2020 Lectures on Urban Economics

Lecture 2: Race, Migration, and Cities

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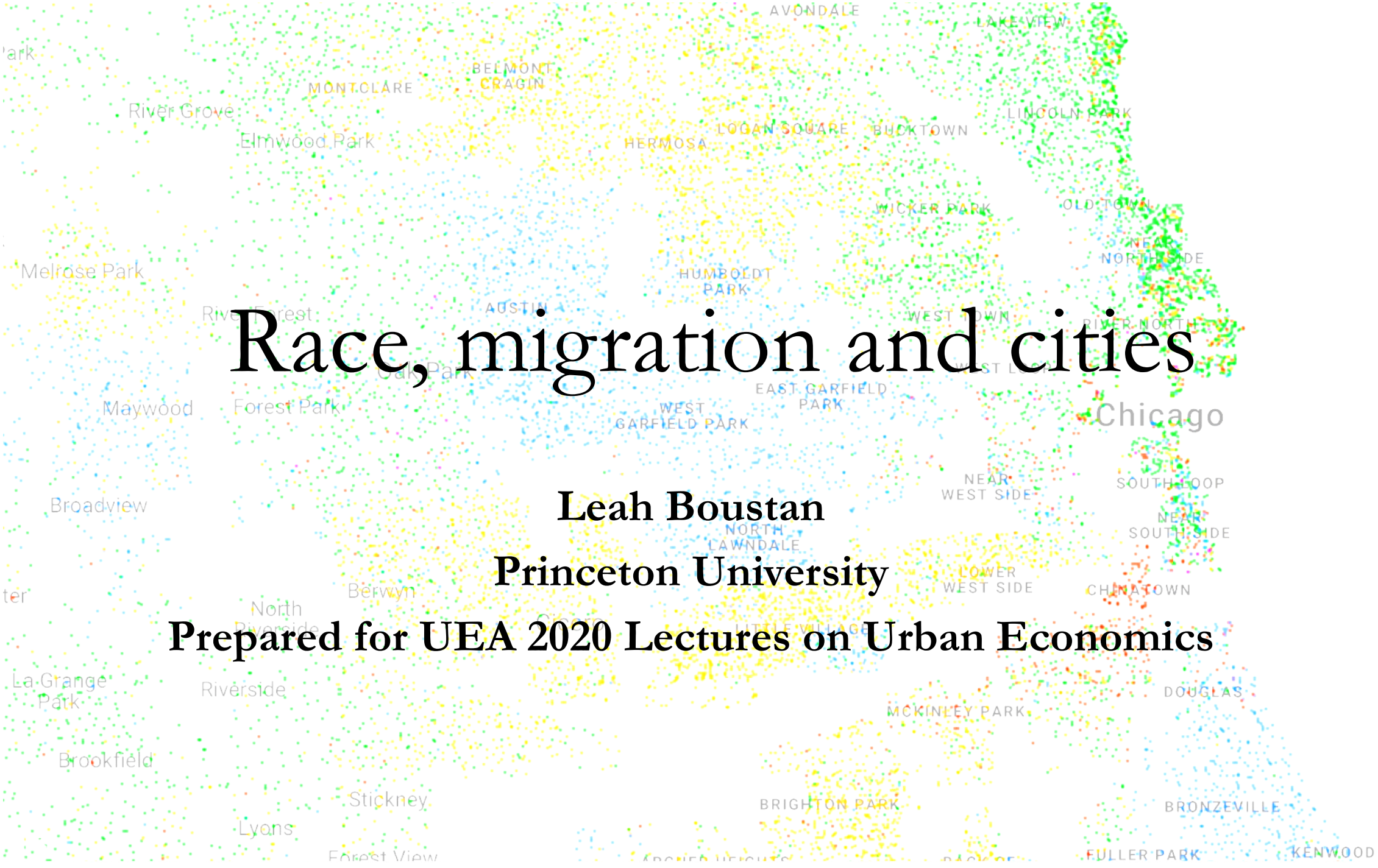
18 June 2020



Race, migration and cities

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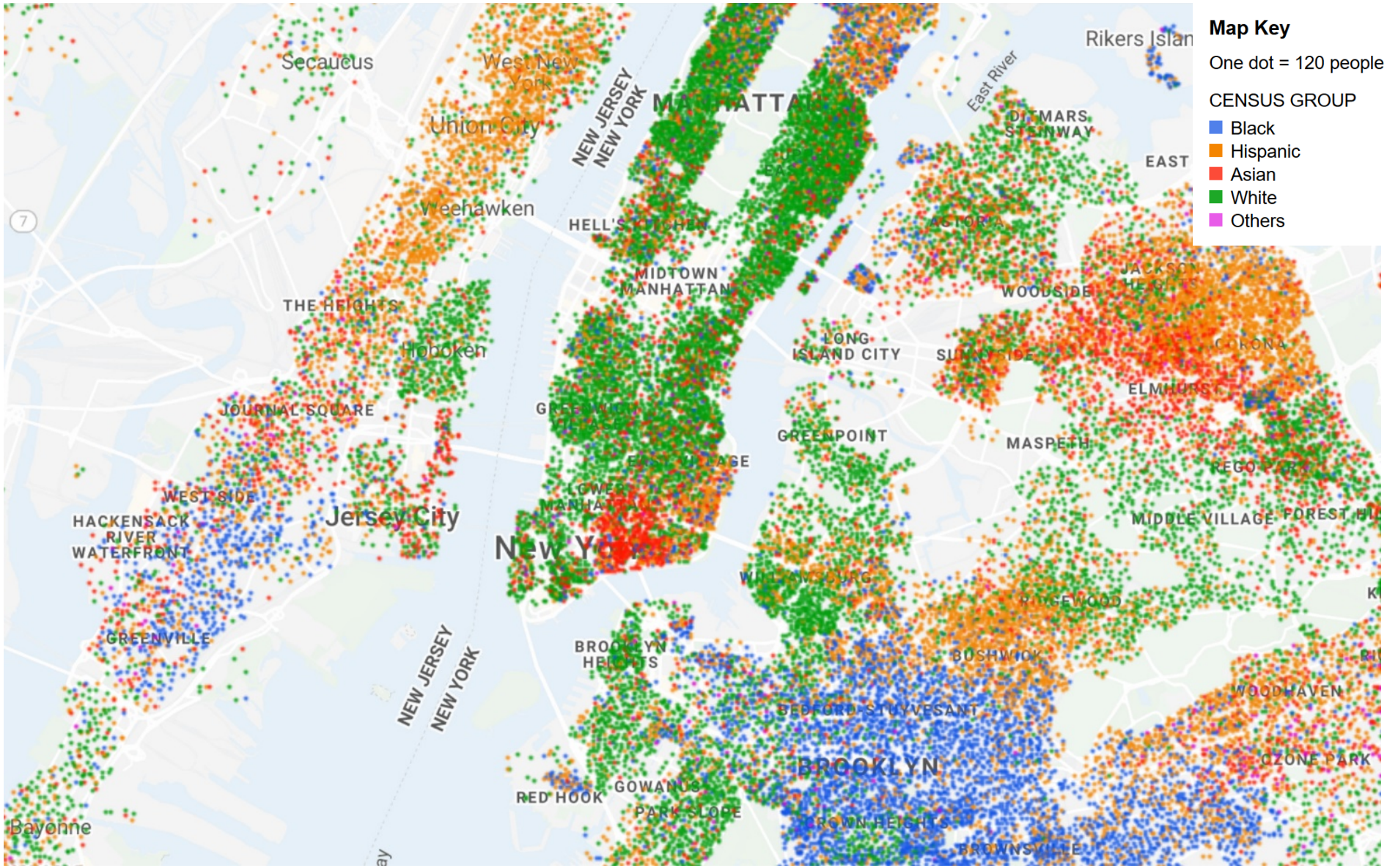
Prepared for UEA 2020 Lectures on Urban Economics



