Great Gatsby Curve: Empirical Background

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…changes have taken place in ghetto neighborhoods, and the groups that have been left behind are collectively different than those that lived in these neighborhoods in earlier years. It is true that long-term welfare families and street criminals are distinct groups, but they live and interact in the same depressed community and they are part of the population that has, with the exodus of the more stable working- and middle-class segments, become increasingly isolated socially from mainstream patterns and norms of behavior

William Julius Wilson, *The Truly Disadvantaged*

Only connect.

EM Forster, *Howards End*

Stylized Fact 1: Great Gatsby Curve

Cross sectional inequality and intergenerational mobility are negatively associated.

Work by Miles Corak claimed that for a set of advanced industrialized economies, there is a positive correlation between cross-section inequality and the persistence of status between parents and off-spring.

This has been dubbed the Great Gatsby Curve by Alan Krueger.
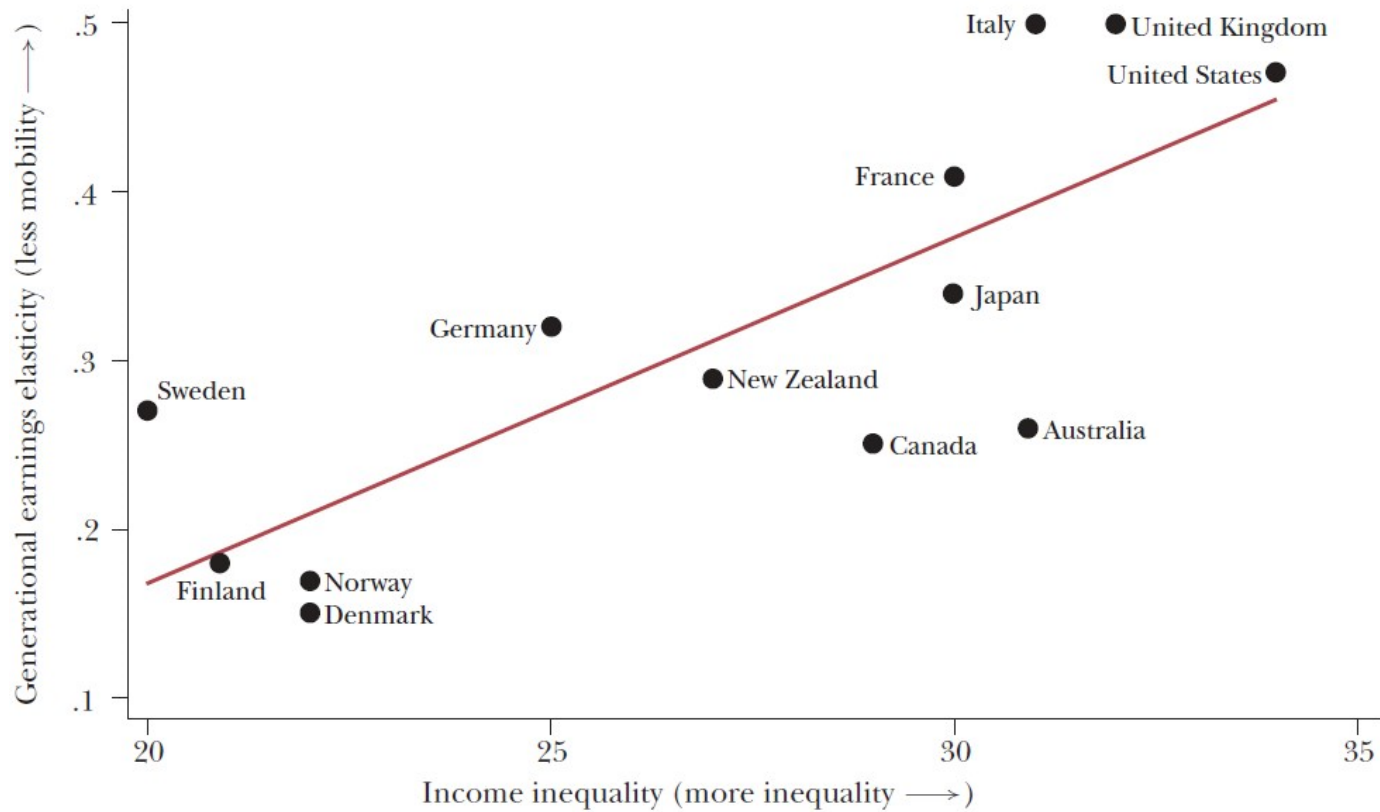
Source: Corak (2013). Data is from OECD and CEA estimates. Economic mobility captured by intergenerational earnings elasticities derived from published studies (see Appendix to Corak (2013) for details). Income distribution captured by the Gini coefficient in 1985.
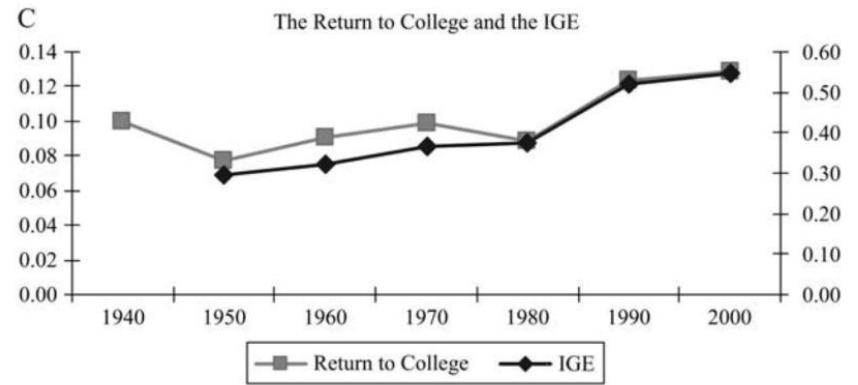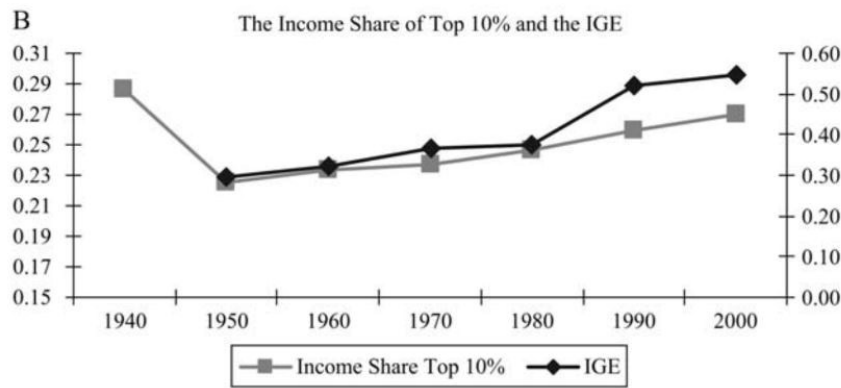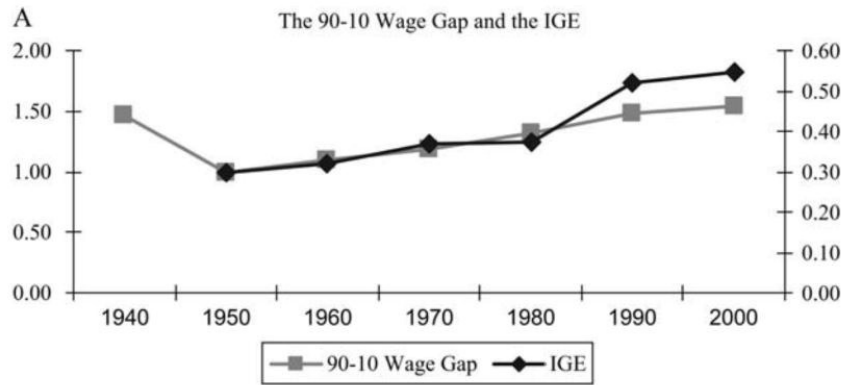
Our interest is in the existence of an intertemporal Gatsby Curve for the United States.

