

Urban Public Finance

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City Economies

- Smaller Jurisdictions face significant mobility that limits and shapes local governments.
 - Tiebout, variety and incentives.
 - Mobility puts behavioral responses on steroids.
- Cities are the absence of physical space between people and firms– externalities abound, making government necessary.
 - Contagious disease, fire, congestion, crime
 - Large fixed cost infrastructure is standard.

Institutions relate to Urban Structure

- The Property Tax dominates local revenues— bigger cities, perhaps with more market power, use other taxes.
 - Real property is observable, relatively immobile and capitalization has other positive effects.
- Intergovernmental Transfers are a large share of local government spending
 - Redistribution and fiscal stabilization.
- City governments have declined substantially as a share of GDP and national spending, but are still more autonomous in the U.S. than much of the world.
- Cities are typically quite constrained in their ability to borrow for current expenditures— but they sure try.
 - Ricardian equivalence and the property tax.

Outline of Paper

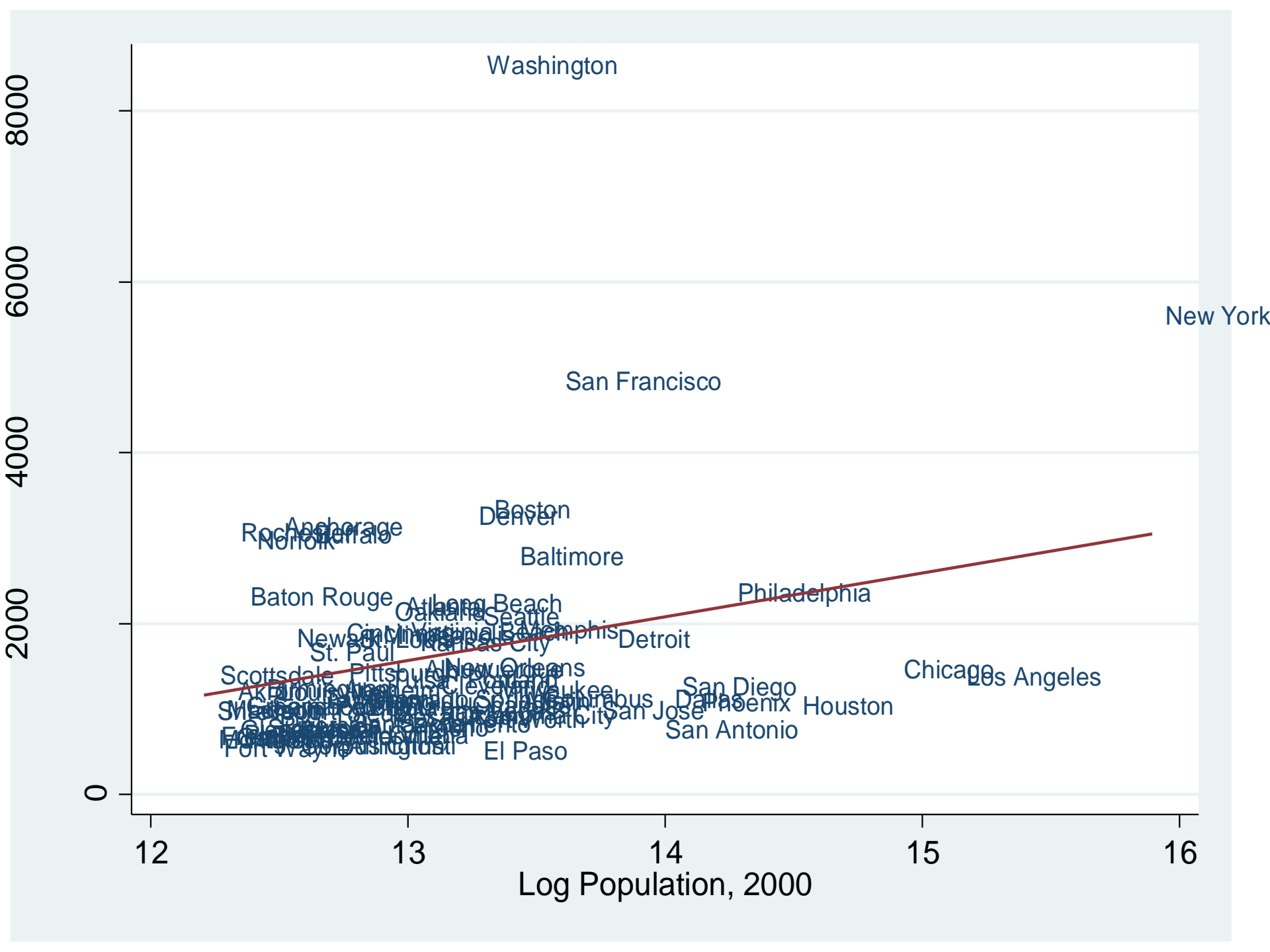
- Functions and Powers of Cities Government
- Core Economics of City Government
- The Provision and Financing of Core City Services
- Redistribution in Cities and its Financing
- City Spending over Time: Infrastructure and Deferred Compensation
- Urban Political Economy

Functions and Powers of Cities

- Cities are always creature of state government, and have no separate constitutional status.
 - Strong limitations on borrowing, taxing, etc.
- Their functions differ both within and across states— abundant overlapping jurisdictions make it difficult to use census of governments data on expenditures and taxes.
- Schooling is the largest local spending areas, but police, fire and utilities.

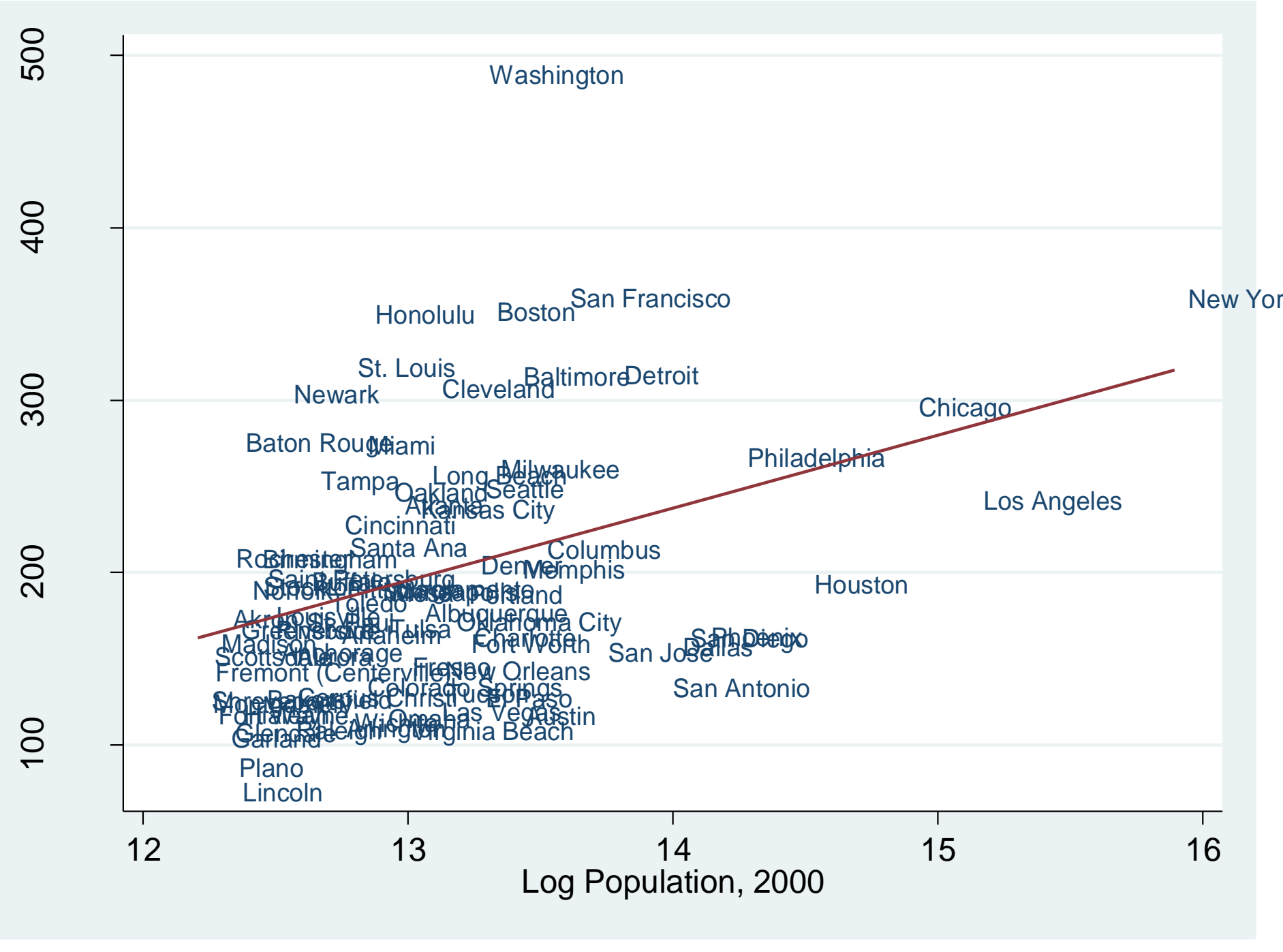
Item	2007			2008		
	Total	State	Local	Total	State	Local
Revenue ¹	3,072,645	2,000,366	1,539,014	2,660,475	1,619,128	1,530,814
Intergovernmental revenue ¹	467,949	430,278	504,407	481,380	446,109	524,738
Total revenue from own sources ¹	2,604,695	1,570,088	1,034,607	2,179,095	1,173,019	1,006,076
General revenue from own sources	1,867,945	1,027,524	840,421	1,944,398	1,067,795	876,604
Taxes ²	1,283,283	757,471	525,813	1,330,412	781,647	548,765
Property	389,573	12,621	376,952	409,686	12,691	396,995
Individual income	289,827	265,863	23,964	304,627	278,373	26,255
Corporation income	60,592	52,915	7,677	57,810	50,759	7,051
Sales and gross receipts	439,586	352,706	86,880	448,689	358,522	90,166
General sales	299,650	238,304	61,346	304,435	241,008	63,427
Selective sales ²	139,936	114,402	25,534	144,254	117,515	26,739
Motor fuel	37,904	36,543	1,361	37,902	36,477	1,425
Alcoholic beverages	5,620	5,166	453	5,763	5,293	471
Tobacco products	15,834	15,299	535	16,576	16,068	508
Public utilities	27,105	14,333	12,772	28,130	14,794	13,336

