

R P A

Assembly

# Edward Glaeser

Harvard University

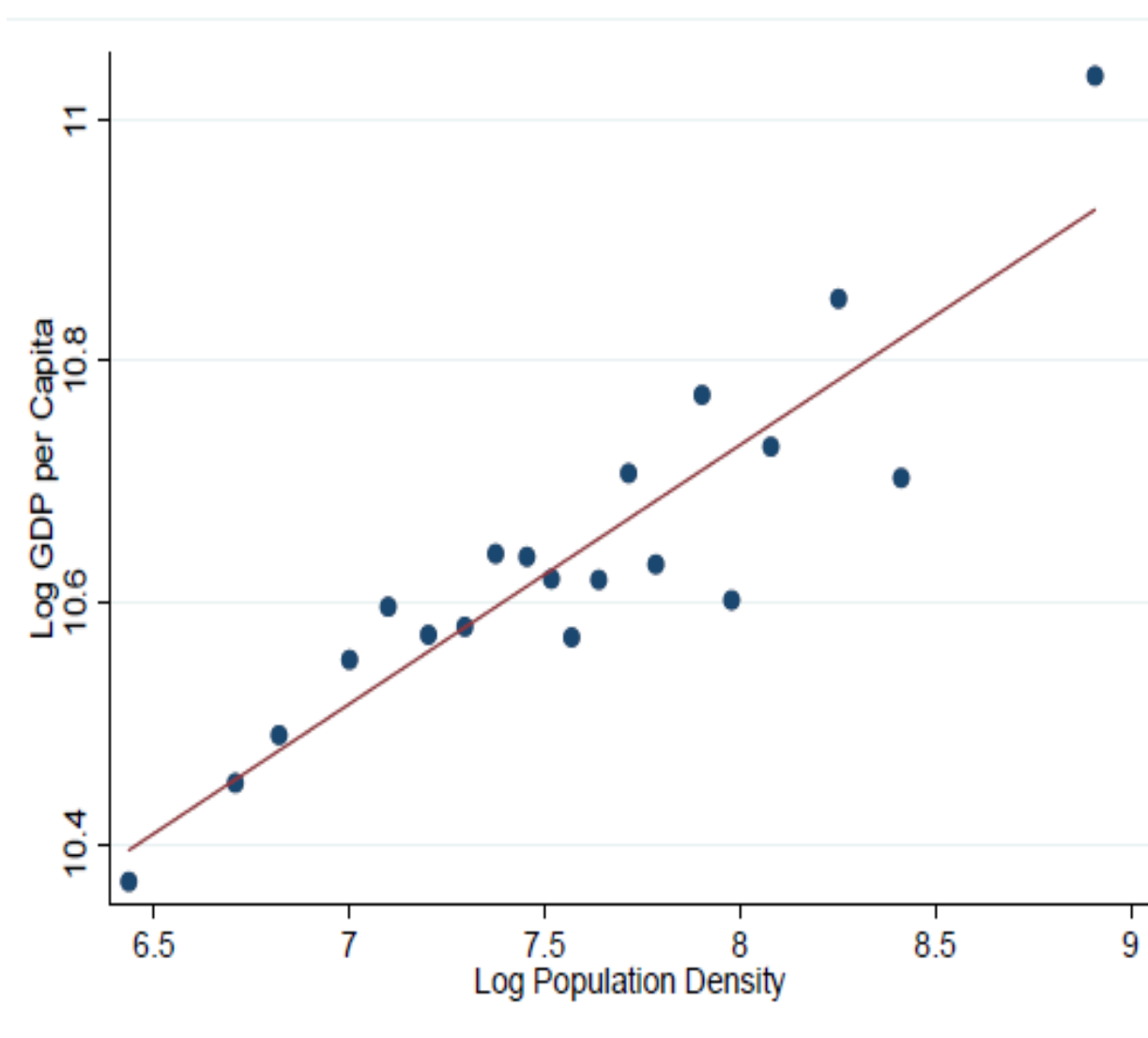


FIGURE 1. RELATIONSHIP BETWEEN DENSITY AND PER CAPITA GDP

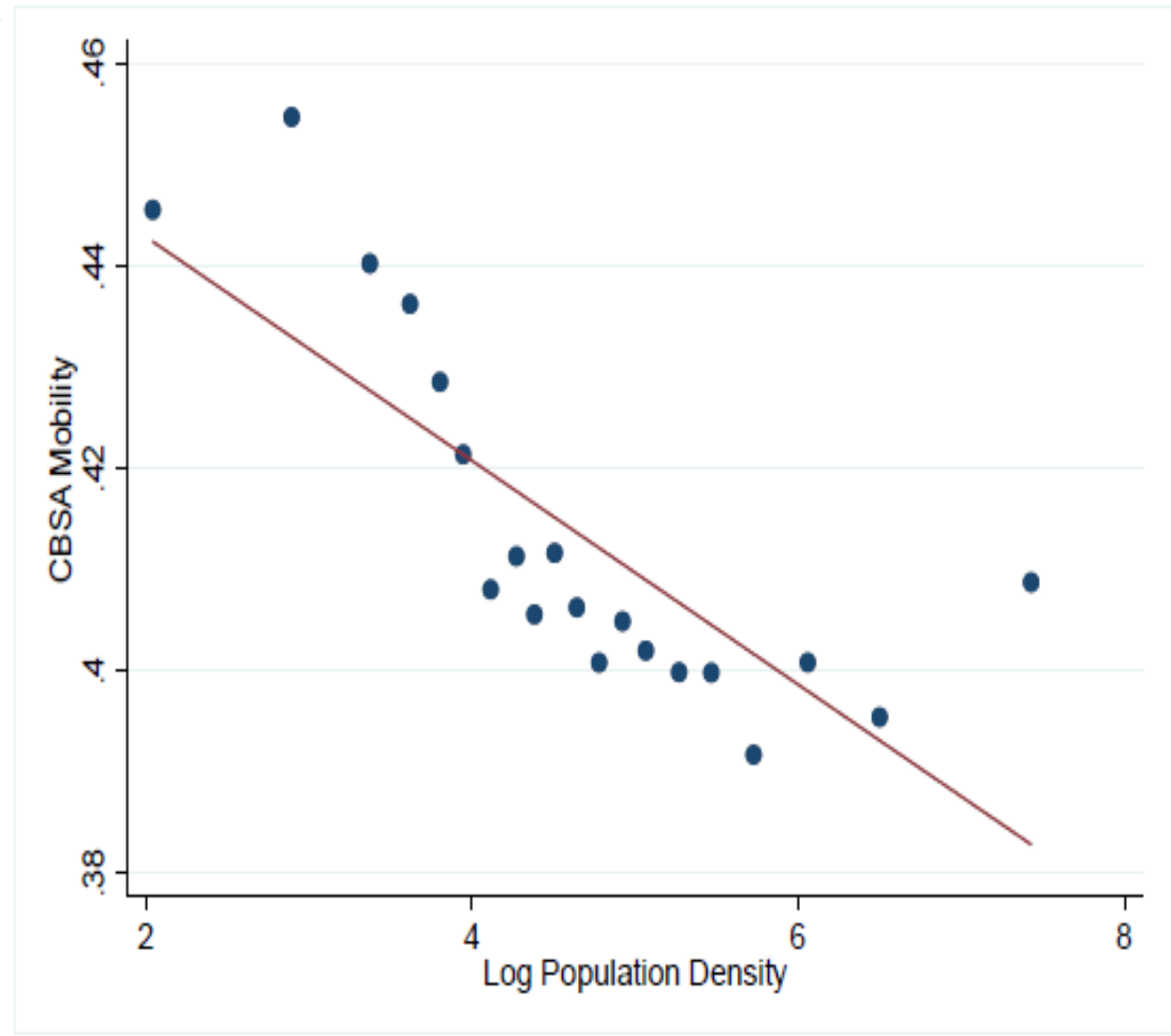
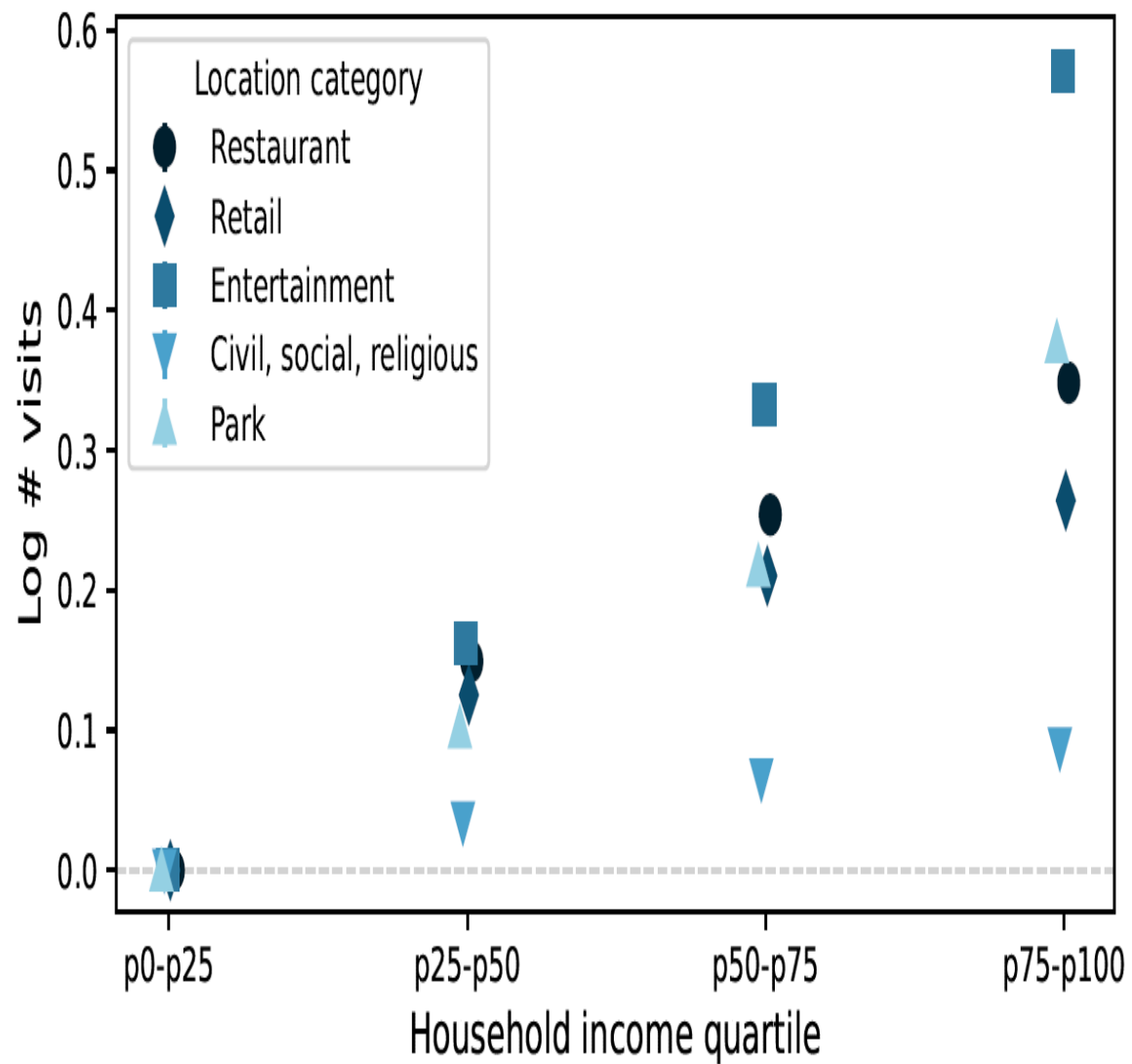
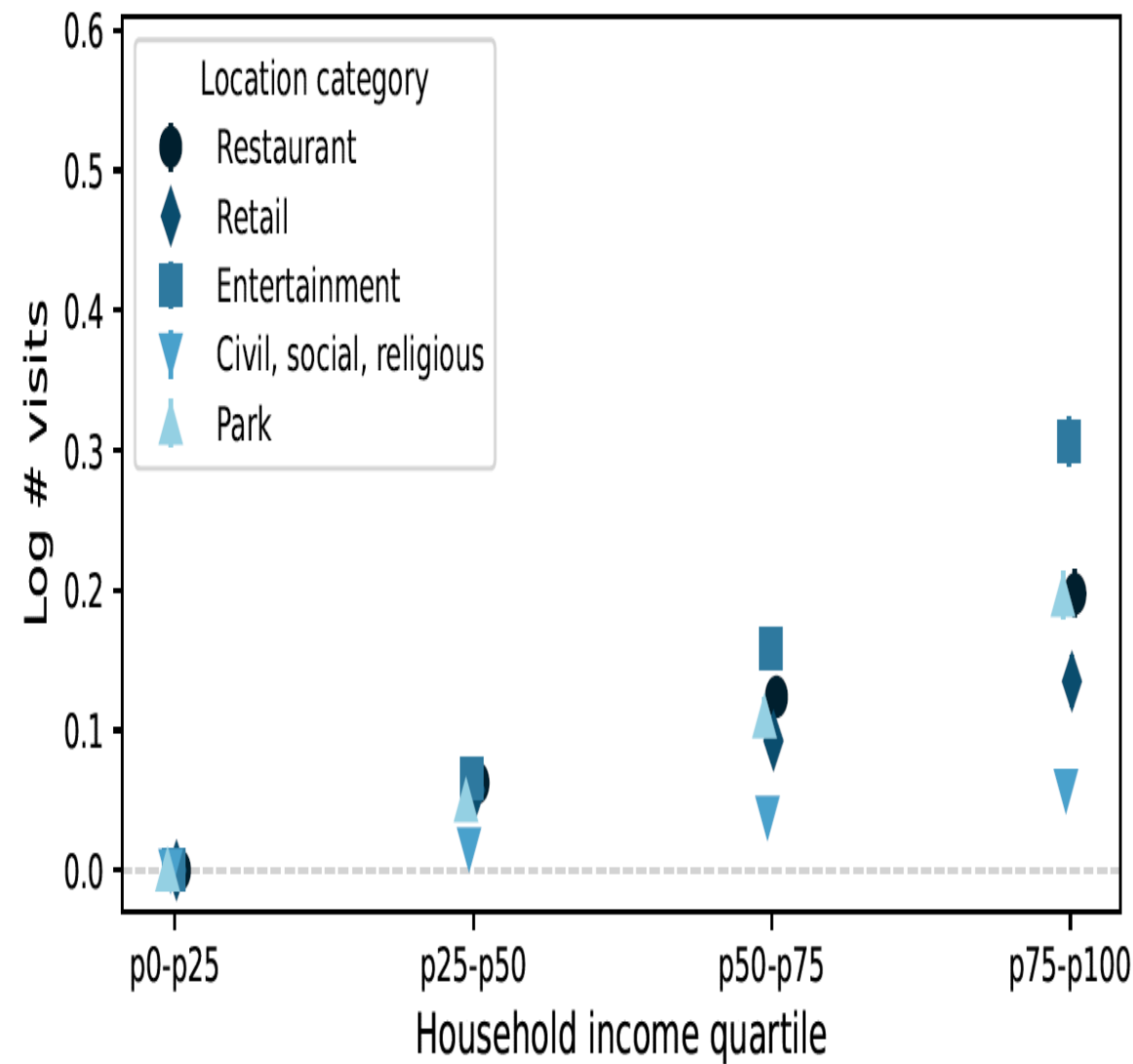


