

Crime and Cities

Edward L. Glaeser

Taubman Center for State and
Local Government, Harvard
University

Thank You For Coming

- The past week's events in Rio's Favela do Alemão reminds us that— despite much progress— crime in Latin America remains a major problem.
- The justification for the cause— the 19 alleged criminals killed in a violent police operation against drug dealers— reminds us that there is still much room for improvement in policing.
- This is why I am so excited about having so many terrific minds here to help us learn.

Overview of Presentation

- The Costs of Crime
 - Cross-Country Comparisons
 - Cross-City Comparisons
 - The Rebirth of New York
- Fighting Crime: What We Don't Know
 - Social Causes of Crime
 - Optimal Policing and Corruption
 - Punishment, Incapacitation and Deterrence

The Costs of Crime:

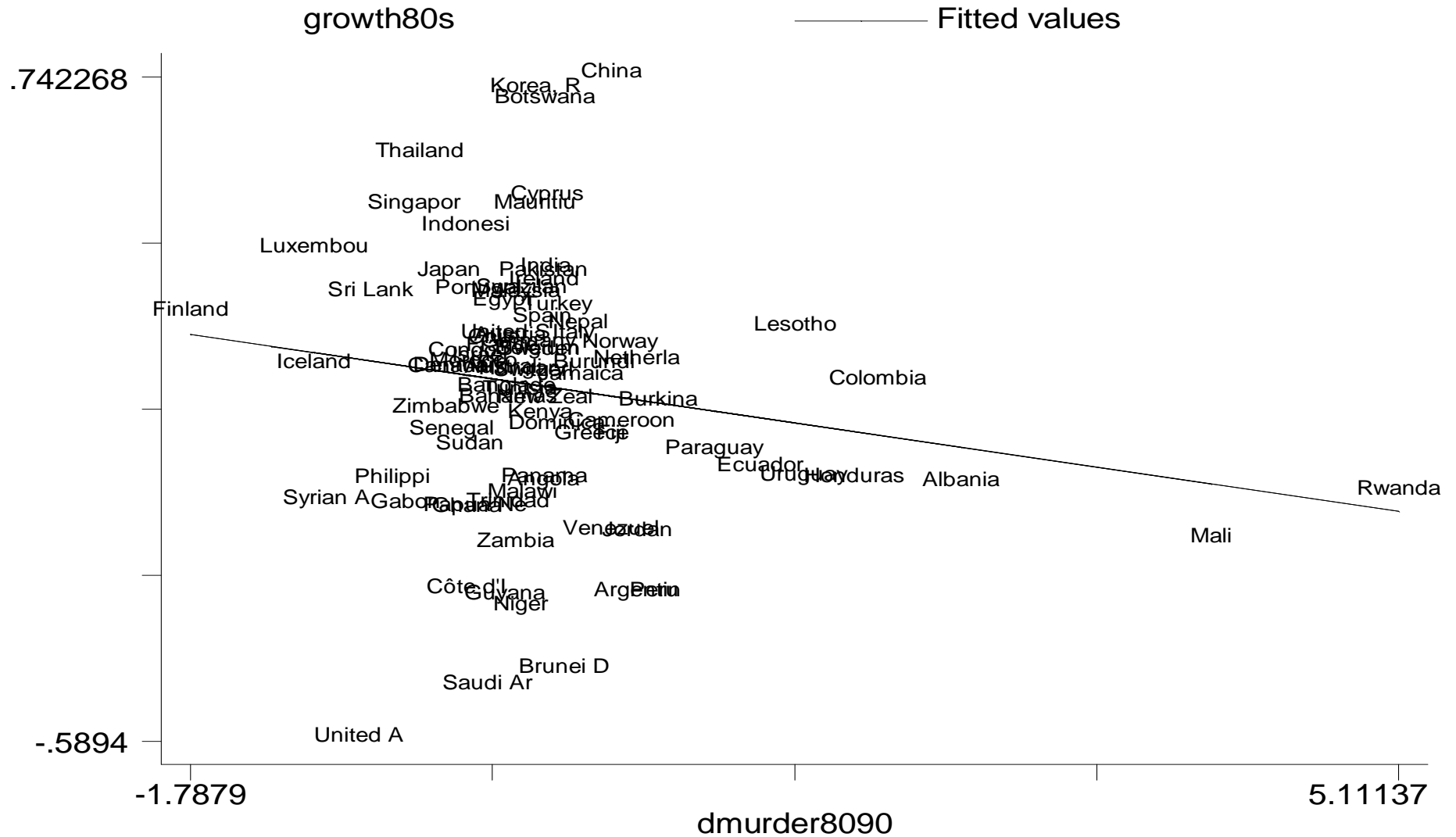
Direct Costs vs. Indirect Costs

- Direct Costs # 1: Destruction of Life and Property
 - Value of lives lost usually trumps other losses
- Direct Cost # 2: Public and private costs of self-protection
 - Self-protection and destruction of property
- Indirect Cost # 1: A Disincentive for Investment
- Indirect Cost # 2: A Disamenity for a city or a country

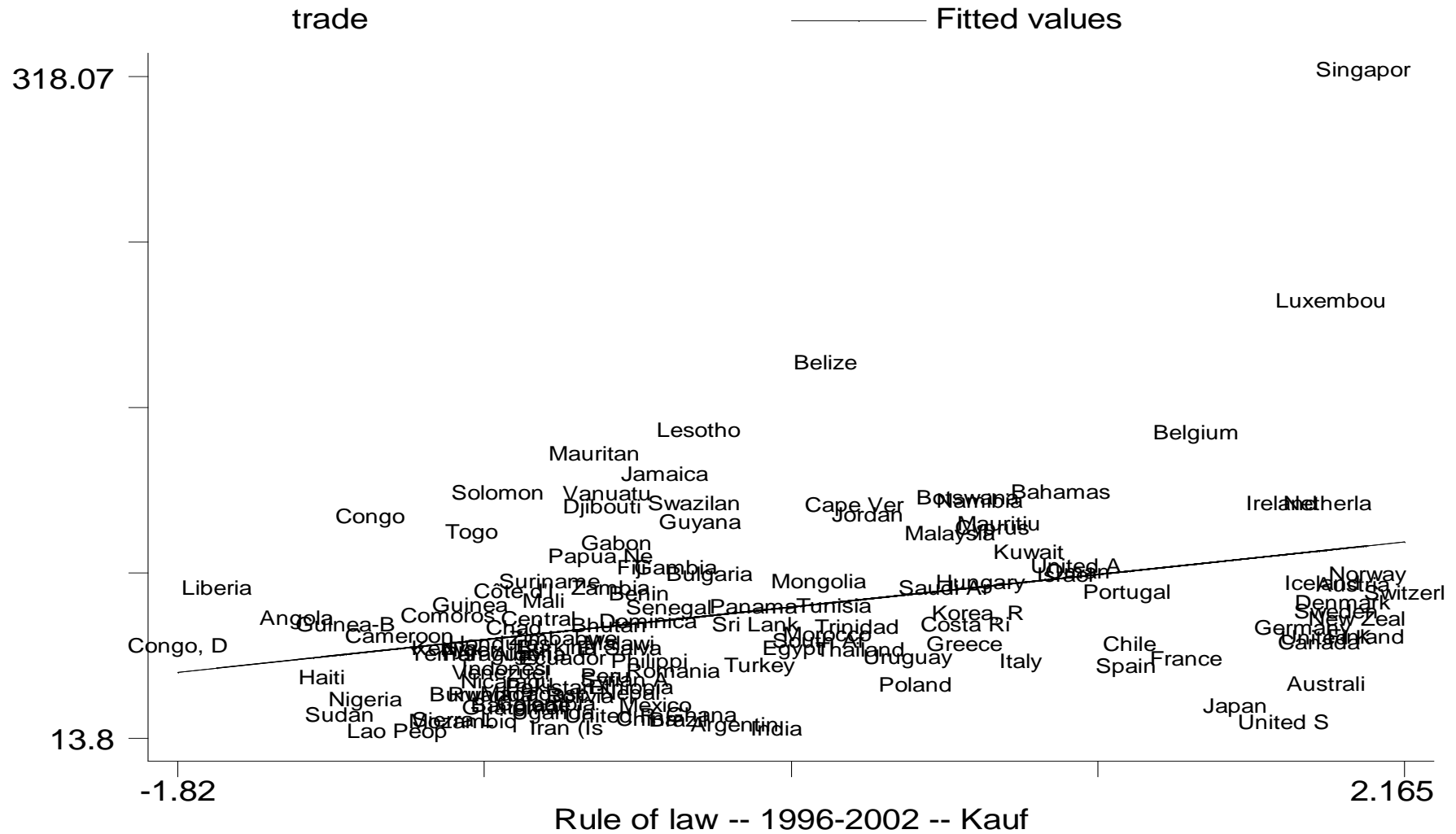
The Rise of the Consumer City

- The world is increasingly mobile, both within and across countries, and few places have innate production advantages
 - This has made consumer amenities more and more important.
 - Crime destroys those consumer amenities by being unpleasant in and of itself and by making it hard to enjoy public spaces

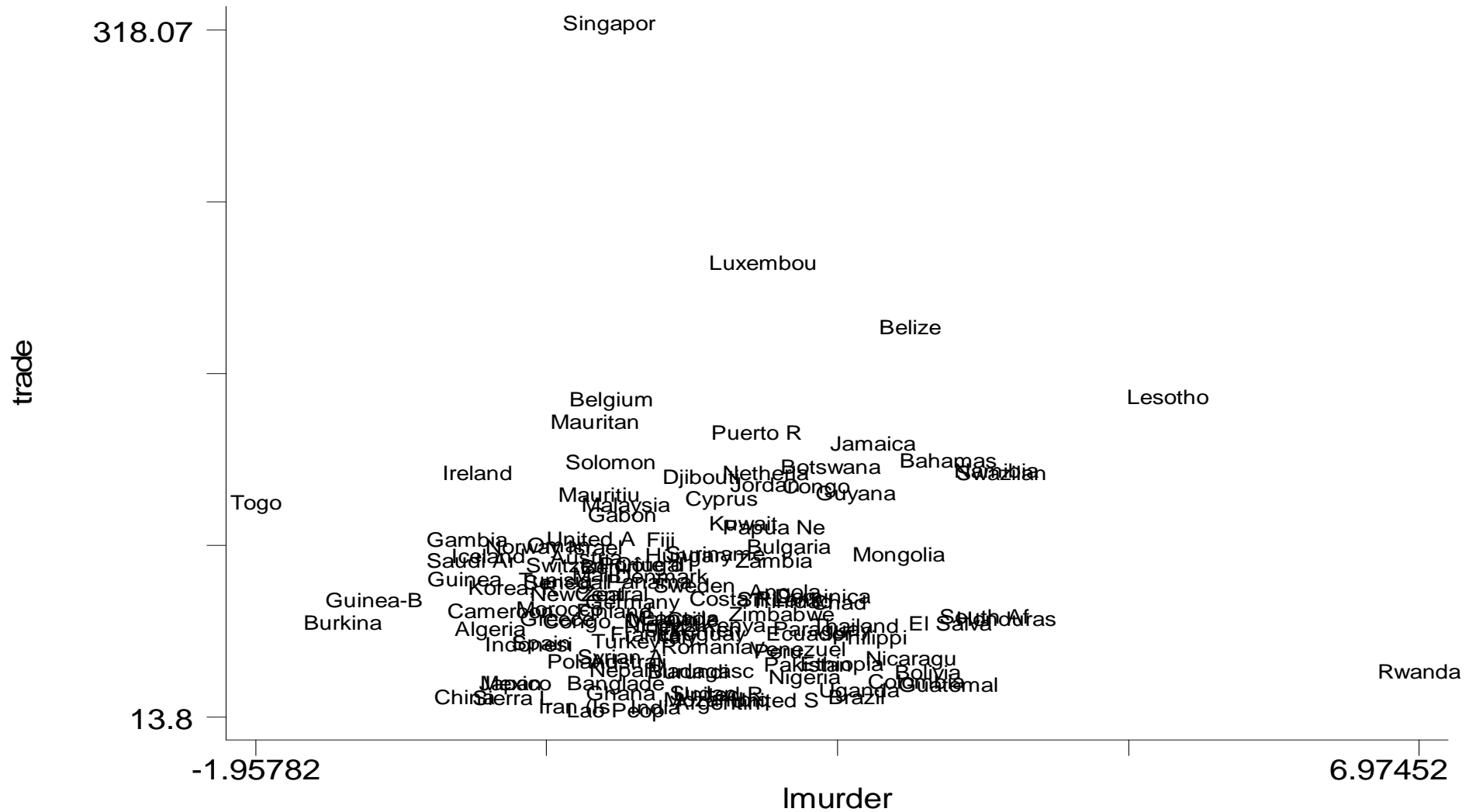
Cross-Country Evidence: Change in Murder and Growth