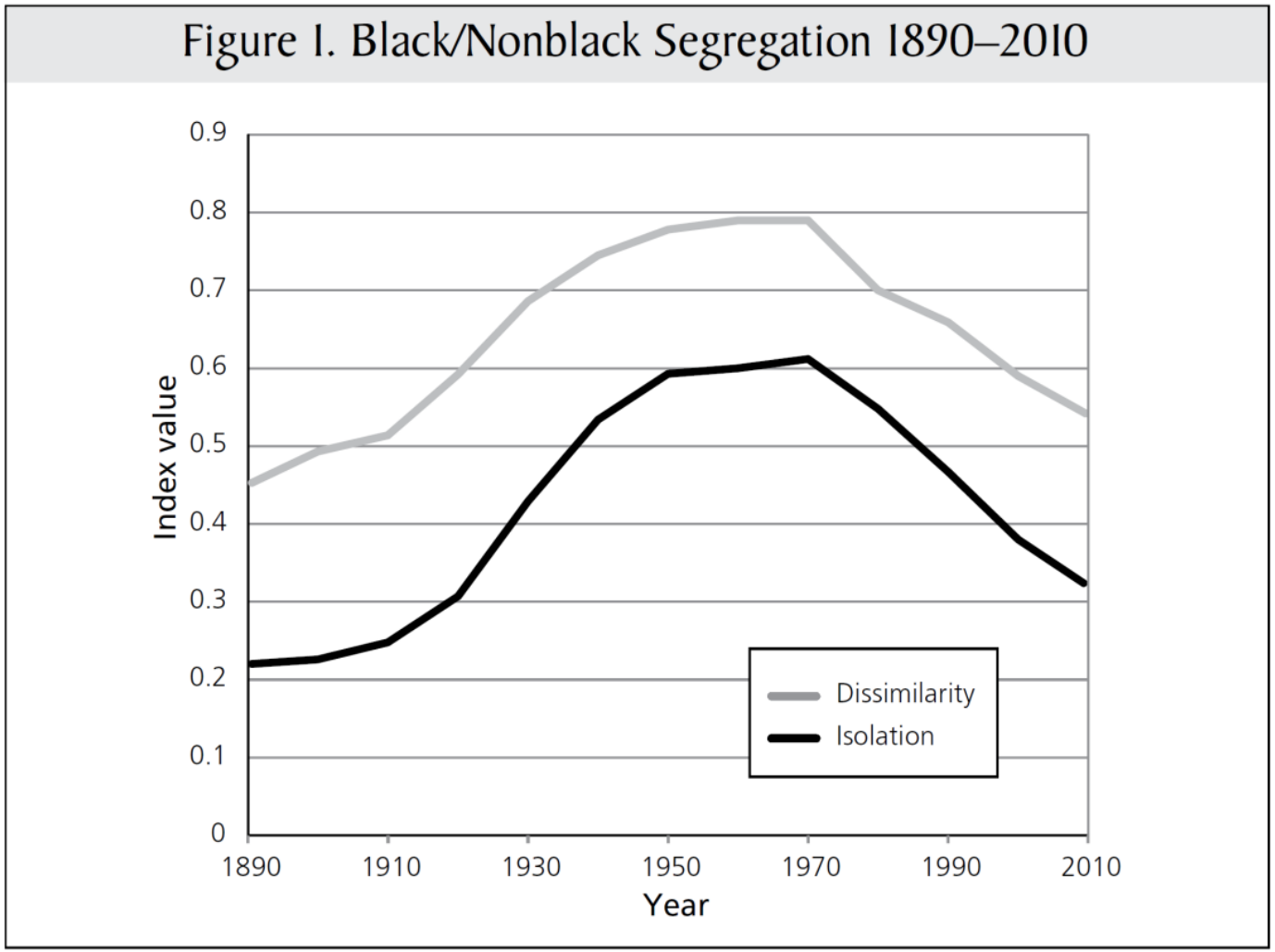
Source: *NYT*, 7/8/15

Goals for today

- Segregation trends
- Causes of segregation
- Consequences of segregation
- Immigrant enclaves

A moment of silence

Black/non-black segregation over a century



Notes:

1. Housing market: CBSA (metro + micropolitan areas, unweighted)

2. Neighborhood: Wards from 1890-1940; Tracts from 1940-present

3. Groups: Non-black = white, Asian and many Hispanics & Native Am

4. Definition of dissimilarity and isolation indices

5. See Logan and Parman (2017) for next door neighbor measure of segregation (1880-1940)

Source: Glaeser and Vigdor (2012)

Comparing black-white dissimilarity to other groups

From Iceland and Scopilliti (2008)	
Black/native-born, non-Hispanic white	0.674
All foreign-born/white	0.443
All Hispanic/white	0.522
Foreign-born, Hispanic/white	0.599
From Massey and Fischer (2003)	
Top quintile/bottom quintile	0.253

Note: White = Native-born, non-Hispanic whites in all rows

* Figures from 2000 Census. Difference from Glaeser-Vigdor due mostly to black-white (vs. black-non-black)

Causes of segregation (Boustan, 2011 handbook chapter)

- **Self-segregation**: Members of minority prefer to live together *
- **Collective exclusion**: Majority group excludes minorities
- **White flight**: Majority group leaves integrated neighborhoods or jurisdictions

* See Krysan and Farley (2002), Ihlanfeldt and Scafidi (2002) for evidence against