FIGURE 3. RELATIONSHIP BETWEEN DENSITY AND METRO AREA MOBILITY

(e) Visits to amenities (MSA FEs)



(f) Visits to amenities (Tract FEs)





# KASTLE BACK TO WORK BAROMETER

Weekly Occupancy Report from Kastle Access Control System Data

02.09.26

## OCCUPANCY OVER TIME - MARCH 4, 2020 TO FEBRUARY 4, 2026



\*On March 22, 2021, Kastle moved from daily to weekly data reporting to provide a more robust and comprehensive picture of office occupancy. We have also recalculated data back to the start of the time series for consistency. This has only a marginal impact on most cities and the national average.






**FINAL** **DAILY NEWS** **15¢**  
NEW YORK'S ORIGINAL NEWSPAPER  
WEDNESDAY, SEPTEMBER 11, 1975

# FORD TO CITY: DROP DEAD

***Vows He'll Veto Any Bail-Out***



**Abe, Carey  
Rip Stand**

***Stocks Skid,  
Dow Down 12***

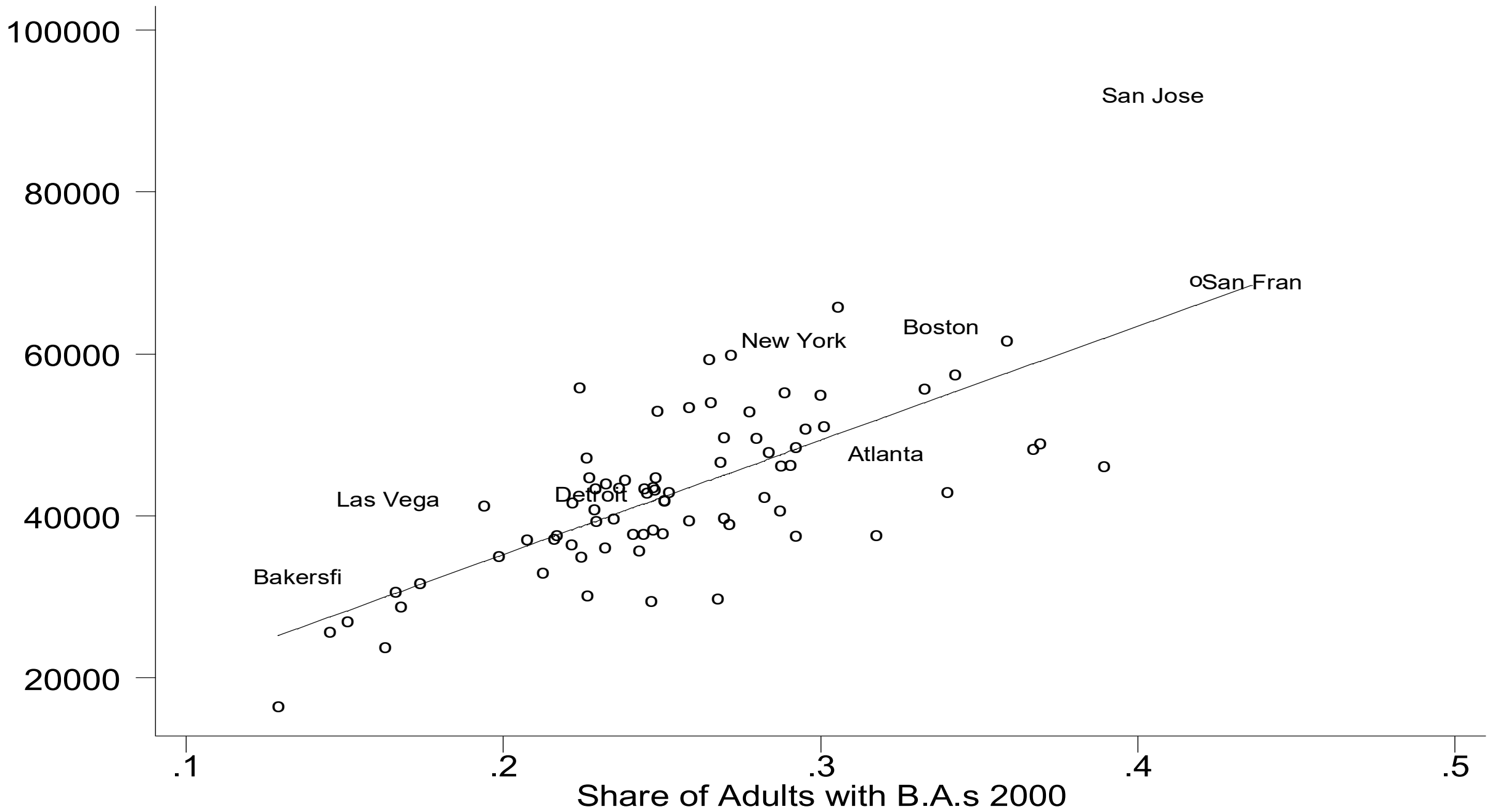
These pages of special  
interest are priced at 15¢ each.  
All other pages are 10¢.

Cities are so monumental that we easily forget how fast they can fall—and rise. In the 1970s, New York verged on bankruptcy; President Ford refused to bail it out (left), and President Carter toured the grim ruins of the South Bronx (above). Three decades before these iconic images, Gotham had been an urban paragon, and three decades after them, it is again.

[Art 1:] *New York Daily News Archive / Getty Images*

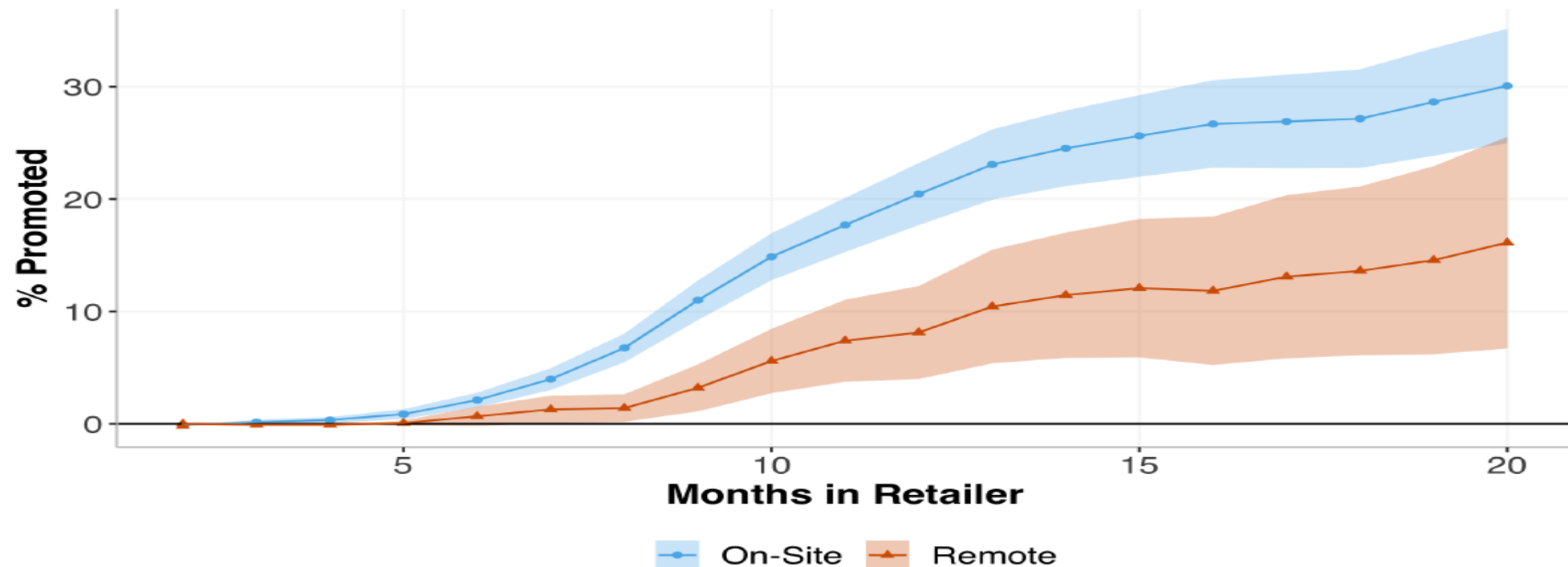
[Art 2:] *Teresa Zabala / The New York Times / Redux Pictures*