Rule of Law and Trade/GDP



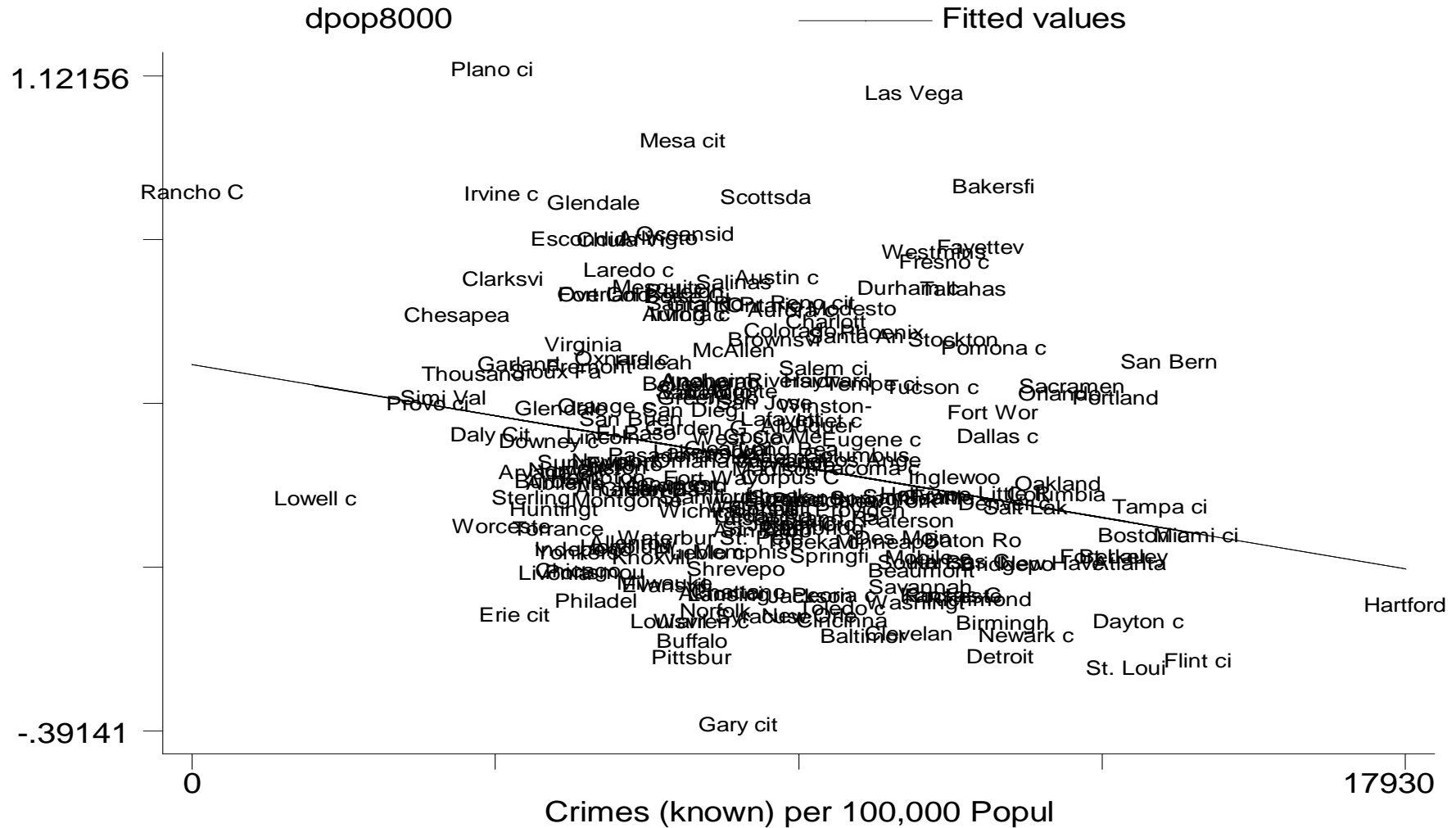
Murder and Trade/GDP



Advantages of Cross-City Work

- Fewer critical omitted variables
 - Think about everything else that changes at the country level
- Better and higher frequency measurement, especially of crime.
- The ability to use crimes other than murder.
- The big difference: mobility of population
- Population and housing price growth are the two major measures of urban success.

Crime in 1980 and Urban Decline

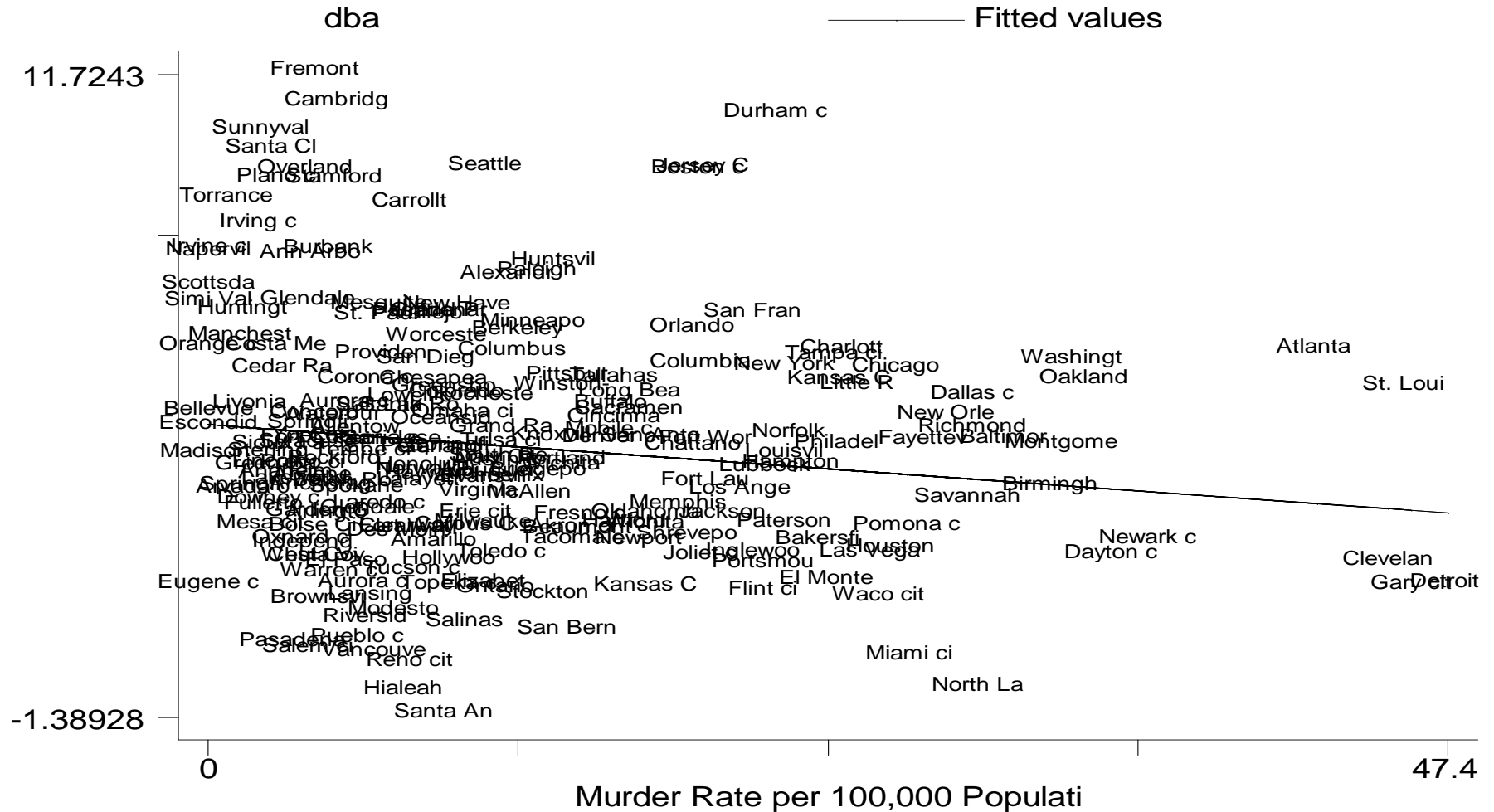


Better Work on Crime and Migration:

Levitt and Berry-Cullen

- A key issue in all of this work is causality: does crime cause urban decline or the reverse.
- Levitt and Berry-Cullen use ACLU suits against prisons as instruments
- These suits cause a release of criminals and an increase in crime.
- Each crime leads to one extra out-migration
- Effect is five times larger for high income than low income people.

The Exodus of the Skilled: Murder 1975 and Later Change in BAs



City Growth and Crime in Brazil: Henderson and Others (2005)

- Henderson and co-authors look at Brazilian city growth between 1970 and 2000.
- They use a panel and find that a ten percent increase in homicides is associated with a 1.1 percent decrease in population growth over each five year period.
- The ability of crime to hurt cities is not limited to the U.S.

Amenities and City Growth

- Urban success is ultimately driven by the demand of individuals to live in that location.
- Productivity (Income) and Amenities are thought to be the two drivers.
- As people have gotten richer and as transport costs have declined, amenities have gotten more important.
- Amenity Measure: Prices that are higher than they should be controlling for income.