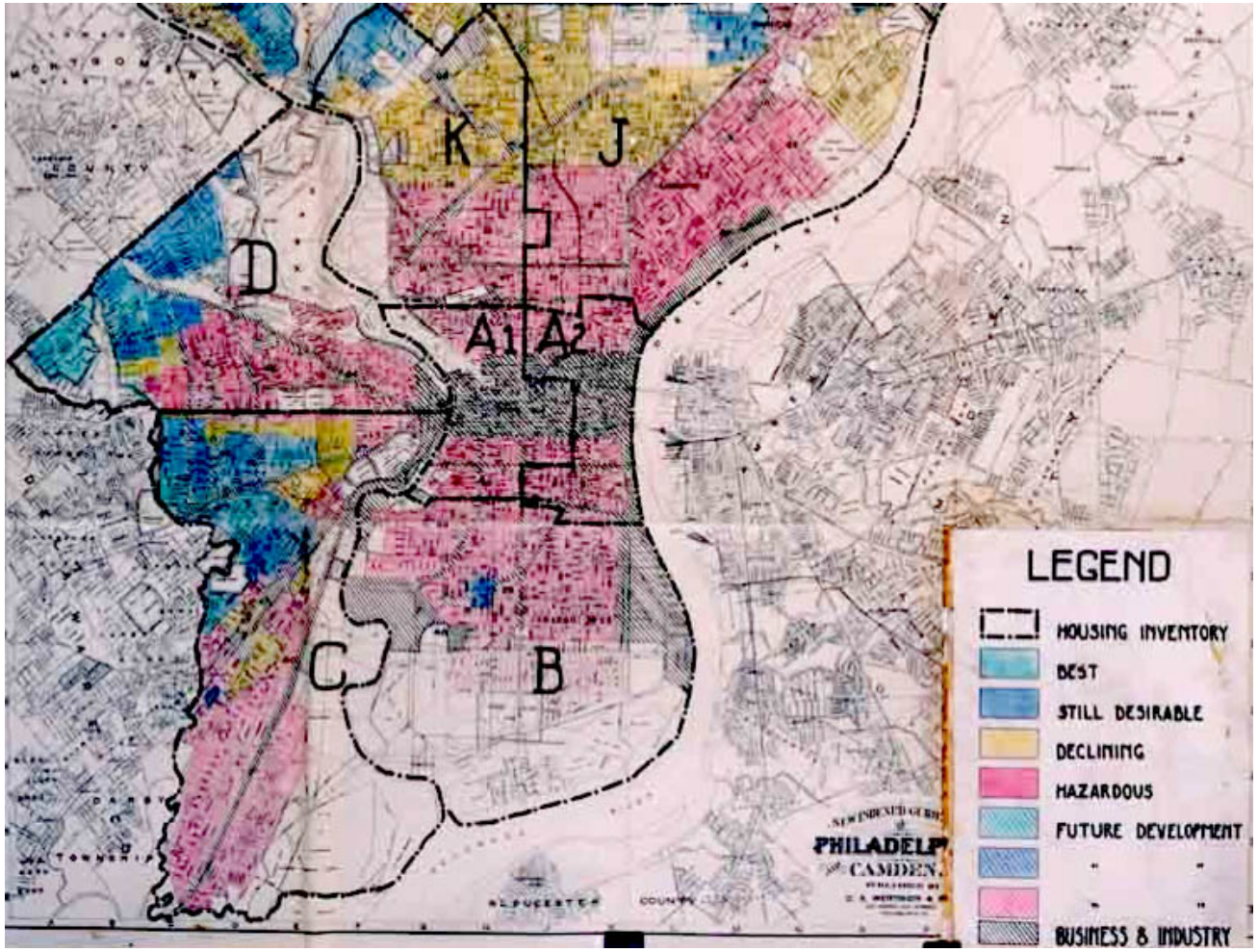
Learning from housing prices

- Cutler, Glaeser, Vigdor (1999): With fixed housing supply in two neighborhoods, blacks pay more for housing under exclusion (c. 1940) and whites pay more under white flight (c. 1990)

- Bayer, Ferreira and McMillan (2008): Sorting equilibrium can arise without housing price gaps if housing supply responds to demand

- Housing supply elasticity is key to this exercise

Collective exclusion via access to credit

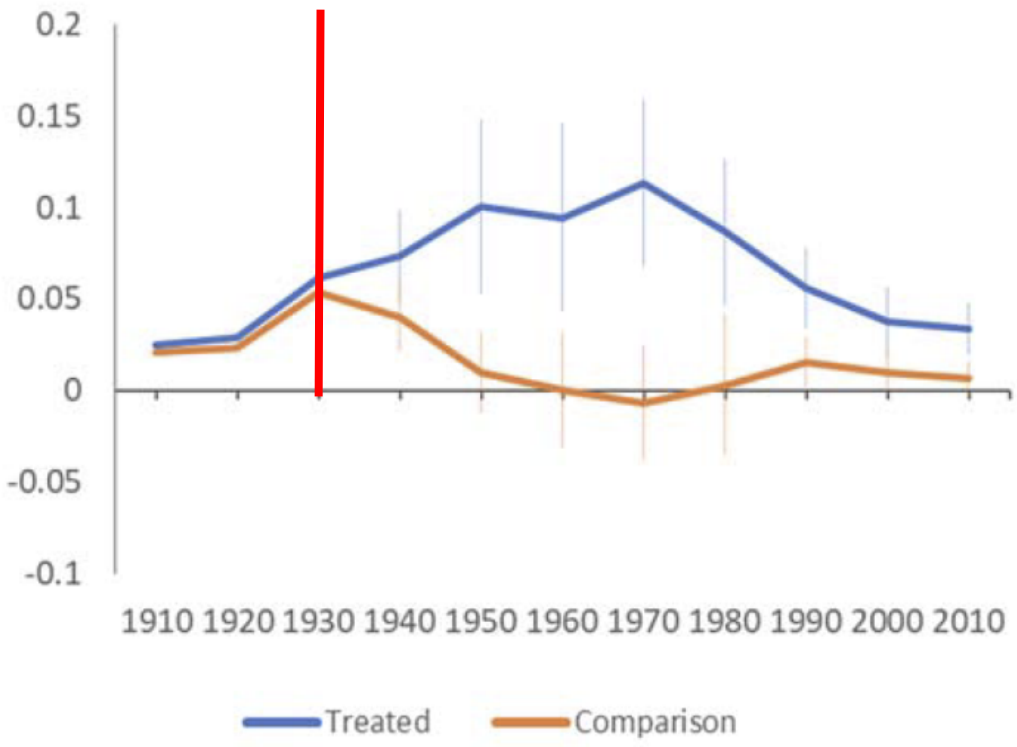


Home Owners Loan Corporation: Started in 1933 during New Deal, purchased troubled mortgages from lenders. Lending maps based on housing and demographic attributes of n'hoods ("redlining")

HOLC maps contribute to neighborhood segregation
(Aaronson, Hartley, Mazumder, 2019)

Figure 5: Main Effects along D-C Boundaries

Panel A: Share African American



- Start with blocks ¼ mile away from a red vs. yellow boundary (**blue**)
- Notice that gap in %black already exists and grows from 1920-30 (before maps)
- Add comparison (**orange**): Propensity score suggests *should* divide red vs. yellow
- Difference between actual vs. placebo in %black after 1930
- Mechanisms: Blacks have fewer outside options, more renting

Collective exclusion and policy efforts

- Restrictive covenants (for history: Jones-Correa, 2000)
- Urban renewal projects (Collins and Shester, 2013)
- Fair Housing Act of 1968 (Collins, 2004 studies earlier state laws)
- Community Reinvestment Act of 1977 (for history: Taylor 2019)
- Public housing sites and demolition (Chyn, 2018; Tach & Emory, 2017)

Simple framework for "white flight" with housing market
(Boustan, 2010)

- Consider a Northern city with initial white population (W). In this area, white residents have utility level:

$$U_w(p, b, z) = \underline{u}$$

where $\underline{u}$ = utility in other cities or in suburban ring
p = housing price (-)
b = black population share (weakly -)
z = demand shifter (+)

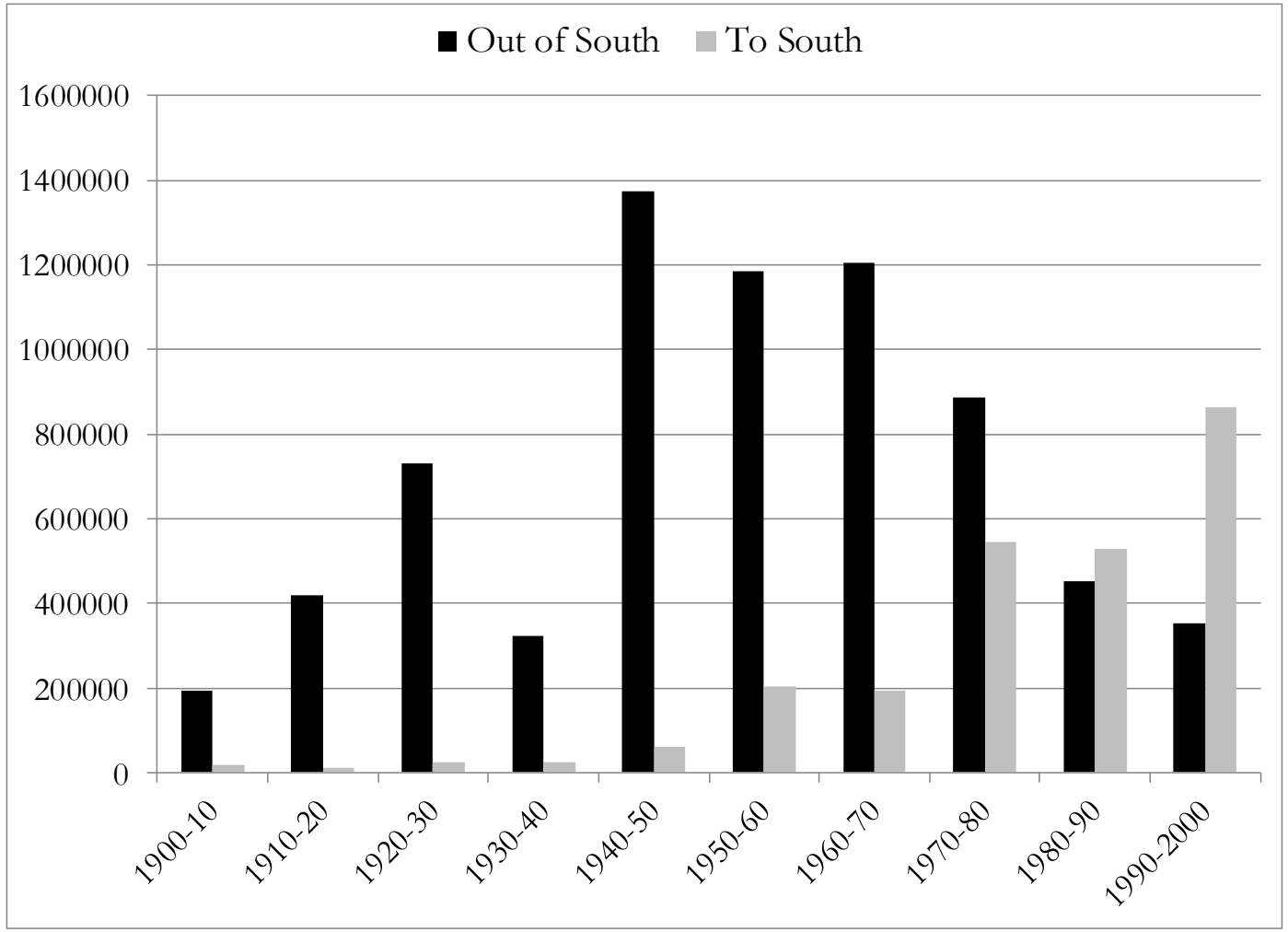
- Initially all blacks live in the South