Separate evidence exists for this possibility.

Stylized Fact 2: Interplay of location, inequality, mobility consistent with intertemporal Gatsby Curve

Direct and indirect evidence.

Direct Evidence: Rising Intergenerational Elasticities

A The 90-10 Wage Gap and the IGE

B The Income Share of Top 10% and the IGE

C The Return to College and the IGE

Source: Aaronson and Mazumder (2008). 90-10 wage gap measured as the ratio of hourly wages between the top 10% and bottom 10% of wage earners. Return to college shows the rate of return to college education. Data taken from the decennial Censuses.

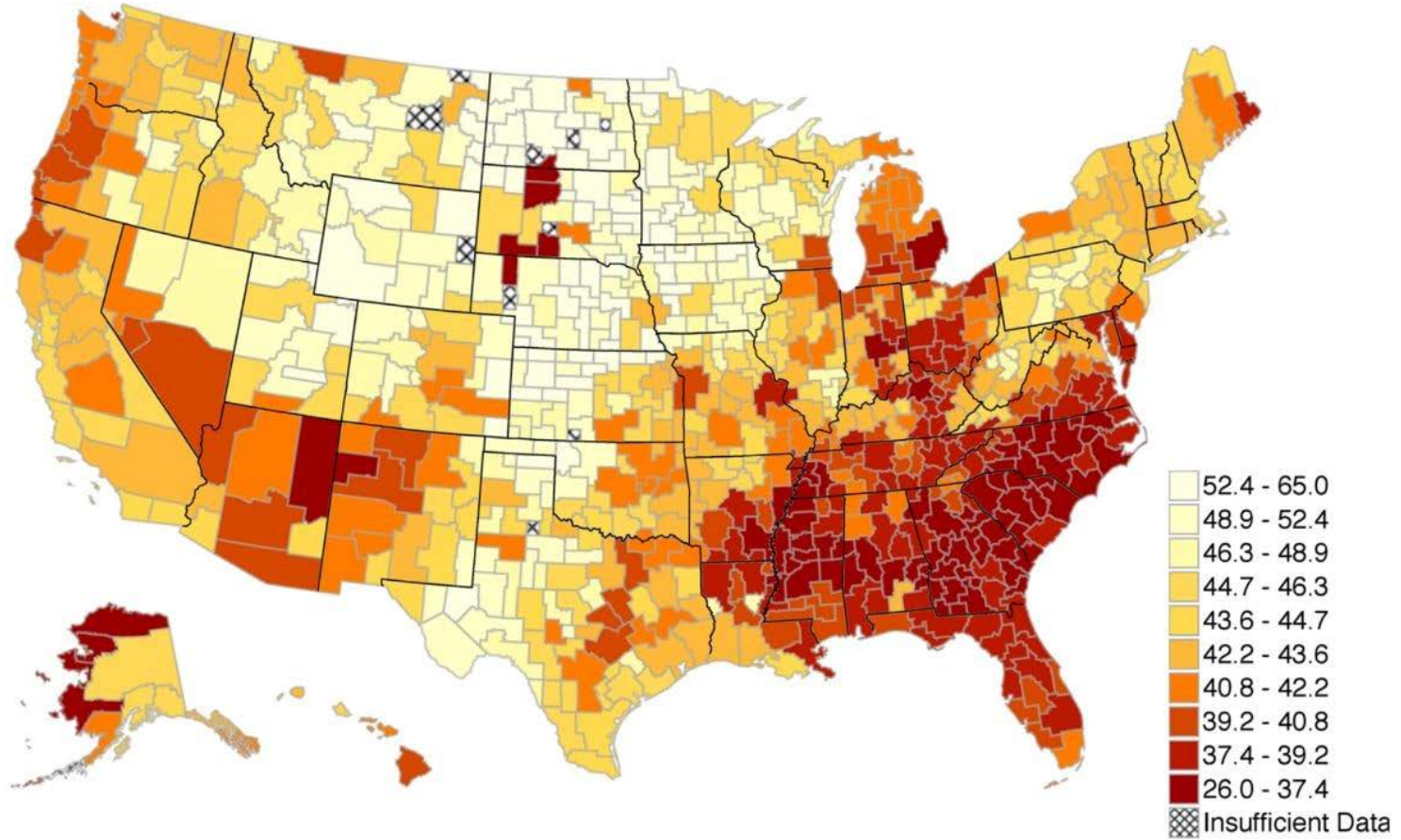# Inequality and mobility trends over time (US)
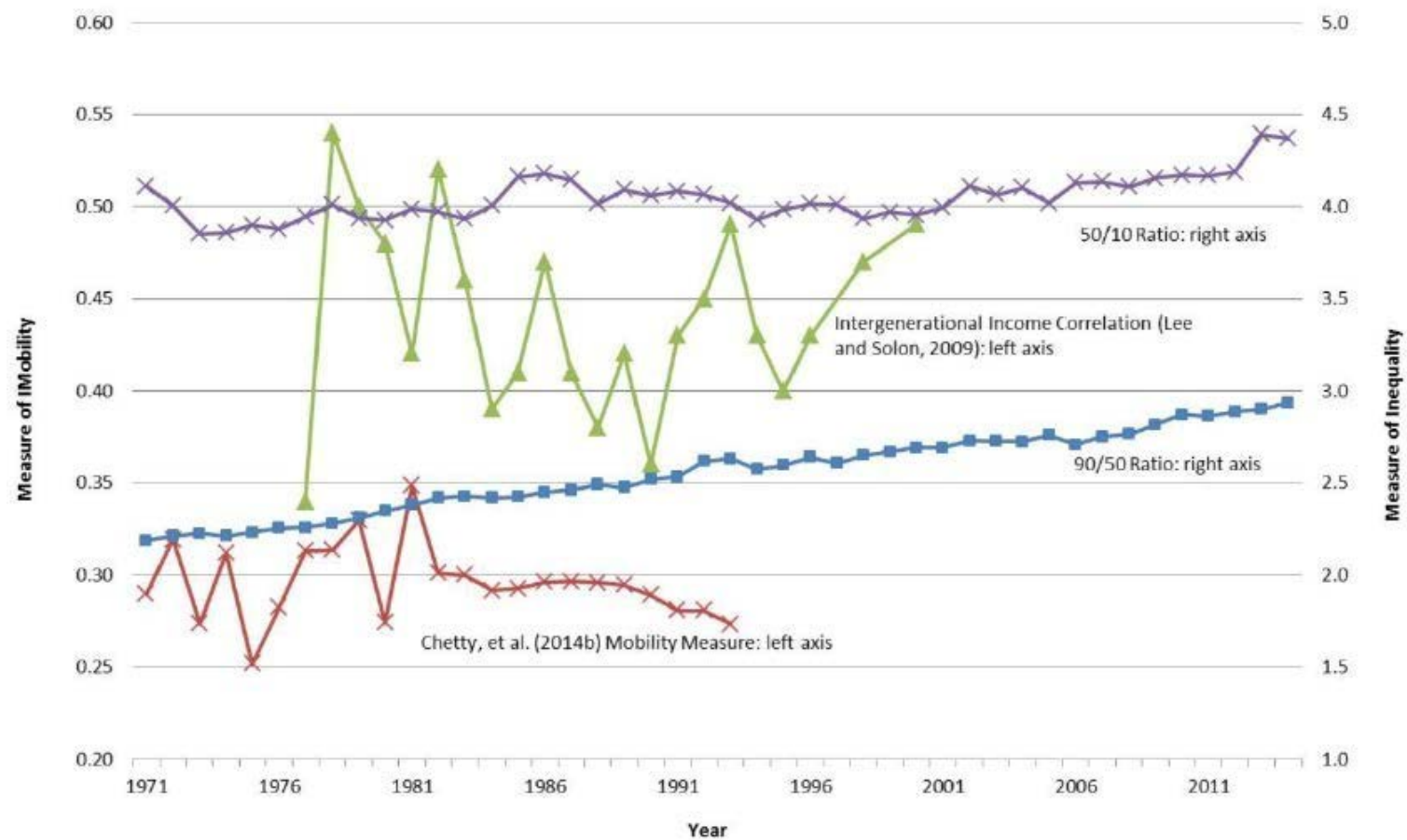
Source: Kearney and Levine (2015). Notes: The x-axis reflects the year in which income is measured for the 90/50 and 50/10 ratios. For the mobility measure in Chetty et al. (2014b), year reflects birth cohort. For the mobility measure in Lee and Solon (2009), year reflects the year in which the son's income was recorded.

Indirect evidence from locational patterns.

Basic idea: infer something about dynamics from cross-sectional variation.
Standard in the empirical intergenerational mobility literature.

Locational Heterogeneity in Mobility

Intergenerational Mobility in the US

Legend:
- 52.4 - 65.0
- 48.9 - 52.4
- 46.3 - 48.9
- 44.7 - 46.3
- 43.6 - 44.7
- 42.2 - 43.6
- 40.8 - 42.2
- 39.2 - 40.8
- 37.4 - 39.2
- 26.0 - 37.4
- Insufficient Data

Source: Chetty et al. (2014). Lighter colors represent areas where children from low-income families are more likely to move up in the income distribution.