Amenity Index: Housing Prices Controlling for Income Levels

Table 4:
United States MSA with Highest and Lowest Estimated Amenity Values

Highest

Honolulu, HI
Santa Cruz, CA
Santa Barbara-Santa Maria-Lompoc, CA
Salinas-Seaside-Monterey, CA
Los Angeles-Long Beach, CA
San Francisco, CA
San Jose, CA
Santa Rosa-Petaluma, CA
Oxnard-Ventura, CA
San Diego, CA

Lowest

Stamford, CT
Norwalk, CT
Anchorage, AK
Rochester, MN
Detroit, MI
Midland, TX
Trenton, NJ
Minneapolis-St. Paul, MN
Nassau-Suffolk, NY
Bloomington-Normal, IL

Note: Estimated Amenity Value measured as residual from an OLS regression of log median house value on log median income in 1990.

Source:

Originally appeared in Glaeser, Edward L., Jed Kolko, and Albert Saiz. "Consumer City." Journal of Economic Geography, Oxford University Press 1.1 (2001): 27-50.

Amenity Index and Population Growth

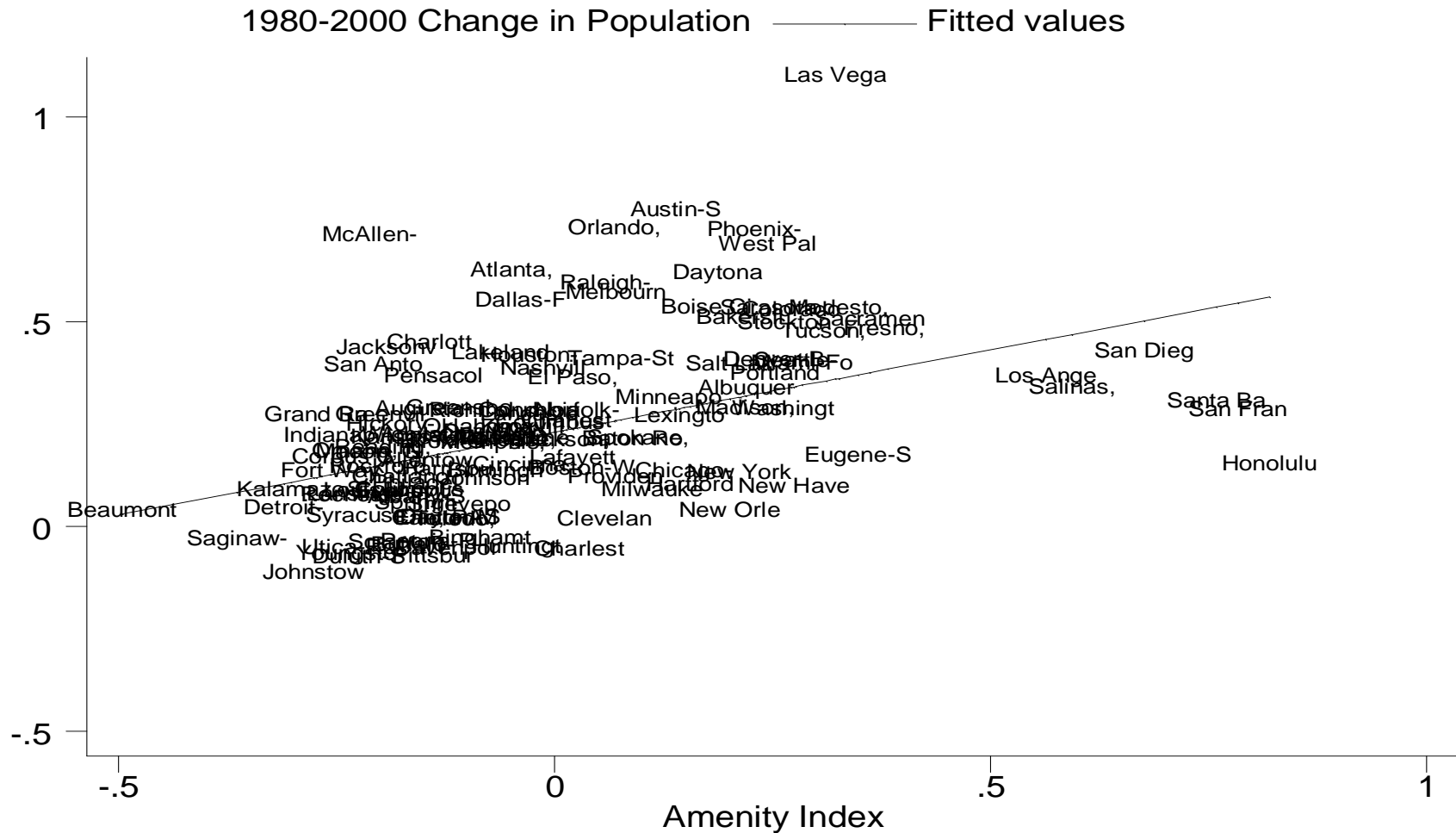
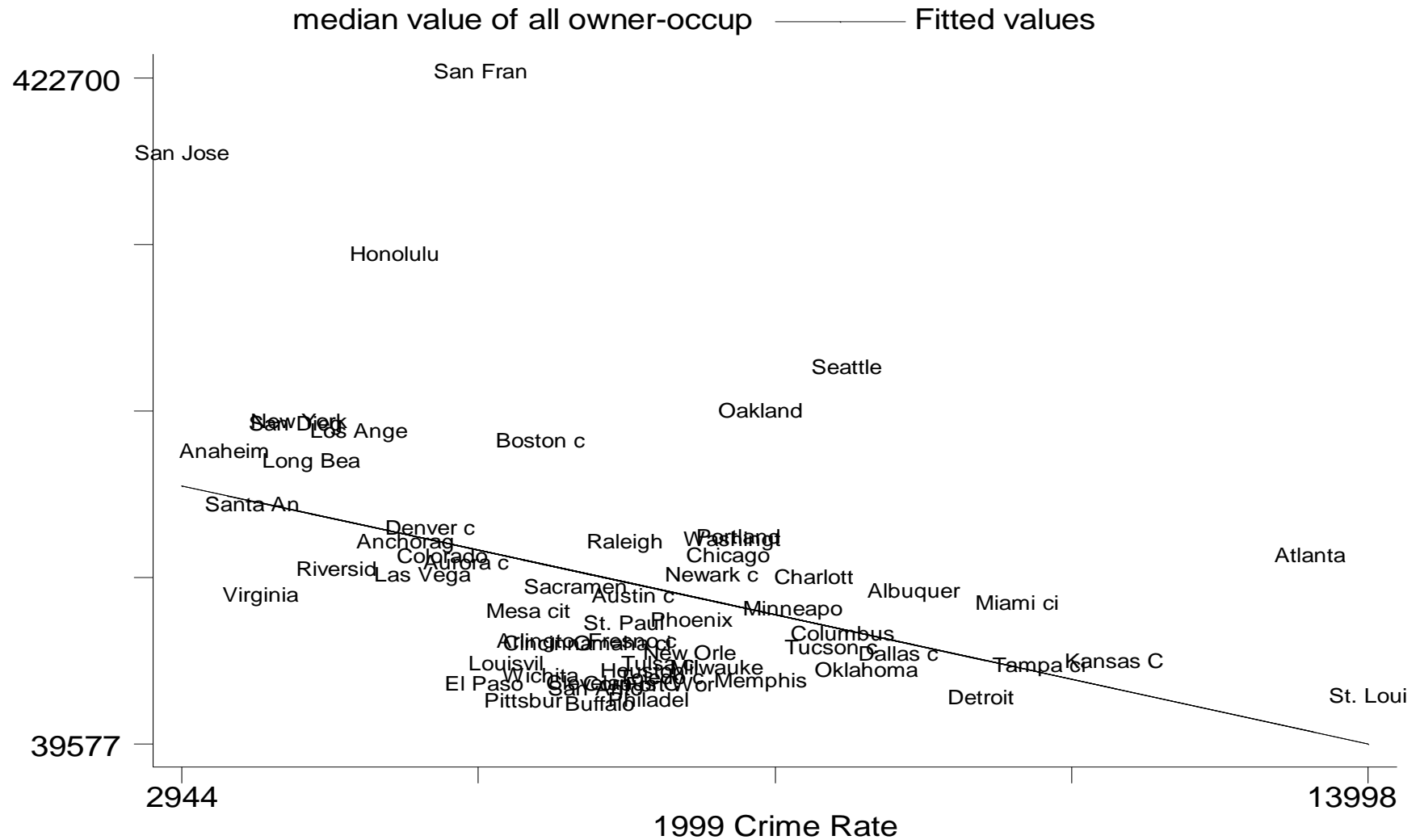


Figure 11: 1980-2000 Population Growth on Amenity Index

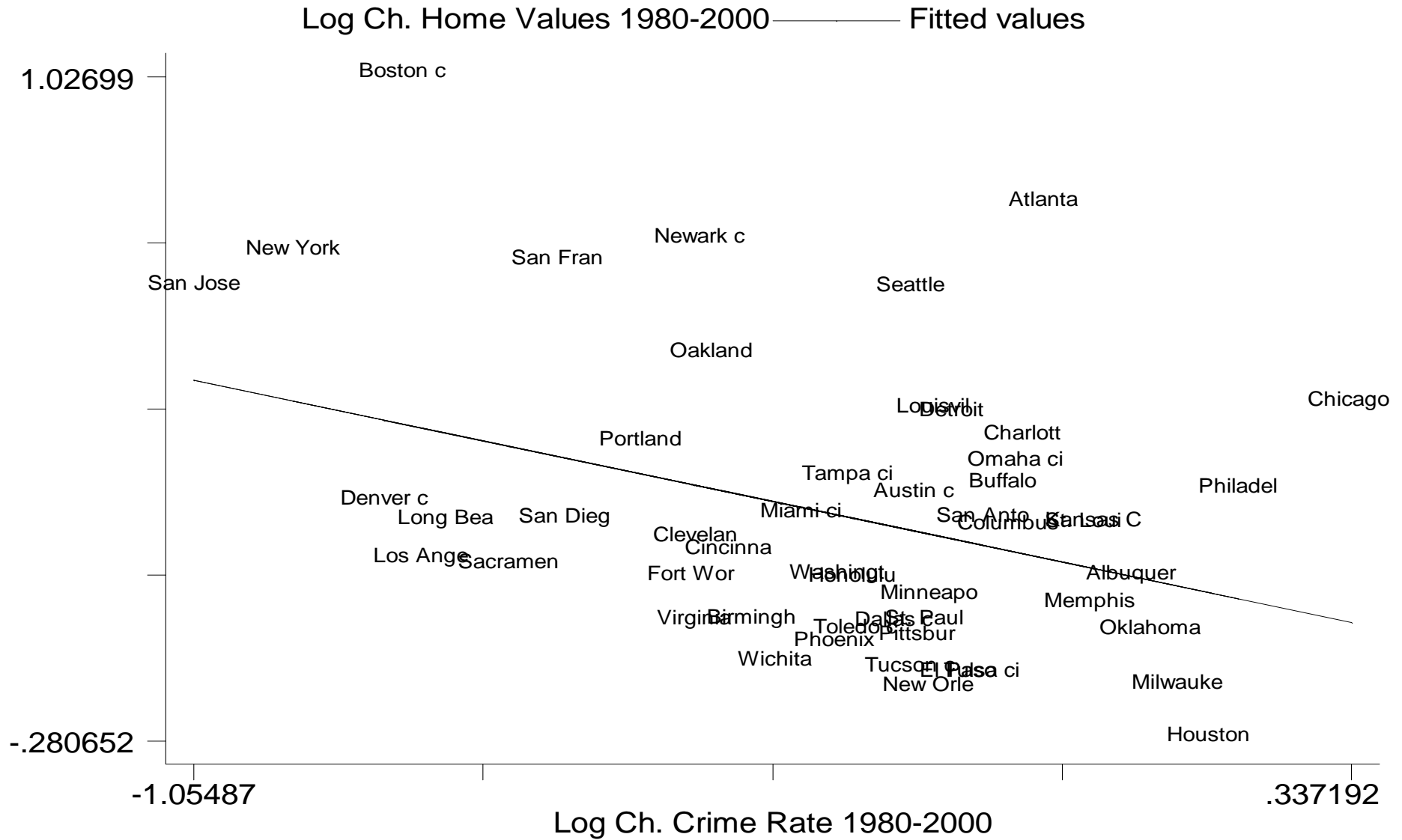
Crime as a Disamenity

- The hedonic literature has long documented the negative impact of crime on property values.
- Thaler (1975) is an early paper showing this connection.
- A vast number of studies have confirmed that higher crime rates are associated with lower property values (and hence amenities) within and across urban areas.