# Per Capita GDP 2010



# The Dynamic Consequences of Working Remotely: Emmanuel and Harrington (2021)

Figure 1: Promotion among Remote and On-Site Workers



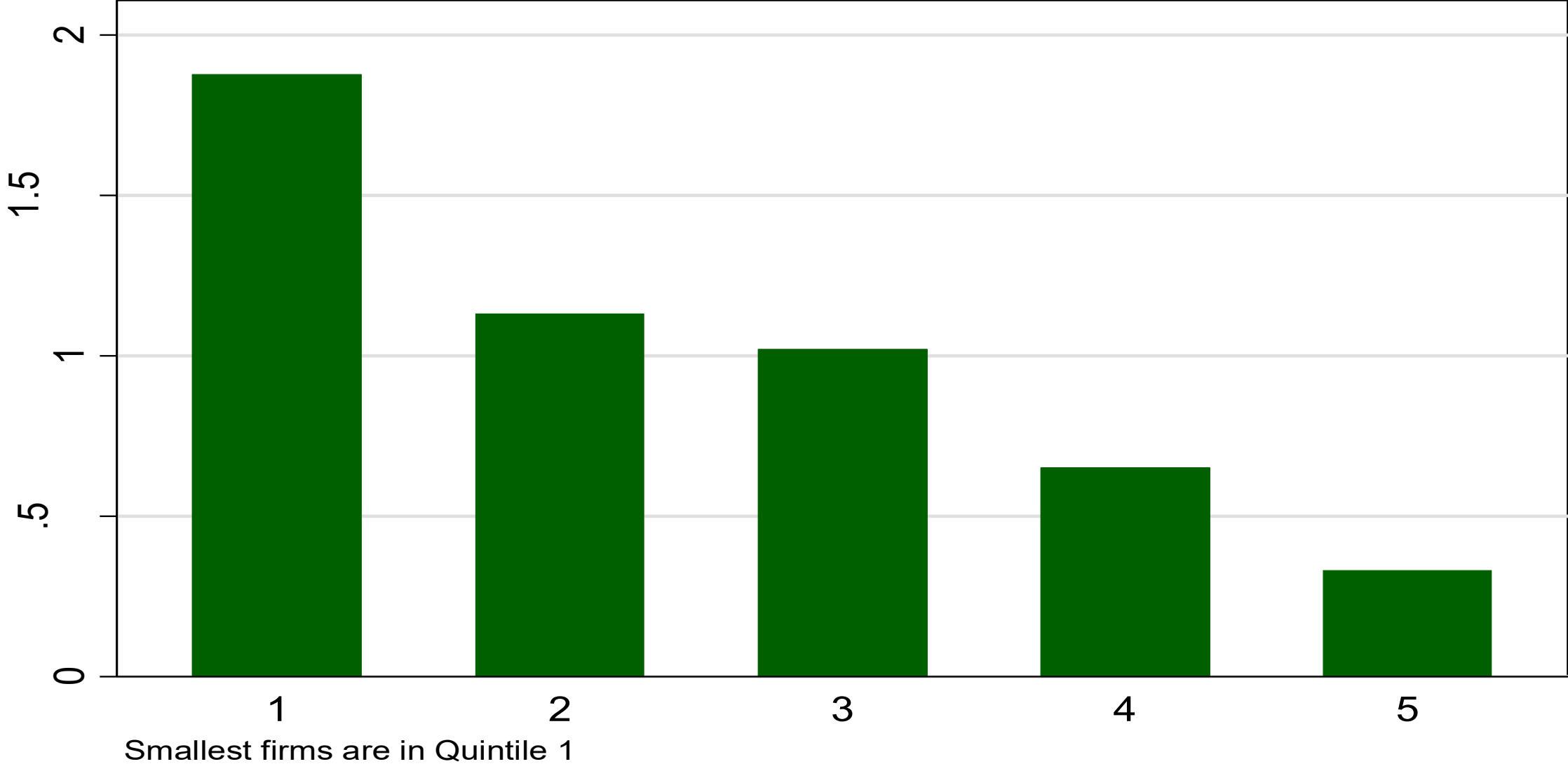
*Note:* This figure considers the promotion rates of remote workers (in blue circles) and on-site workers (in orange triangles). The x-axis plots the workers' tenure and the y-axis plots the percent who have been promoted among those who persist at the retailer. The error ribbons reflect 95% confidence intervals with standard errors clustered at the worker level. The sample limits to workers hired after July 2018 when the retailer began to hire workers directly into remote jobs and before April 2020 when on-site call-centers closed due to COVID-19.