Cities ranked by 2006 population	General revenue																	
	Total revenue	Intergovernmental						General revenue from own sources										
		Total	From federal govern- ment	From state/ local govern- ment	From local govern- ment	Total	Taxes			Current charges			Miscellaneous					
							Total ¹	Property	Sales and gross receipts		Parks and rec- reation	Sewer- age	Interest earn- ings	Utility rev- enue ²				
Total ¹	General sales	Public utilities																
New York, NY ³	83,520	70,823	25,957	3,722	22,045	191	44,866	35,104	12,754	5,953	4,439	516	6,380	63	1,151	3,382	1,153	3,472
Los Angeles, CA	14,199	7,863	952	282	670	-	6,911	3,233	1,090	1,362	552	673	2,413	105	599	1,264	461	3,143
Chicago, IL	8,812	7,257	1,325	449	876	-	5,933	2,179	429	1,454	275	555	2,872	-	144	881	248	347
Houston, TX	4,449	3,119	550	195	328	27	2,569	1,492	781	664	423	187	808	26	330	269	153	341
Phoenix, AZ	3,377	2,903	1,115	581	488	46	1,788	1,023	261	692	537	84	581	26	232	184	137	288
Philadelphia, PA ³	7,345	5,809	2,478	653	1,712	113	3,332	2,450	394	225	125	-	698	1	240	184	105	1,007
San Antonio, TX	3,283	1,469	191	54	120	17	1,278	612	292	287	200	27	431	24	280	234	107	1,573
San Diego, CA	3,266	2,100	411	175	216	20	1,690	744	313	323	173	45	694	63	396	252	110	332
Dallas, TX	3,027	2,277	164	123	36	6	2,112	857	488	329	198	89	861	35	240	394	144	207
San Jose, CA	1,924	1,498	217	50	141	27	1,281	660	285	238	106	112	440	15	185	181	100	20
Honolulu, HI ³	1,483	1,337	197	117	79	-	1,140	807	591	114	-	62	284	23	241	50	29	146
Detroit, MI	3,184	2,132	694	97	543	54	1,439	867	309	218	-	61	452	4	351	119	47	314
Jacksonville, FL ³	3,292	1,829	323	72	251	-	1,506	745	365	371	213	106	383	16	158	379	207	1,187
Indianapolis, IN	3,749	3,014	646	86	550	10	2,367	1,638	1,486	47	-	1	506	26	74	224	94	687
San Francisco, CA ³	7,955	5,647	2,155	87	1,664	404	3,492	2,047	923	598	327	91	1,045	25	165	400	178	426
Columbus, OH	1,227	1,058	198	82	103	13	860	560	40	20	-	7	228	11	172	72	26	169