Housing Prices and Crime



Home Value Change and Crime Rate

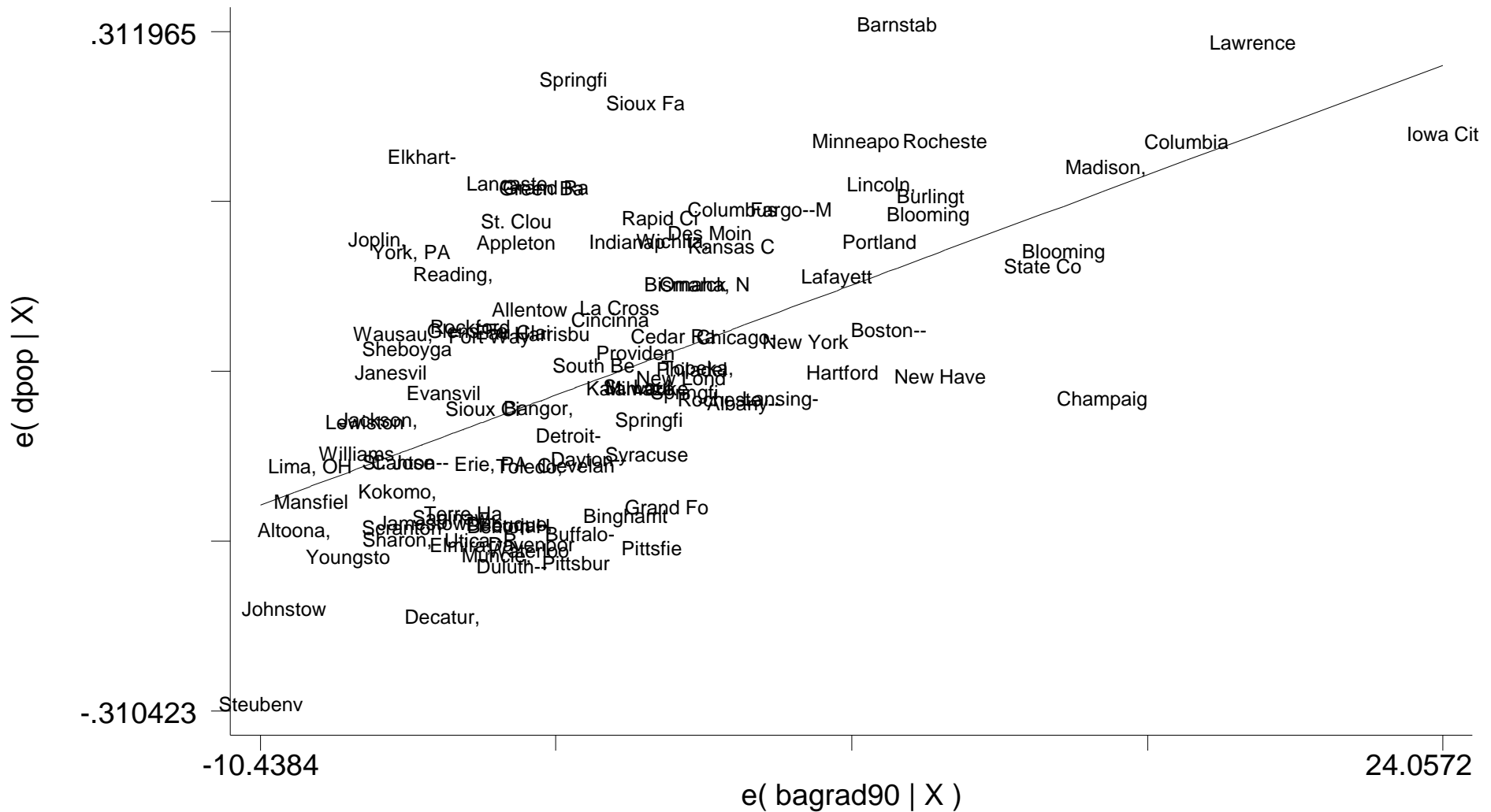


Revival of NYC and Other US Cities

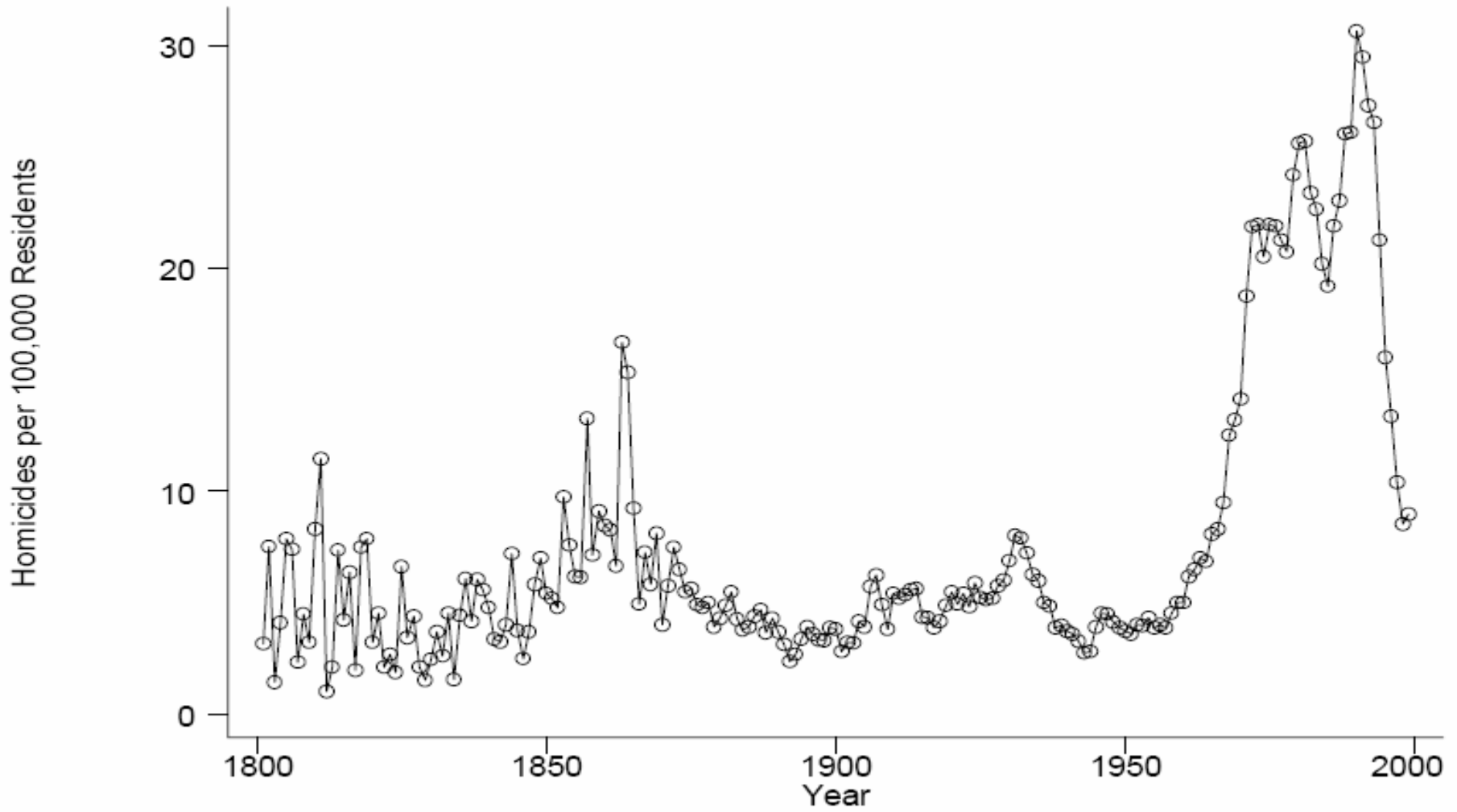
- In the 1970s, almost all of the older American cities looked like they were in trouble.
- Economic decline, fiscal distress, and high crime rates made them look like dinosaurs.
- Since 1975, the high skilled cities have done quite well, even in their downtowns.
- One part of that is the rise of the older city as consumer city (reverse commuting)
- Crime can explain about 1/3 of NYC housing price appreciation (Schwartz et al.)