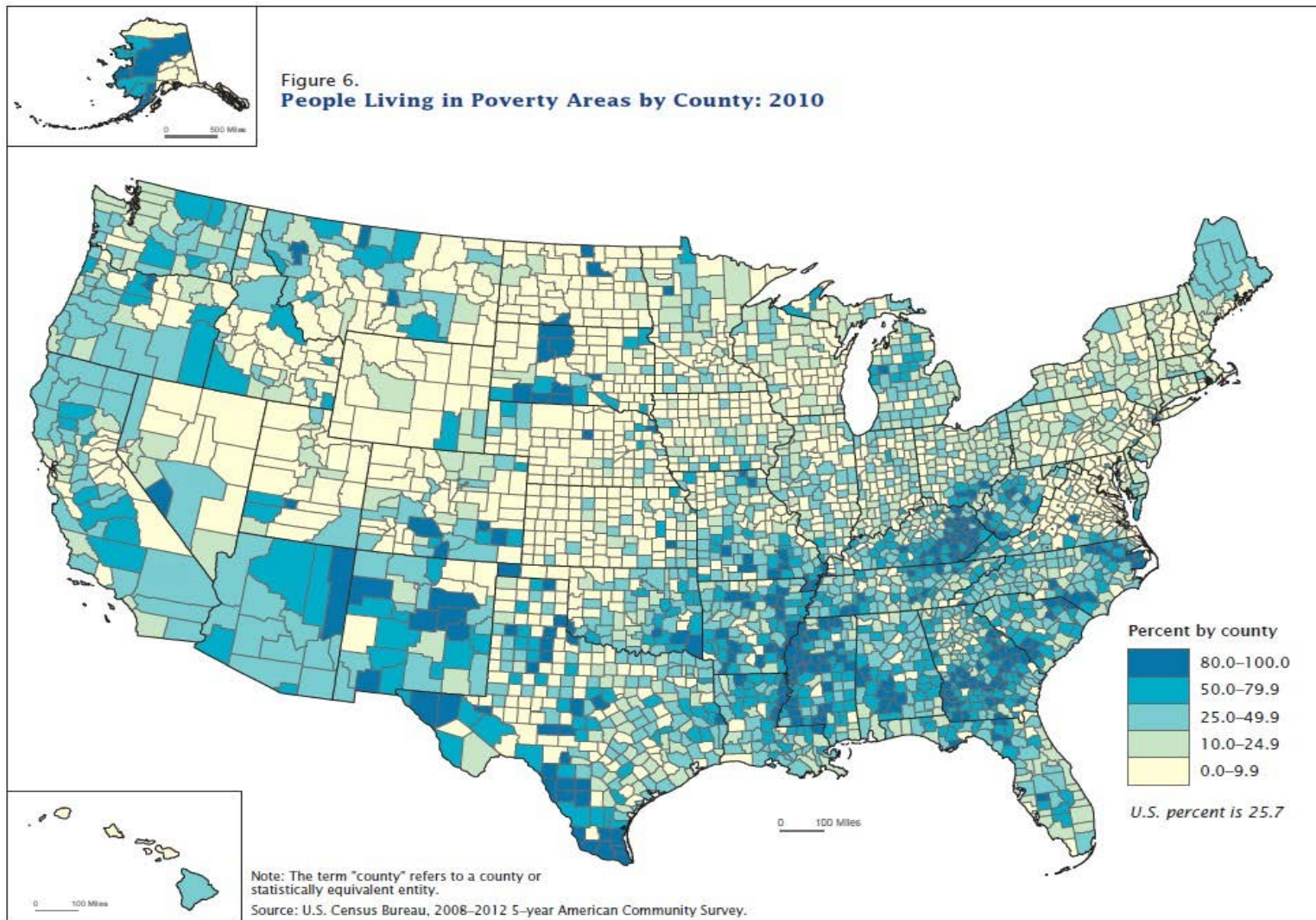# Relationship between inequality and high school non-completion
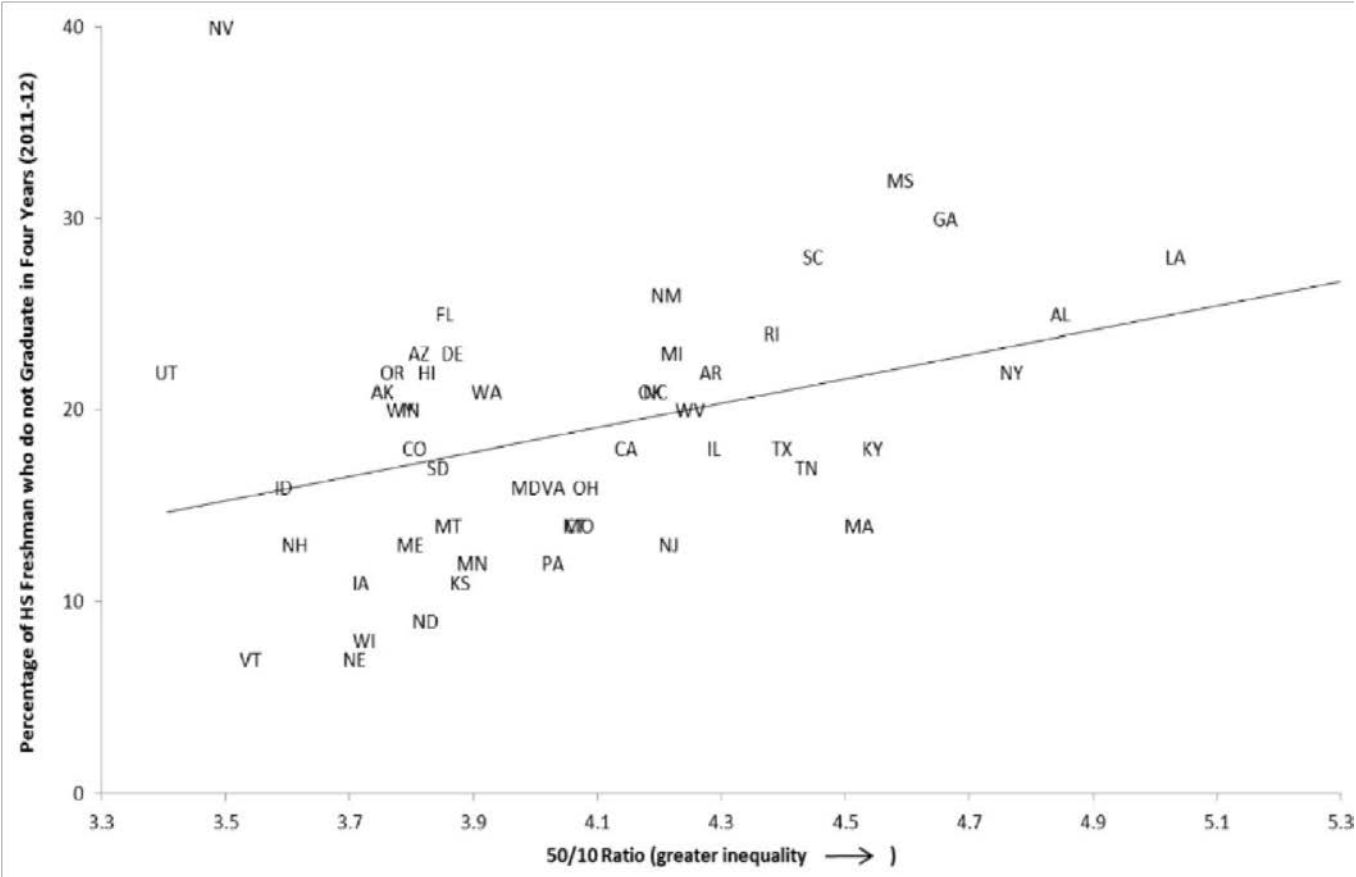
Source: Kearney and Levine (2015). Notes: The graduation data is from Stetser and Stillwell (2014). The 50/10 ratios are calculated by the authors. The District of Columbia is omitted from this figure because it is an extreme outlier on the X axis (50/10 ratio = 5.66).

