Occupy Wall Street and Local Outcomes
How does the message of a national movement travel in an online era?

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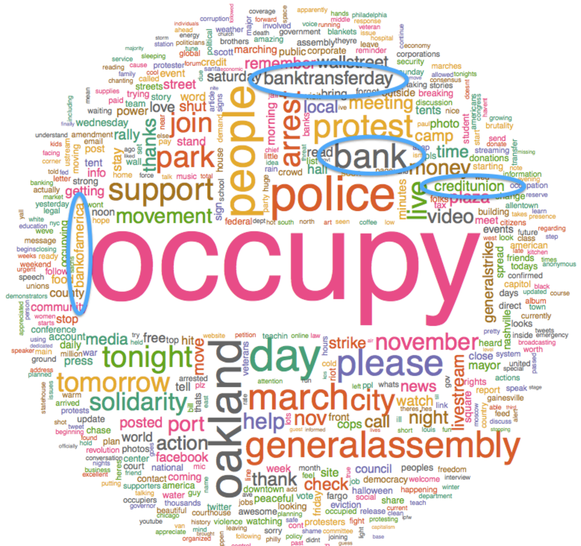
Bank Transfer Day

- Bank Transfer Day (November 5, 2011) was a consumer activism initiative encouraging individuals to move their money from big banks to local credit unions. In their December newsletter the Credit Union National Association claimed that more than 700,000 consumers opened new accounts at credit unions between late September and early November. **Can we attribute these 700,000 new members to the presence of local Occupy Movements?**



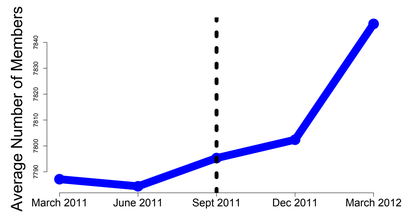
- Textual evidence from Twitter suggests that Bank Transfer Day was an important event for localized Occupy Movements, but Occupy may have influenced local outcomes in a variety of ways:
  - A country-level effect.
  - Non-geographic (e.g. online) networks.
  - Local (geographically bounded) networks.
- We test the effect of **local networks** by looking at the effect of local Occupy Movements on credit union membership using a **credit-union-level** analysis of an original dataset.

Did the Occupy Movement influence local outcomes through local networks?

We explore whether the Occupy Movement influenced local outcomes through the presence of localized movements. Using a unique dataset, we find that local occupy movements had no effect on the members gained by local credit unions between March 2011 and March 2012, though we recover some evidence of heterogenous treatment effects.

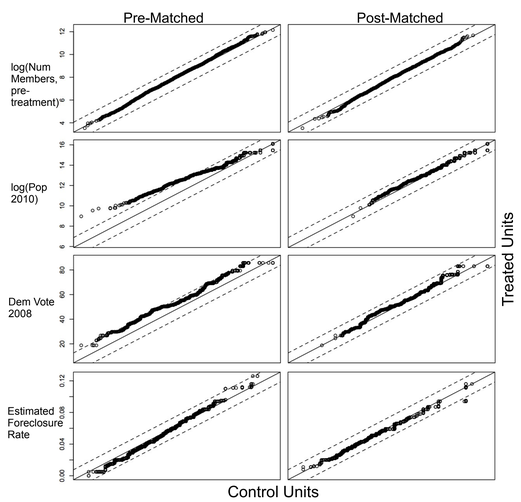
Dataset

- **Dependent Variable:** Credit Union Membership, as reported by the National Credit Union Administration.
  - Python plus selenium web-driver to scrape membership and location information for $\sim$ 6,000 US credit unions.



- **Independent Variable:** Presence of a local Occupy movement in the same city or town.
  - Data from the "Occupy Directory" (`http://directory.occupy.net`)

Dataset Balance

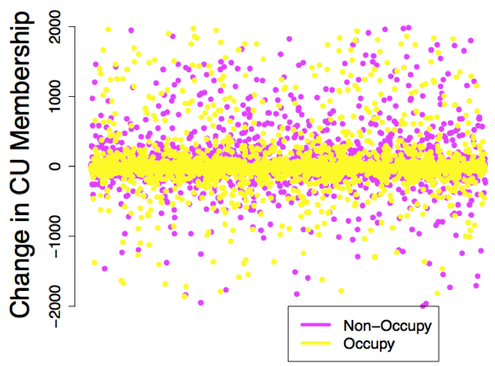


Estimation: Overall Null Effect

- More individuals joined credit unions but the increases were **not** concentrated in either places that had local Occupy Movements.
- We check this by running a lagged dependent variable model on a matched dataset:

$$log_num_mem_{icjt} = \alpha + \delta had_occupy_{ct} + \beta_1 log_num_mem_{icjt-1} + \beta_2 X_j' + \epsilon_{icjt}$$

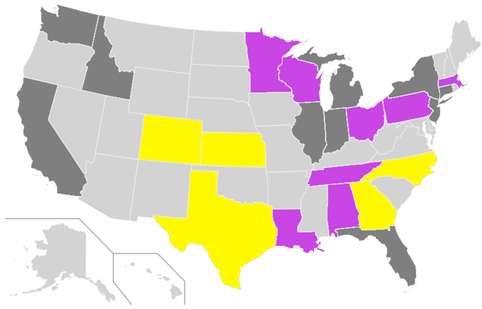
- Where X_j' includes:
  - The log of the population of the county in 2010
  - The democratic vote share of the county in 2008
  - The estimated foreclosure rate in the county in 2008



- We matched on the following covariates using CEM:
  - The variables in X_j'
  - The lagged dependent variable (log of the number of members in the pre-treatment period)
- We also test this using a fixed effects model, and many matching specifications and find the same thing.

Conditional Effects?

- **Geography**
  - Looking within states we find some cases (in yellow) where having an occupy movement had a positive effect on credit union membership and others where the effect was negative (in purple). Others (dark gray) had an effect indistinguishable from zero.



  - In Texas we estimate that credit unions received a **1.1% increase** in membership if their town had an occupy movement. This translates to an increase of 93 members for an average credit union in a city with an Occupy Movement.
  - In contrast, in Massachusetts, we estimate that credit unions received a **5.0% decrease** in membership if their town had an occupy movement. This translates into a decrease of 87 members for an average credit union in a city with an Occupy Movement.
- **Other**
  - Foreclosure rates: Significant in some models
  - Credit Union sizes: Interaction model, no effects

Going Forward ...

- Perhaps local level is important, but depends strongly on the commitment of the local Occupy Movement to Bank Transfer Day.
- This could be investigated using textual analysis of minutes from "General Assemblies"