

# Renovating Smaller Central Business Districts: The Impact of Main Street Revitalization on Rural Job Growth

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# Introduction

- Downtown revitalization is not only for large metropolitan economies or urban agglomerations (Faulk, 2006; Robertson, 1999).
- The Main Street Program is an approach that many small towns have adopted as a means of restoring their walkable downtown retail districts.
- This paper attempts to estimate the causal impact of Main Street Program adoption on economic vitality (measured in terms of job creation).

## In This Paper:

I use a difference-in-differences design to estimate the program's causal impact on growth in the downtown job market—jobs in and adjacent to the downtown (Main Street) retail district—in communities that adopted the Main Street Program (compared to those communities that did not).



# Background

- The Main Street Program (MSP) was launched in 1977 by the National Trust for Historic Preservation to assist communities in revitalizing their traditional and historic commercial districts.
- The MSP is active in over 40 states and has been adopted by 1,500+ communities.
- The MSP is relatively small-scale in its economic development footprint; its intention is to improve the economic vitality of a **localized retail corridor** rather than the whole community (much less, an entire regional economy).
- Walkable retail corridors in metropolitan communities are allowed to participate in the MSP (e.g., Dearborn, Michigan or “Historic King Drive” in downtown Milwaukee).
- However, the majority of MSP participants are smaller communities in non-metropolitan counties with a pre-automobile-era rural town center (which are the focus of this paper).



# The Main Street Program

- The Main Street Program consists of four “transformation strategies” which communities can implement in order to leverage their walkable retail corridor(s) as a downtown revitalization asset.
- Design, promotion, and organization can each be directly influenced by the efforts of MSP directors and their staff/volunteers.
- Economic vitality is something that inherently reflects the reaction by a third party (the private sector) in response to the community’s adoption of the program.
- Empirical analysis of this component of the MSP is absent from literature surrounding rural & small-town economic revitalization



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# Research Questions

Does adopting the Main Street Program significantly impact job creation in participating communities? If so, how large is the impact, and in what type of communities is it strongest?

- This paper uses a quasi-experimental design wherein the “treatment” is a community’s adoption of the Main Street Program
- In this paper, my results correspond with my estimate of the average “treatment” effect (ATE).
- Future drafts of the paper will dissect the ATE into *heterogeneous* treatment effects, which will allow me to identify how well the program work in specific categories of communities (e.g., college towns, county seats, former “company towns”).



# Hypothesized Mechanism

- As Main Street becomes a more attractive and vibrant place, it is reasonable to expect that firms will have an incentive to locate there, while existing businesses along the corridor will equally be motivated to grow.
- I hypothesize that improvements to Main Street as a retail corridor will create opportunities for new and existing businesses as downtown becomes a “third place” (Oldenburg and Brissett, 1982) for residents to spend time outside of their homes and workplaces.
- Even if this does not result in significant **municipality-level net job creation**, a newly-thriving downtown should nonetheless spatially redistribute job activity toward the town center.



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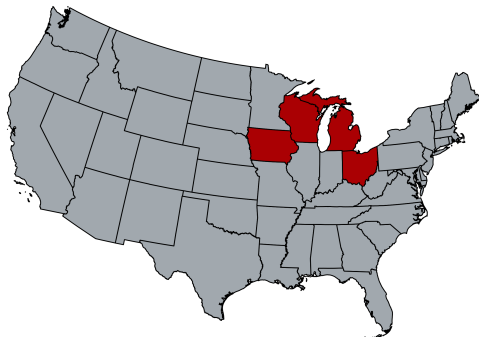
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# Data

- **Primary data source:** ESRI “Business Locations” dataset (extracted from Infogroup<sup>1</sup> longitudinal establishments dataset)
- **Control variables:** derived from Census (not integrated into model at this time)
- **States in analysis:** Iowa<sup>2</sup>, Michigan, Ohio, & Wisconsin (each have MSP and a strong spatial distribution of small towns across USDA ERS “rural-urban continuum” )



<sup>1</sup> Infogroup Inc. (n.d.). Historical U.S. Business Database, Archive Years 1997-2017 [electronic resource]. Infogroup Inc., Papillion, NE.

<sup>2</sup> The current draft of this paper only presents results for the state Iowa.