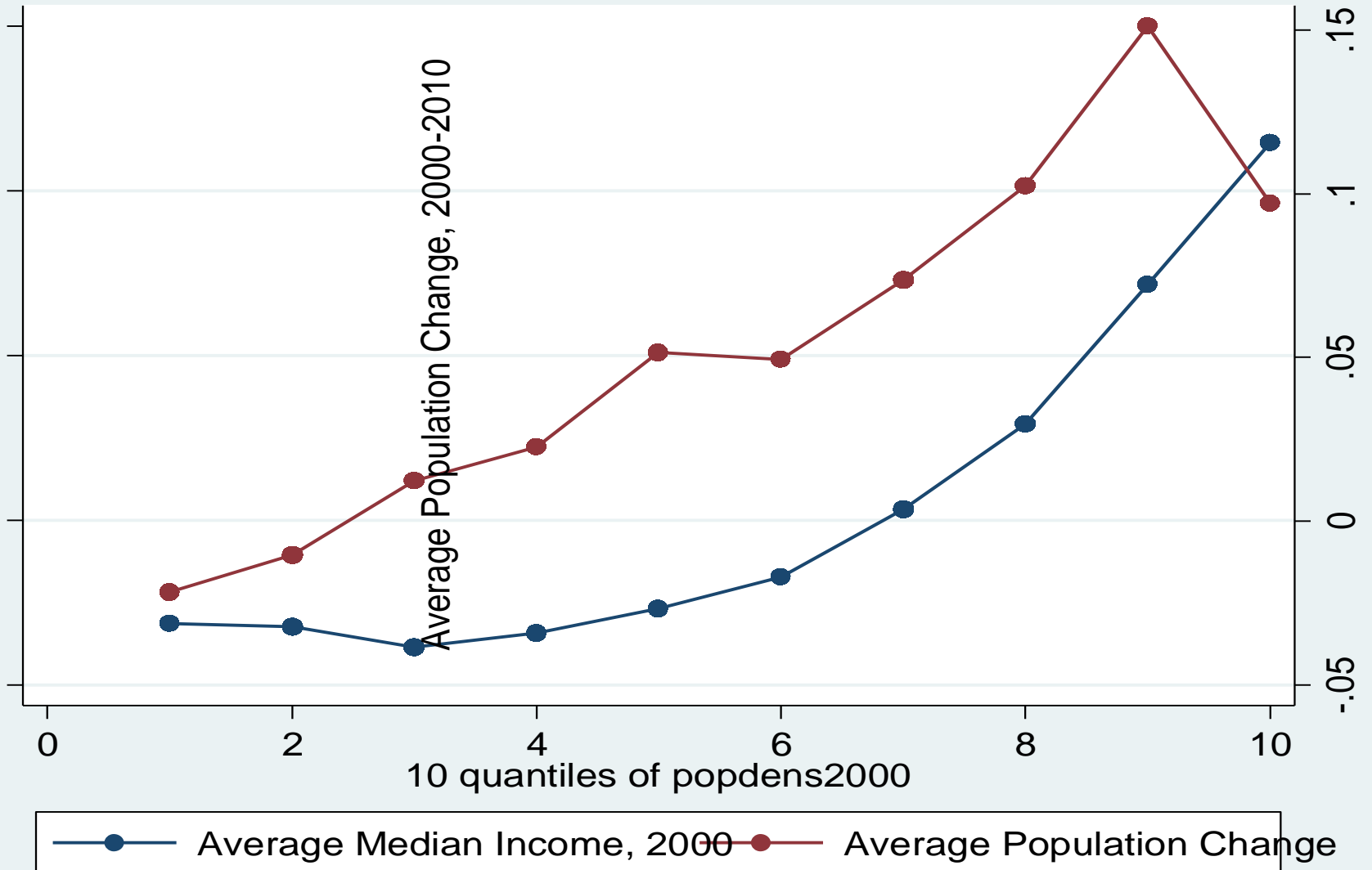


Item	2007			2008		
	Total	State	Local	Total	State	Local
Expenditure ¹	2,665,881	1,635,747	1,499,268	2,838,836	1,733,862	1,593,088
Intergovernmental expenditure ¹	4,671	459,605	14,200	4,761	477,085	15,790
Direct expenditure ¹	2,661,210	1,176,142	1,485,068	2,834,075	1,256,777	1,577,298
General expenditure ²	2,258,229	964,590	1,293,639	2,400,204	1,024,666	1,375,539
Education ²	774,373	213,868	560,505	826,063	232,212	593,851
Elementary and secondary education.....	534,905	8,305	526,600	565,631	8,243	557,388
Higher education.....	204,706	170,801	33,905	223,294	186,830	36,463
Public welfare	384,769	336,510	48,259	404,624	354,048	50,576
Hospitals	118,876	47,953	70,923	128,853	51,938	76,916
Health	74,196	37,321	36,875	79,704	40,033	39,671
Highways.....	144,713	88,333	56,380	153,515	90,645	62,870
Police protection	84,088	11,383	72,706	89,676	12,034	77,642
Fire protection	36,828	-	36,828	39,683	-	39,683
Corrections	68,092	44,021	24,071	72,904	47,239	25,665
Natural resources	28,717	19,752	8,964	29,917	19,942	9,974
Sewerage.....	44,197	1,364	42,834	46,679	1,273	45,406
Solid waste management	22,819	2,226	20,593	23,757	2,439	21,318
Housing and community development.....	45,937	8,712	37,225	50,974	10,857	40,118
Governmental administration.....	119,396	49,236	70,160	126,997	52,102	74,895
Parks and recreation	37,526	5,181	32,345	40,646	5,510	35,136
Interest on general debt.....	93,586	41,594	51,992	100,055	44,719	55,336
Utility	183,727	24,530	159,196	193,353	26,073	167,280

Cities ranked by 2006 population	Total		Total ¹	Housing and community		Public welfare	Health and hos- pitals		Police protec- tion	Fire protec- tion	Correc- tions	Parks and recre- ation		Sewer- age	Sold waste man- age- ment		Govern- mental admini- stration ²	Interest on general debt	Utility expen- ditures ³	Other ⁴
	expen- ditures ¹	direct expen- ditures		Educa- tion	devel- opment		hos- pitals	High- ways				recre- ation	aga- ment		admini- stration ²					
New York, NY ⁴	82,454	77,456	66,237	17,472	3,710	9,811	8,976	3,971	1,519	1,314	1,526	559	2,161	1,100	1,178	3,205	8,699	1,000	1,000	
Los Angeles, CA.....	12,315	12,315	7,252	-	275	-	202	1,659	589	-	561	332	498	238	842	410	3,675	1,000	1,000	
Chicago, IL.....	7,622	7,544	6,033	1	257	135	178	1,175	390	-	454	77	101	183	153	756	316	1,000	1,000	
Houston, TX.....	3,982	3,953	3,295	-	255	-	98	571	381	20	139	129	394	67	139	357	307	1,000	1,000	
Phoenix, AZ.....	3,362	3,349	2,582	18	100	-	-	367	187	13	127	577	198	99	114	251	672	1,000	1,000	
Philadelphia, PA ⁴	6,745	6,660	5,077	23	234	555	1,292	510	172	350	71	94	189	98	332	114	1,054	1,000	1,000	
San Antonio, TX.....	3,625	3,625	1,546	45	35	43	43	242	161	-	112	157	248	57	52	81	2,010	1,000	1,000	
San Diego, CA.....	2,431	2,418	1,803	-	339	-	44	336	160	9	82	142	290	52	88	70	413	1,000	1,000	
Dallas, TX.....	2,713	2,704	2,194	-	41	7	27	268	143	8	121	124	196	67	80	229	276	1,000	1,000	
San Jose, CA.....	1,894	1,866	1,703	-	186	-	15	227	116	-	95	138	144	79	192	204	36	1,000	1,000	
Honolulu, HI ⁴	1,473	1,473	1,228	-	46	-	26	180	82	-	107	100	159	137	98	100	246	1,000	1,000	
Detroit, MI.....	3,349	3,248	2,168	35	98	16	66	447	192	-	146	79	402	107	157	147	627	1,000	1,000	
Jacksonville, FL ⁴	3,474	3,343	1,847	-	33	47	84	206	96	62	200	77	198	86	97	217	1,447	1,000	1,000	
Indianapolis, IN.....	3,412	3,398	2,582	-	268	91	619	188	70	75	110	149	301	40	173	193	741	1,000	1,000	
San Francisco, CA ⁴	6,908	6,908	5,305	102	148	605	1,246	317	211	170	143	200	155	-	714	406	1,008	1,000	1,000	
Columbus, OH.....	1,152	1,144	1,012	-	8	-	32	212	144	10	94	60	193	34	72	93	140	1,000	1,000	



City Economies



Interpreting Density and Productivity

- Density → Productivity (agglomeration economies)
 - Lower costs of moving goods, people and ideas
 - Lower shipping costs (Krugman, 1991), Labor market pooling and spread of knowledge (Marshall, 1890), division of labor (Smith, 1776),
- Productivity → Density (either reflecting geography, Bleakly, or random productivity).
- Sorting of more able people into cities.

Evidence on these Issues

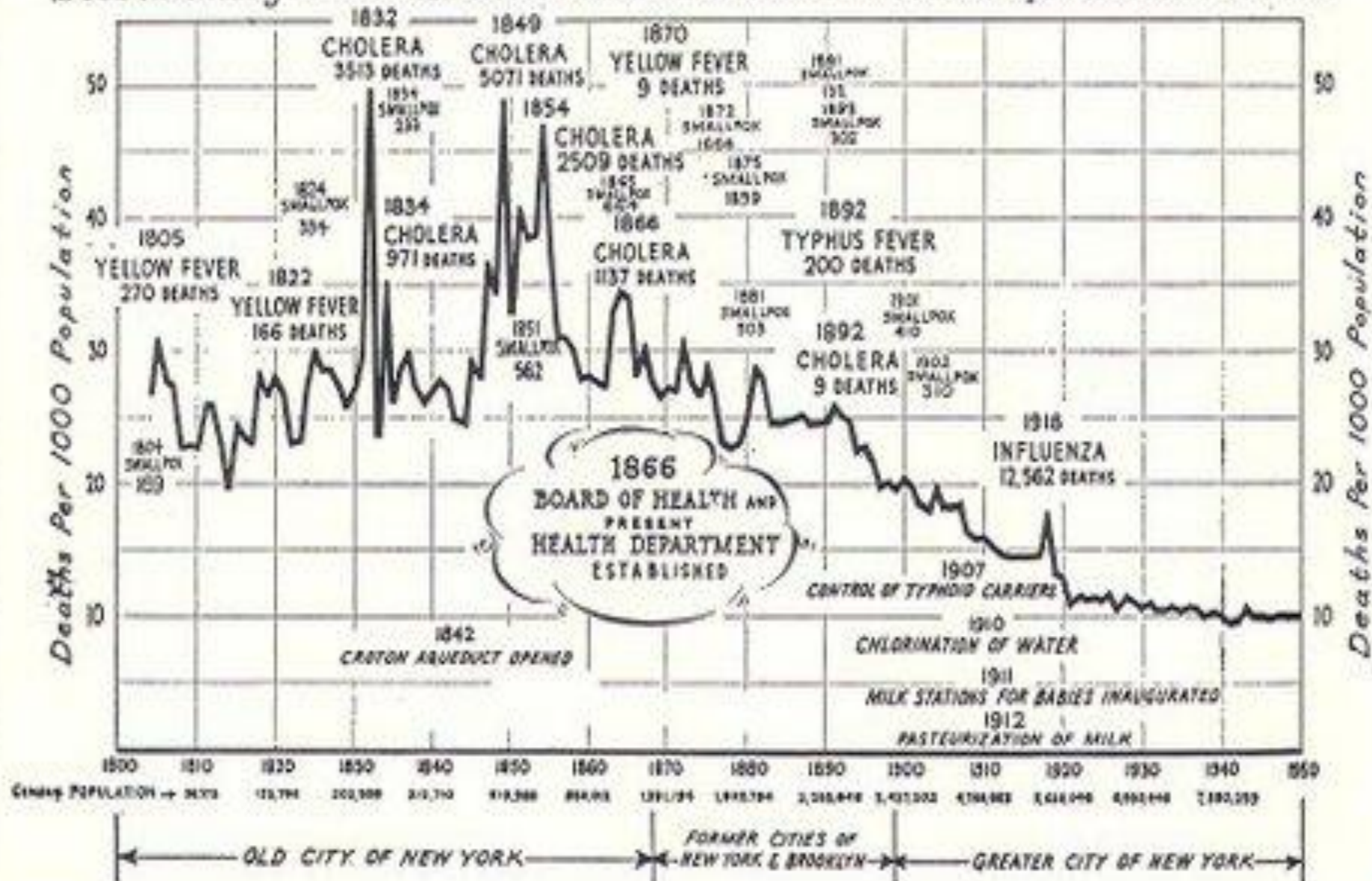
- Individual Fixed Effects estimates that look at migrants (city effects remain but typically take time to appear → cities and learning).
- Historic instruments (soil, etc.) continue to productivity productivity today (Ciccone Hall, Duranton).
- Soil also relates to building height which predicts productivity.
- Quasi-random shocks (Greenstone, Hsieh, Moretti—million dollar plants).
- Amenity related shocks (supply) don't yield clear results.

