

# The Fall of Violence and the Reconfiguration of Urban Neighborhoods

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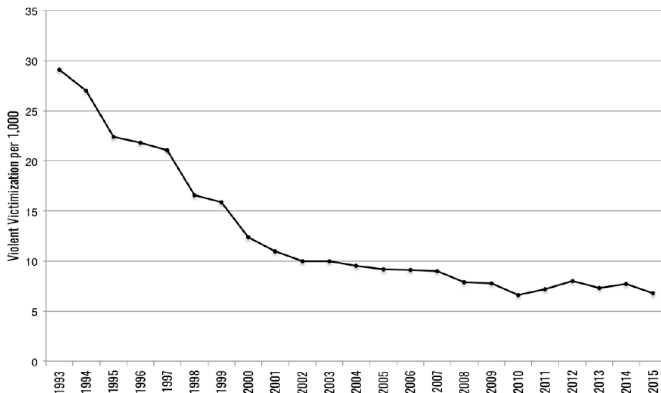
# Motivation

Two major trends have reshaped cities in the last 25 years:

- The fall of violence
  - The national homicide rate has fallen by almost 50 percent.
  - In cities like Atlanta, Dallas, Los Angeles, and New York, violence has fallen by 50-80 percent.
- The rise of urban inequality
  - Since 1970, low-income households have become less likely to share neighborhoods with high-income households.
  - Much of the rise in economic segregation is driven by the segregation of the most affluent families.

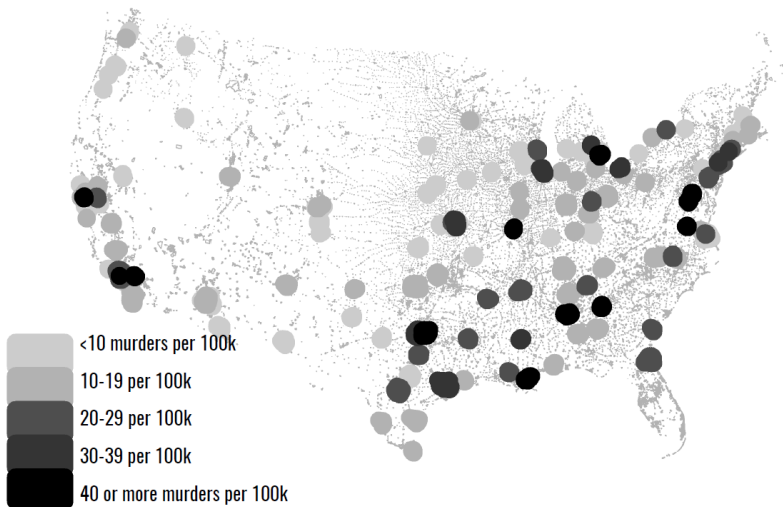


# SERIOUS VIOLENT VICTIMIZATION, NCVS, 1993-2015



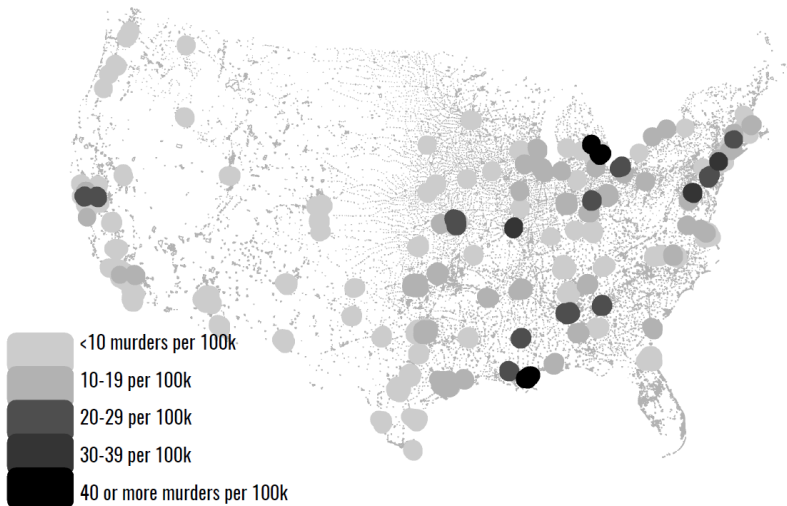
National Crime Victimization Survey.