# Chinitz: Contrasts in Agglomeration: New York and Pittsburgh



# Economic Growth and Firm Size

MSA Employment Growth (1977-2010)  
by Average Firm Size (1977) Quintiles



# The Consumer City and the Battle for Talent: Attract Smart People and Get Out of the Way



# The Urban Triad



The Economic Magic of Human Interaction by חדוה שנדרוביץ

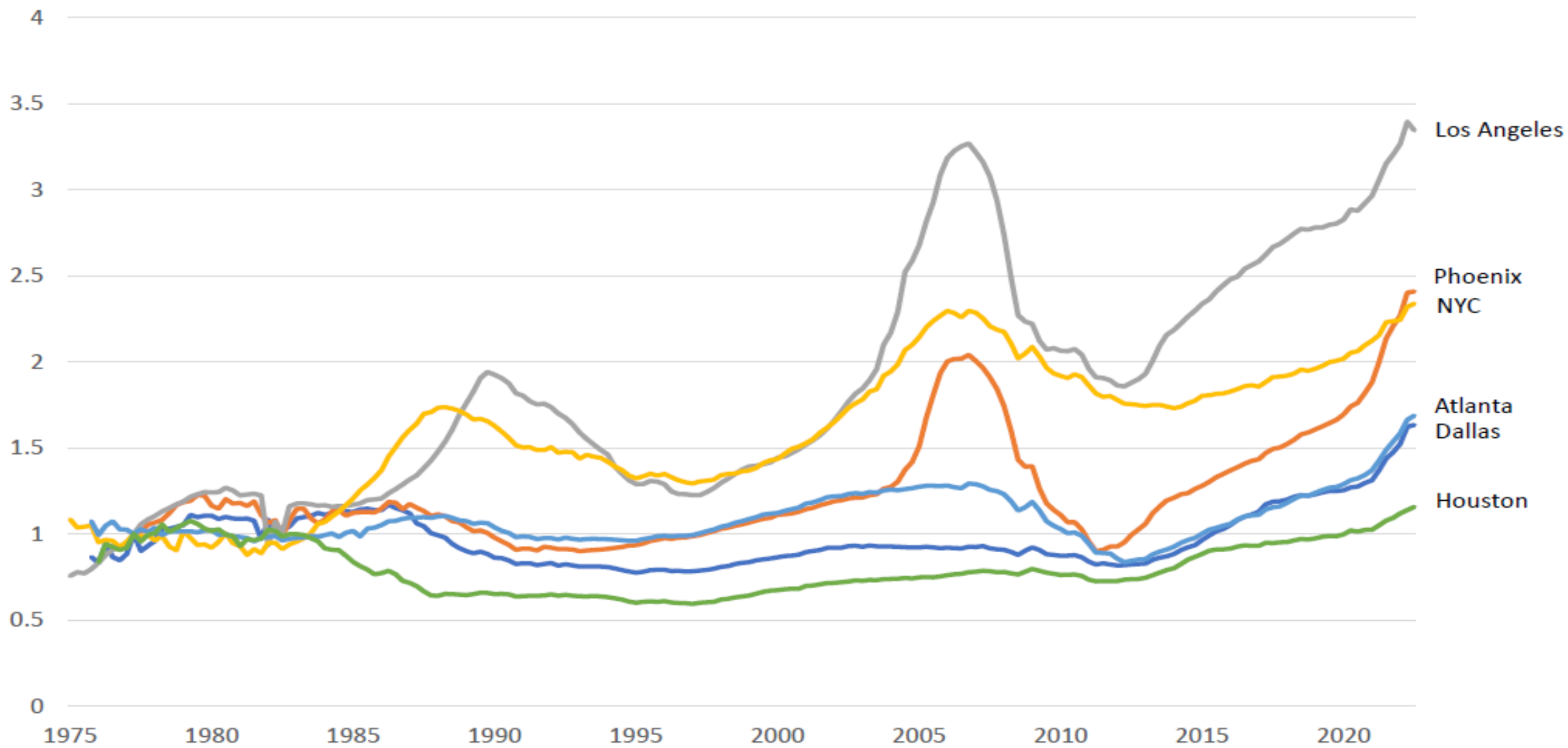


Government battling the Demons of Density



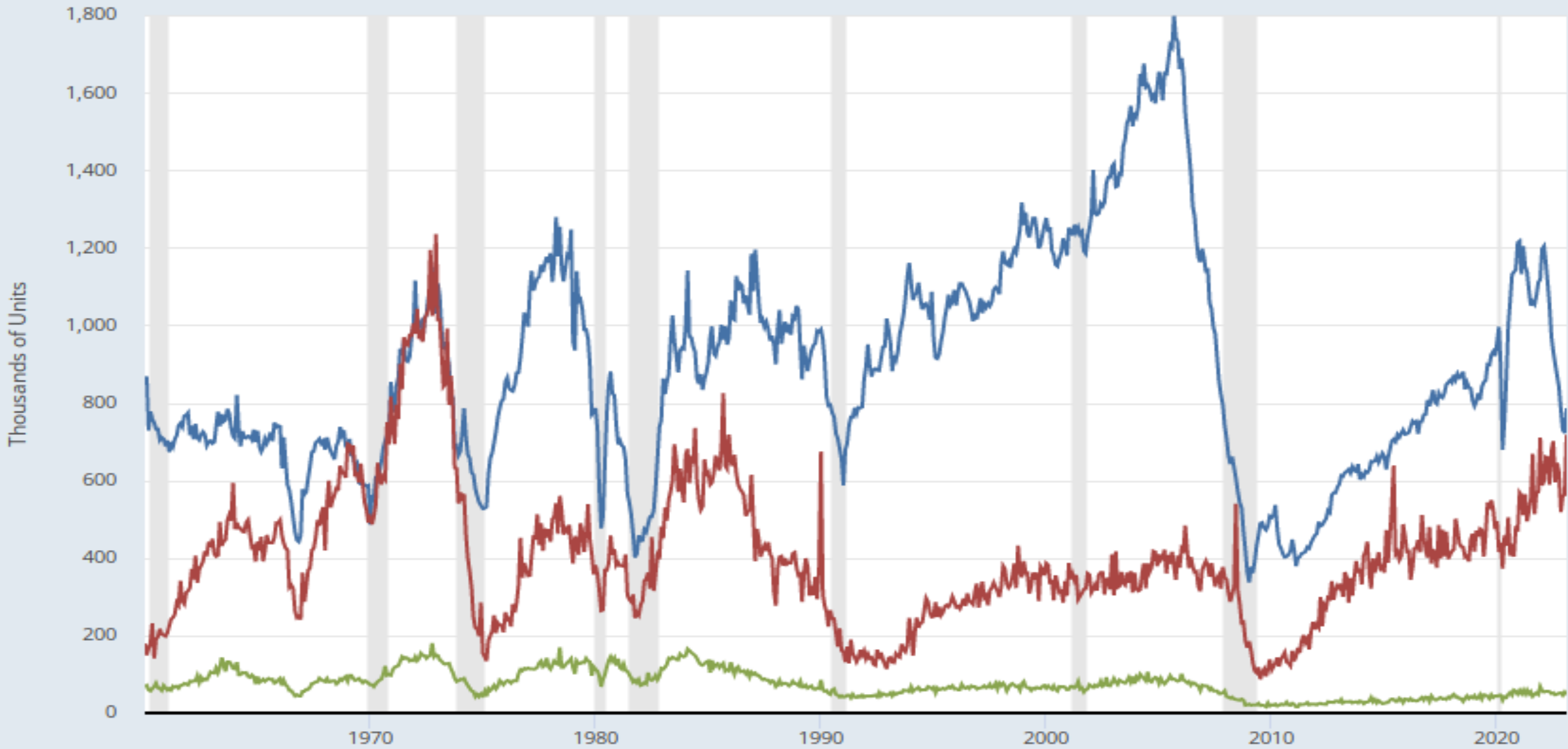
The Physical City by rulto

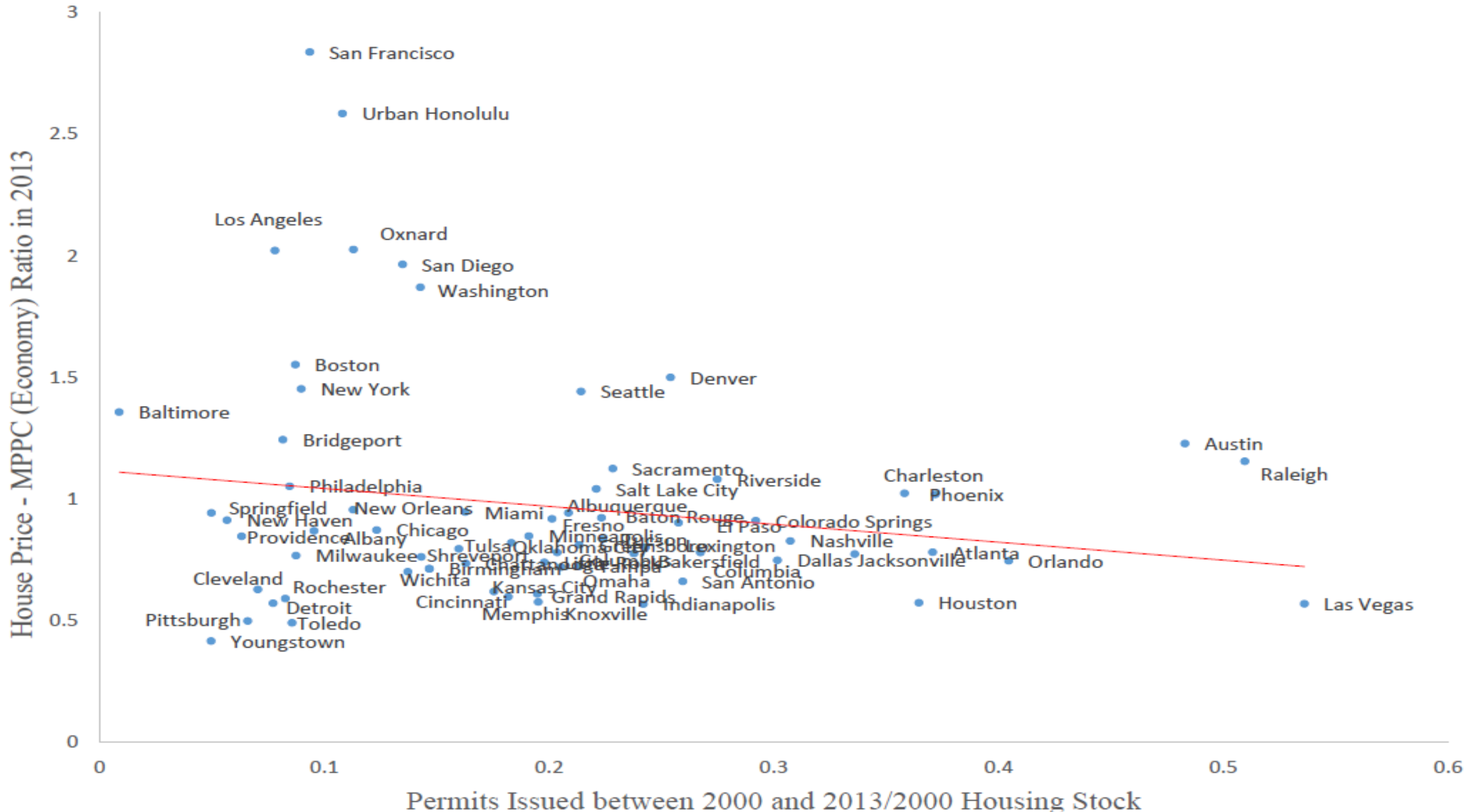
# Growth in Inflation Corrected CPI Case-Shiller House Indices



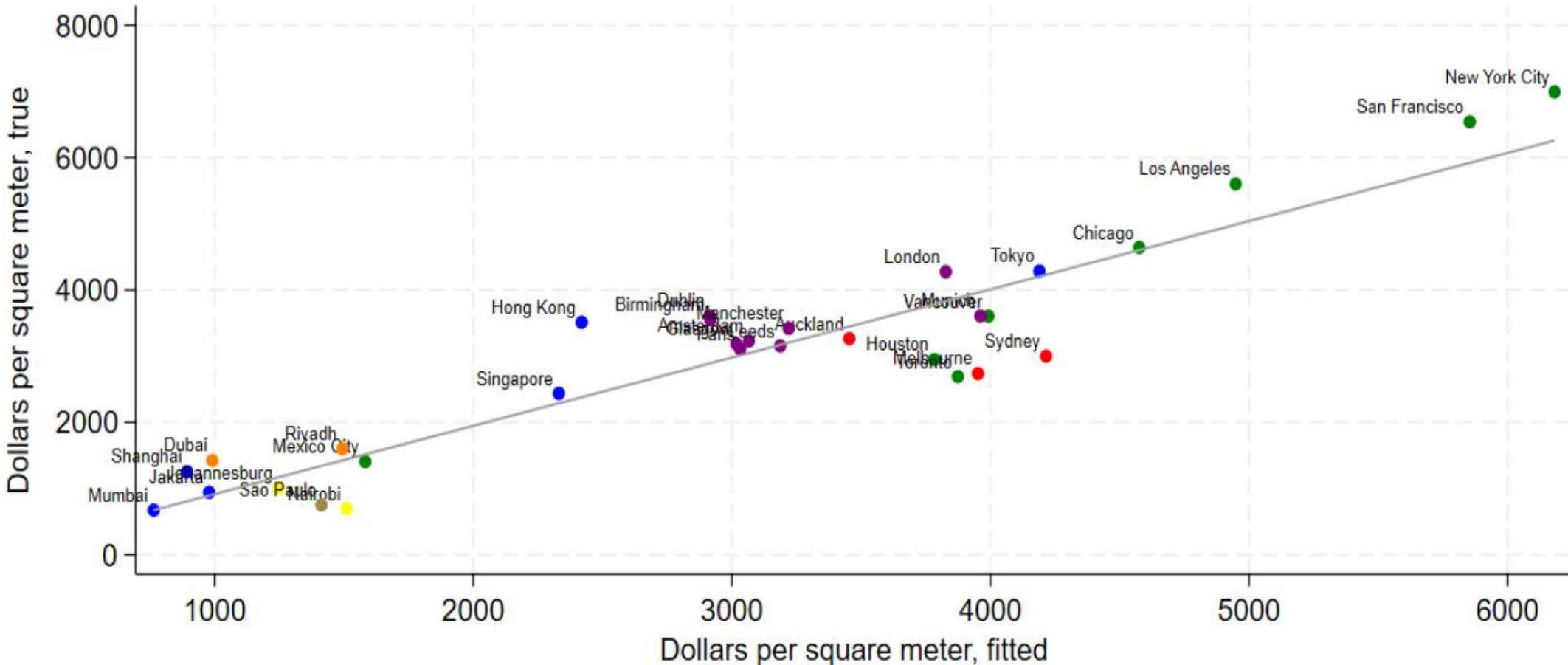
Source: Federal Reserve data, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average, Index 1 = 4/1/77, Quarterly, Not seasonally adjusted

- New Privately-Owned Housing Units Authorized in Permit-Issuing Places: Single-Family Units
- New Privately-Owned Housing Units Authorized in Permit-Issuing Places: Units in Buildings with 5 Units or More
- New Privately-Owned Housing Units Authorized in Permit-Issuing Places: Units in Buildings with 2-4 Units





# CONSTRUCTION COSTS ARE ABNORMAL IN THE US

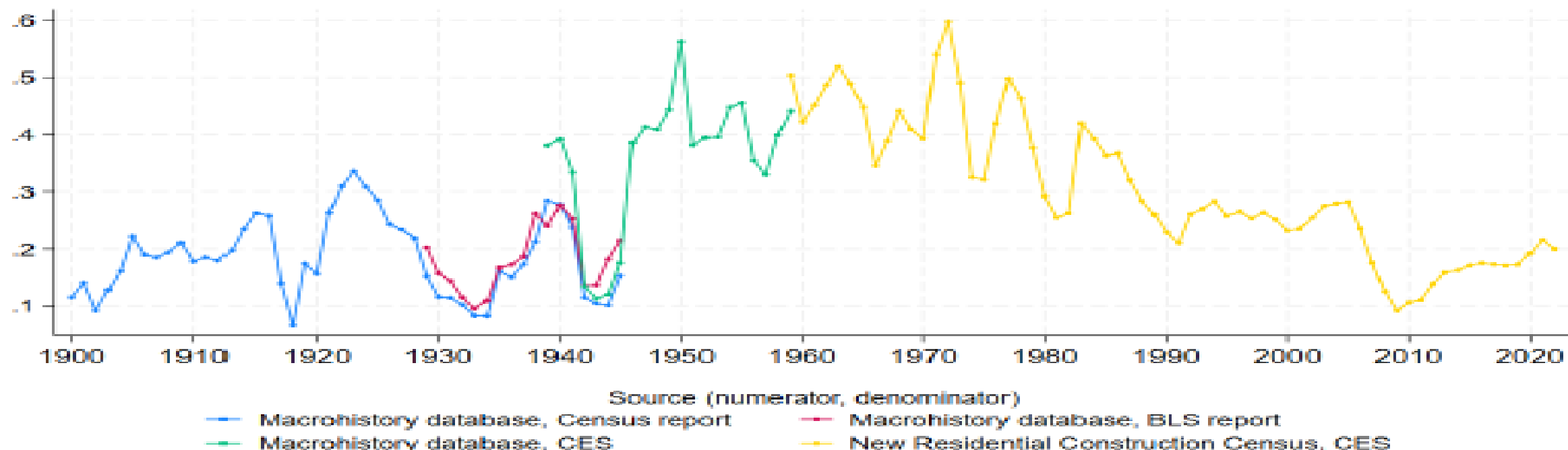


- Oceania
- North America
- Asia
- Africa
- Middle East
- Europe
- South America
- Fitted values

$\beta$ : 1.031; (p-val: 0.000); Correlation: .928

# Declining Productivity in Construction (joint with D'Amico, Gyourko, Kerr and Ponzetto)

Figure 4: Housing Units Started per Employee in the Construction Sector



*Note.* The figure plots housing units started per employee in the construction sector, from 1900 to 2023. We take housing units between 1900 and 1959 from the Macrohistry Database, specifically from the sources denominated *US Number of New Private Nonfarm Housing Units Started, One-, Two-, and Three-or-more*. From 1959 onward, the data comes from the Census's New Residential Construction program, specifically from the *New Privately Owned Housing Units Started* series. Employment data in the construction sector between 1900 and 1945 was obtained from the *Historical Statistics of the United States, 1789 - 1945*, series D62-76. For the 1929-1945 time period, we also consulted a Bureau of Labor Statistics (BLS) historical report, which corroborates our main series. From 1939 onward, employment in the construction industry was taken from the BLS's Current Employment Statistics (CES).