$$U_b(p, b, z) = \underline{s}(w)$$

$\underline{s}(w)$ = utility in South; function of southern wages


FLORIDA
10-7126
DRIVE SAFELY

Estimated number of black migrants leaving/entering South, by decade



Source: Boustan (2017), see also Gregory (2005)

What happens when black migrants move into a city?

- But first a note on housing supply in the city. Let c = unit construction cost

- For $p > c$, construction occurs, depends on elasticity of housing supply (φ)

- At price $p <= c$, no new construction occurs, depreciation of units takes time

→In short run, housing price is a function of population (W+B); see Glaeser and Gyourko (2005)

What happens when black migrants move into a city?

- Southern wages decline, black population moves into city
  - At $p^*(W) = c$, white residents were indifferent between living in city or elsewhere
  - Prices rise and some whites leave the city. How many?
  - New population = W + B. Exactly B whites leave to restore equilibrium if $U'_b = 0$

  → **One-for-one city if white residents have no preference over racial composition**

- But some white households dislike black residents in city ($U'_b < 0$)
  - Then, white residents strictly prefer to leave the city even at $p = p^*$. So, to restore equilibrium, more than B whites must leave the city
  - **In addition, p falls below p^* in short run and eventually returns to $p^* = c$**

White flight from central cities, 1940-70 (Boustan 2010)

TABLE II

BLACK MIGRATION TO CENTRAL CITIES AND WHITE POPULATION LOSS

Dependent variable:	Actual black population in city	White population in city	
Instrument type	First stage	OLS	IV
Assign actual migrants	4.442	−2.099	−2.365
	(0.652)	(0.549)	(0.805)
Assign predicted migrants, 1940–1970	3.466	−2.099	−2.627
	(0.671)	(0.549)	(0.782)

$$\text{W\_CITY}_{mrt} = \alpha_m + \beta_1(\text{B\_CITY}_{mrt}) + \gamma_1(\text{POP\_METRO}_{mrt}) + \upsilon_{rt} + \varepsilon_{mrt}, \quad (5)$$

Expect %black associated with lower housing prices in low growth areas (otherwise construction can respond)

TABLE IV

BLACK POPULATION SHARE AND THE VALUE OF OWNER-OCCUPIED HOUSING IN THE CITY, 1950–1970

	OLS		IV	Low growth	High growth
	(1)	(2)	(3)	(4)	(5)
Black population share in city	−0.610	−0.470	−0.689	−0.618	0.030
	(0.227)	(0.194)	(0.108)	(0.266)	(0.295)
Housing controls	N	Y	Y	Y	Y
N	159	159	159	99	102

Notes. Standard errors are clustered by SMSA and are reported in parentheses. Housing quality controls include the median number of rooms, the share of housing units that are in detached, single-family buildings, and the share of housing units that were built in the previous ten years. The fourth and fifth columns split the sample by the metropolitan area growth rate from 1940 to 1970 (median = 58%).

White flight at neighborhood level: 1900-1930

(Shertzer and Walsh, 2019)

Table 2. Baseline OLS and IV Results for Effect of Black Arrivals on White Departures

	dependent variable = change in white population		
	1900-1910 Decade	1910-1920 Decade	1920-1930 Decade
OLS Results			
Change in Black Population	0.189	-0.908***	-1.492***
	(0.264)	(0.122)	(0.075)
R-squared	0.088	0.139	0.258
IV Results			
Change in Black Population	-0.936	-1.886***	-3.389***
LIML Standard Errors	(0.577)	(0.227)	(0.246)
Conley GMM Spatial Standard Errors	(0.719)	(0.238)	(0.386)
Change in Black Population:			
Spatial Subsample	-0.871	-1.956***	-3.550***
Bootstrapped Standard Errors	(1.178)	(0.368)	(0.805)
First Stage			
Predicted Change in Black Pop.	0.918***	0.732***	0.878***
	(0.040)	(0.025)	(0.053)
F-test on First Stage	520.2	829.0	275.9
Observations	1,975	1,975	1,975

Notes: See Table 1 for sample and variable details. All regressions include city fixed effects. The instrumental variables regressions are estimated using limited information maximum likelihood estimation (LIML). The Conley (1999) spatial standard errors are estimated using GMM. The spatial subsample standard errors are generated using 25 percent spatially independent subsamples bootstrapped 100 times.

White flight and local public goods

- Many city neighborhoods remained ~100% white after black migration

- Role of city-wide public goods?
  - Ideal experiment = similar neighborhoods in jurisdiction with high/low %black
  - Can use border between cities/suburbs (Boustan 2013, following Black, 1999, etc.)

- Desegregation of urban public schools in 1970s
  - City districts were held responsible for *de facto* segregation, but most suburbs exempted
  - Key Supreme Court decisions: 1973 *Keyes v. Denver*; 1974 *Miliken v. Bradley*

Protests against desegregation in the North

The picture can't be displayed.

Housing prices fall on city side of border after desegregation, suggests departures from city (Boustan, 2012)

Table 5: School desegregation and relative city housing prices at the district border, 1960-80

Dependent variable = ln(housing value)

	Placed under court-order during 1970s	Not placed under court-order during 1970s	Difference
1970	-0.047 (0.014)	-0.026 (0.015)	-0.021 (0.020)
1980	-0.097 (0.028)	-0.023 (0.022)	-0.073 (0.035)
Δ 1970-1980	-0.065 (0.024)	-0.007 (0.015)	-0.058 (0.028)
Pre-trend: Δ 1960-1970	-0.023 (0.013)	-0.022 (0.017)	-0.001 (0.022)

Pause for questions

After break: Consequences of segregation and immigrant enclaves

Goals for today

- ~~Segregation trends~~
- ~~Causes of segregation~~
- Consequences of segregation
- Immigrant enclaves

Challenging from perspective of:

1. Research design

- Omitted variables
- Persistent attribute
- Who chooses to stay?

2. Understanding mechanisms

- Access to labor market networks/peers
- Municipal resources

Segregation associated with poor outcomes for black residents

- Cutler and Glaeser (1997): Black residents of segregated metro areas earn less. But why are some areas more segregated than others?