Cities and Skills in the Colder Regions

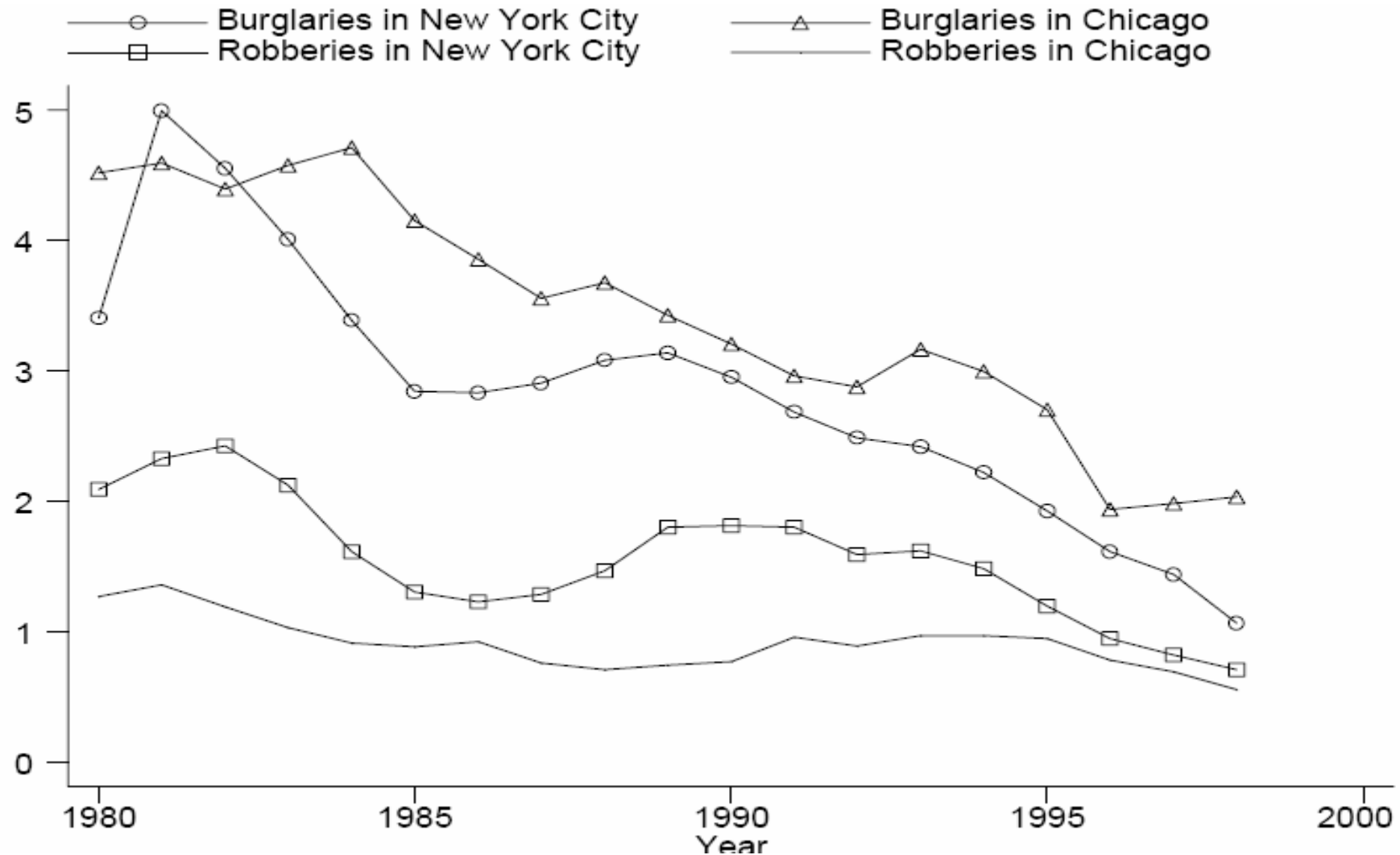
coef = .01169126, se = .00161765, t = 7.23



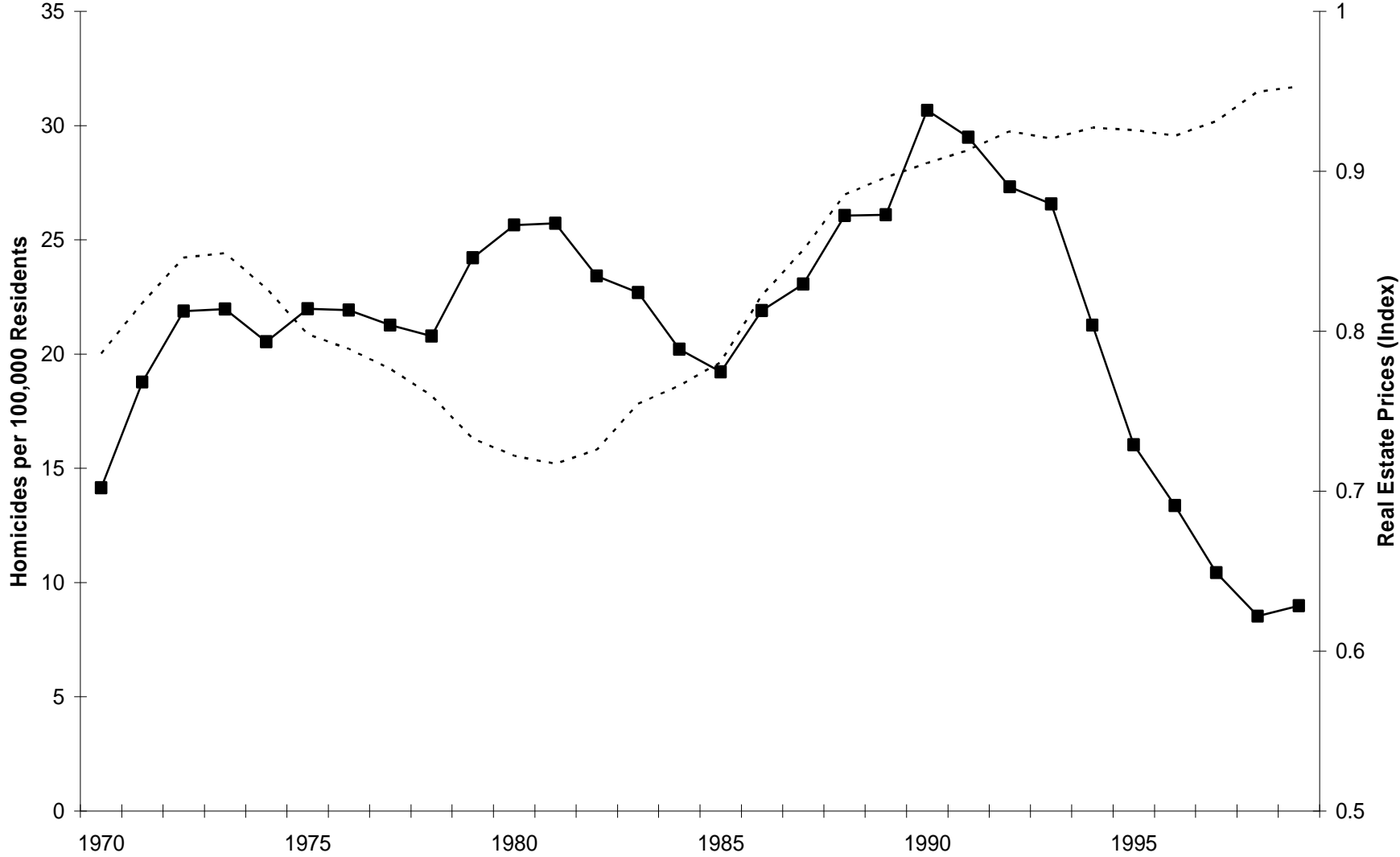
Crime and NYC: The Long Haul



Crime in NYC and Chicago since 1980



Homicide Rate and Real Estate Prices in NYC 1970 - 2000



Economic and Social Roots of Crime

- What underlying societal factors explain the level of crime?
- Across countries, inequality seems important (Fajznlberger, Loayza and Lederman)
 - Overall wealth is less important
- Across cities, unemployment matters (Witte)
- Urban size strongly predicts crime
- Social multipliers seems to create crime

Inequality and Crime: Fajnzlberger, Lederman and Loayza (JLE)

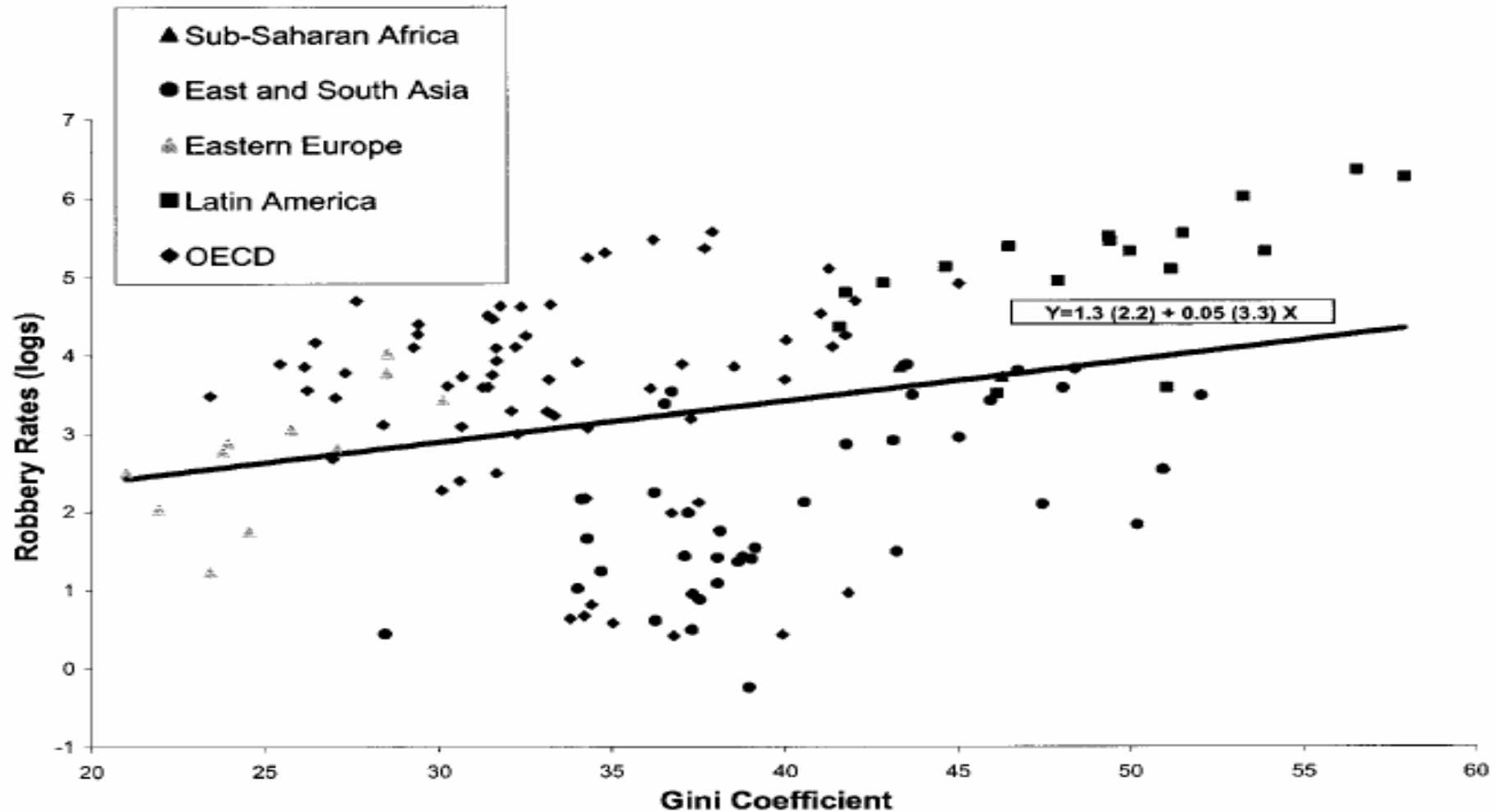
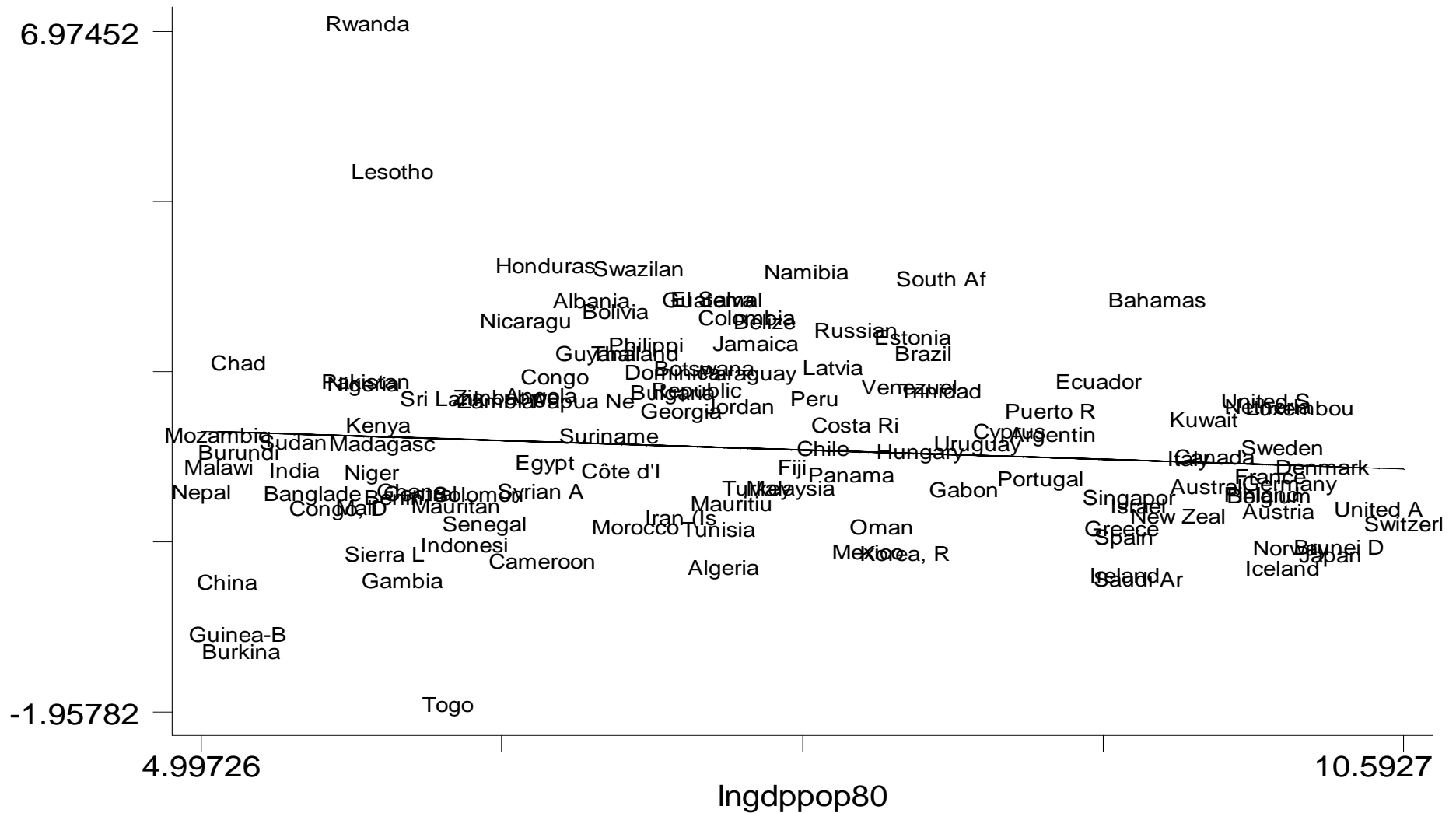


