Police Shootings

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Police Killings:
US Exceptionalism

Compared to German Police:

- US police 30x more likely to be killed

- US police 30x more likely to kill a civilian

Zimring, When Police Kill, 2017

Explaining Cross-sectional variation in rates OF police being killed across states: 1996-2010

Data on police homicide victimization and # FTE LEO from FBI

782 police homicide victims, 92% killed with firearms

Independent Variables:

% Households with guns (BFRSS data)

Violent crime rate (FBI)

% Black

Median income

Divorce

Inequality (Gini coefficient)

Education

Alcohol

Urbanicity

Police as Victims
Killed (1996-2010)

	High Gun States	Low Gun States
Household Gun Ownership	52%	14%
LEOs 1996-2010	2.7m	2.7m
Homicide Deaths	263	85
Homicide Rate per 100,000 LEO	**9.6** **AL, AK, AR, IA, ID, KS, KY, LA, MN, MO, MS, MT, NC, OK, SC, SD, TN, UT, VT, WI, WV, WY**	**3.1** CT, DC, HI, IL, MA. NJ, NY, RI Swedler et al APHA 2015

Police as Homicide Perpetrators: NIJ Funded Activities

- 1) Validate the data

- 2) Explain the variation of killing across states

- 3) Describe the variation of killing across urban/rural divide

- 4) Enhance the NVDRS dataset

- 5) Create a typology of law enforcement homicides

1. Validation: Legal Intervention Homicides 16 NVDRS States, 2005-2012

	Supplementary Homicide Reports	Vital Statistics	NVDRS
Total	742 victims	906 victims	1,552 victims
Examples			
Georgia	92	108	228
North Carolina	43	33	166
Colorado	60	77	119
Oregon	29	94	91
Massachusetts	6	36	46
			Barber et al AJPH 2016

Validation of NVDRS for 2015; 27 states, 404 cases (and validation of WaPo data)
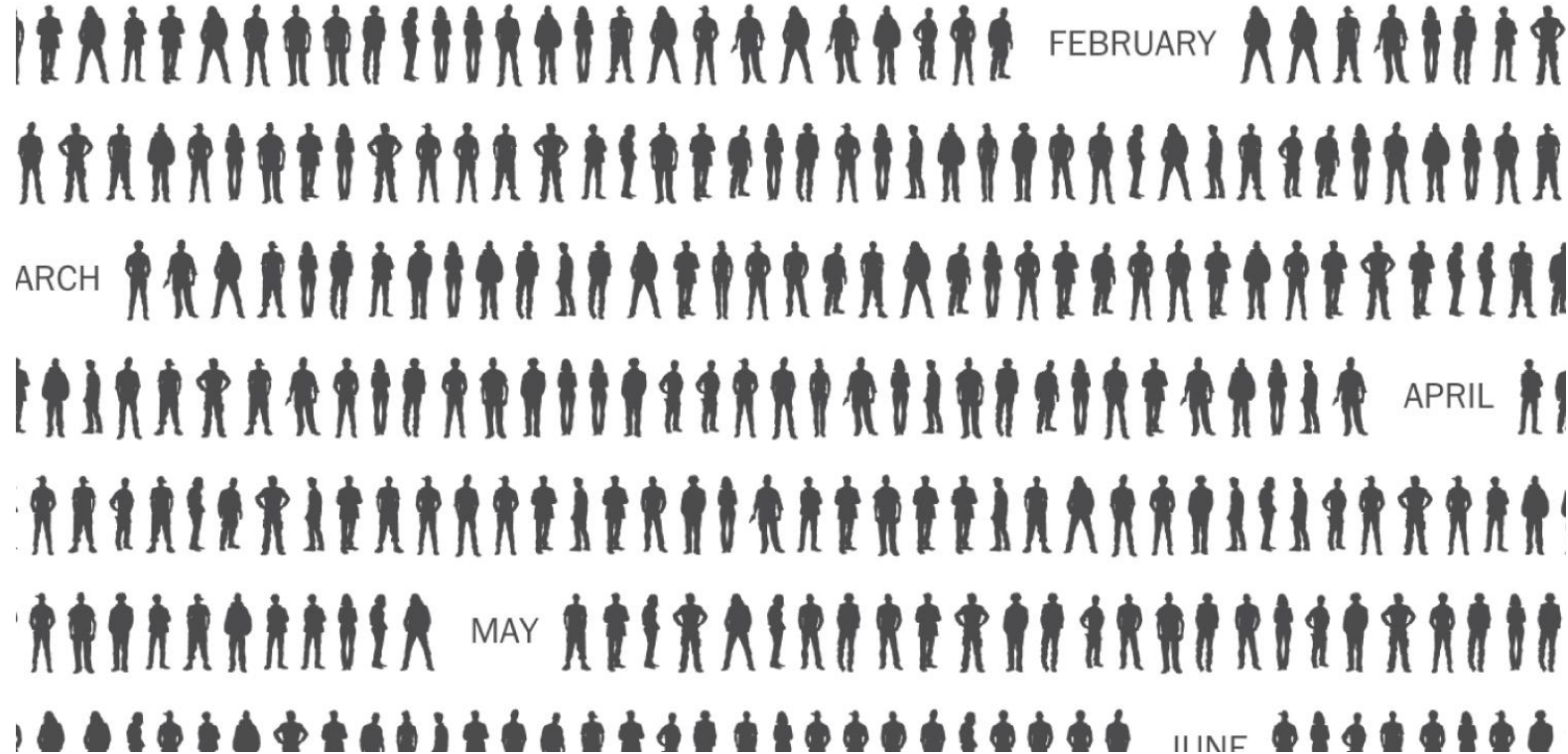
- NVDRS   (97.3%)
- Washington Post (97.8%)
- The Guardian
- FatalEncounter.org
- Mapping Police Violence
- Gun Violence Archive