- Ananat (2011) Railroads as "segregation technology" that divided some cities into well-defined neighborhoods, facilitating segregation

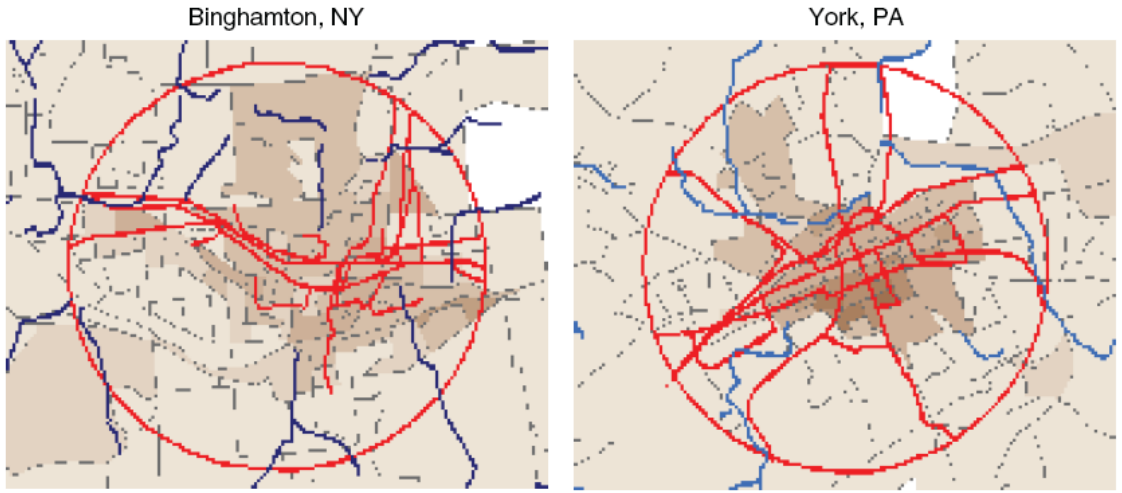


FIGURE 1. THE NATURAL EXPERIMENT—2 EXAMPLES

Segregation raises black poverty rate using railroad division as instrument (Ananat 2011)

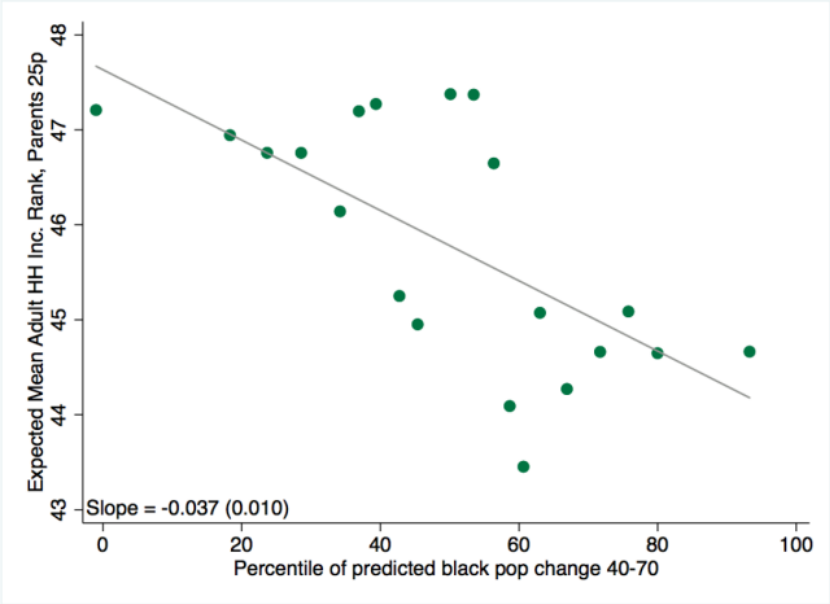
TABLE 2—THE EFFECTS OF SEGREGATION ON POVERTY AND INEQUALITY AMONG BLACKS AND WHITES

	OLS: Effect of 1990 dissimilarity index		Main results: 2SLS RDI as instrument for 1990 dissimilarity		Falsification: Reduced form effect of RDI among cities far from the south	
Outcome:	Whites (1)	Blacks (2)	Whites (3)	Blacks (4)	Whites (5)	Blacks (6)
Within-race poverty and inequality						
Gini index	**−0.079**	**0.459**	**−0.334**	**0.875**	−0.110	0.167
	(0.037)	**(0.093)**	**(0.099)**	**(0.409)**	(0.066)	(0.424)
Poverty rate	**−0.073**	**0.182**	**−0.196**	**0.258**	−0.036	−0.136
	(0.019)	**(0.045)**	**(0.065)**	**(0.108)**	(0.035)	(0.094)

- Not only sorting away from segregated metros because relationship present for the young

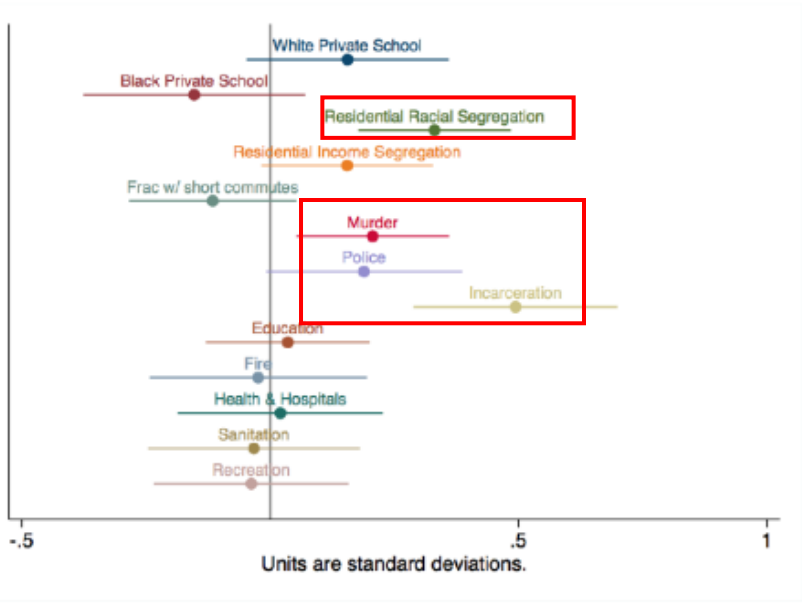
Great Migration associated with segregation and lower mobility rates – especially for black men (Derenoncourt, 2019)

FIGURE 6: GREAT MIGRATION REDUCED AVERAGE UPWARD MOBILITY IN NORTHERN COMMUTING ZONES



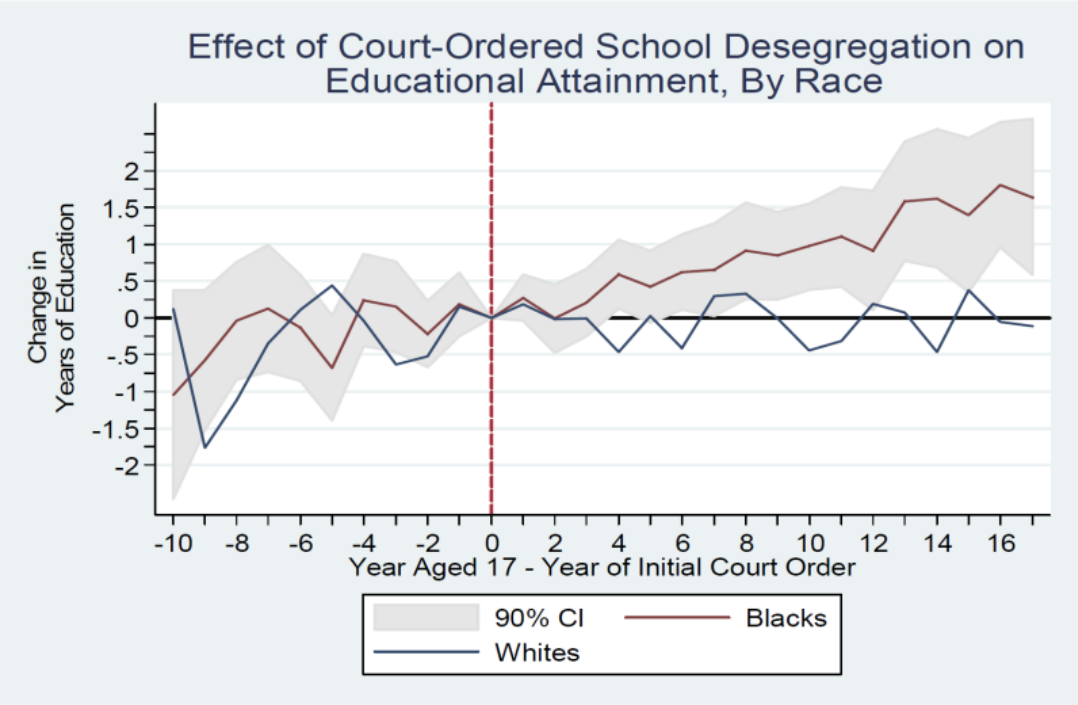
Notes: This binned scatterplot depicts the relationship between average upward mobility in the 2000s for men and women with low income parents and the instrument for black population increases during the Great Migration. The unit of observation is a commuting zone. The right hand side variable is grouped into 20 bins (5 percentiles each). Upward mobility is defined as expected mean household income rank for men and women with parents at the 25th percentile of the parent income distribution. Income is measured from IRS tax returns for cohorts and parents of cohorts born between 1980 and 1986. The instrument is the percentile of predicted black population increase, defined as the interaction between pre-1940 black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. Both the left hand and right hand side variables have been residualized on the set of baseline 1940 controls, including share of urban population made up of 1935-1940 black southern migrants, educational upward mobility, share of labor force in manufacturing, and census division fixed effects. *Data sources*: IPUMS complete count 1940 US census; Boustan (2016); Chetty and Hendren (2018b).