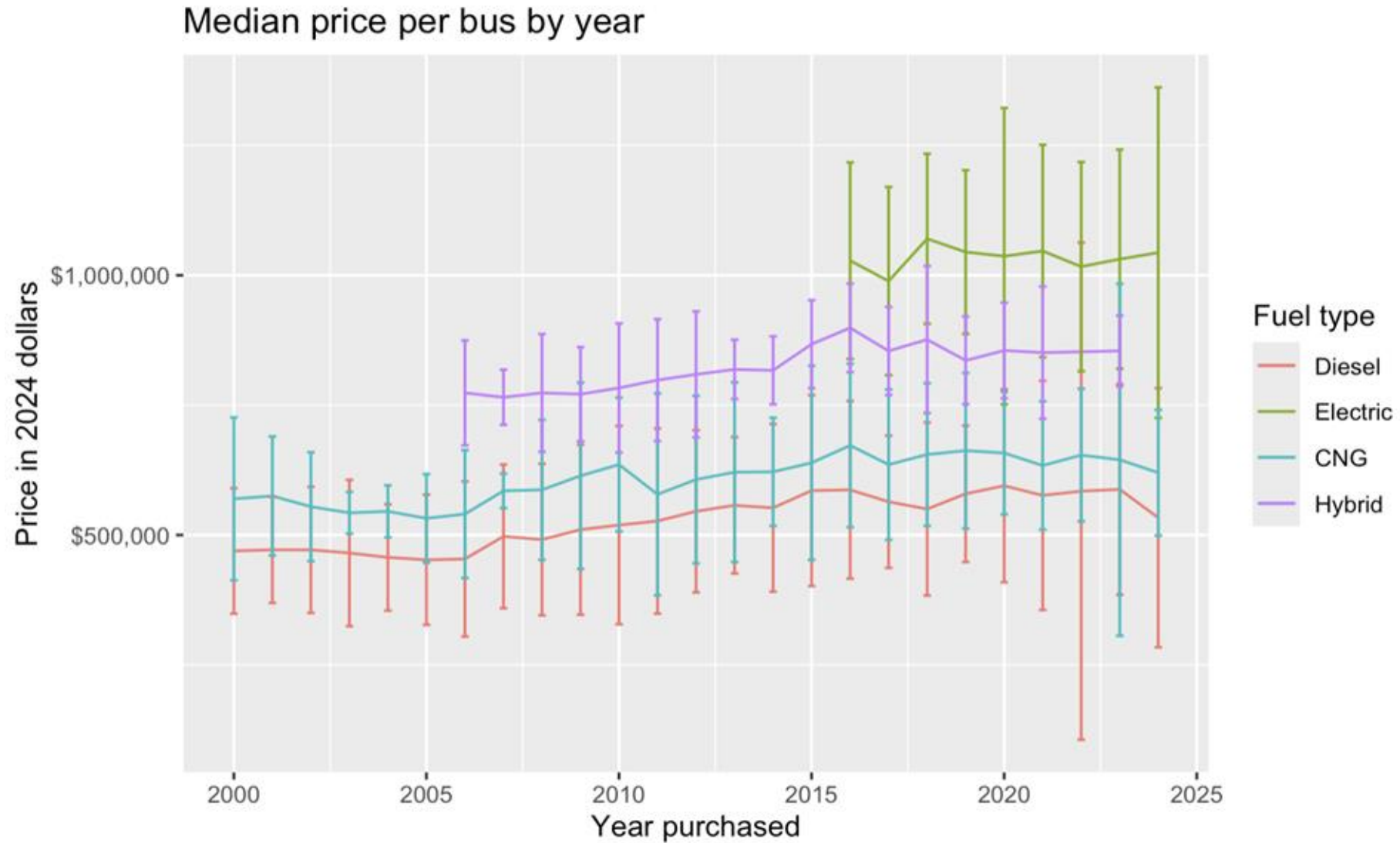
**Table 4. Cost-per-mile of large U.S. urban transit projects**

City	Project Name	Start Date	End Date	Cost/Mile (\$M)
Seattle	U-Link	2009	2016	637
Los Angeles	Purple Phase 3	2020	2027	1379
Los Angeles	Purple Phase 2	2018	2026	920
Los Angeles	Purple Phase 1	2014	2023	758
Los Angeles	Regional Connector	2014	2022	966
San Francisco	Central Subway	2010	2021	1115
Boston	Green Line Extension	2013	2021	523
San Francisco	BART to San Jose	2022	2030	1157
New York	7 extension	2007	2014	2921
New York	Second Avenue Phase 1	2007	2016	3156
New York	Second Avenue Phase 2	2019	2029	4271
New York	East Side Access	2007	2022	7081
New York	Gateway	2019	2026	2885
Honolulu	HART	2011	2026	528
Los Angeles	Crenshaw/LAX Line	2014	2021	266
Miami	Metrorail extension to MIA	2009	2012	253
Seattle	West Seattle and Ballard	2026	2036	1045
Washington	Silver Line Phase 1	2009	2014	304
Washington	Silver Line Phase 2	2013	2021	264

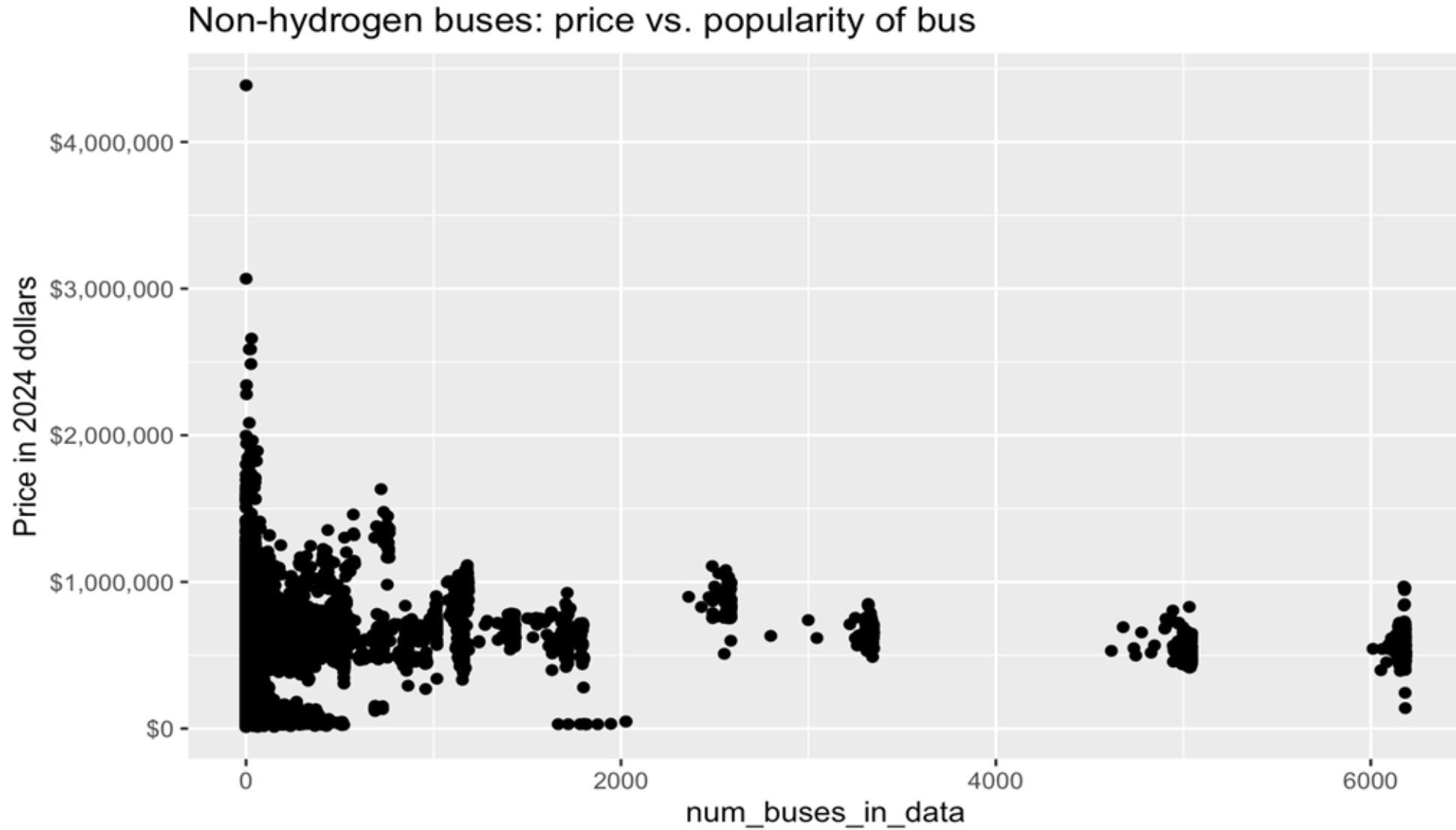
NYU Transit Costs Database  
 “For the 19 projects in the database that are in the United States, the average cost was \$1,601 million per mile, compared with a non-U.S. global average of \$478 million. The median U.S. project was \$965 million per mile, compared with a non-U.S. median of \$299 million. The database also contains information on the share of the rail system that is underground. When we restrict our analysis to the 255 projects that are 100% in tunnels, the median cost of the 11 U.S. projects is \$1,379 million per mile, compared with a non-U.S. global median of \$341 million.”  
 Glaeser and Poterba (2021).

**Note:** The original source, <https://transitcosts.com/data/>, reports cost estimates in current dollars. All estimates have been converted to 2021 dollars.