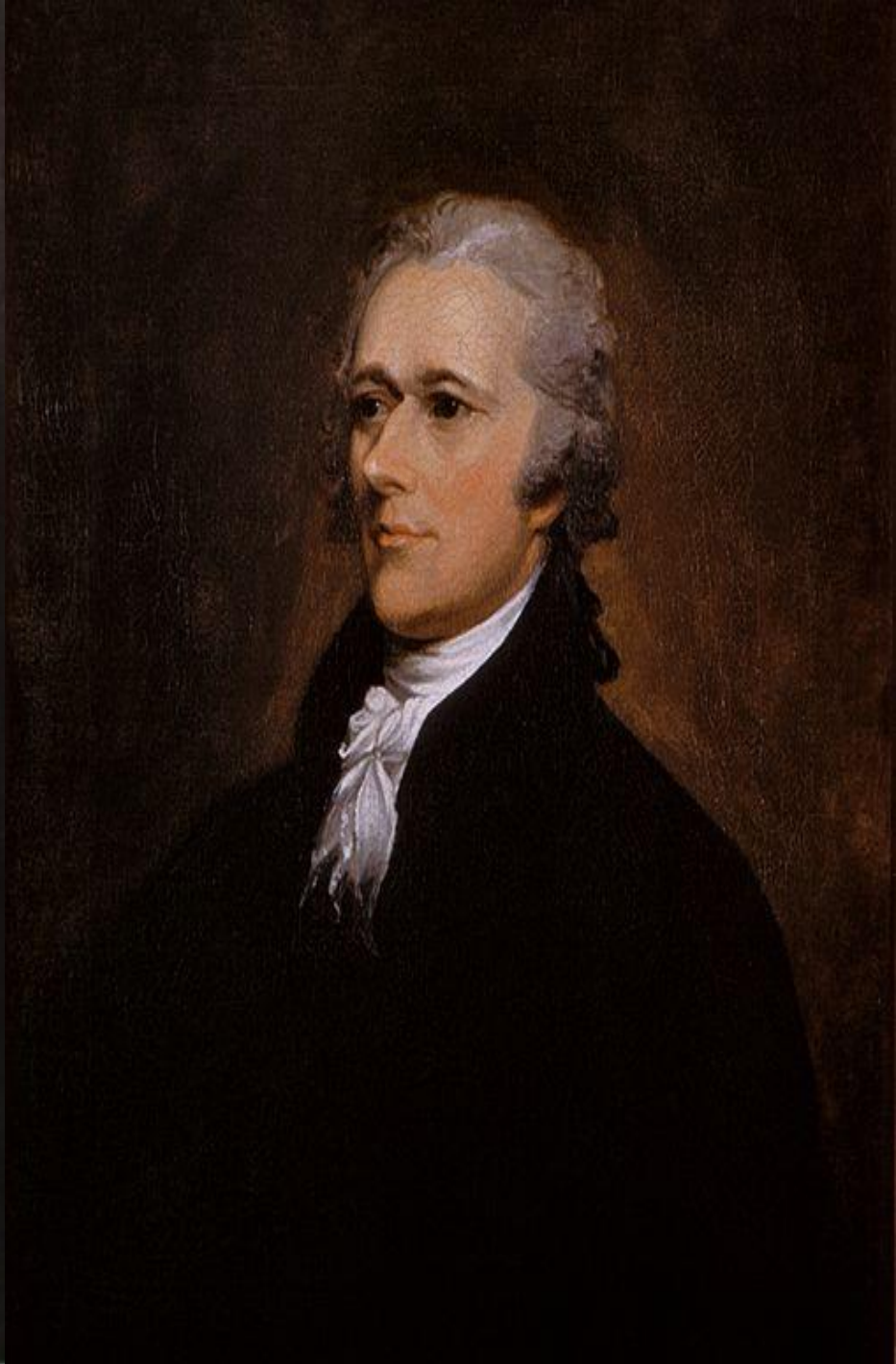
Urban Externalities

- Contagious disease, clean water and sewage.
 - The clean water problem is hobbled by both information and externalities from illness.
- Fire.
- Congestion in transport.
 - Public role in roads also relates to hold up problems.
- Crime (not really an externality but has similar features).

The CONQUEST OF PESTILENCE in NEW YORK CITY ~

... As Shown by the Death Rate as Recorded in the Official Records of the Department of Health.