FIGURE 1.—Income distribution and intentional homicide rates, 1965–94 (5-year averages)

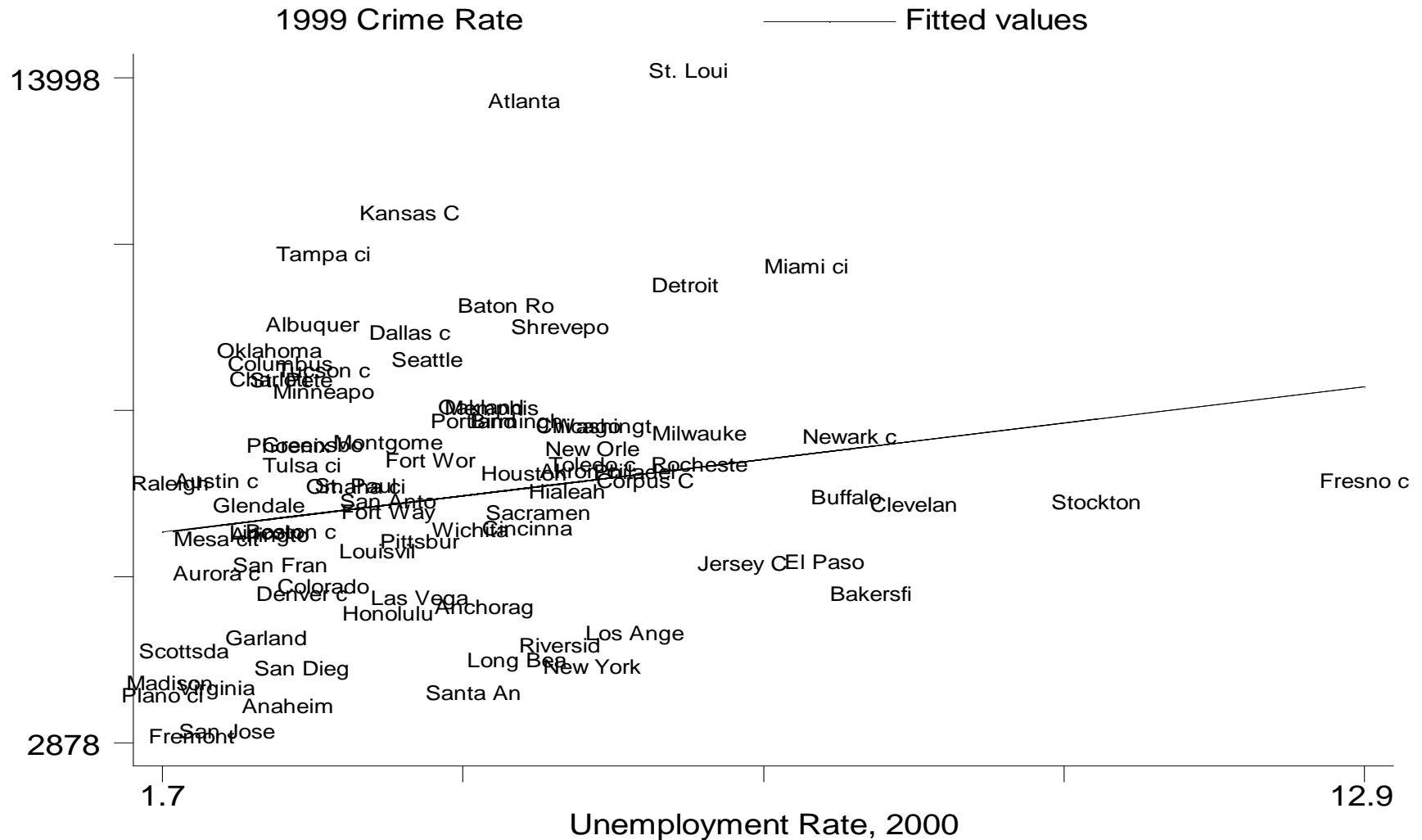
Crime and Income: a weaker relationship

Imurder

———— Fitted values

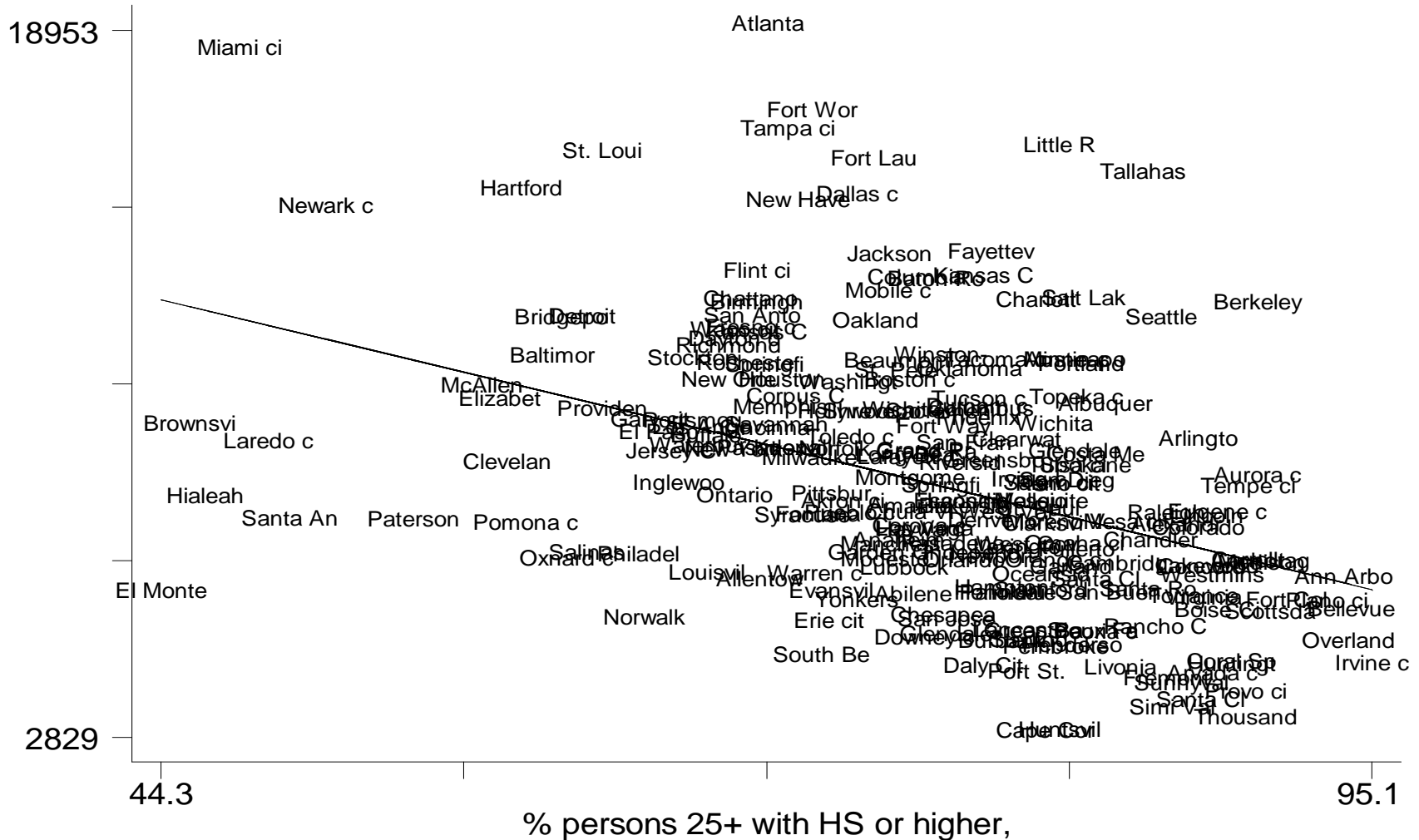


Cross Cities: Crime and Unemployment

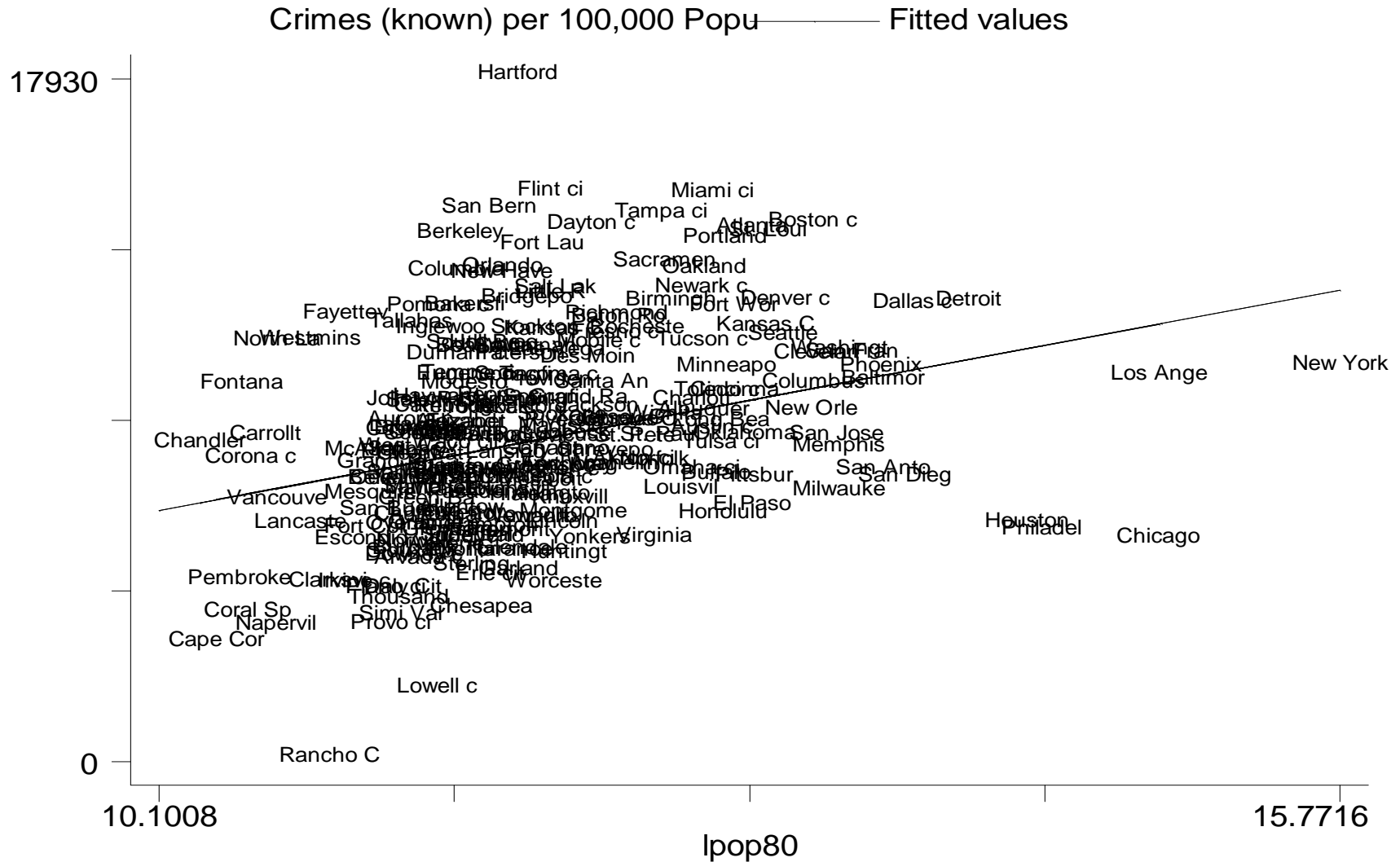


Crime and Schooling

SERIOUS CRIMES PER 100,000 POPU — Fitted values



Crime and City Size



Why is there more crime in cities?

- Cities have more available victims (about 1/5 of the effect)
 - Distance between criminal and victim declines
- Enforcement is harder in cities (about 1/4)
 - The pool of suspects is much larger
- Cities attract people who are crime-prone (about 1/2 of the relationship in the U.S.)
 - Cities have good amenities for the poor, like public transportation
 - Cities might particularly have more weaker traditional rules

Crime and Social Interactions

- For many reasons crime appears to be contagious.
- Overcrowding of police (riots)
- Transfer of crime-related human capital (evidence from prisons by Bayer)
- Legitimization of criminal activity
- Standard peer effects work (Case and Katz)
- High variance of crime rates (GSS)
- If so, then there is a social multiplier in anti-crime activities

Fighting Crime: Social Policy vs. Crime Policy

- The connection between social distress and crime does suggest that social policy has some role to play in fighting crime.