# HOMICIDE RATE IN U.S. CITIES, 1993



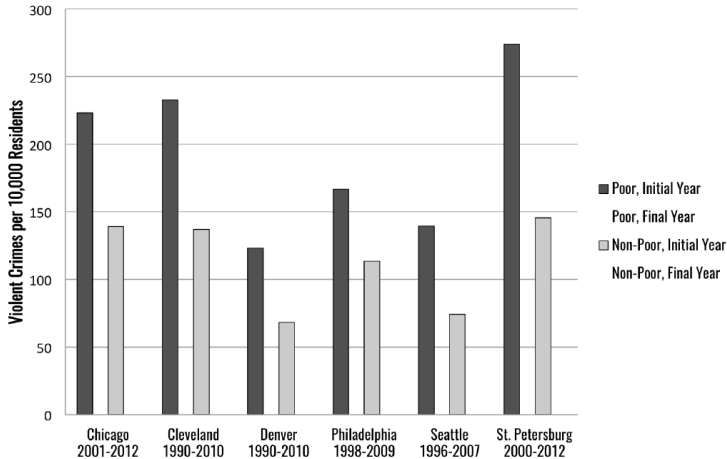
FBI Uniform Crime Reports.

# HOMICIDE RATE IN U.S. CITIES, 2014



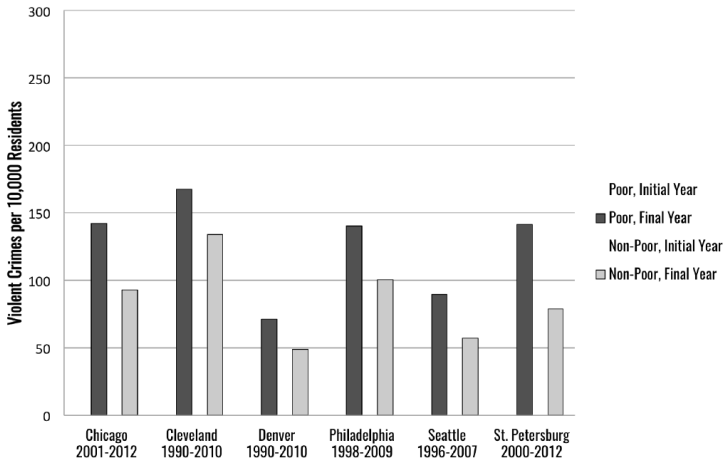
FBI Uniform Crime Reports.

# EXPOSURE TO NEIGHBORHOOD VIOLENCE AMONG THE URBAN POOR AND NONPOOR



Friedson and Sharkey, "Neighborhood Inequality After the Crime Decline." *Annals of the American Academy of Political and Social Science*.

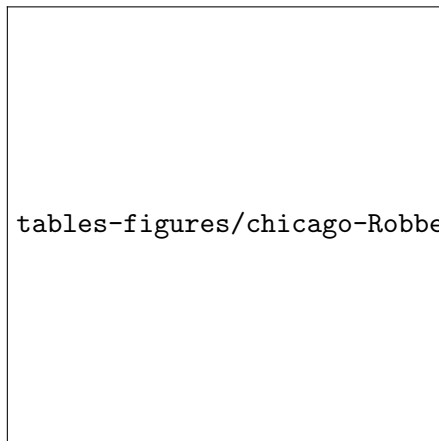
# EXPOSURE TO NEIGHBORHOOD VIOLENCE AMONG THE URBAN POOR AND NONPOOR



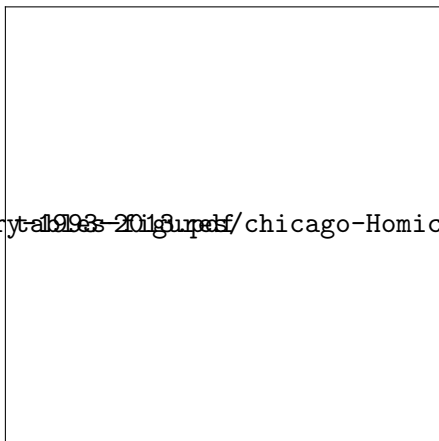
Friedson and Sharkey, "Neighborhood Inequality After the Crime Decline." *Annals of the American Academy of Political and Social Science*.