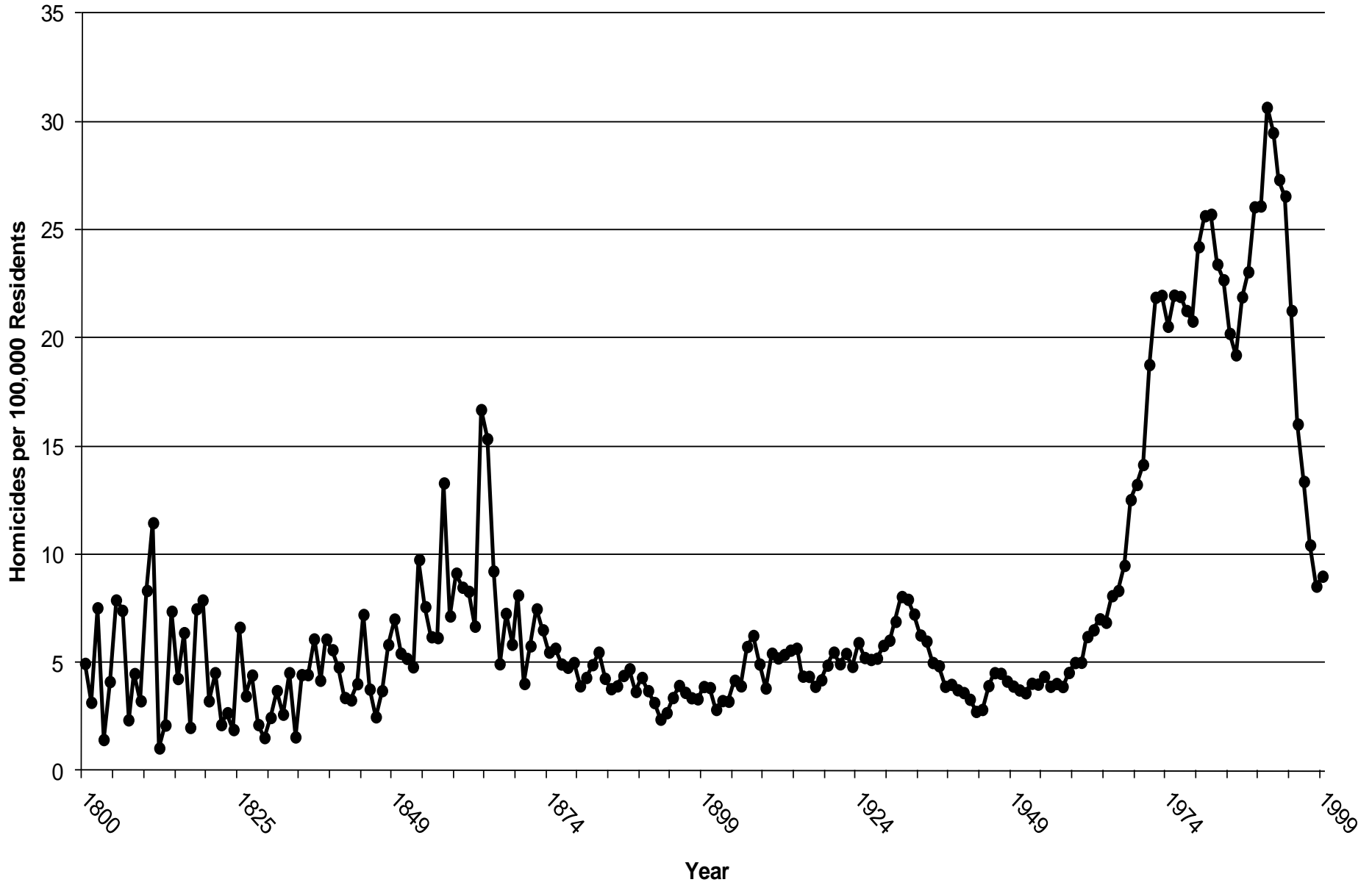
Author: Branille



Singapore's streets move swiftly, thanks to a congestion-pricing system that electronically charges drivers for the social costs of their motoring.

Land Transport Authority of Singapore

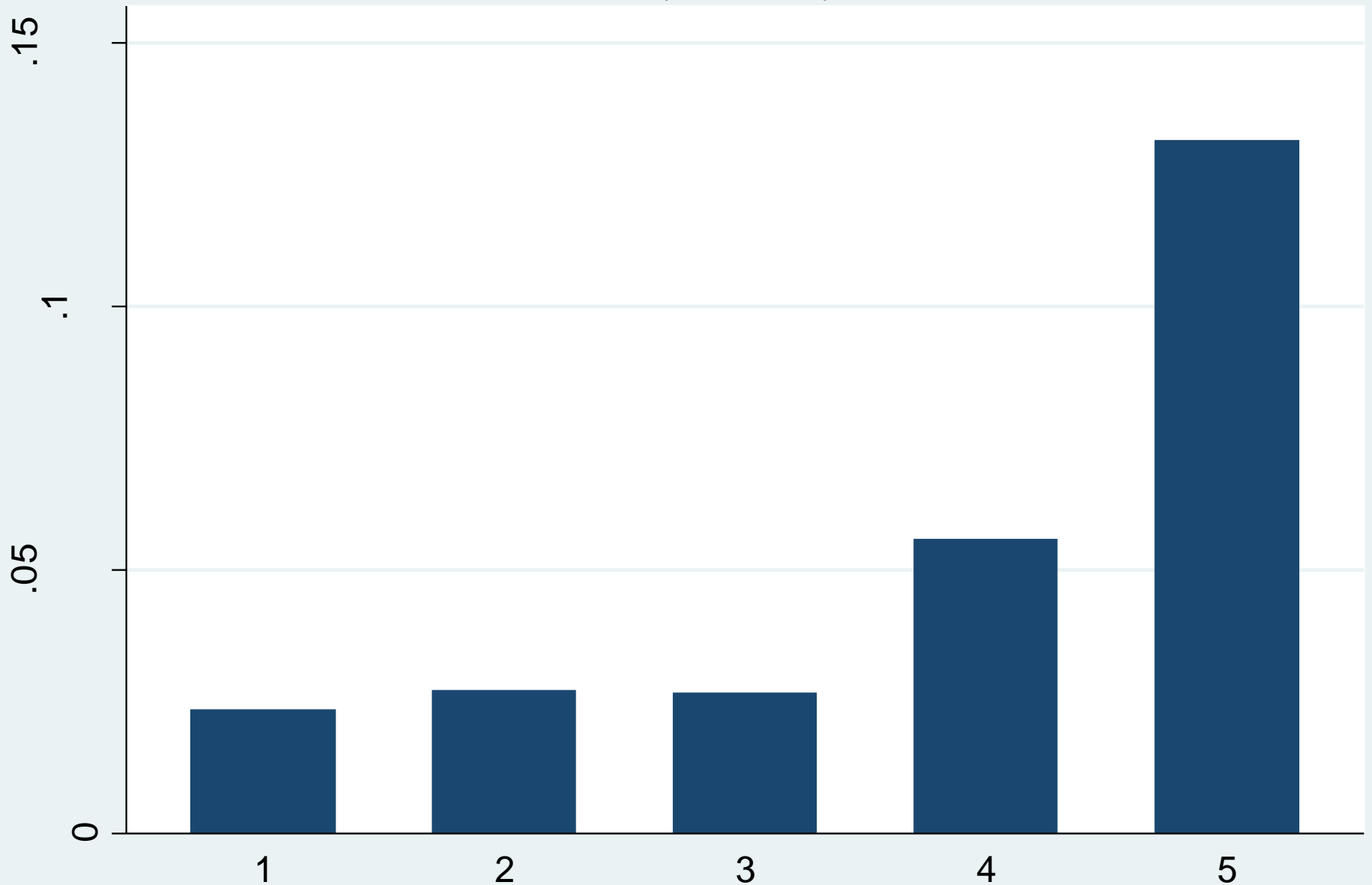
Homicides in New York City 1800-2000



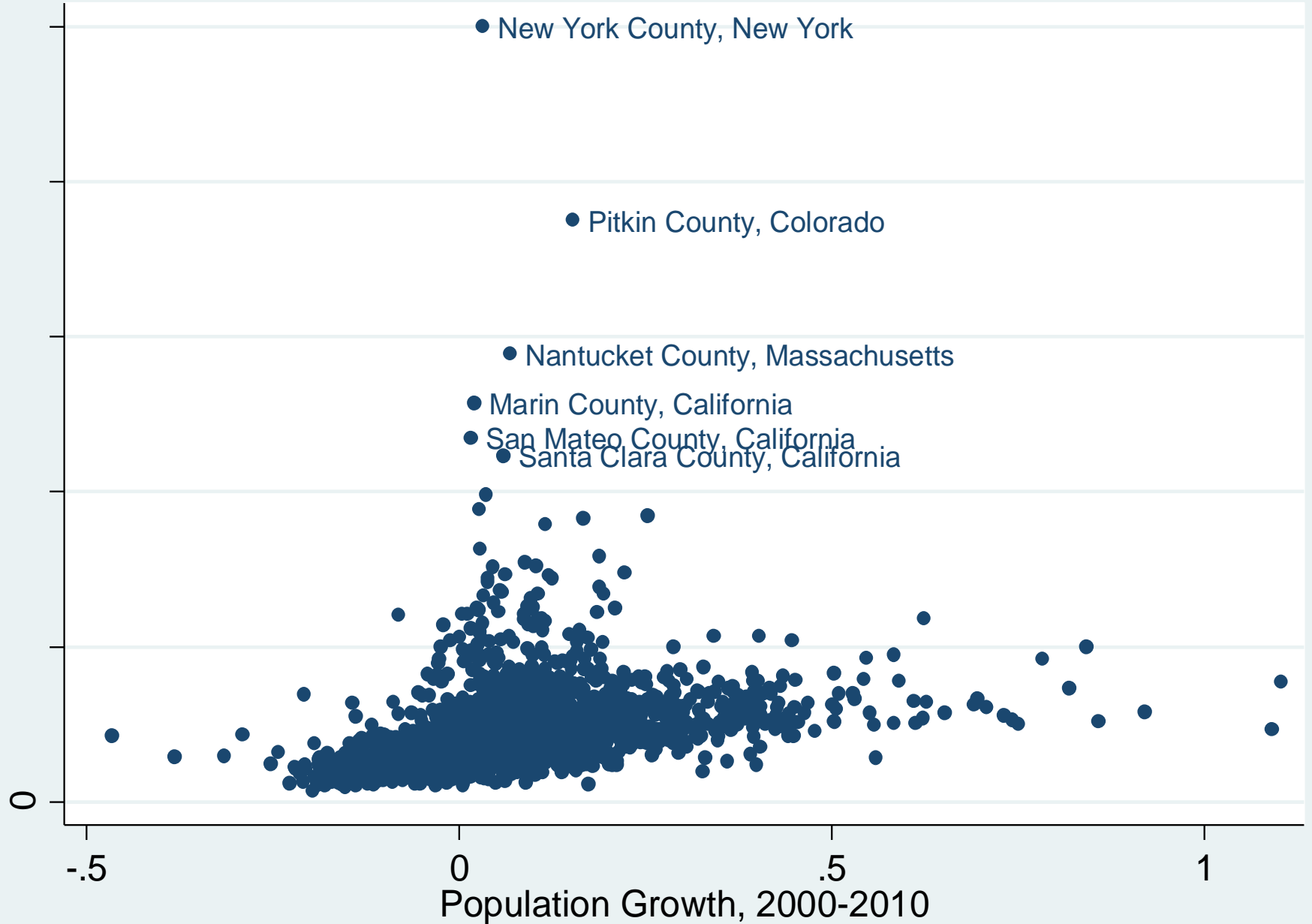
Urban Mobility in the U.S.