- Donahue and Siegelman review a series of interventions (like head start) and argue that some are cost effective relative to prisons (which cost around 40k/year).
- But there are many reasons to doubt the social policy will be effective on its own.

The Limitations of Social Policy

- The ability to create widespread social change is quite limited and surely takes decades.
- By contrast, many cities have been able to change its crime policy over a few years.
- Moreover, the elasticities of crime with respect to poverty are not all that strong.
- Without increasing the costs of crime, there is unlikely to be a major reduction in crime.

Crime and Punishment

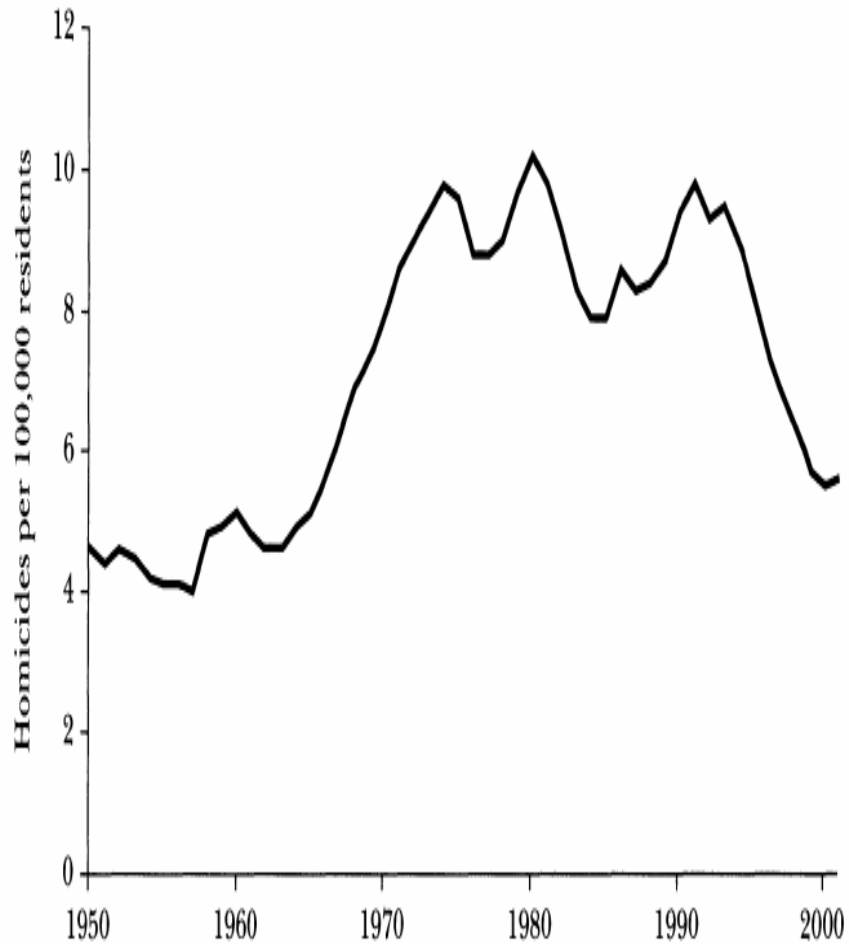
- The economic approach to criminal policy has emphasized deterrence and incapacitation.
 - Little faith has been put in rehabilitation both because of theory and high recidivism rates.
- The traditional theory (Becker, 1968) has particularly emphasized deterrence and has called for more fines than prisons.
- More recent work (Levitt) has emphasized incapacitation (prisons and abortion).

Crime and Incarceration

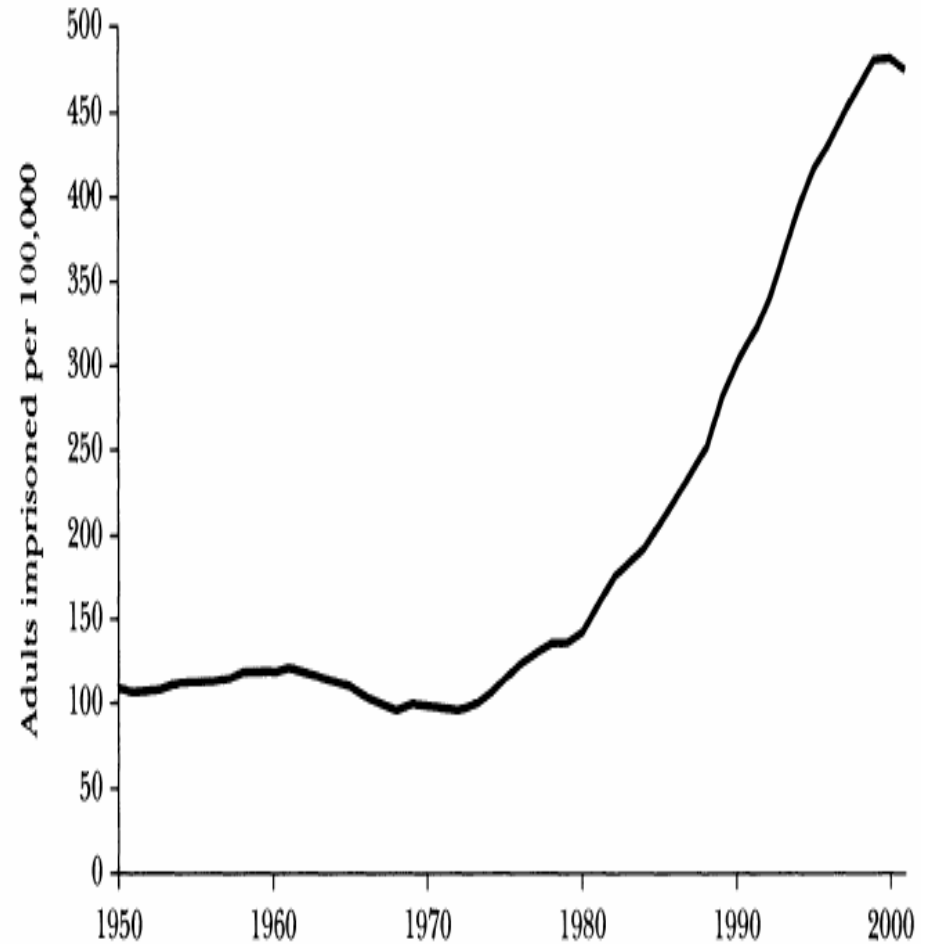
- Typical estimates of the elasticity of crime with respect to incarceration rates run from .15-.25.
- Levitt's work using ACLU-forced prison releases suggests higher estimates (.3).
- The time series of incarceration certainly does seem to support the view that locking people up is effective, but at a terrible cost.

