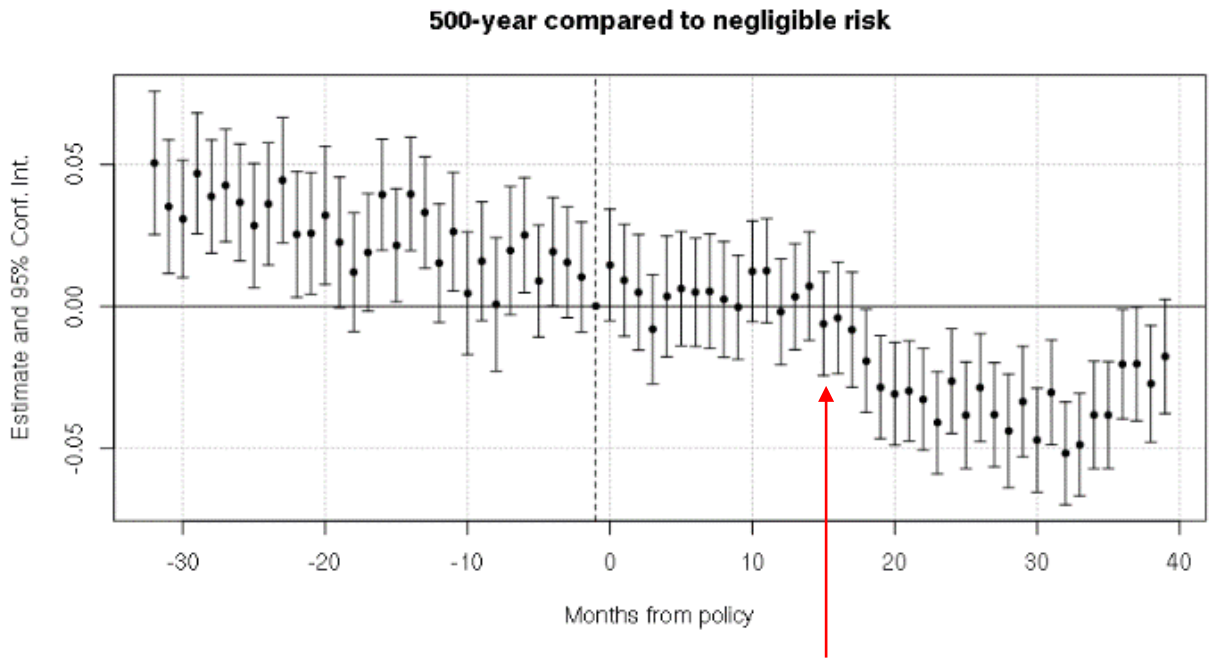
# Possible confounders?

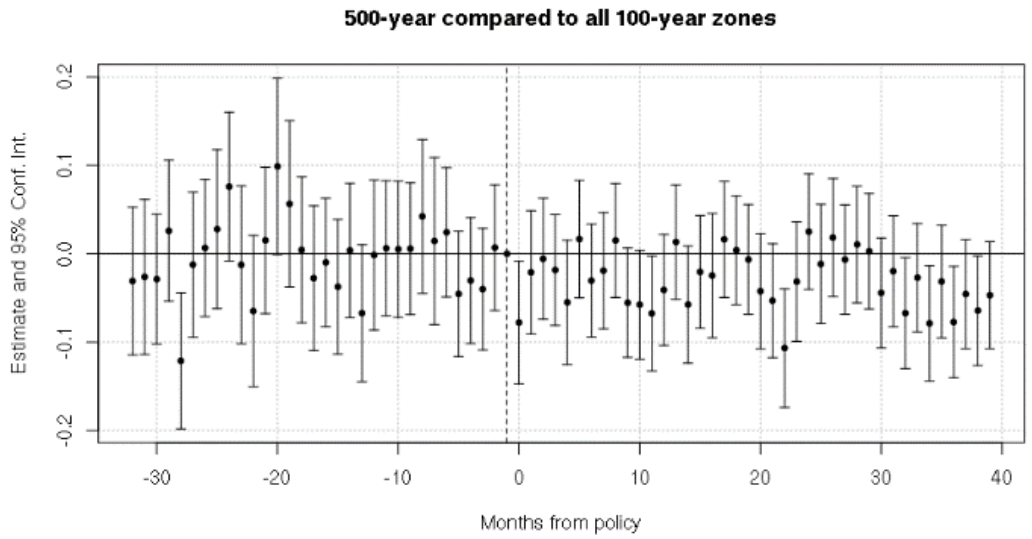
- Changing FEMA maps? Does excluding changed zones resolve the problem?
- Can we isolate the disclosure effect (2019) from the shock of Hurricane Harvey (2017)
- What about the price of insurance?
  - Is FEMA modeling climate risk?



# Why might 100-year zones appreciate faster?

- Larger and less-risky risk pool may lower 100 year premiums?




Redfin disclosures?