# Cost: Climbing and stagnant prices



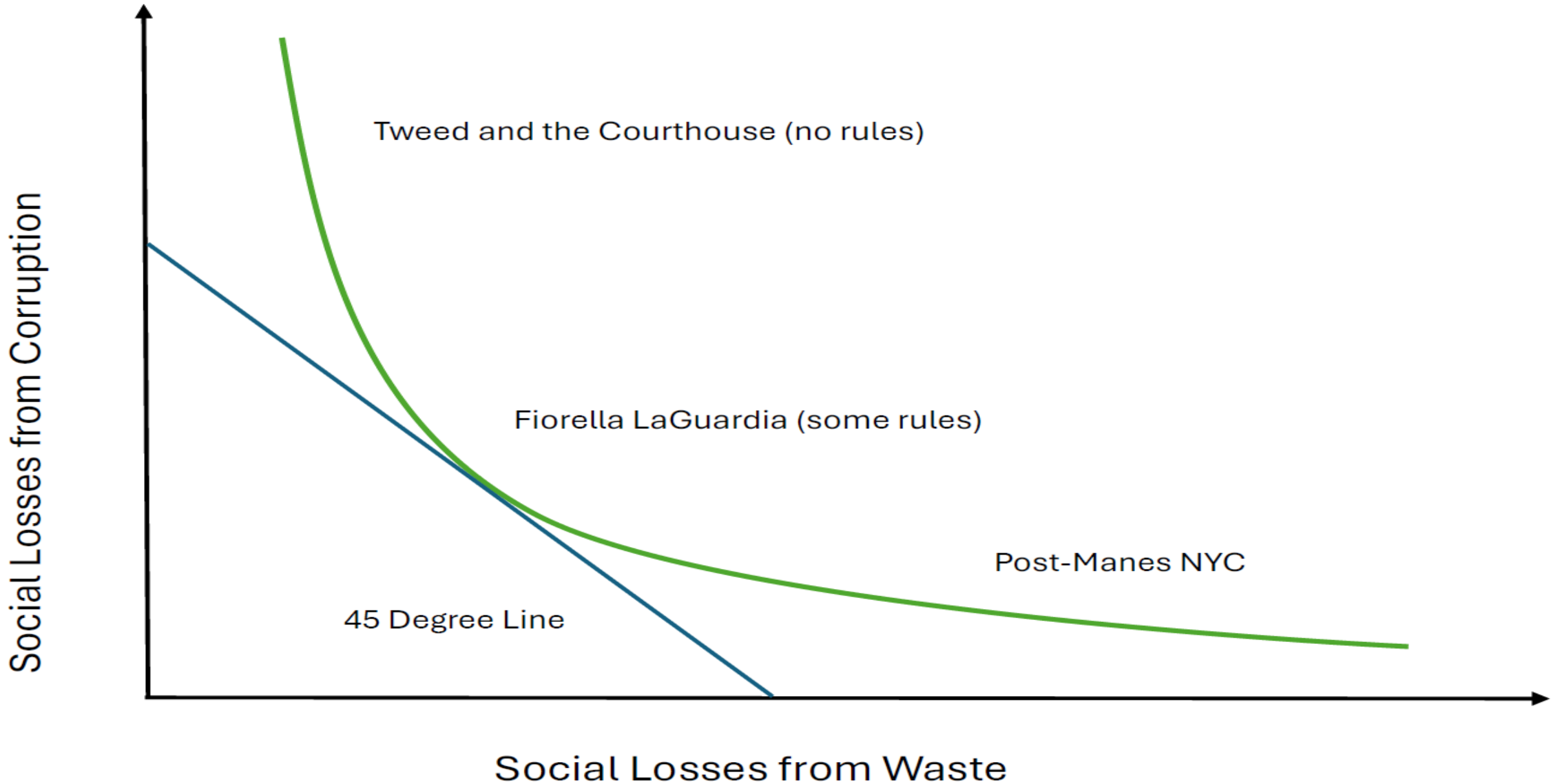
# Customization: unique buses limit economies of scale



# Well-run countries don't overregulate their procuring entities

- The World Bank Procurement Survey measures procurement processes, laws, outcomes and processes across the world by asking about a hypothetical road.
- Four more or less true implications of our model:
  - # 1: Regulatory Laws that reduce PE discretion reduce bribery → you can always move along the IPF and trade corruption for waste.
  - # 2: Practices are better than laws when accountability is high and worse when accountability is low.
  - # 3: Process and product improve – regardless of the laws – in more accountable countries.
  - # 4: Regulation is good in low accountability countries and bad in high accountability countries.

# In procurement the tradeoff is waste vs. corruption



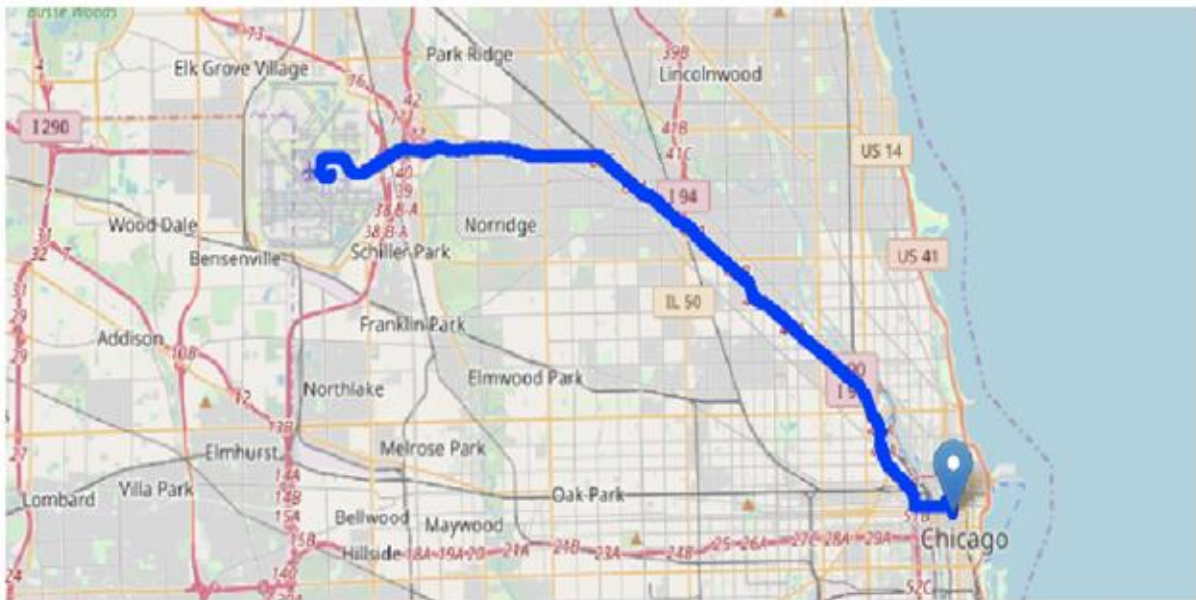
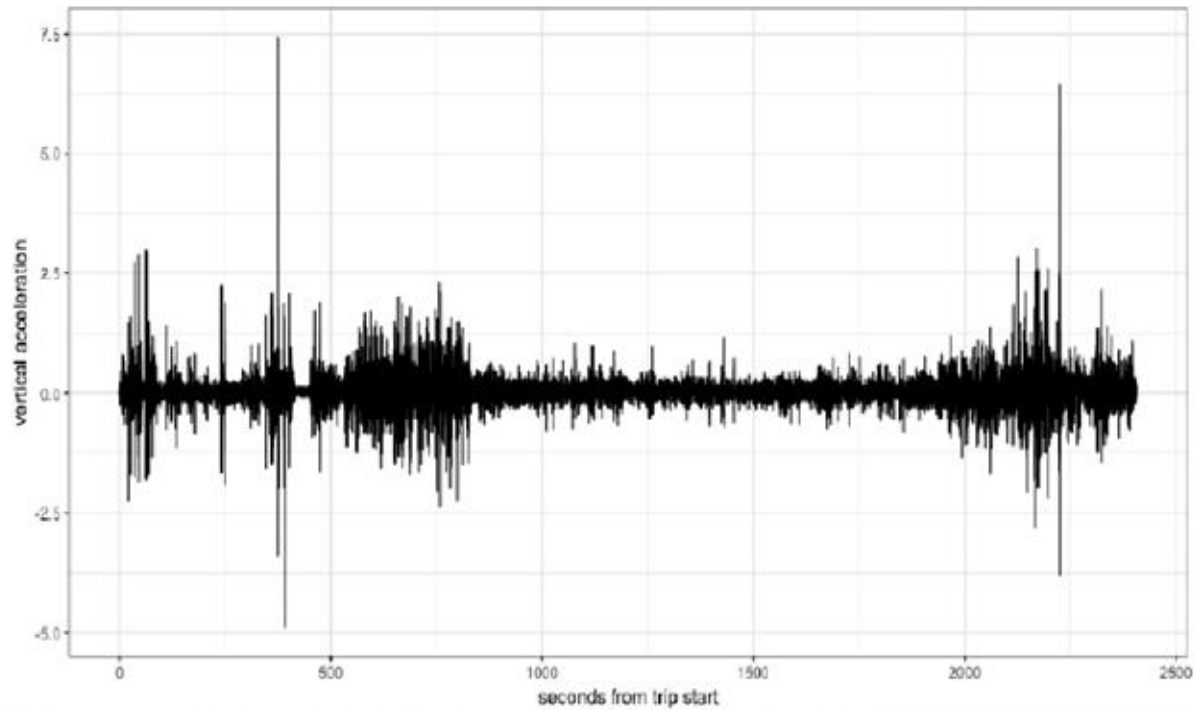