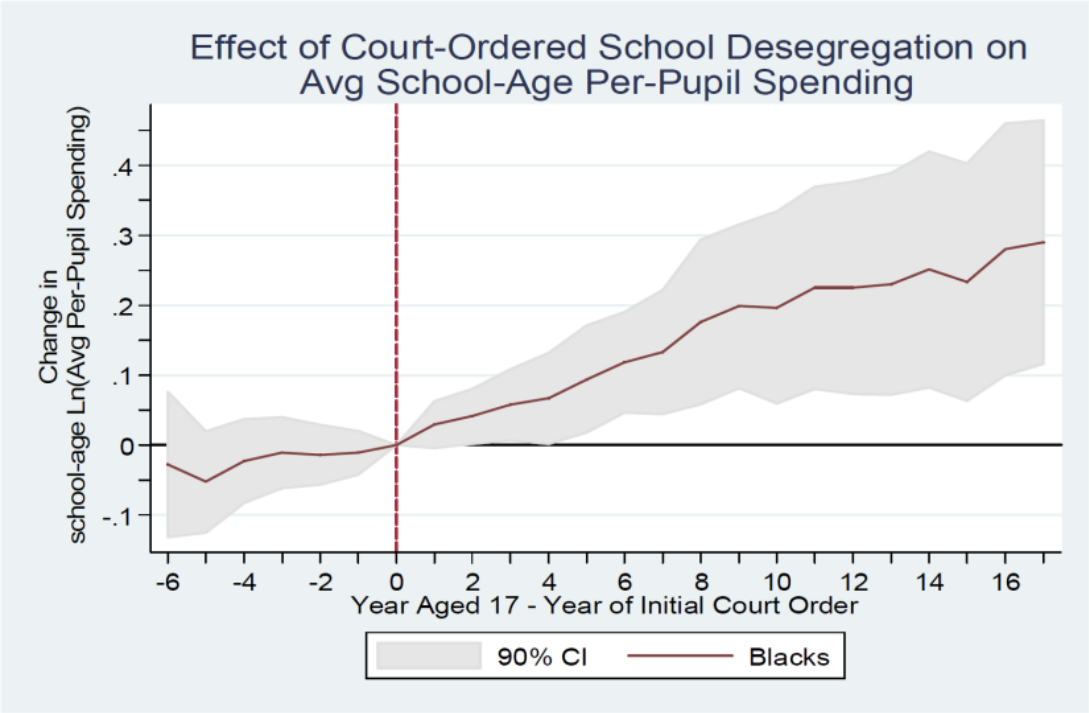
FIGURE 9: INCREASED SEGREGATION, CRIME, POLICING, AND INCARCERATION IN GREAT MIGRATION CZS



Notes: This figure plots the coefficient on the instrument for black population increases during the Great Migration, in approximately one standard deviation units, in separate regressions. The dependent variables are standardized mean 1970-2000 white and black private school enrollment rates; the Theil indices in residential racial and income segregation in 2000; the fraction of families in 2000 with commute times less than 15 minutes; mean 1977-2002 murders per 100,000 of the population; mean 1983-2000 incarcerated per 100,000 of the population; and mean 1972-2002 government expenditure shares by category. The unit of observation is a commuting zone. The instrument is the percentile of predicted black population increase, defined as the interaction between pre-1940 black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. A one standard deviation increase is approximately 30 percentiles. Baseline 1940 controls include share of urban population made up of 1935-1940 black southern migrants, educational upward mobility, share of labor force in manufacturing, and census division fixed effects. *Data sources*: IPUMS complete count 1940 US census; Boustan (2016); see Appendix D for the full list of data sources on each of the mechanisms.

Related literature on school segregation… but especially hard to disentangle peers vs. resources (Johnson 2011)





Follow students in PSID from school district to adulthood. Use timing of court-ordered desegregation

Segregated schools harm black students – resources key

- Billings, Deming and Rockoff, 2014:
  - Busing ended in Charlotte, NC in 2002. Students from same 'school zone' under old system went to new schools with different %black
  - Higher %black associated with lower test scores; explained by teacher quality

- Tuttle, 2019:
  - Louisville, KY assigned students to busing based on first letter of last name
  - Black students assigned to suburban schools lived in richer tracts as adults
  - Mechanism: City/suburban schools ended up with equal racial composition but different resources

Topic: Immigrant enclaves

Immigrant enclaves in US, past and today

(Isolation index = % foreign born in n'hood of average immigrant)

Metro Area	Isolation index
1920	
New Bedford, MA	0.44
Passaic, NJ	0.44
New York, NY	0.39
Boston, MA	0.34
Chicago, IL	0.33
2017	
Miami-Ft Laud.-West Palm, FL	0.48
San Jose, CA	0.43
Los Angeles-Long Beach, CA	0.39
New York-Newark, NY-NJ	0.38
San Francisco-Oakland, CA	0.36

Refugee assignment policy, Sweden and Denmark

Refugee resettlement creates variation in enclave residence

- Edin, et al. (2003, 2011): Swedish policy to distribute refugees outside of major cities. Use initial placement as instrument for location
  - Labor market outcomes and student performance

- Beaman (2012): Refugee resettlement in US
  - "Vintage" of network matters. Long-standing migrants provide information. But, additional newcomers can lead to competition for available jobs

Immigrants who sort into enclaves are lower-earning. But living in an enclave improves outcomes (Edin et al., 2003)

TABLE III

BASELINE ESTIMATES—DEPENDENT VARIABLE: ln(EARNINGS)

	Full sample		Low education (10 years or less)		High education (more than 10 years)	
	(1) OLS	(2) IV	(3) OLS	(4) IV	(5) OLS	(6) IV
ln(ethnic group)	−.056	.012	−.053	.174	−.050	−.057
	(.022)	(.050)	(.024)	(.088)	(.030)	(.080)

Instrument for ln(# from own group) with number of assigned to area

Generalizing to other immigrant contexts

- Refugee enclaves are very small

Local characteristics	
Ethnic concentration (percent)	.32
Immigrant density (percent)	7.85