- Mobility rates are high in the U.S. and typically much higher than the rest of the world.
 - But our mobility elasticities w.r.t local policies are too few (Haughwout et al., Blank, 1998, Borjas).
- Sorting across space is large and poor people often live disproportionately in cities.
- Urban assets get capitalized in housing values as well as moving population and incomes.
- Local housing policies shape growth.

Average Population Growth by Share with BA in 2000
(Quintiles)



Median Housing Value by Population Growth



(Four-year moving averages)

○ Manhattan permits, units △ Real housing prices

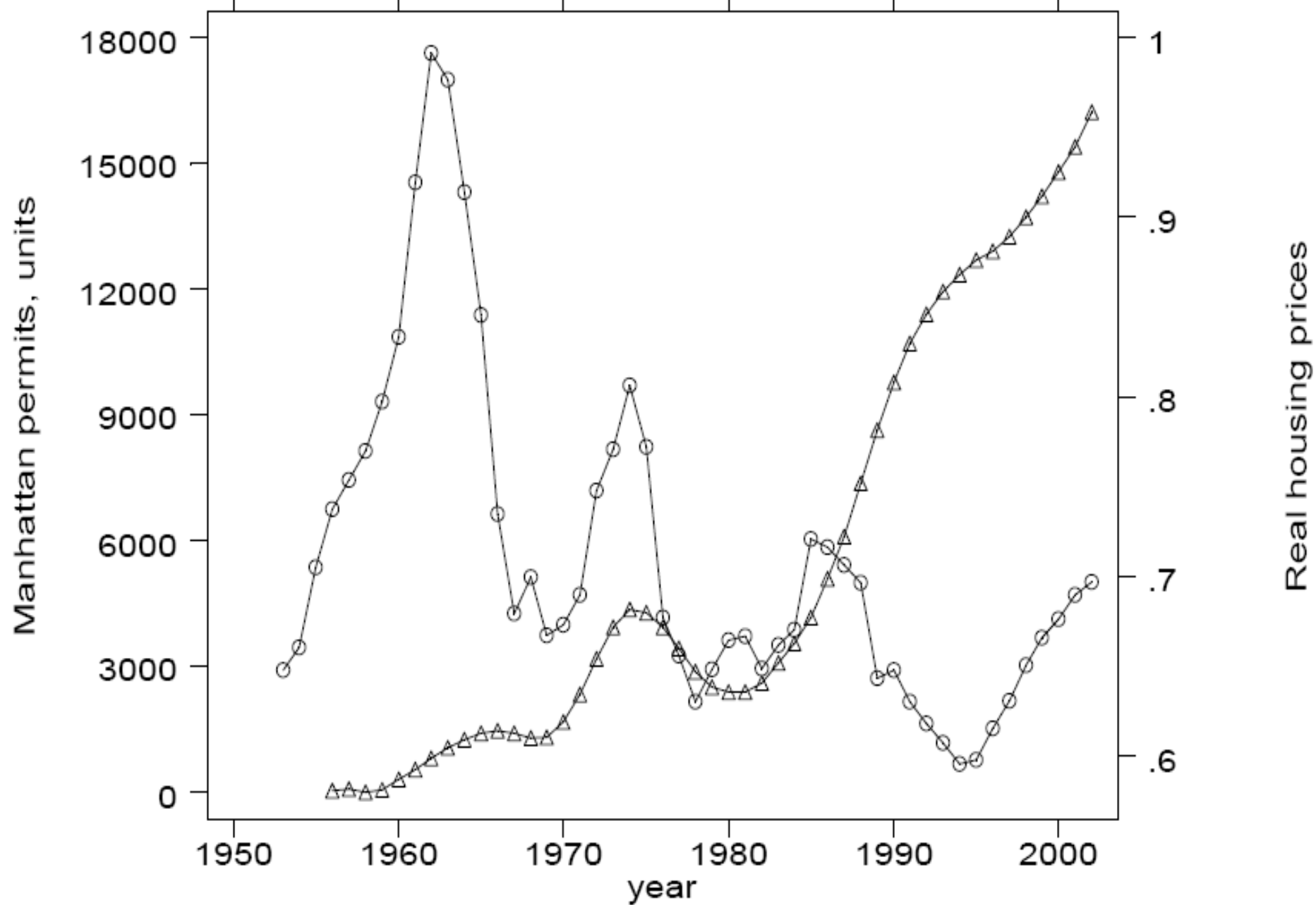


Figure 1: Relationship Between the Gini Coefficient and Log Population Density, 2006