Conner et al, AJPH 2019

WaPo Data

2. Explain the cross-sectional variation in rates of fatal shootings BY police across states: 2015-2017

WaPo data on fatal police shootings (93% of all law enforcement homicides)

2934 fatal police shootings

Range: 9.9/100K in New Mexico; 0.9 in New York

Dependent Variables: fatal police shootings per population and also per arrest

Independent Variables:
- **% Households with guns** (proxy: % suicides that are gun suicides)
- **Violent crime rate**
- % Non-white
- Poverty rate
- Urbanization

Legal Intervention Firearm Homicides (2015-2017)

	High Gun States	Low Gun States
Household Gun Ownership	51%	14%
Civilian Person Years	122 million	122 million
Total Civilians Killed	**499**	**85**
Rate per 1 million residents	**4.1**	0.7
% victims armed with gun	62%	47%
	AL, GA, ID, KY, LA, MS. MT. OK, SC, WV	CT, HI, MA, NJ, NY
		Hemenway et al J Urban Health 2019

Findings validated in new paper by Dan Nagin

Firearm Availability and Police Use of Lethal Force

Forthcoming Annals American Academy of Political & Social Science

"Like Hemenway et al (2018) this analysis finds a pronounced positive association between statewide prevalence of gun ownership and police use of lethal force."
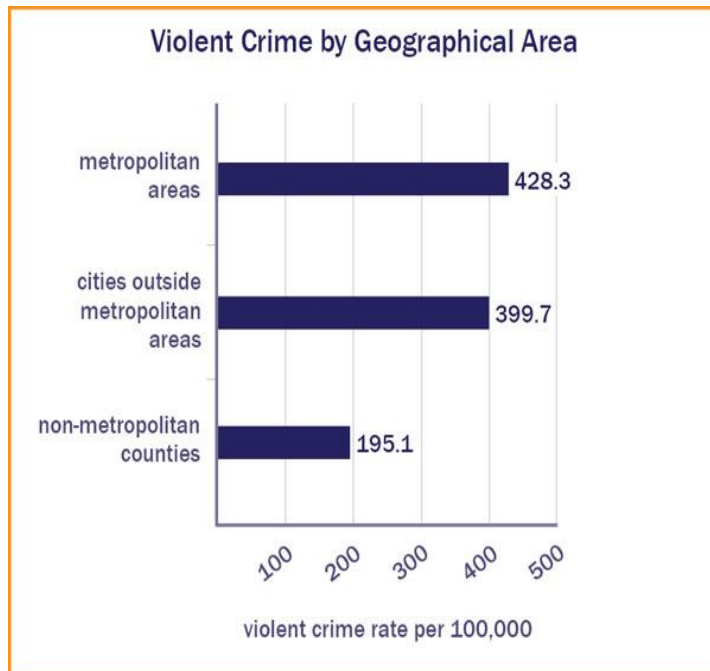
3. Are Killings by Police more of an Urban or a Rural Problem?

An urban or rural problem?

- "There is reason to believe that death rates from police activity are usually substantially higher in big cities than in suburbs, towns and rural areas"   Zimring When Police Kill 2017, . 130.