Mean group # = 170
Mean city size = 50,000

- Refugees vs. economic migrants

Historical immigrant enclaves in the US

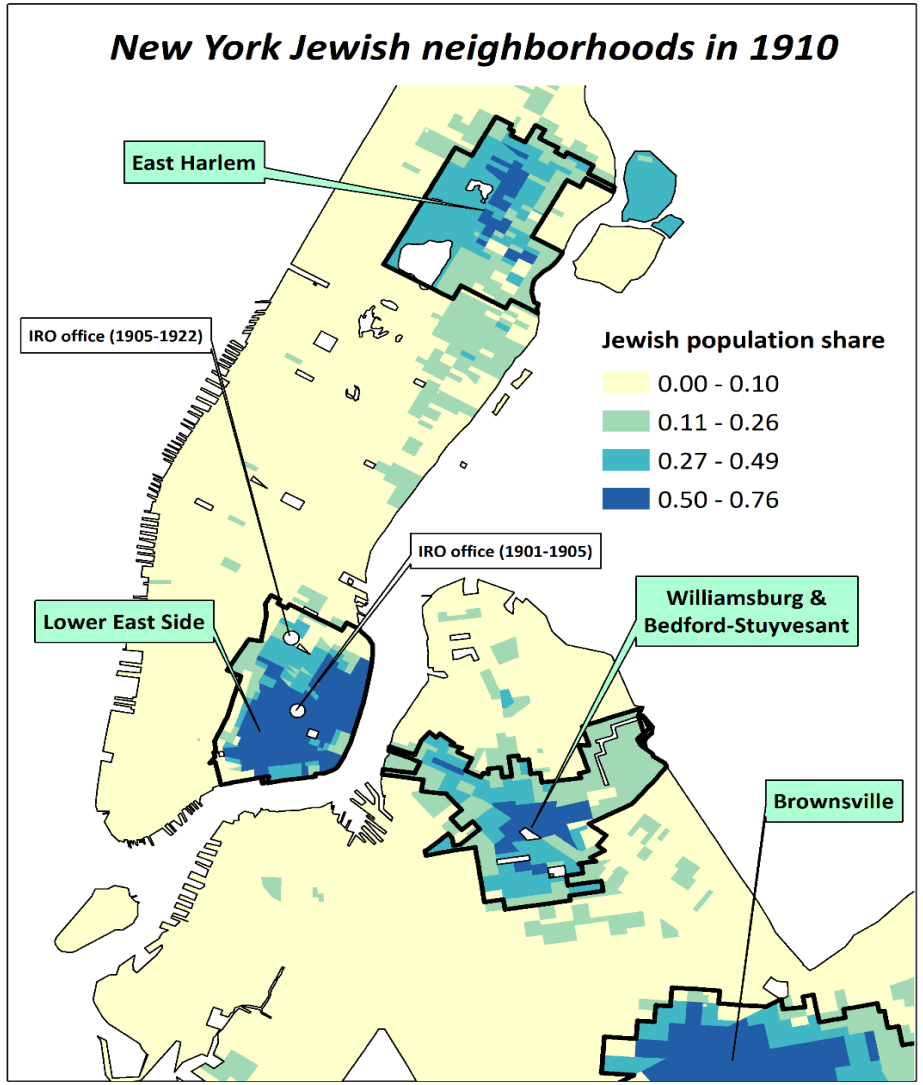
Leaving the enclave: Historical evidence on immigrant mobility from the Industrial Removal Office

(Abramitzky, Boustan, and Connor, 2020)

- We study a historical program that moved Jewish immigrants from large enclaves in New York City to 1,000 locations around the country c. 1910

- We find that leaving enclaves facilitated economic assimilation, contrasting with evidence from refugee assignment (why?)

Jewish enclaves in New York in 1910

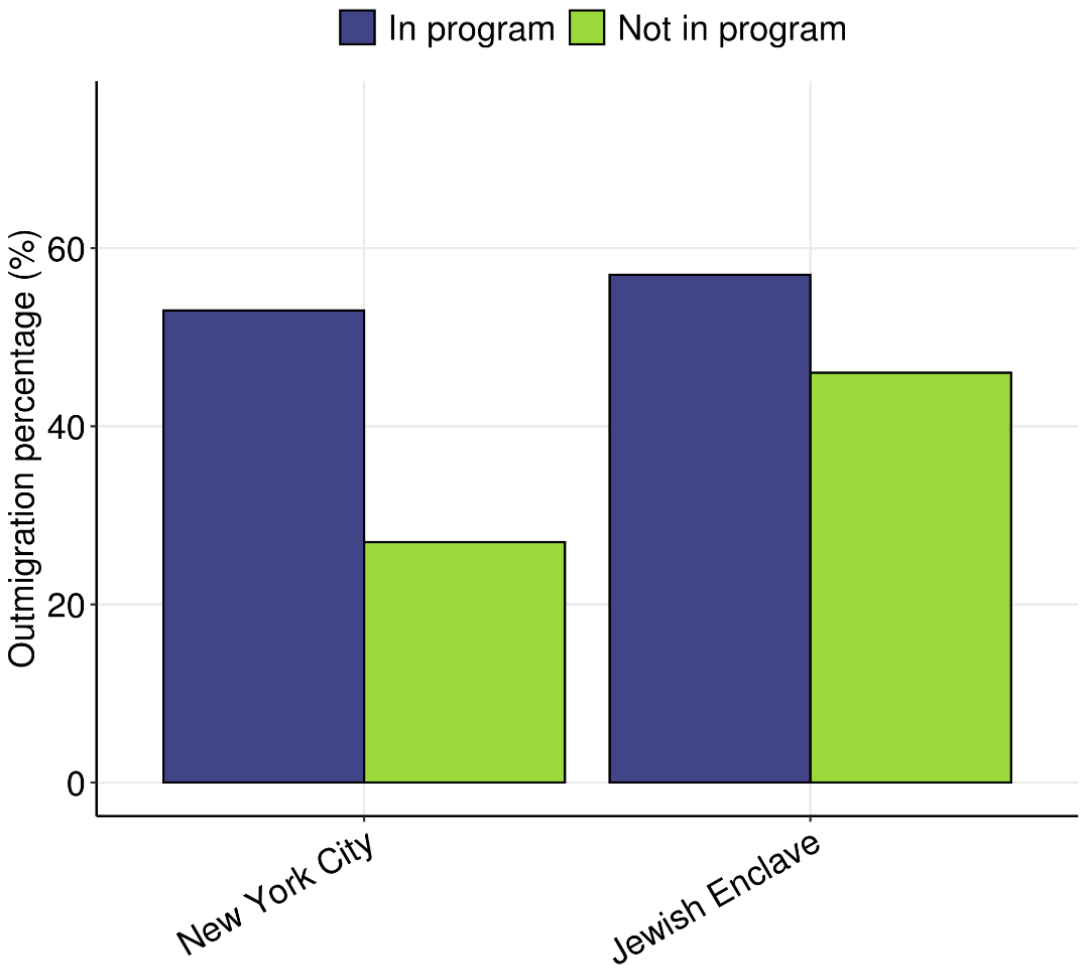


Comparison households = Male household head, foreign born, age 16-49, lives in one of the four Jewish enclaves of New York City in 1910, Jewish name index > 1.4

Preferred specification also controls for initial occupation and quintile of income score

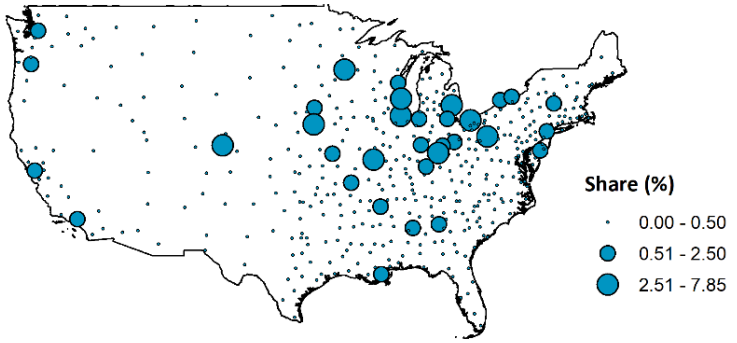
Note: Thanks to Allison Shertzer for sharing her New York ED shape files

IRO participants moved out of enclaves (1920 outcomes)

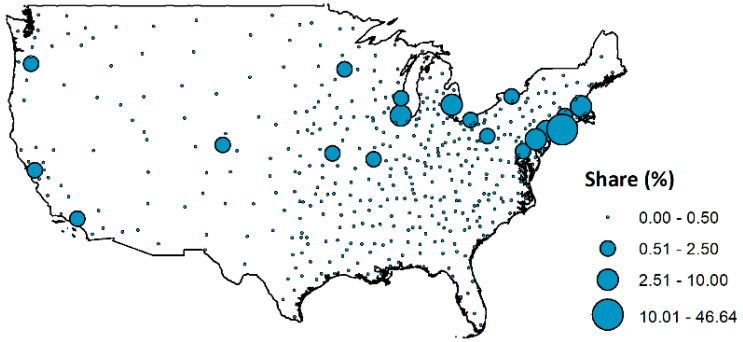


Where were IRO participants sent? Where did they settle?