Figure 1: Uber Data Has Signal: Different Types of Roads

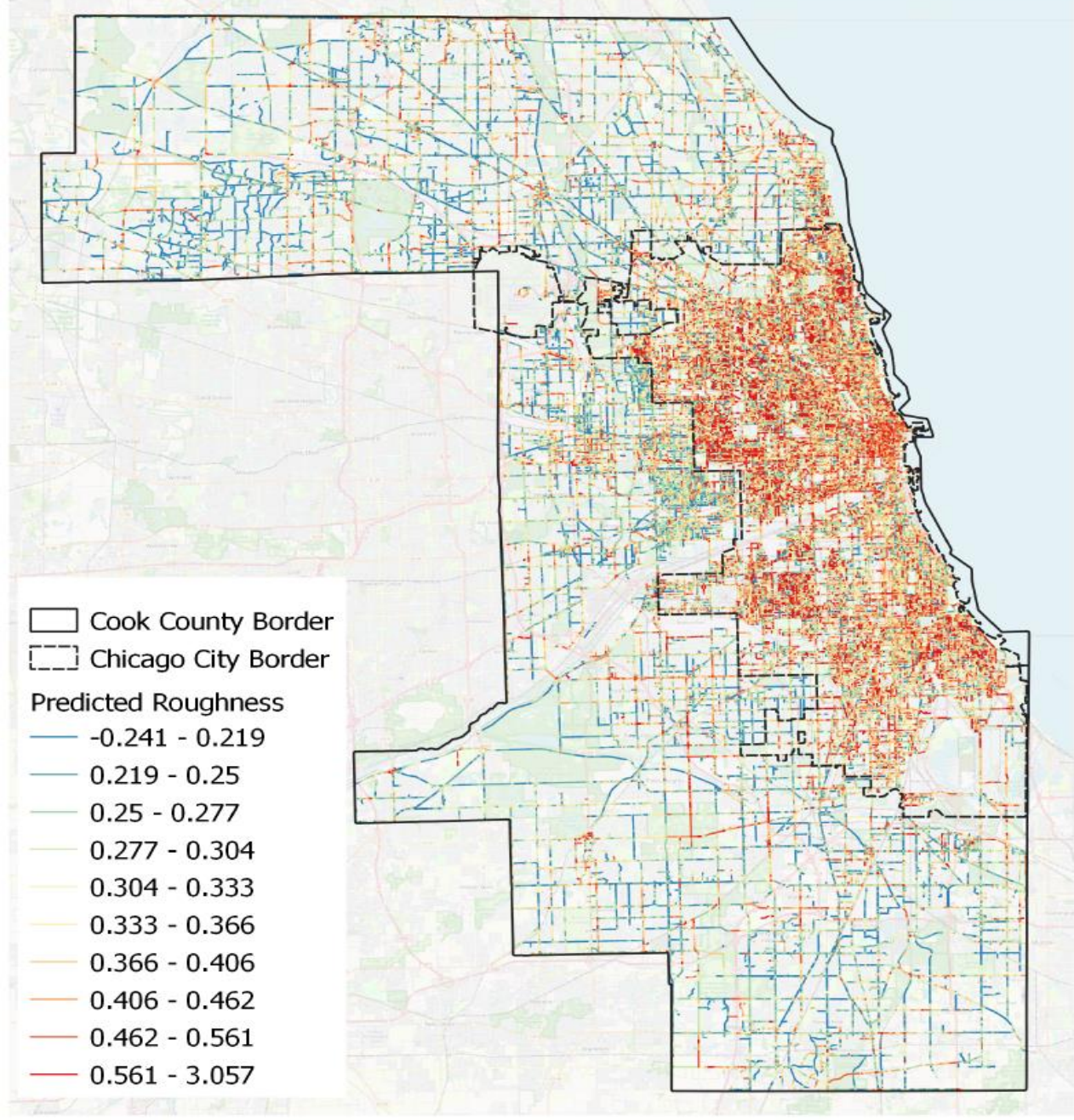
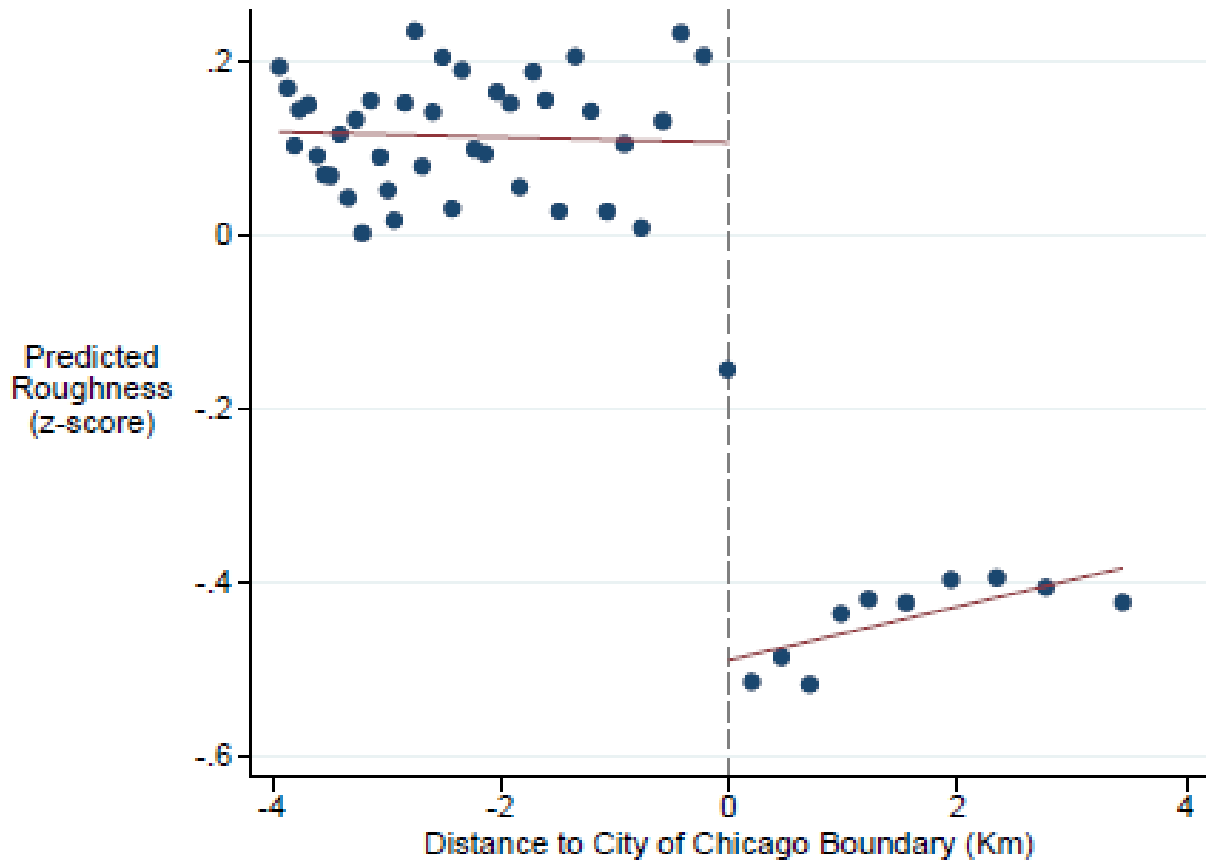
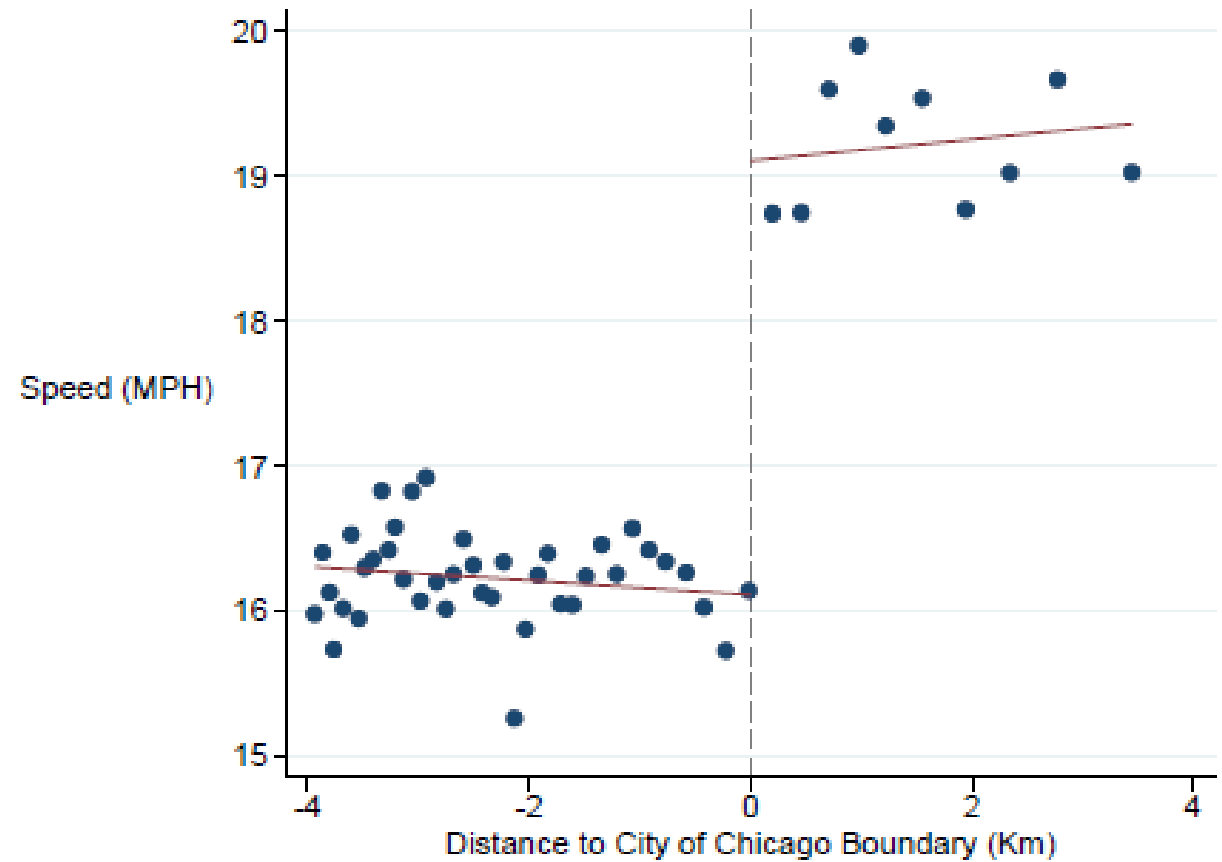


Figure 3: Predicted Roughness at 29 mph in Cook County, IL

Figure 8: Predicted Roughness and Speed around the Chicago border



Panel (A) Predicted Roughness



Panel (B) Speed

# Inequality: Road Roughness, Income, Race

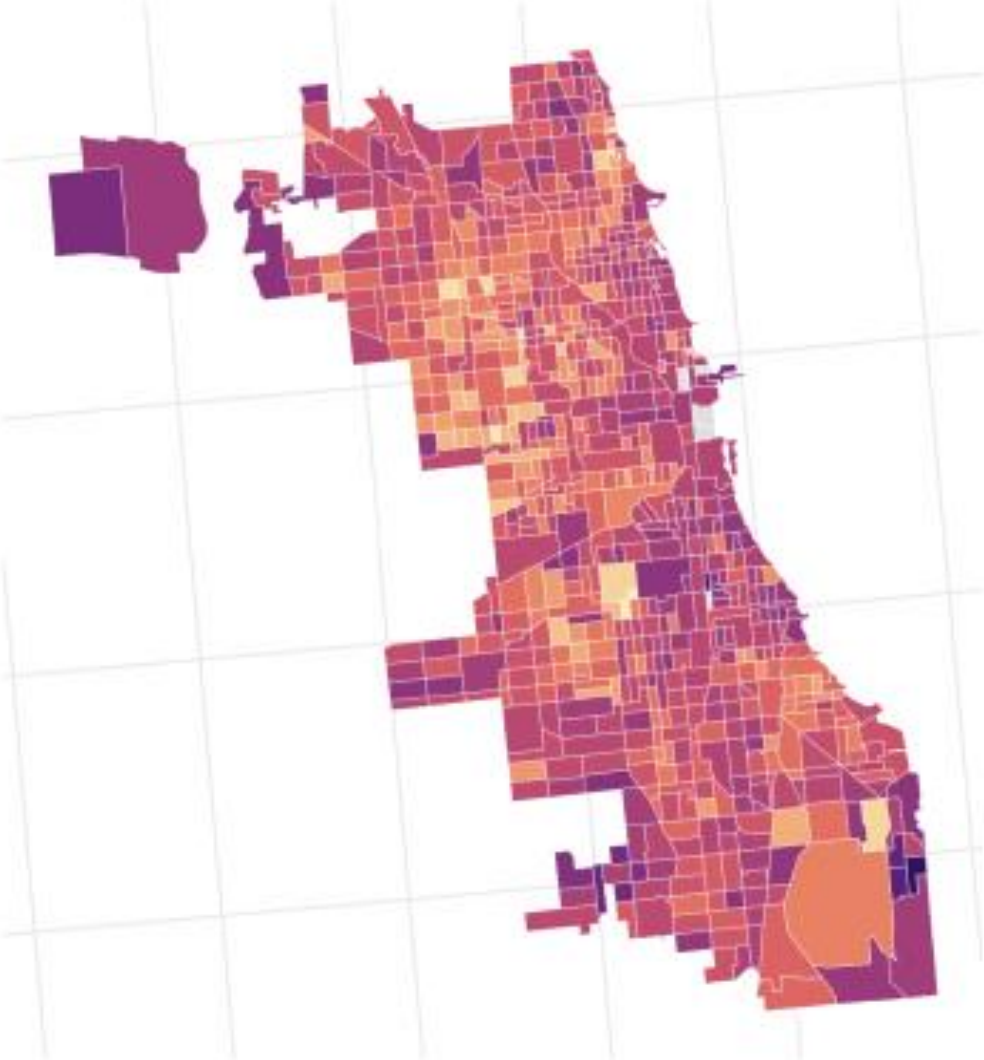
- Consider a HH that drives 3,000 miles per year on local roads
- Going from a 100% White to a 100% Black neighborhood is associated with 456 dollars per year additional cost due to roughness