Stylized Fact 3: Spatial Segregation

Socioeconomic segregation is pervasive, along a range of important dimensions in human capital formation.

Spatial concentration of poverty

Figure 6.
People Living in Poverty Areas by County: 2010

Percent by county

- 80.0–100.0
- 50.0–79.9
- 25.0–49.9
- 10.0–24.9
- 0.0–9.9

U.S. percent is 25.7

Note: The term "county" refers to a county or statistically equivalent entity.
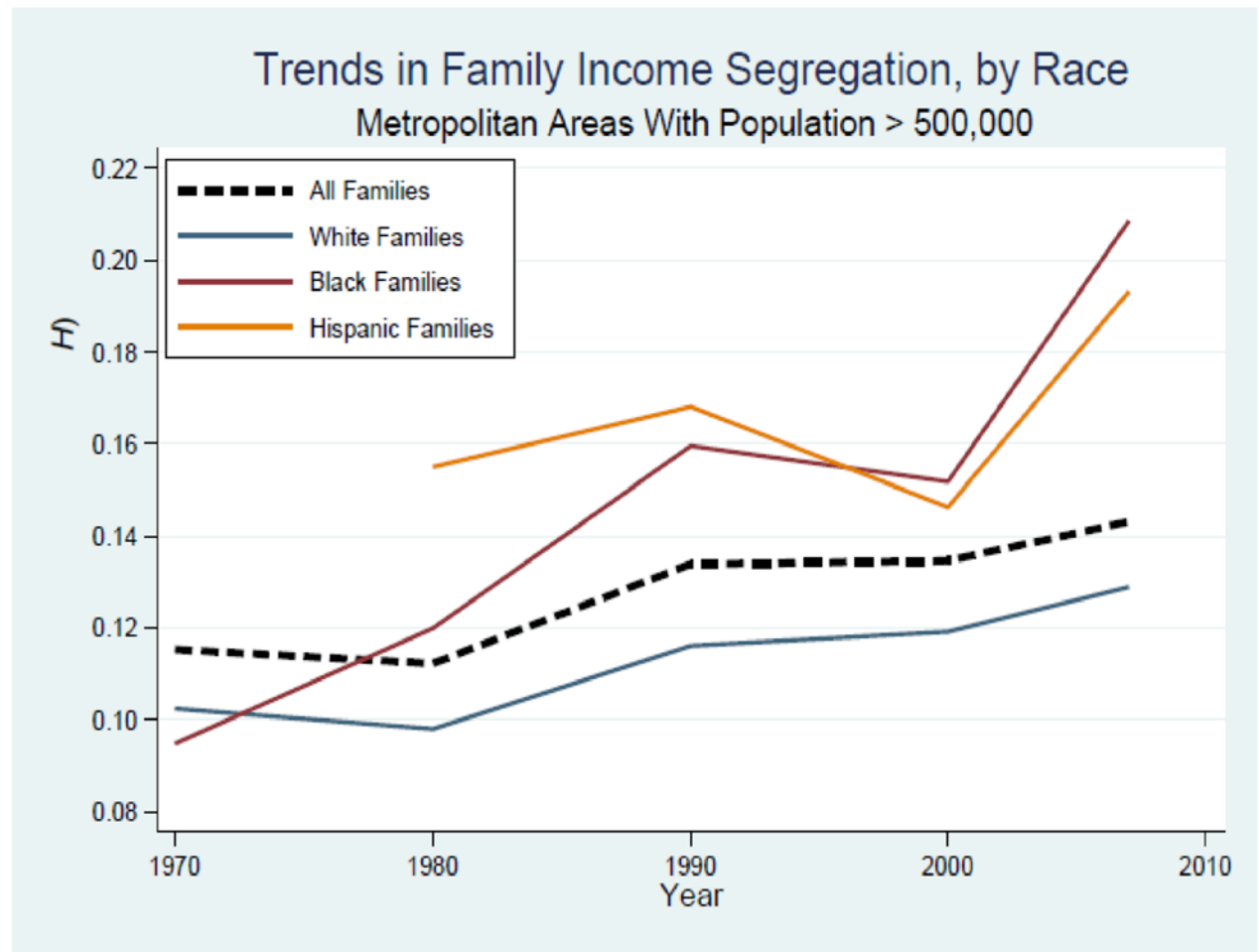Source: U.S. Census Bureau, 2008–2012 5-year American Community Survey.

Source: Bishaw (2014). U.S. Census Bureau, 2008-2012 5-year American Community Survey. Map shows percent poverty rate at the census tract level, darker blue indicating higher poverty rates.