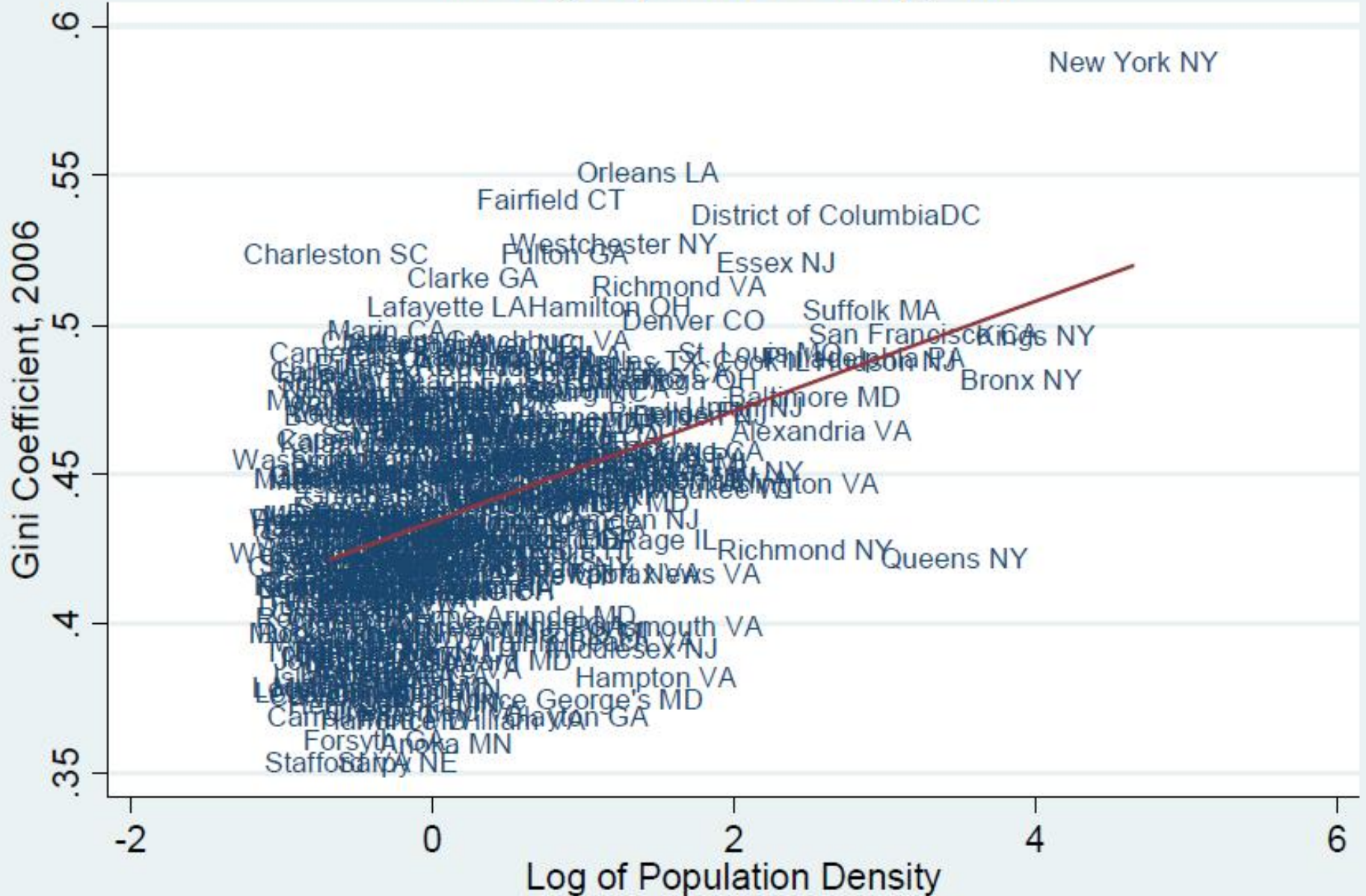
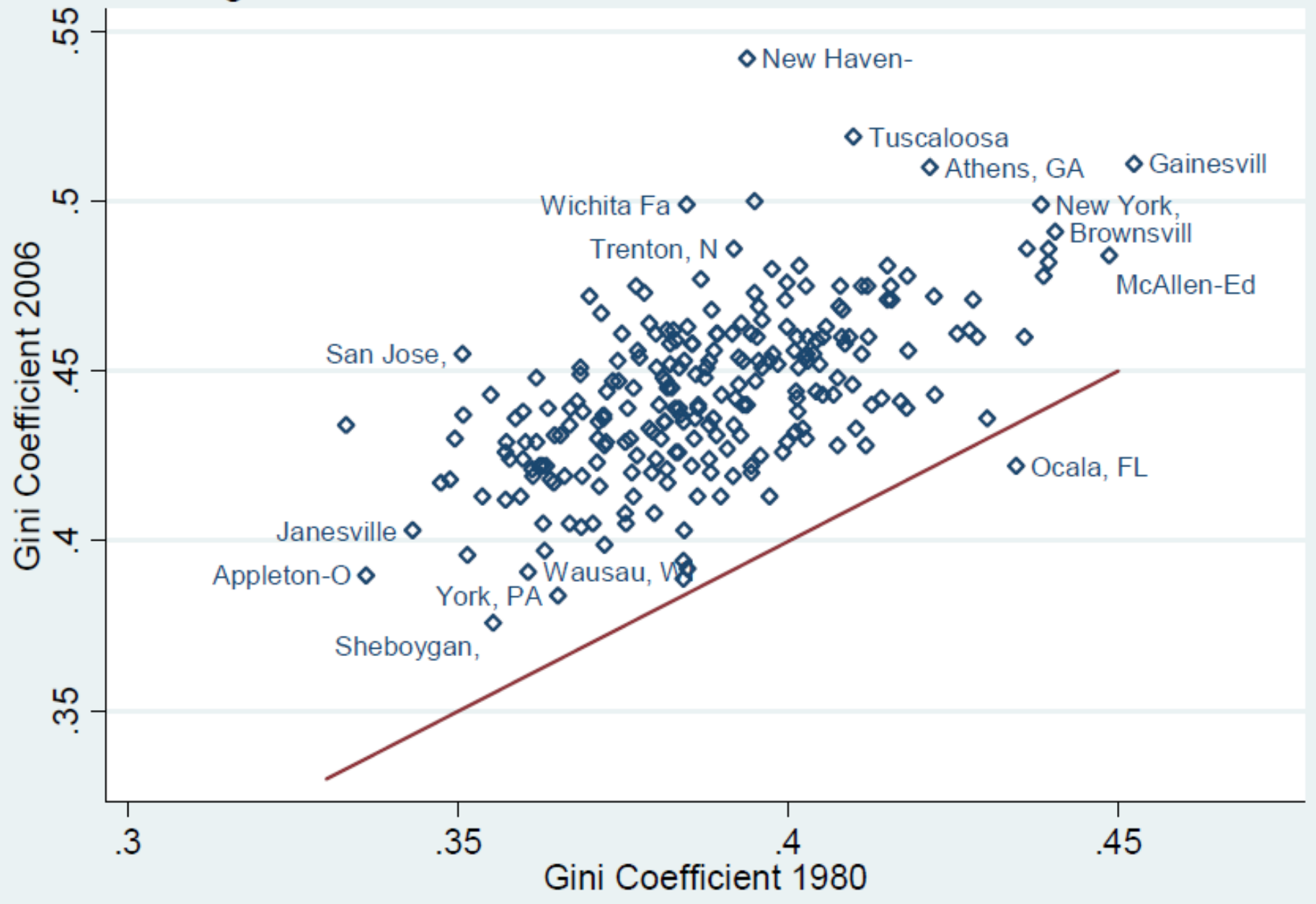


Figure 2: Gini Coefficient in 2006 and Gini Coefficient in 1980



Level Spending on Core Services

- Do we have too much or too little spending on things like crime, schools and sewers?
- The crime literature has more consensus, because of estimated significant impacts of police spending on outcomes (Levitt, 1995, Evans and Owens, 2007).
 - Less consensus on incarceration.
- The schooling literature has far more heterogeneity between Krueger (2003) to Hanushek— skepticism about knowing how to spending money effectively.

Public-Private Mix

- Should these services be provided by private (perhaps non-profit) or public entities?
- BIDs, Charters, Volunteer Fire Depts., Water Companies
- Hart/Shleifer/Vishny emphasize benefits of soft incentives for public enterprises.
- Innovation and rules (Charter Schools).
- Evidence on benefits from move from private → public (Troesken) and public → private (recent cost-containment work).
- Public control can be a tool for fighting corruption (street cleaning in NYC)– but perhaps the need is to have change back and forth between systems.

Paying for Services at the Local Level

- User fees vs. property taxes vs. other tax revenues.
- User fees are most relevant in transport and utilities— hard to imagine in fire and schools.
- Relationship of marginal cost vs. average cost.
- Property taxes allegedly do less to distort migration (fixed nature of real property).
- They distort construction (so do land taxes).
- Differences across space in sales and income taxes can allegedly greatly distort mobility.

Incentive Effects of Revenue Sources

- Clear theory on property tax impacts on local government (maximize local land values).
- Commercial vs. residential tax differences will distort government behavior (Roger Gordon).
- Intergovernmental transfers are meant to address redistribution/budget smoothing, but they also are used to shift incentives for local governments (NCLB, Race to the Top).
 - Reback, Rockoff and Schwartz (2011).

Cities, Redistribution and Mobility

- From Tiebout onward, the promise and pitfalls of mobility shape urban public finance.
- Implies limits on redistribution (Peterson, 1981), potential poverty traps, use of property tax, welfare magnets, etc., etc.
- But surprising limited evidence on the mobility responses to local heterogeneity.
- Welfare response— Blank (1988), Borjas (1999), Levine and Zimmerman (1999).