# Robbery and Murder in Chicago, 1993-2013



(a) Robbery rate

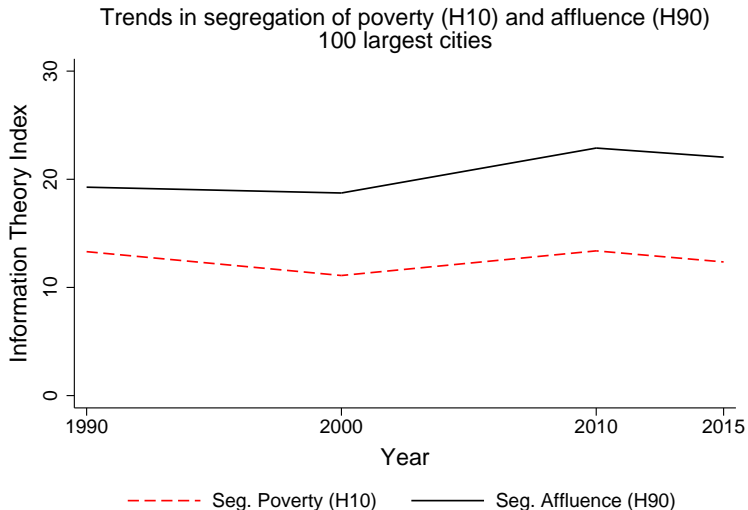


(b) Murder rate

# Rise in income inequality

Source: Reardon and Bischoff. 2011. Income Inequality and Income Segregation.  
*American Journal of Sociology.*

# Trends in Income Segregation

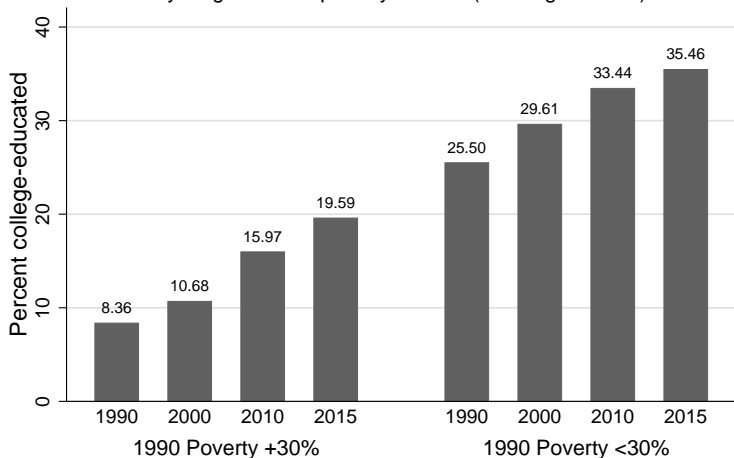


# Trends in Income Segregation

tables-figures/line-city-all-1990-2015.pdf

# Demographic changes in high-poverty neighborhoods

Percent college-educated, 1990-2015  
by neighborhood poverty in 1990 (100 largest cities)



# Research questions

Does the fall of urban violence explain the demographic and socio-economic shifts that city neighborhoods have experienced in the last 25 years?

- Impact on segregation of poor households.
- Impact on composition of poor neighborhoods.
- Displacement of poor households.
- Produce causal estimates.

## Existing evidence

- Evidence on the contribution of gentrification to the crime decline (Papachristos et al. 2011; Autor et al. 2017).
- Evidence on the effect of declining violence on gentrification of central-city neighborhoods (Ehrenhalt 2012; Ellen, Horn and Reed 2017; Florida 2017; Hyra 2017).
  - New investment, amenities, and social services.
  - Rising property values.
  - Entry of highly-educated, wealthy, white residents.
  - Exit or displacement of low-income households.

# Data

## Income segregation:

- Generated from tract-level data (Census and ACS).
- Computed for cities rather than metro areas.
- Bias-corrected (Reardon et al. 2018).

## Crime:

- Uniform Crime Reporting Program: Offenses Known and Clearances by Arrest.

## Demographics:

- Place-level Census and ACS.

## Sample:

- 474 of the 500 largest cities.
- Changes 1990-2015.



# Outcomes

Income segregation (Information Theory Index):

- Segregation of poor families (H10).
- Segregation of affluent families (H90).

Demographic changes in low-income neighborhoods (as of 1990):

- City share of college-educated residents.
- City share of non-Hispanic white residents.
- City share of residents in poverty.

Rents of low-income households.

All outcomes and crime rates are measured as long-term changes from

1990 to 2015.