Income segregation in Chicago
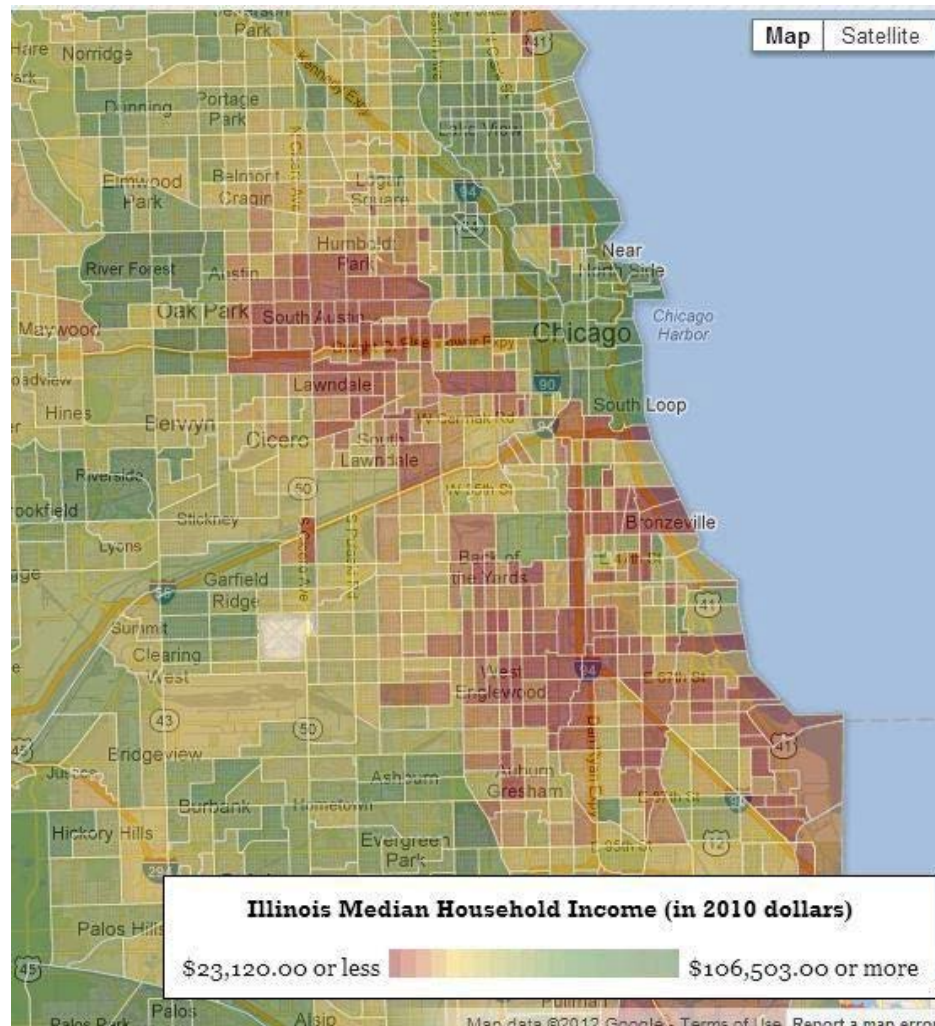
Source: RichBlocksPoorBlocks. Data taken from the US Census Bureau, American Community Survey 2011 5-year estimates at the census tract level. Green denotes higher income neighborhoods and red denotes lower income neighborhoods.

Increasing income segregation

Trends in Family Income Segregation, by Race
Metropolitan Areas With Population > 500,000

Legend:
- - - - - All Families
——— White Families
——— Black Families
——— Hispanic Families

Y-axis (H): 0.08, 0.10, 0.12, 0.14, 0.16, 0.18, 0.20, 0.22

X-axis (Year): 1970, 1980, 1990, 2000, 2010

Source: Bischoff and Reardon (2011). Vertical axis reflects a segregation index. Data taken from U.S. Census (1970-2000) and American Community Survey (2005- 2011). Averages include all metropolitan areas with at least 500,000 residents in 2007 and at least 10,000 families of a given race in each year 1970-2009 (or each year 1980-2009 for Hispanics).