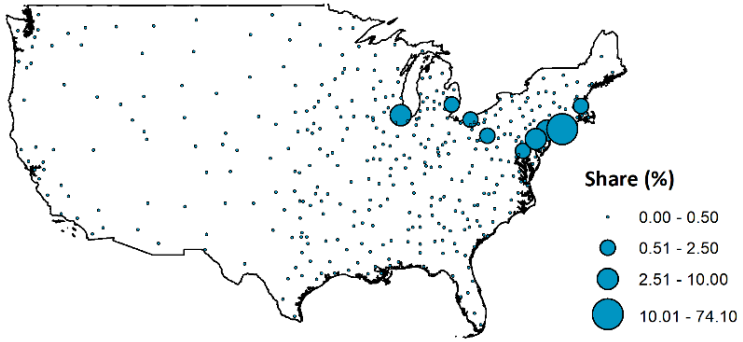
2A. Share of IRO assigned to location from 1899 to 1920



2B. Share of IRO residing in location in 1920



2C. Share of other Jewish New Yorkers residing in location in 1920



IRO participants and their children had higher income scores in 1920/1940

Table 5: Income score of IRO participants in 1920 and second-generation sons in 1940

	Cross-section		Diff-in-diff		
	(1)	(2)	(3)	(4)	(5)
	~1910	1920	~1910-1920	~1910-1920	~1910-1920
A. First generation					
IRO	-0.180***	-0.0192**	0.226***	0.221***	0.0407***
	(0.007)	(0.008)	(0.011)	(0.012)	(0.009)
N	22108	22108	44216	43236	44216
	~1910	1940	~1910-1940	~1910-1940	~1910-1940
B. Second generation					
IRO	-0.109***	0.0307	0.140***	0.0371	0.0694*
	(0.012)	(0.037)	(0.039)	(0.062)	(0.041)
N	4554	4554	9108	8848	9108
Controls					
Birth cohort	Y	Y	Y	Y	Y
Arrival Year	Y	Y	Y	Y	Y
Russian birthplace	Y	Y	Y	Y	Y
~1910 ED	N	N	N	Y	N
~1910 Occ.	N	N	N	N	Y
~1910 Inc. rank	N	N	N	N	Y

Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Census Linking Project: Access to linked historical data

Census Linking Project

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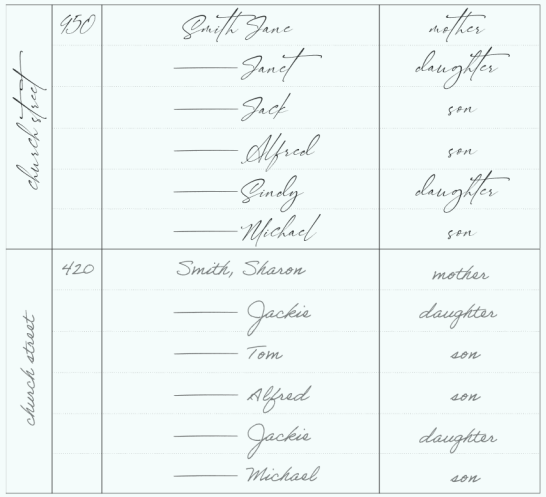
The Census Linking Project offers researchers the ability to create longitudinal datasets using historical US Census data (1850-1940). We provide links between each pair of complete-count Censuses using a wide variety of linking algorithms.



Get the Data

Download the crosswalk files →

Crosswalks between 36 census pairs; download variables from IPUMS (merge on 'histid')

Census Linking Project

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Please select the starting and final year of your desired linked dataset. You will then be able to download a ZIP file containing the crosswalk data, associated codes, and documentation.

Starting year: Final year:

Select: 1850 1860

Download crosswalk and documentation:

1850-1860.zip

The data found above contains the crosswalks for each Census wave linked to every other (1850-1940). There are 36 crosswalks in total, representing every combination of Census years[1].

The crosswalks also give users the option to select the linking method with which matches were created. Users can then merge into these crosswalks a wide set of individual- and household-level variables provided publicly by IPUMS, thereby creating a historical longitudinal dataset for analysis.

In the above menu, "starting year" refers to one particular wave of the Census and "final year" refers to another wave of the Census.

For instance, if you choose 1900 as your starting year and 1940 as your final year, then the crosswalk will provide you with *histids* of individuals in 1900 matched to *histids* of individuals in 1940. You will then be able to download the data (in .dta and .csv formats), codes used to create the crosswalks, and further codes that will allow you to merge in information from IPUMS and to reweight the data. Extensive documentation is provided and should be consulted before using the data.

[1] Note: Crosswalks with 1880 data will be added as soon as stable histids are made available. The microdata for the 1890 Census is no longer extant.

Street address is available – can be geocoded with some care (see Connor, et al., 2019; Akbar, et al., 2020)

For those interested in learning more about automated algorithms
(Abramitzky, Boustan, Eriksson, Feigenbaum, Perez, forthcoming)

Figure 1 shows a comparison of different linking methods according to their type I and type II errors.

Figure 1: Accuracy vs. Efficiency - Comparing Linking Algorithms (UA-1900 census)

Census Linking Project

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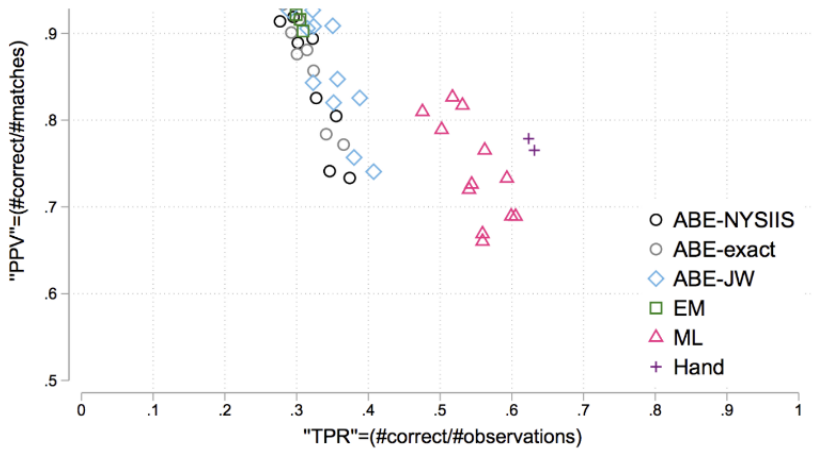

Notes: PPV ($\frac{\#truelinks}{\#matched}$) and TPR ($\frac{\#truelinks}{\#ofobservations}$) for the exercise that links the Union Army records to the 1900 census using different variations of each linking algorithms (ABE-NYSIIS, ABE-exact, ABE-JW, EM and ML). "Hand" compares the hand-linking carried out by two different people that only used the same information that the automated algorithms use (name, place of birth, and year of birth). A match is defined as "true" if it coincides with the links made in the Union Army-Oldest Old sample.

This figure refers to a series of linking methods currently used or soon to be added to this project (e.g., the ABE method, machine learning method, and EM method). Details of these linking methods can be found in the paper "Automated Linking of Historical Data" by Ran Abramitzky, Leah Platt Boustan, Katherine Eriksson, James J. Feigenbaum, and Santiago Pérez.

Conclusions

- Black-nonblack segregation in the US peaked in 1970 and has been declining, but is still higher than for other groups
- Collective exclusion contributed to early segregation; white flight present throughout the century (esp. to suburbs after 1940)
- Segregation associated with poor outcomes for black households, although mechanism is unclear
- Living in large immigrant enclaves may also be detrimental to upward mobility

Stop for questions

And thank you for your attention today!