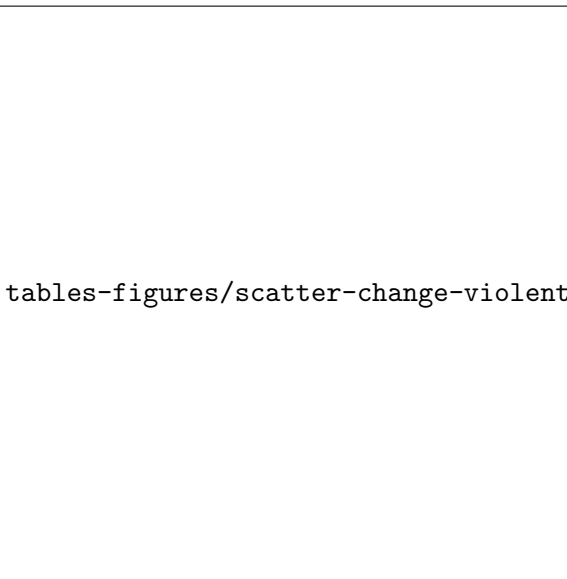
## Changes in crime and segregation

tables-figures/scatter-change-violent-h10-1990-2015.pdf

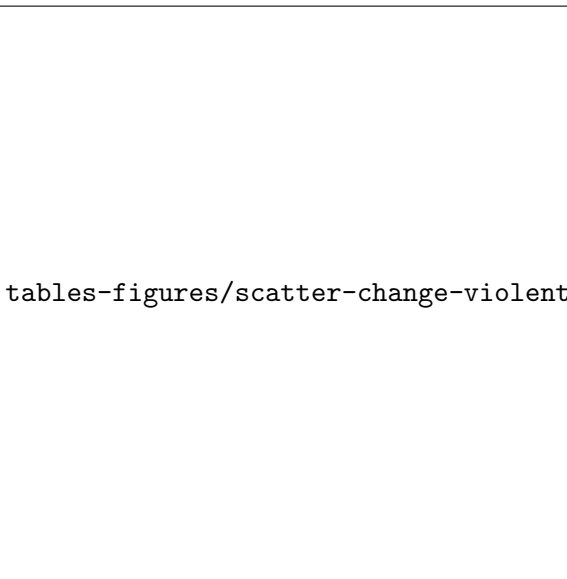
# Changes in crime and college-educated

tables-figures/scatter-change-violent-log-college-

# Changes in crime and white residents



# Changes in crime and residents in poverty



# OLS and IV Estimation

OLS estimation:

- $\Delta \text{Seg}_i^P = \alpha + \delta_{OLS}^P \Delta \text{Crime}_i + \Delta X_i' \beta + e_i$

2SLS estimation:

- First stage:  $\Delta \text{Crime}_i = \alpha + \pi_1 \Delta \text{COPS}_i + \Delta X_i' \beta + \eta_i$
- Reduced form:  $\Delta \text{Seg}_i^P = \alpha + \pi_2^P \Delta \text{COPS}_i + \Delta X_i' \beta + u_i$
- LATE:  $\delta_{IV}^P = \pi_2^P / \pi_1$

# The COPS IV

- Exploit availability of funding to hire police officers in local police departments as an instrument for crime.
  - Community Oriented Policing Service (COPS) program.
  - Established in 1994 as part of the Violent Crime Control and Law Enforcement Act.
  - Police departments that applied for grants received funding to cover 75% of the cost of hiring police officers.
- Identification comes from the exogeneity of the *timing* when the grants were received (COPS funding is associated with prior levels of crime but not with prior trends).
- Qualitative and quantitative evidence from Evans and Owens (2007).



# COPS IV: First stage

	(1)	(2)
	Log property	Log violent
$\Delta$ COPS officers	-0.003*** (0.001)	-0.005*** (0.001)
F-test IV	10.942	13.530
Observations	474	474
Adj. $R^2$	0.411	0.370

# COPS IV: “Exogeneity test”

	Change log COPS 1990-2010					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Log violent crime</i>						
1985-1990 change	-0.158 (0.209)					
1990 level		0.451*** (0.098)				
<i>Income segregation</i>						
1980-1990 change			0.078 (0.062)			
1990 level				0.093*** (0.021)		
<i>% Poverty</i>						
1980-1990 change					-0.028 (0.033)	
1990 level						0.072*** (0.010)
Observations	466	466	466	466	466	466
Adj. $R^2$	0.001	0.091	0.012	0.124	0.005	0.177

## Effects on income segregation

	Seg. Poverty ( $\Delta$ H10)		Seg. Affluence ( $\Delta$ H90)	
	(1) OLS	(2) IV	(3) OLS	(4) IV
$\Delta$ Log violent rate	1.189** (0.573)	3.941** (1.799)	-1.663** (0.670)	-6.398** (2.943)
Observations	474	474	474	474

1SD decline violent crime  $\rightarrow$  0.70 SD decline segregation poverty (H10).