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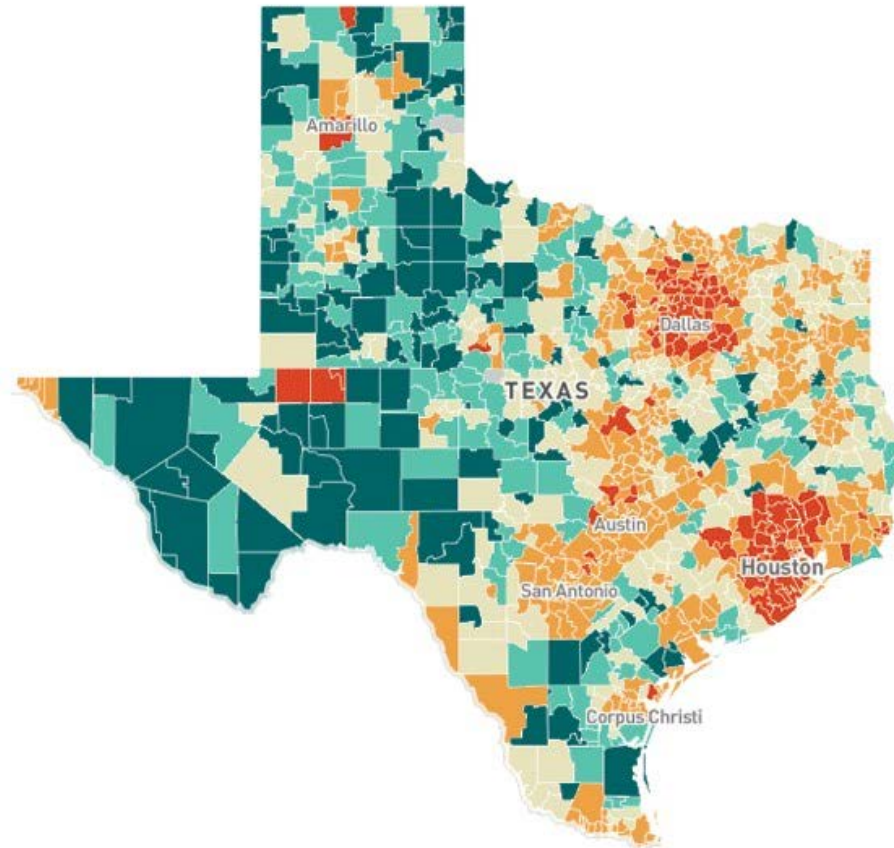# Spatial concentration of public school spending per capita
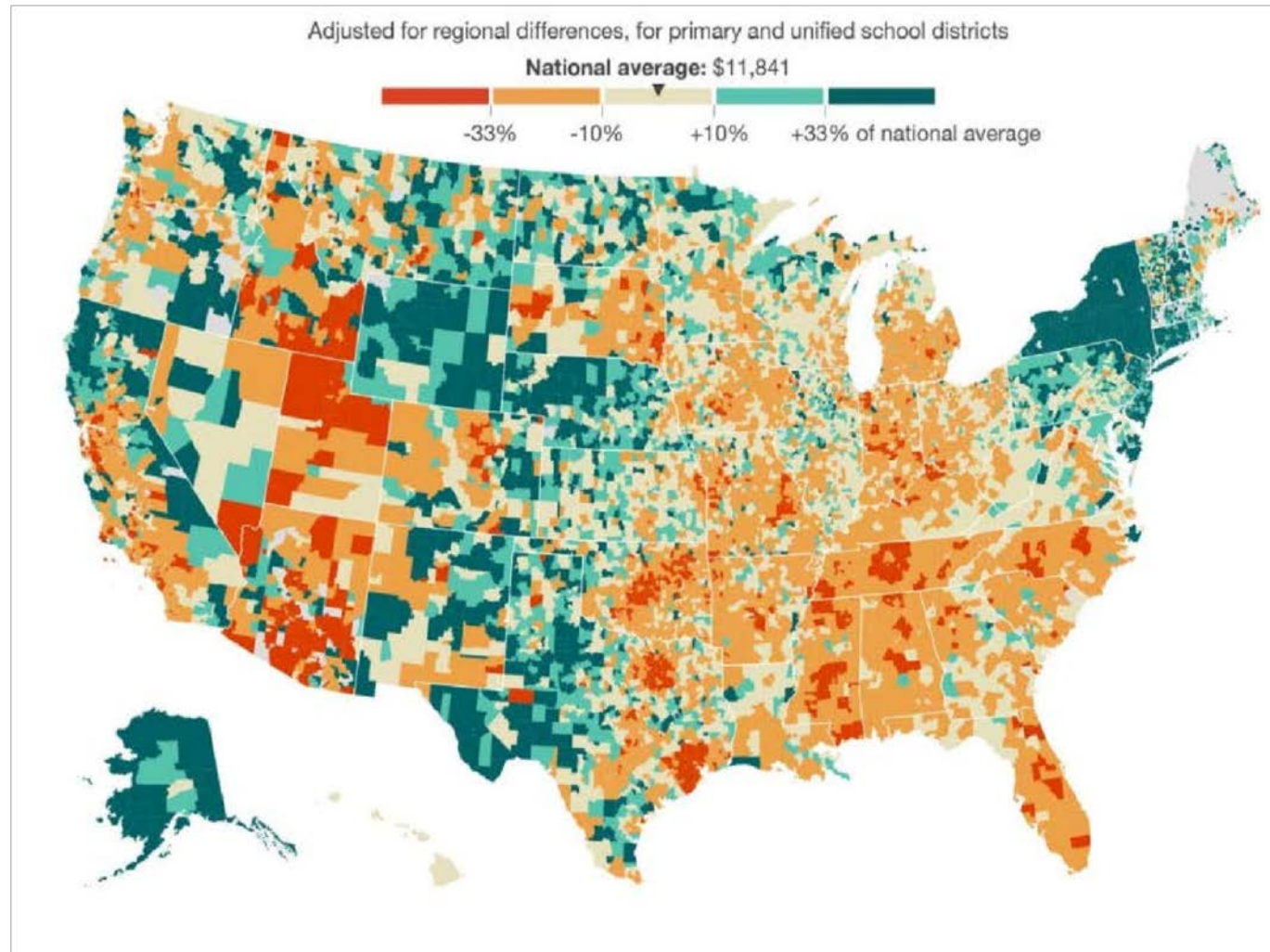
Source: Education Week, U.S. Census Bureau, Mapbox, OpenStreetMap. Credit: Katie Park and Alyson Hurt/NPR. Heat map shows the deviation in per capita public school expenditure from the national average of $11,841 for school districts in the US.

Spending per student by school district, Texas

Adjusted for regional differences, for primary and unified school districts

National average: $11,841

-33%   -10%   +10%   +33% of national average

