

# Municipal Annexation in Post-War Suburbia and the Evolution of Urban Land Value, 1945 – 1969

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# Overview

The big question:

- Does urban land's value respond to municipal incorporation/annexation?

# Motivation

- Much of the land surrounding large American cities before WWII was unincorporated
  - Did not fall under the corporate control of a municipality
  - Public services and infrastructure investments were minimal in many unincorporated
- Rapid post-WWII suburbanization changed all this
  - Pre-existing suburbs annexed new land
  - New suburbs were incorporated areas
- Did municipal incorporation influence the value of urban land value, particularly through the provision of new local public services?
  - Heterogeneous effects based on the “type” of suburb?
  - ... “type” of land use?

# Motivation

- Surprisingly, very little research on this subject
  - Schönholzer & Zhang (2017) suggest municipal annexation positively influences home values
    - Data is limited to the 1988-2013 period (surrounding L.A.)
    - Most unincorporated areas at this time received robust public services from neighboring municipalities &/or county
- But what about the early post-WWII era when suburbs grew rapidly by annexing agricultural land?
  - Should be a sharper jump in public service provision
- **Goal:** Investigate unincorporated land value's response to municipal incorporation/annexation over the 1945-69 period
  - Focus on spatially fine variation at or near newly-formed corporate boundaries

# Data

- Study area: Suburban Cook Co., IL (i.e., suburban Chicago)
- Major sources of data:
  - Municipal incorporation (dates & geography):
    - Cook County Municipal Incorporation Inventory (MII)
    - Digitizes the (hopefully) complete history of municipal incorporation/annexation in Cook Co.
  - Land values, 1945-69:
    - *Olcott's Blue Books*, 1945-69
    - Provides annual market value assessments of land (i.e., excluding improvements)

# Data - Land Values

Figure 1: Olcott's Blue Book, '39

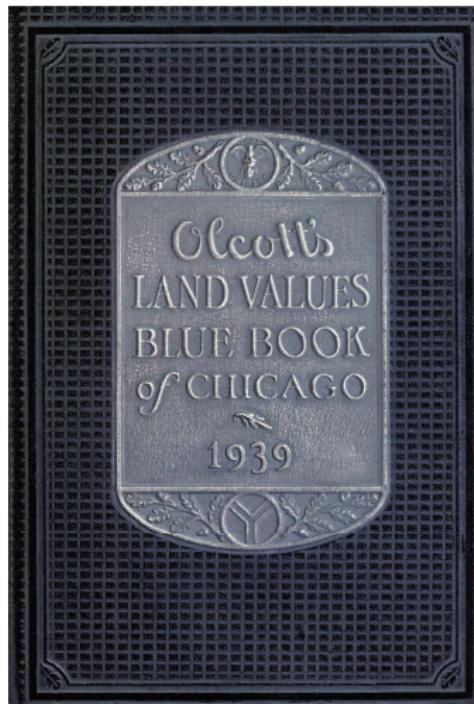
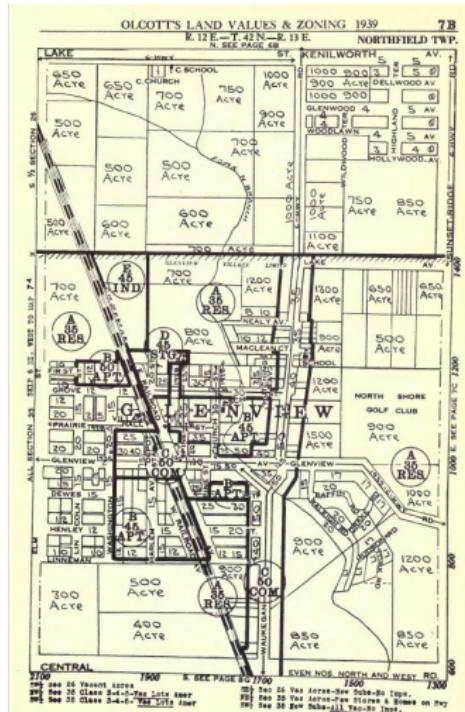
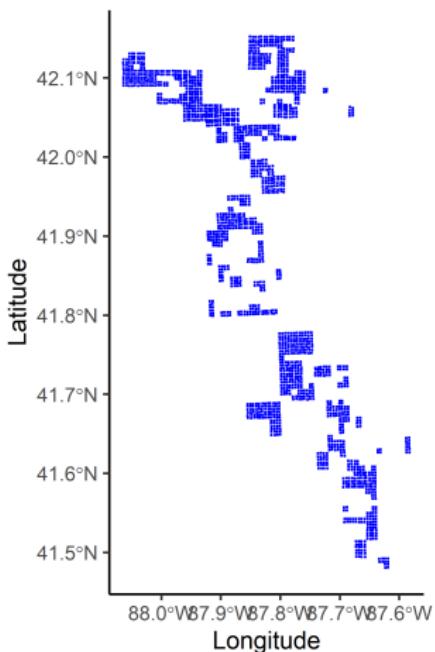