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## Research Design:

- Difference-in-differences approach—comparing changes in job growth between communities that implemented the Main Street Program and those that did not.
- **Identifying assumption:** communities within same commuting zone (CZ) have roughly parallel labor market trends in job creation.
- Community and year fixed effects; standard errors clustered by CZ



# Job Count Aggregation Strategy

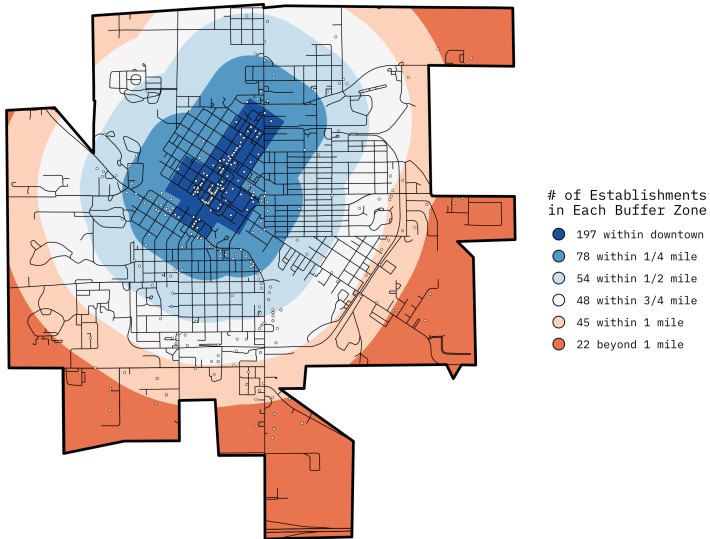
Geographic universe is composed of municipalities that:

- has a 2010 Census population between 750 and 35,000
  - are located in non-metropolitan<sup>3</sup> county
  - had a 1940 Census population of at least 1,000 (indicates that a community had established a downtown business district prior to automobile era)
- 
- Establishments are geocoded by latitude/longitude.
  - Jobs were counted by establishment and aggregated by distance-interval spatial buffer zones (see image on following slide)
  - Jobs within  $\frac{1}{8}$  mile of the central business districts were counted as “downtown jobs”
  - CBD district manually geocoded; multiple sensitivity analyses planned to gauge robustness

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<sup>3</sup>Exception: municipalities in metro areas of fewer than 250,000 population (e.g., Sheboygan Falls, WI but *not* Sheboygan, WI)





Example of how annual establishment counts were aggregated by distance buffer (Charles City, Iowa in 2005)

# Model Specification

$$Y_{ict} = \beta MSP_i * RelativeYear_{t-3...t+5} + \gamma_{ct} + \phi_i + \epsilon_{ict}$$

- $Y_{ict}$  is the total number of *downtown jobs* in community  $i$  in year  $t$  and commuting zone  $c$ ,
- $\gamma_t$  are calendar year fixed-effects;  $\phi_i$  are community fixed-effects
- $MSP_{it}$  indicates “treatment” (i.e., whether a community has adopted the Main Street Program *at any time*, regardless of calendar year)
- Typical difference-in-differences design uses “post” treatment dummy variable. In this paper, I interact a “relative year” dummy—ranging from 3 years prior to 5 years after treatment—with treatment dummy
- **Parameter of interest** is  $\beta$ , which should capture the impact of Main Street Program adoption on total number of jobs



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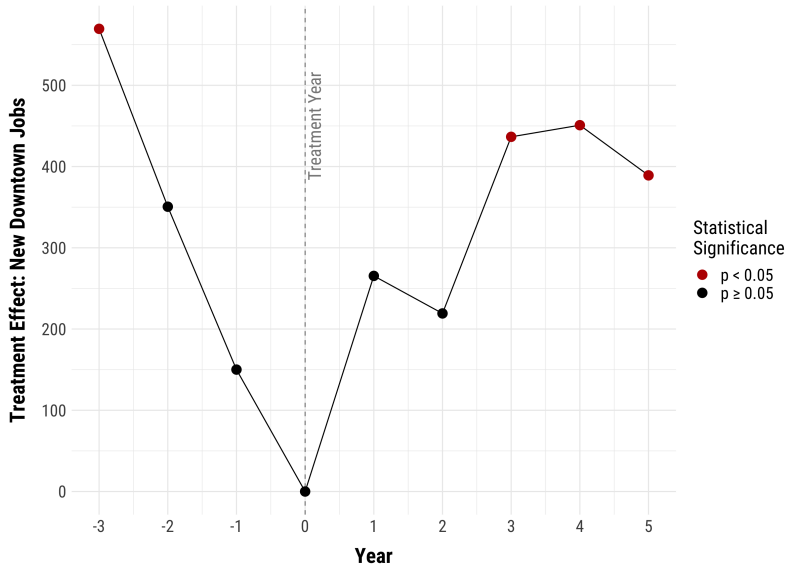
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# Preliminary Results