Mobility, Firms and the Rich

- Relatively little on mobility of the wealthy (Feldstein and Vaillant, 1998, Bakija and Slemrod, 2004– modest, but real effects).
- A bit on firms (Carlton, 1983, Holmes, 1997)– but little about to differentiate particular policies.
- Identifying different endogenous policies will always be hard, but the rise of the LBD and the IRS records creates more of a chance of estimating a wider range of mobility effects.

Redistribution via Housing

- Rent control literature (Friedman Stigler, Johnson, Frankena, Barzel, Arnott).
- Public housing projects and LIHTC (Sinai, Waldfoegel). Federal initiative with local partners.
 - Impact of public housing appears less negative than thought (Currie and Yelowitz, 2001, Jacob).
- Section 8 Housing Vouchers (MTO Research).
- Large policies, locally administered, great skepticism but limited work.

Redistribution via Healthcare

- Municipal hospitals typically began as a tool for helping the poor (Bellevue).
 - Also internalizing externalities (Typhoid Mary).
- They continue to play this role and appear to be far less nimble in adjusting to changing incentives (Hansmann, Kessler, McClellan).
- Medicaid reduced the perceived need for city hospitals and they have shrunk dramatically.
- Significant impacts on city budgets and they were cut during municipal crises (Freudenberg, 2006).

Cities and Spending over Time

- Capital expenditures can be met with borrowing—some states require votes.
 - Celini, Ferreira and Moretti use discontinuities on school investments.
- Current expenditures are typically meant to be met with current taxes (like states but unlike Feds who have tended to cover some shortfalls).
 - Is this optimal? Weighing the ability to adjust to downturns with the advantage of fiscal discipline.
 - Constant attempts to delay spending (Pensions).

Infrastructure Investments

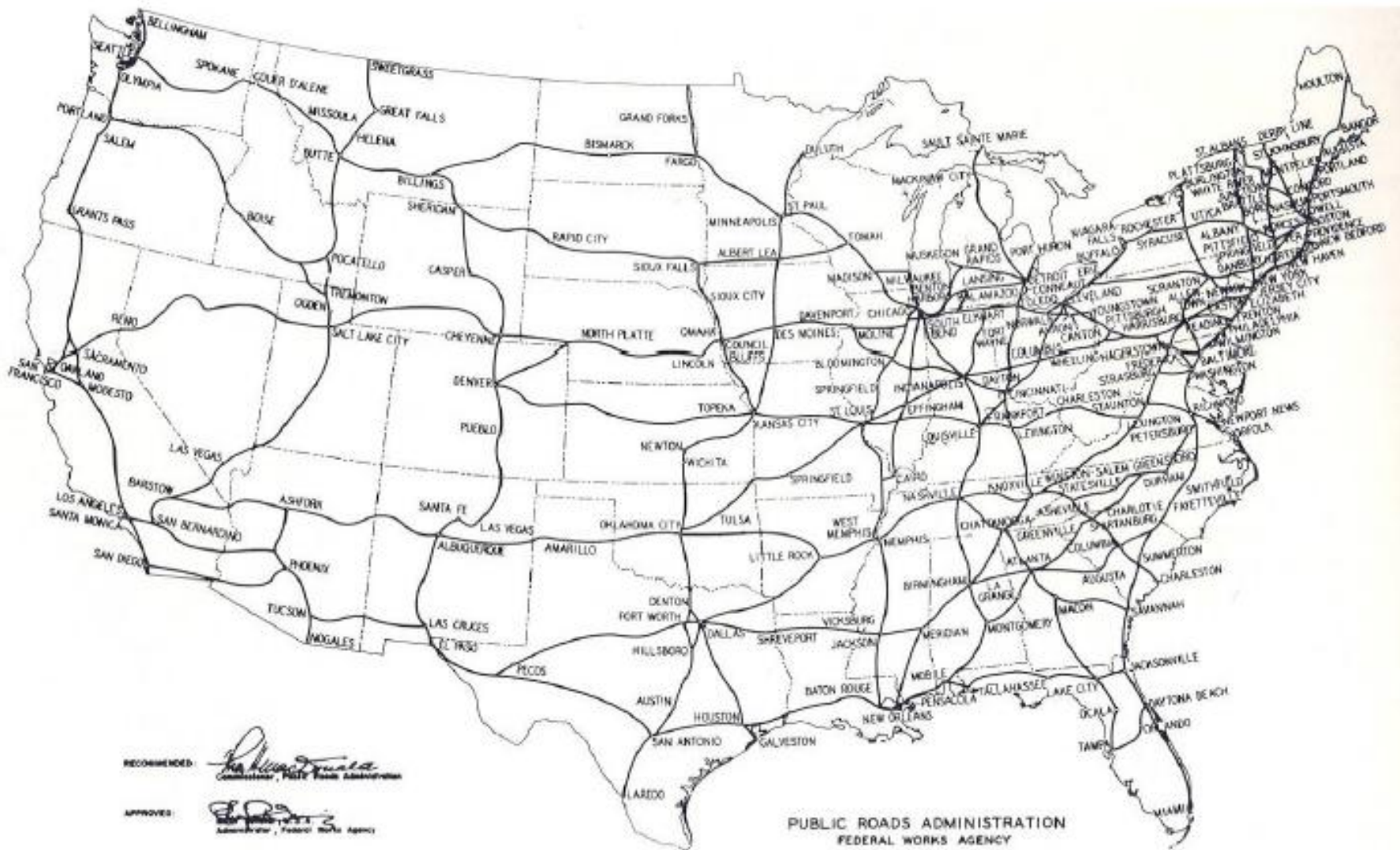
- There is an older literature running growth regressions on investment– but this runs against cost-benefit skepticism.
- Increasing Federal role in funding seems to create less discipline coming from the connection between users and payers.
- Agglomeration theories can bolster benefits (e.g. Graham, 2007), but this isn't necessarily the right thing to do (Glaeser and Gottlieb, 2008).
- Strong track record of foolish investments particularly in declining areas.

Detroit tried to reverse its decline with foolish investments like its People Mover, which here glides over essentially empty streets.

Dennis MacDonald/ World of Stock



Figure I: The Projected System of Interstate Highways in 1947



RECOMMENDED: *Frank D. Rowland*
 Commissioner, Public Roads Administration

APPROVED: *Frank D. Rowland*
 Administrator, Federal Works Agency

PUBLIC ROADS ADMINISTRATION
 FEDERAL WORKS AGENCY

NATIONAL SYSTEM OF INTERSTATE HIGHWAYS
 SELECTED BY JOINT ACTION OF THE SEVERAL STATE HIGHWAY DEPARTMENTS
 AS MODIFIED AND APPROVED
 BY THE ADMINISTRATOR, FEDERAL WORKS AGENCY

AUGUST 8, 1947

Deferred Operating Expenditures

- Public workers typically have quite high shares of their compensation deferred.
- Political economy explanation— these costs are poorly accounted for and politicians manage to pass the back to their successors.
- Novy-Marx and Rauh have done a series of papers identifying that magnitude of the short fall using more normal accounting procedures than assuming 9% average growth rates.
- Maria Fitzpatrick has a terrific paper on whether teachers really value their pensions.

How Much do Teachers Value Their Retirement Benefits? Maria Fitzpatrick

Years of Experience in 1998	Fraction Who Purchase Upgrade by 2009	Fraction Who Retire by 2009	Mean Price (\$)	Mean Cost (\$)	Number of Obs.
1	0.40	0.02	36	3,071	6,313
2	0.34	0.03	892	7,063	5,679
3	0.39	0.03	1,080	11,078	5,569
4	0.42	0.04	1,645	15,562	6,903
5	0.44	0.05	2,151	19,773	5,606
6	0.47	0.06	2,580	24,486	4,613
7	0.46	0.08	3,208	29,155	4,274
8	0.55	0.09	3,803	34,025	4,283
9	0.53	0.13	4,379	39,190	3,747
10	0.56	0.15	5,077	44,291	3,352

Urban Political Economy

- Institutional differences— strong mayors, civil service, fragmentation of metropolitan areas.
- Relatively few clear impacts on outcomes.
- Migration interacts with mobility.
 - Ferreira and Gyourko lack of local partisanship
 - The Curley Effect
- Political Machines and their Reforms
- Cities within a national system— transfers to cities (Paris) and away from them (Albuoy).