⇒ Brick Roads

	Dependent variable:					
	Cost (USD per mile)					
	(1)	(2)	(3)	(4)	(5)	(6)
In median income	-0.062*** (0.002)	-0.075*** (0.002)	-0.023*** (0.002)			
fraction Black				0.152*** (0.005)	0.148*** (0.005)	0.019*** (0.005)
fraction Hispanic				0.128*** (0.005)	0.111*** (0.005)	0.045*** (0.006)
fraction Asian				0.118*** (0.010)	0.044*** (0.010)	-0.054*** (0.012)
Climate controls	Yes			Yes		
MSA Fixed effects		Yes			Yes	
Town Fixed effects			Yes			Yes
Observations	31,374	31,541	31,541	31,374	31,541	31,541
Adjusted R <sup>2</sup>	0.053	0.149	0.351	0.071	0.149	0.351
Note:	*p<0.1; **p<0.05; ***p<0.01					

# Within Town Heterogeneity

Chicago



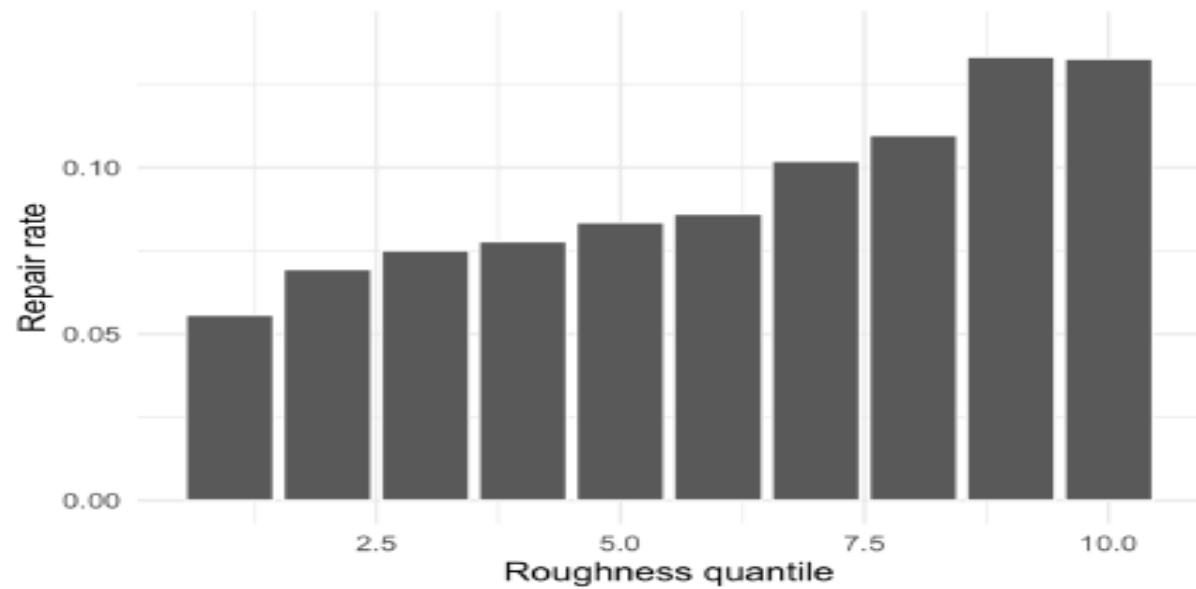
New York City



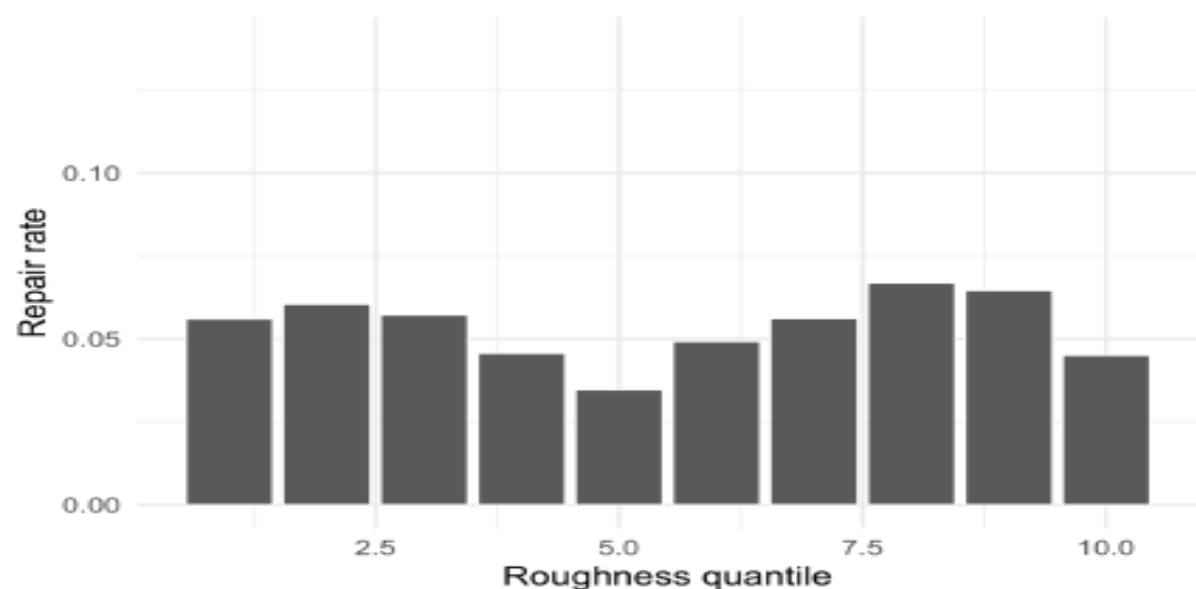
Cost (USD per mile)



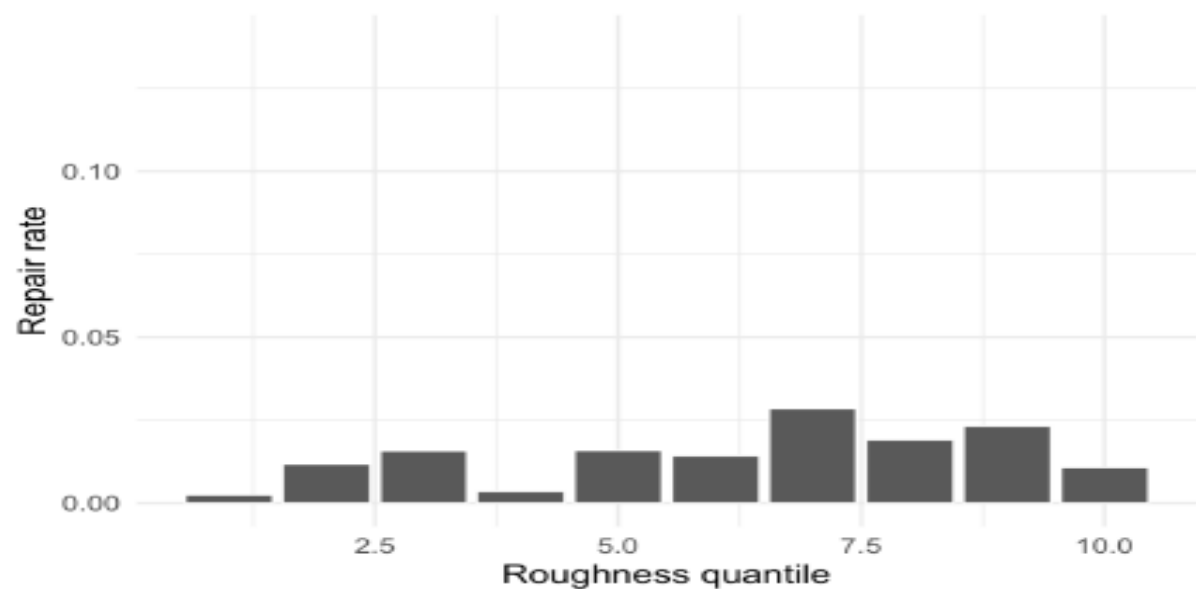
Figure 13: Local Road Roughness and Resurfacing Decisions in Four Cities



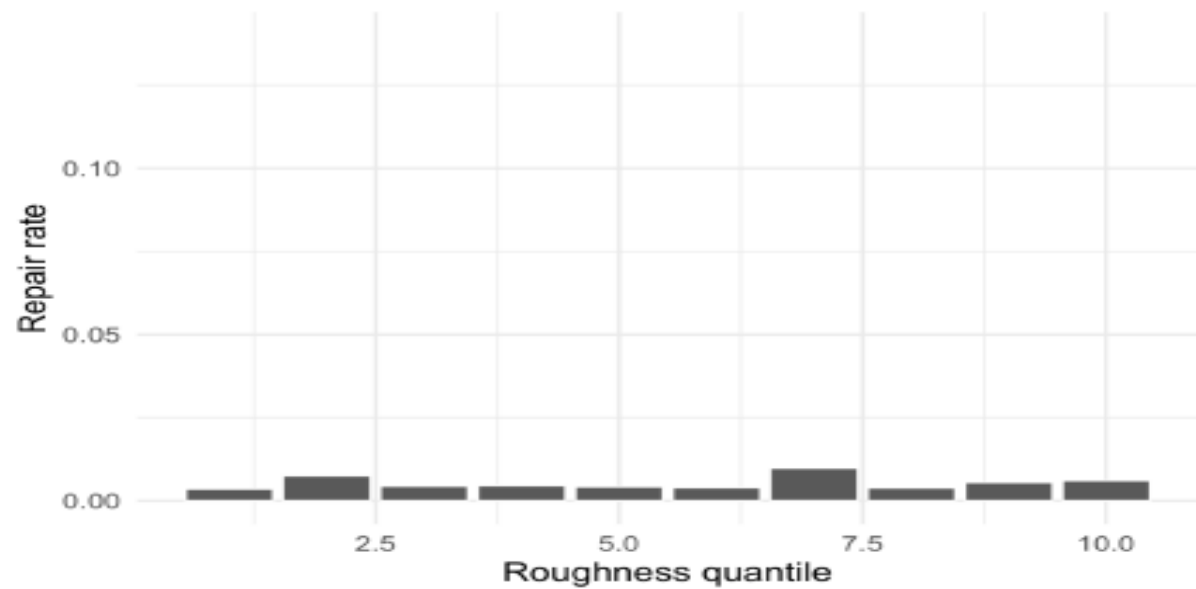
(a) New York City, NY



(b) Dallas, TX



(c) Columbus, OH



(d) Portland, OR