## Jobs Added in Downtown Relative to Main Street Program Adoption





# Preliminary Results

	<i>Dependent variable:</i>			
	Downtown Jobs			
	(1)	(2)	(3)	(4)
Treated	1,219.78*** (293.27)	1,255.17*** (296.95)	964.19*** (264.67)	929.05*** (260.26)
Treated * 3 yrs. before	598.09 (414.74)	553.10 (420.76)	598.09*** (185.90)	569.53*** (184.13)
Treated * 2 yrs. before	383.67 (414.74)	343.75 (420.66)	383.67** (185.90)	350.57* (184.08)
Treated * 1 yr. before	170.08 (414.74)	137.97 (421.07)	170.08 (185.90)	150.08 (184.26)
Treated * 1 yr. after	303.70 (414.74)	277.64 (420.43)	303.70 (185.90)	265.40 (183.99)
Treated * 2 yrs. after	263.02 (414.74)	238.88 (419.70)	263.02 (185.90)	219.20 (183.66)
Treated * 3 yrs. after	490.16 (414.74)	426.84 (420.29)	490.16*** (185.90)	436.59** (183.92)
Treated * 4 yrs. after	519.38 (414.74)	451.68 (419.44)	519.38*** (185.90)	450.92** (183.56)
Treated * 5 yrs. after	460.17 (414.74)	391.07 (420.83)	460.17** (185.90)	389.14** (184.20)
Constant	567.34*** (143.79)	-0.99 (406.72)	223.83 (148.06)	-23.47 (248.94)
Year Fixed effects?	No	Yes	No	Yes
Community Fixed effects?	No	No	Yes	Yes
Observations	936	936	936	936
R <sup>2</sup>	0.22	0.24	0.86	0.87

Note:

\* p<0.1; \*\* p<0.05; \*\*\* p<0.01

## Preliminary Discussion

- Inclusion of Michigan, Ohio, and Wisconsin will increase statistical power
- It appears that participating in the Main Street Program leads to a significant increase in downtown jobs that begins around three years after program adoption.
- Unfortunately, it also appears that the parallel trends assumption does not hold, as pre-adoption treatment effect is statistically significant (and high in magnitude)
- It is **possible** that adoption of the MSP is more likely when communities experience a sudden drop in downtown jobs.



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# Policy Implications

- Most peer-reviewed evaluations of place-based policies and economic development strategies use larger, more data-rich cities and regions as a study area.
- The MSP as an organization typically does not have a very strong data-recording capacity. Many of the small towns and cities that participate in the Main Street Program fall outside of larger, data-rich metropolitan areas.
- This paper represents—to my knowledge—the first empirical test of the Main Street Program's **causal** impact on job creation (or of any operationalization of local economic vitality)
- Focus on the *heterogeneous treatment effect* of the MSP will inform practitioners as to the types of communities that benefit more from adopting the program.



# Thank You!

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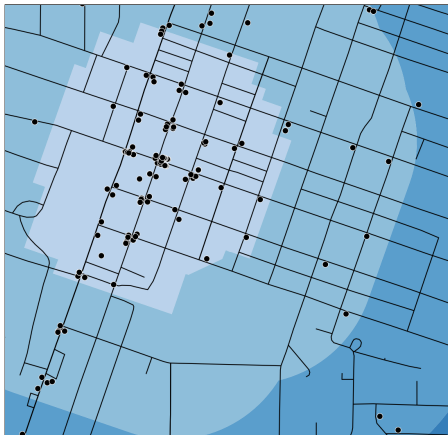
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# Geocoding the "Central Business District"



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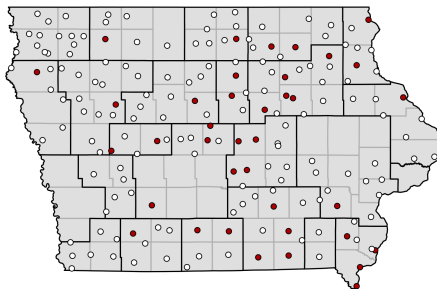
# Geocoding the Central Business District

- I used a combination of Google Earth aerial imagery & Google Street View to identify the rough cutoff around dense, walkable (pre-automobile) downtown districts
- **Weakness:** *subjective* to author's perceptions of the fuzzy break in the built environment between CBD and non-CBD
- **Remedies:**
  - *Sensitivity checks:* test whether minor adjustments inward or outward from CBD result in drastic changes to findings
  - *WalkScore:* randomly sample addresses inside and outside CBD, query their Walk Score (a proprietary real estate metric) to see if addresses inside CBD consistently rank higher
  - *External audits:* send geocoded CBD maps to Main Street Program directors and ask how closely they match reality



# Matching Strategy

- Problem: how to match treated & untreated observations with staggered “treatment year” and possibility of multiple treated observations per commute zone (CZ)
- Solution: a “stacked” panel wherein each untreated observation is matched separately with all treated observations within its CZ.
- Untreated observation’s *relative years* are centered around the MSP adoption year of the treated observation it is matched with.



Main Street Program Status ○ Control Group ● Treatment Group

## For Iowa's 178 total observations:

- 104 unique 9-year stretches in which an untreated observation was matched with a treated observation within its CZ
- 14 unique treated observations
- 77 unique untreated observations (27 times an untreated observation was “stacked”)



# Thanks again!

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