Source: Education Week, U.S. Census Bureau, Mapbox, OpenStreetMap. Credit: Katie Park and Alyson Hurt/NPR. Heat map shows the deviation in per capita public school expenditure from the national average of $11,841 for school districts in Texas.

Spatial concentration of exposure to violent crime
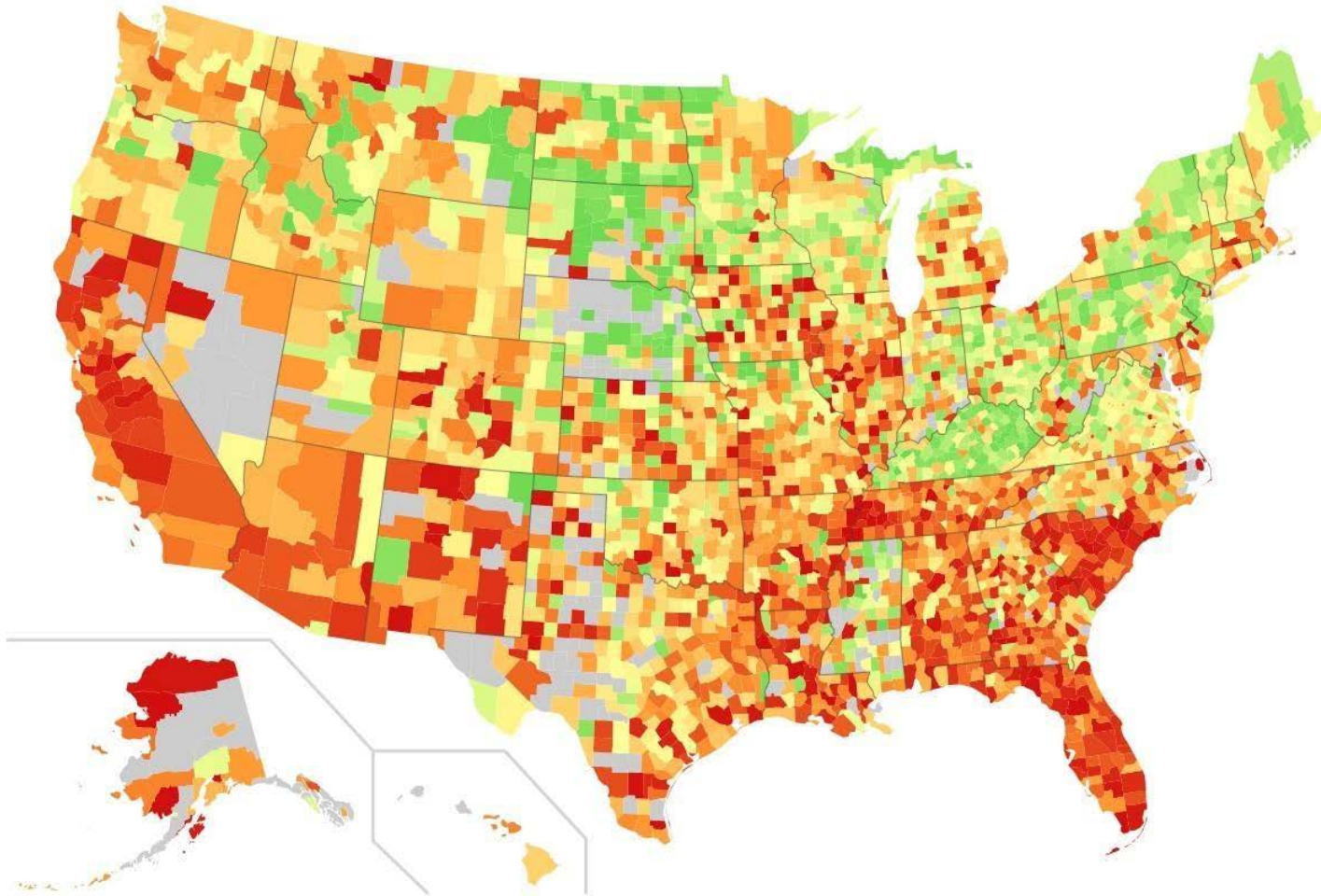
Map: FindTheHome/FindTheBest using FBI Uniform Crime Report. The map is a heat map of violent crime with red being highest crime rates and green being lowest crime rates. Grey areas represent a lack of crime data. Data based on FBI reports on murder, rape, robbery, and aggrevated assault. Crime is reported at the county level and reporting is voluntary.

