

Discussion of **“When Cities Grow”** by Sun Kyoung Lee

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June 2022

The views expressed here are those of the authors and do not necessarily represent those of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

Summary of the paper

Extraordinary data effort

Harmonizing, linking & *georeferencing* 1870–1940 census microdata

Zoning and *subway* construction

Real estate transactions

Job locations and commuting patterns, etc.

Three distinct research questions

Does zoning cause segregation?

Does transit cause segregation?

Can you move to opportunity?

This paper's comparative advantages

The **most granular data** on neighborhood dynamics in historical NYC.

High-frequency neighborhood dynamics from housing prices.

Data on **multiple policies** — zoning and subways.

Rich detail on individuals' location and labor market outcomes over time.

Bottom line: **Great foundation** for an important research agenda.

Does zoning cause segregation?

Does transit cause segregation?

Good **historical** and **theoretical** reasons to believe both.

Given this, paper should advance **measurement**, e.g.:

- Evidence of **channels** omitted from standard models.

- Estimates of the **comparative strength** of different channels.

- Causal identification** from knowledge about quasi-experiments.

Developing and **refining paper's contribution** should be a **top priority**.

Historical context

Both zoning and transit responding to rapidly changing demographics.

e.g., Zoning (Shertzer, Twinam, Walsh, RSUE 2022):

“Comprehensive zoning is inseverable from the context [...] of the Supreme Court’s decision to void racial zoning ordinances, leaving cities with only **ostensibly race-neutral tools for controlling the spatial dispersion of development and demographic groups.**”

STW: Evidence from Chicago, Seattle that “black neighborhoods were drawn into districts allowing higher density development.”

Theory

Transit can **increase segregation** (LeRoy & Sonstelie JUE 1983; Akbar wp 2020).

Both zoning & transit **improve the amenity** of some neighborhoods versus others.

Simplest choice model can generate the prediction that this will increase sorting (e.g., Lee & Lin, REStud 2018).

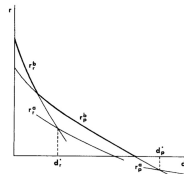
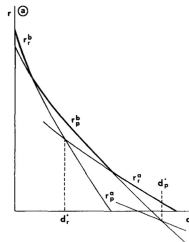


FIG. 2. Paradise.



Some possible directions that might sharpen contribution

1. Better causal inference.
2. Distinguishing among mechanisms.
3. Moving beyond simple models of tipping to incorporate expectations, housing, white responses.

(Splitting the paper will help develop these contributions more fully.)

1. Causal inference

Causal inference challenge: Zoning and transit **aren't allocated randomly**.

This paper: Neighborhood fixed effects and city time trends.

Suggestions

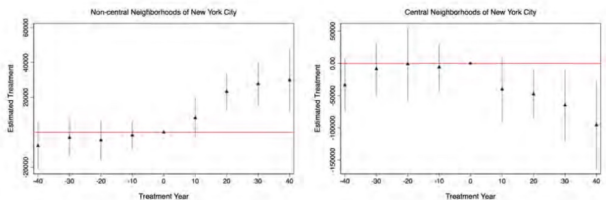
Use granularity and pre-trends to improve matching or balancing.

Small-area \times time fixed effects.

Matching or IV based on planned routes (Heilmann, RSUE 2018).

2. Heterogeneous effects of transit by centrality

Figure 7: Population Changes



Transit **decreases** (increases) nbhd population in **core** (periphery).

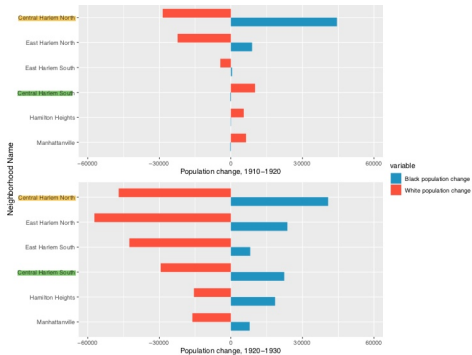
Brinkman & Lin (2022): Disamenities versus access benefits.

You (AEJ: App, 2021); Heblich et al. (QJE 2020): Production scale effects.

Suggestion: You have the data necessary to distinguish reduced residential demand vs. increased commercial demand.

3. Dynamics of racial tipping

Racial transitions, 1910–1920 & 1920–1930



Bai & Perron (2018) structural break in housing prices, 1917



How (and when) did Harlem become Black?

Osofsky (1966): Rural village → middle-class whites → segregated Blacks.

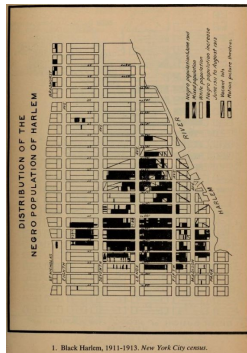
Whites responded with businessmen's organizations, restrictive covenants, neighborhood improvement groups ...

Subway expansion in 1890s failed to arrive.
Speculative collapse in 1904 & initiative of Black realtors opened Harlem.

Suggestions

Incorporate other margins w/ transit, zoning.

Use historical knowledge and granular data to improve on simple CMR tipping model.



Data suggests housing price peak in 1890s and sizable Black population by 1910.

Summary

This is a **great** project with a lot of potential.

Extraordinary data.

Main opportunity is to exploit granular data to its **full potential**.

- Better causal inference.

- Distinguishing among mechanisms.

- Moving beyond simple models of tipping.