Two Graphs from Levitt

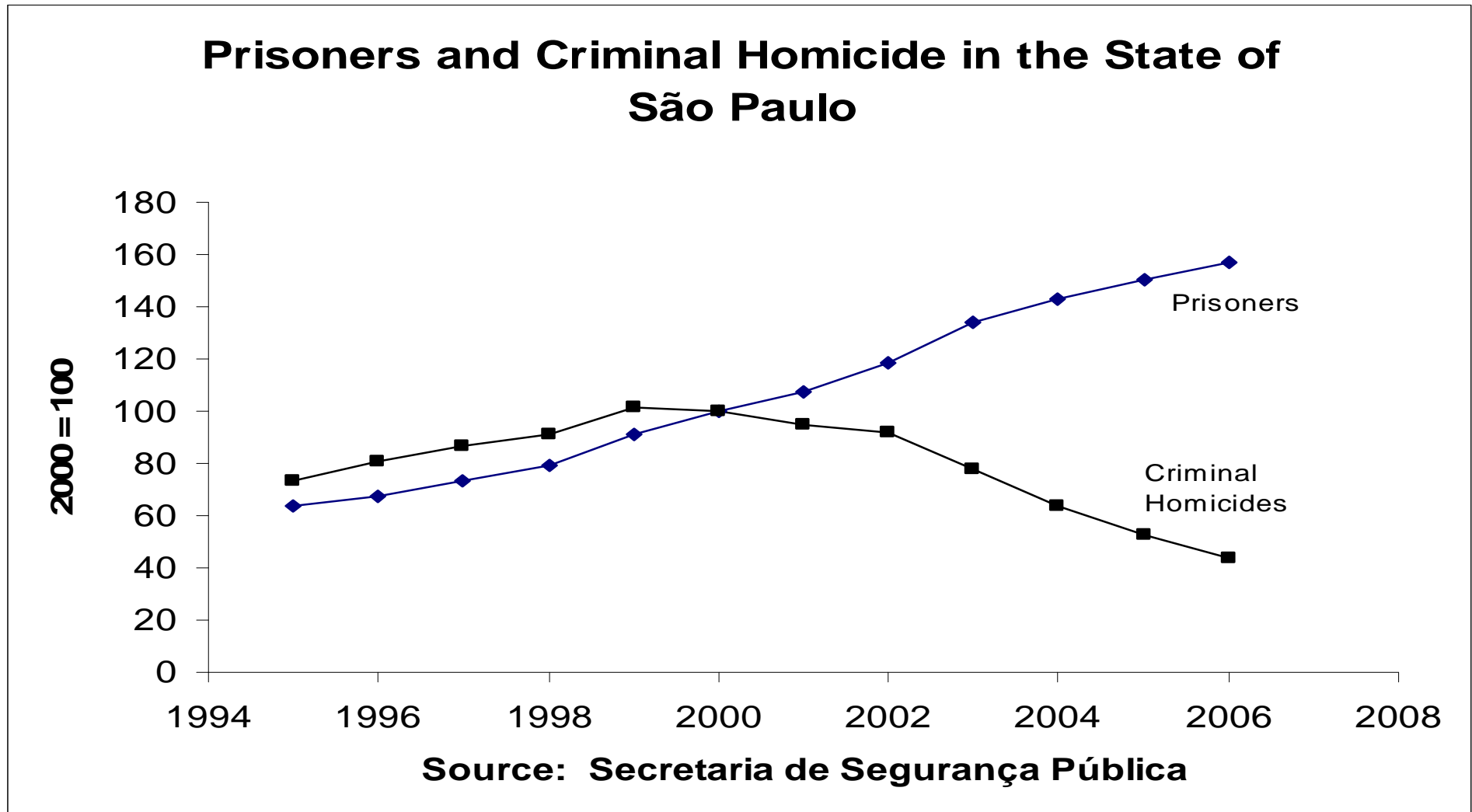
Homicide Rate, 1950-2001



Adult Incarceration Rate, 1950-2001



Incarceration and Homicides in Sao Paulo



Theory on Incapacitation and Deterrence

- The relative importance of incapacitation and deterrence depends mainly on the specialization of the criminal.
- If criminals are specialized, the punishment should work through incapacitation.
- When they are amateurs, then deterrence is more important.
- Could the division of labor explain the 19th century rise in prisons (Foucault).

Application to Latin America

- The lack of national, systematic victimization surveys and crime report statistics compromise clearance rate estimates.
- Still the available data shows that homicides clearance rates in Rio de Janeiro are about 2.7% and about 12% in São Paulo (Piquet)
- Compared to 64% in the USA in 2002.

Can the difference in punishment explain the difference in crime?

- If we take an average clearance rate of 7.5% for Rio and Sao Paulo vs. 64% in the U.S.
- A typical large U.S. city might have about 15 murders per 100,000
- With an elasticity of .3, this predicts that the murder rate in the Brazilian cities should be about double the murder rate in the U.S.
- But the actual murder rate is about closer

Reconciling the Figures

- Theory # 1: there is a lot more other than clearance rates that makes Brazil have a higher crime problem (inequality, etc.).
- There are many U.S. with a homicide rate that is far more than $\frac{1}{2}$ of the rate in Brazil.
- Theory # 2: the crime elasticities are higher for more professional types of murders, and much of the difference between the regions reflects those more professional murders.

Effective Policing

- To economists, who know little about the business of policing, crime policy tends to come down to the probability of arrest and the length of sentence.
- To policing experts, much more matters and they are surely right.
 - Better Information Technology
 - Community policing
 - Corruption

Information Technology and Crime

- There is a long history of police using new information technology to fight crime
 - Dial 911 was a particularly dramatic innovation
- In the 1990s, information became used both to target responses and to evaluate precinct commanders (CompStat)
- Incentives tied to actual crime
- NYPD Real Time Crime Center (opens in 2005)

The Rise of Community Policing

- Boston and NYC both had significant crime reductions in the 1990s, but followed different crime strategies (Chris Stone).
- NYC was police-centered; Boston focused on community partnership (Ten Point Coalition).
- Basic idea is to leverage police by using community resources.
- Reduces crime while building trust– but is it sustainable or transferable?

Corruption, Violence and Law Enforcement

- In 2004, 983 people were killed by the police at the State of Rio de Janeiro.
- This number is twice the number of justifiable homicides perpetrated by all US police departments together (about 450 a year according to NBJIS).

Violence against Police

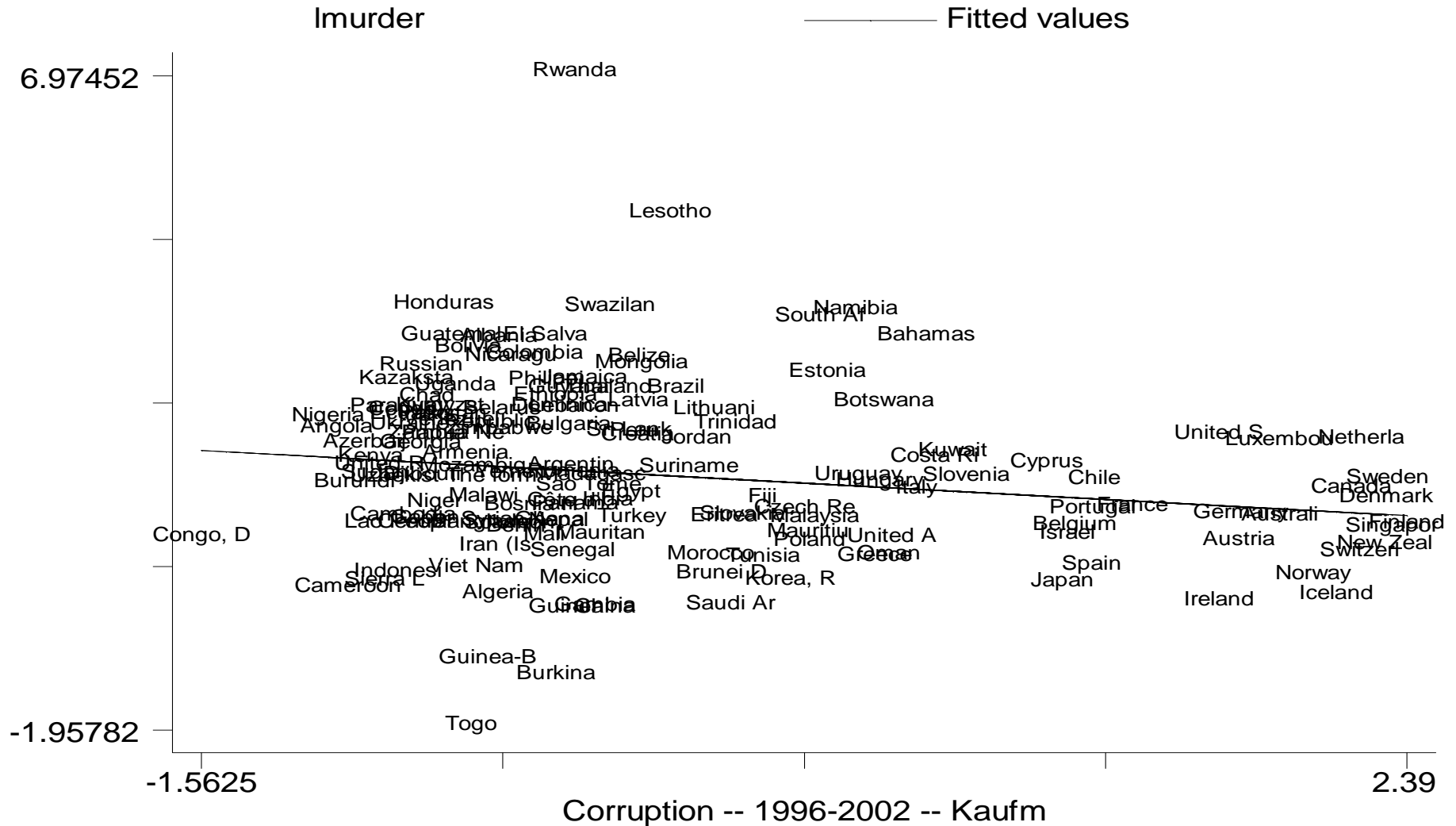
- Police officers are also at severe risk of being killed in the line of duty: in this same year (2004),
- 111 police officers were killed at Rio de Janeiro and 27 in São Paulo from a total of 50 thousand police officers in Rio and 120 thousand in São Paulo.
- At the US, 54 officers were killed in 2004 from approximately 796 thousand.

Corruption in Brazil

- From 1996 to 2006, 5567 police officers were placed under investigation and 4923 were dismissed from their positions.
- Officers dismissed from Sao Paulo over time:

Year	Number of Officers Dismissed
2000	352
2001	431
2002	526
2003	878
2004	497
2005	427

Corruption and Murders



Improving Police Work