Distribution of homicides in Chicago
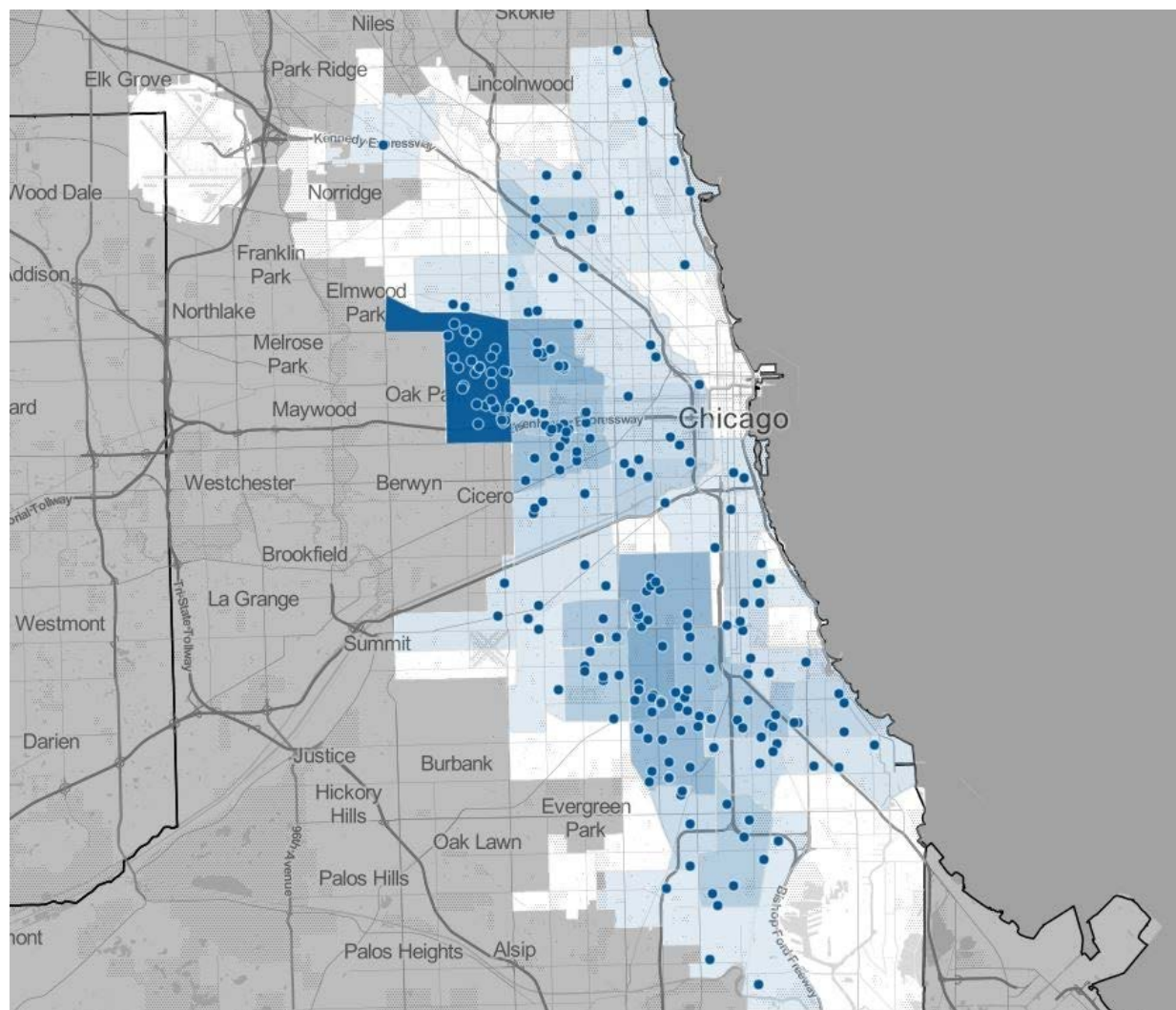
Source: Chicago Tribune. Accessed May 21, 2016. Intensity of homicides in a neighborhood captured by the shade of blue. Dots represent precise location of homicides.

Our Approach

We focus on two mechanisms whose interactions produce an intertemporal Gatsby curve.

1. Social influences on individual outcomes.

2. Market frictions.