Violent Crime by Geographical Area

Geographical Area	violent crime rate per 100,000
metropolitan areas	428.3
cities outside metropolitan areas	399.7
non-metropolitan counties	195.1

Urban-Rural Definitions

- By County: (place)
  - NCHS Urban Rural Codes
  - USDA RUC Codes

- By Zip Codes: (space)
  - NCES Urbanicity
  - Census Population Density
  - 538 Definition

Fatal Police Shootings 2015-2017
NCHS Urban Rural Codes (County-based)

	Population (millions)	Legal Intervention Firearm Homicide Rate per 100,000		% Victims armed with firearm
METRO	**268**	**0.31**		**56%**
1. Large Center Metro	96	0.35		54%
2. Large Fringe Metro	77	0.21		55%
3. Medium Metro	65	0.33		55%
4. Small Metro	29	0.38		62%
NON-METRO	**46**	**0.32**		**62%**
5. Micropolitan	27	0.30		62%
6. Noncore	19	0.36		61%

Fatal Police Shootings 2015-2017 USDA RUC Codes (County-based)

	Population (millions)	Legal Intervention Firearm Homicide Rate per 100,000		% Victims armed with firearm
METRO	**262**	**0.32**		**56%**
1. Metro (> 1 million)	169	0.30		55%
2. Metro (250k-1 million)	66	0.34		55%
3. Metro (<250K)	28	0.39		62%
NON-METRO URBAN ADJACENT TO METRO	**28**	**0.30**		**63%**
NON-METRO URBAN NOT ADJACENT TO METRO	**13**	**0.37**		**60%**
COMPLETELY RURAL	**5**	**0.37**		**64%**

Fatal Police Shootings 2015-2017 NCES ZCTA based (zip codes)

	Population (millions)	Legal Intervention Firearm Homicide Rate per 100,000	% Victims armed with firearm
CITY OVERALL	**79**	**0.40**	**55%**
1. City-Large	51	0.42	56%
2. City-Midsize	16	0.38	50%
3. City-Small	12	0.31	58%
SUBURB OVERALL	**88**	**0.24**	**52%**
RURAL OVERALL	**140**	**0.32**	**60%**
1. Rural-Fringe	81	0.30	58%
2. Rural-Distant	49	0.33	63%
3. Rural-Remote	10	0.46	62%

Fatal Police Shootings 2015-2017
Census Population Density (zip codes)

	Population (millions)	Legal Intervention Firearm Homicide Rate per 100,000		% Victims armed with firearm
Urban Area	167	0.32		54%
Urban Cluster	32	0.28		56%
Rural	110	0.33		61%

Fatal Police Shootings 2015-2017
538 Definition—Population Density (zip codes)

	Population (millions)	Legal Intervention Firearm Homicide Rate per 100,000		% Victims armed with firearm
Urban	51	0.34		50%
Suburban	178	0.30		56%
Rural	80	0.34		63%

Conclusion

- Lots of ways to categorize areas as urban or suburban or rural

- By almost any measure, rates of legal intervention firearm homicides are as high in rural as in urban areas.

- By almost any measure, the % of victims armed with a firearm is higher in more rural areas.

Fatal Police Shootings
by Victim Race, Urbanicity

Fatal Police Shootings 2015-2017 **by RACE**
NCHS Urban Rural Codes (County-based)

	WHITE Population (millions)	WHITE Victimization Rate per 100,000	BLACK Population (millions)	BLACK Victimization Rate per 100,000
METRO	**165**	**0.22**	**38**	**0.58**
1. Large Center Metro	44	0.23	17	0.72
2. Large Fringe Metro	54	0.16	10	0.40
3. Medium Metro	44	0.25	8	0.55
4. Small Metro	22	0.30	3	0.49
NON-METRO	**37**	**0.29**	**4**	**0.39**
5. Micropolitan	21	0.27	2	0.43
6. Noncore	15	0.32	2	0.35
ALL	**201**	**0.24**	**42**	**0.57**

All Homicide Shootings 2015-2017 by RACE
NCHS Urban Rural Codes (County-based)

	WHITE Population (millions)	WHITE Victimization Rate per 100,000	BLACK Population (millions)	BLACK Victimization Rate per 100,000
METRO	**165**	**1.57**	**38**	**19.8**
1. Large Center Metro	44	1.65	17	24.7
2. Large Fringe Metro	54	1.24	10	13.4
3. Medium Metro	44	1.81	8	19.0
4. Small Metro	22	1.76	3	14.9
NON-METRO	**37**	**2.04**	**4**	**13.3**
5. Micropolitan	21	1.93	2	14.0
6. Noncore	15	2.20	2	12.3
ALL	**201**	**1.66**	**42**	**19.1**

Black-White

Fatal Police Shootings/All Firearm Homicides, by race

Whites: 14.2%

Blacks: 2.9%

Others: 7.9%

4. Enhancing the NVDRS dataset

Read all the narratives

Variables added include:

- Number of police on scene

- Taser use

- Civilian involvement

- Car chase

- What brought together (e.g., routine traffic stop)

Using Enhanced NVDRS dataset to
Describe Fatal Police Shootings Across Urban-Rural

differences in circumstances:

(e.g., IPV-related shootings, routine traffic stop, number of police on scene)

(work in progress)

5. Typology of Fatal Police Shootings

NVDRS data

Latent class analysis

(work in progress)