# Effects on income segregation

tables-figures/plot-iv-estimates-violent-different-pe

## Demographic changes in high-poverty neighborhoods

	$\Delta$ Share college		$\Delta$ Share white		$\Delta$ Share poor	
	(1) OLS	(2) IV	(3) OLS	(4) IV	(5) OLS	(6) IV
$\Delta$ Log violent rate	-2.127*** (0.609)	-5.318*** (1.331)	-1.560*** (0.559)	-3.338*** (1.109)	0.196 (1.183)	2.135 (2.437)
Observations	288	288	288	288	288	288

In cities where violence fell more rapidly:

- College-educated and white residents moved into neighborhoods that started off as high-poverty in 1990 at higher rates.
- No evidence of increased displacement of poor households.

# Summary of results

In cities with the largest crime drops ...

- Segregation of poor households has grown more slowly (and in some cities, it has reversed).
- Neighborhoods that were among the poorest in 1990 have experienced larger inflows of college-educated population.
- No evidence of large-scale displacement of poor households.
- Usual IV estimation caveats apply (assumptions, LATE, ...).

# Discussion

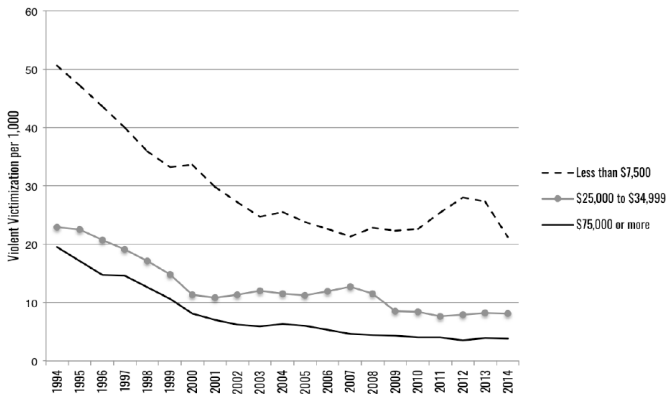
- The decline of violence changed the *form* of economic segregation.
- While the crime decline has not overturned the trend toward rising economic segregation, it has slowed its pace.
- The crime decline has had its greatest impact on concentrated poverty, which has long been thought of as the most problematic and harmful dimensions of urban inequality.

# Discussion

- Drop in violence changed the experience of urban poverty.



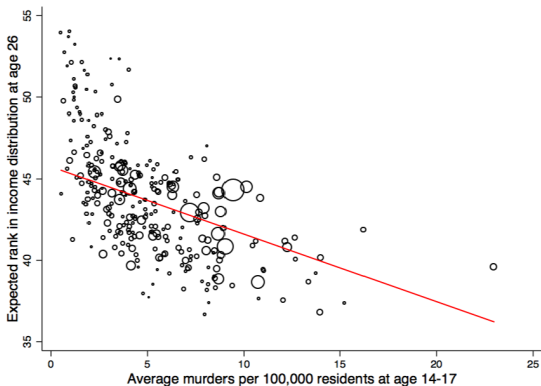
# VIOLENT VICTIMIZATION BY INCOME, NCVS, 1993-2015



# Conclusion

- Drop in violence changed the experience of urban poverty.
- Drop in violence changed the consequences of urban poverty.

# EFFECT OF VIOLENT CRIME ON ECONOMIC MOBILITY



Sharkey and Torrats-Espinosa, "The Effect of Violent Crime on Economic Mobility," *Journal of Urban Economics*.

# Discussion

- Drop in violence changed the experience of urban poverty.
- Drop in violence changed the consequences of urban poverty.
- Drop in violence changed the form of urban neighborhoods
  - Reduced concentration of poverty
  - Brought families back into central cities
  - In some cities created new problems of gentrification (but these consequences are limited to specific cities).

# Thank you

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