Figure 2: Olcott's Blue Book, '39



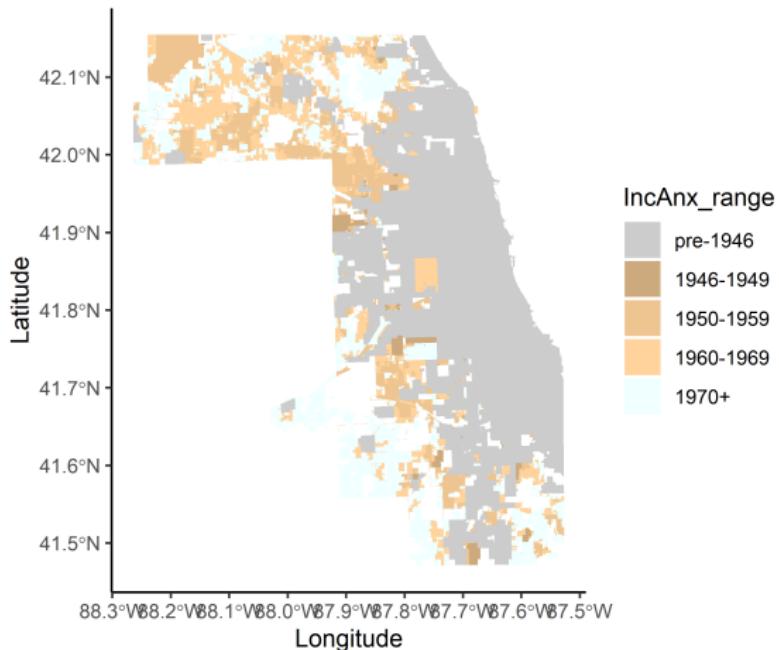
# Data

Figure 3: Blue Book Points



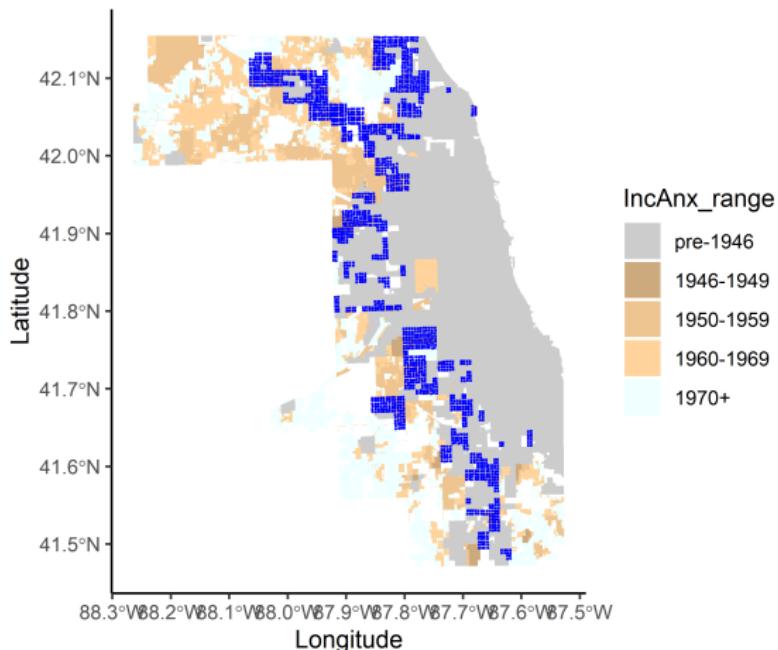
# Data

Figure 4: Municipal Inc/Anx



# Data

Figure 5: Municipal Inc/Anx + Blue Book Points



## Empirical Design - Baseline Model (TWFF)

A simple two-way fixed-effect model...

For point  $i$  in year  $t$ , the relationship between assignment to an incorporated municipality,  $D_{it}$ , and a log property value per sq. ft.,  $Inv_{it}$ , is modeled as:

$$Inv_{it} = \beta_1 D_{it} + \alpha_t + \alpha_i + \epsilon_{it}$$

where  $\beta_1$  can be interpreted as the DID estimator

$\beta_1 = 0.112^{***}$

se = 0.018

N = 4,278

## Empirical Design - Event Study

Is there heterogeneity in the impacts?

Define  $k_i$  as the year that the  $i^{th}$  point is incorporated/annexed

$$Inv_{it} = \sum_{j=-10}^{-2} \beta_j \mathbf{1}\{j = t - k_i\} + \sum_{j=0}^{10} \beta_j \mathbf{1}\{j = t - k_i\} + \alpha_t + \alpha_i + \epsilon_{it}$$

# Results

Figure 6: Event Study - Log(value per Sq.Ft., \$2020)

