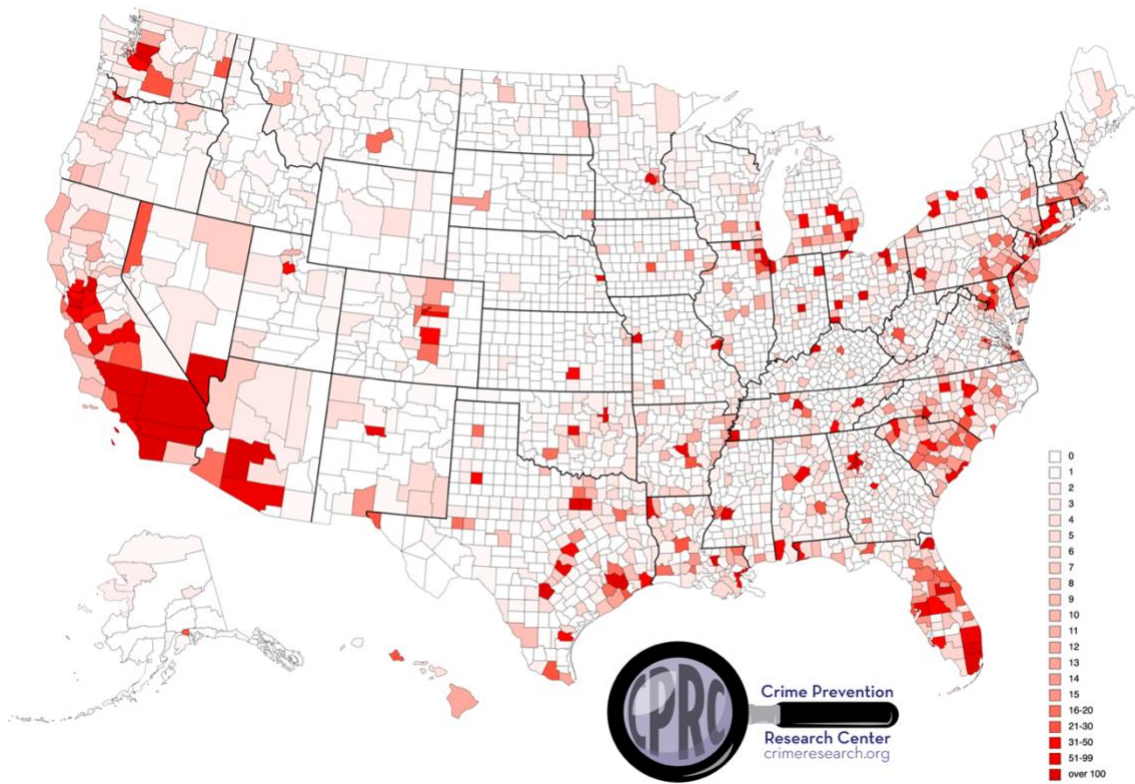


Murders in US are very concentrated, and they are becoming even more so

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Murders in US are very concentrated:
2% of counties had 56% of the
murders in 2020, 52% of US counties
had zero murders

The Distribution of murders

While murders and other violent crime in Los Angeles County and some other major urban areas have spread out to parts of those counties that didn't previously experience much crime, nationwide murders appear to be coming even more concentrated in a small set of counties.¹

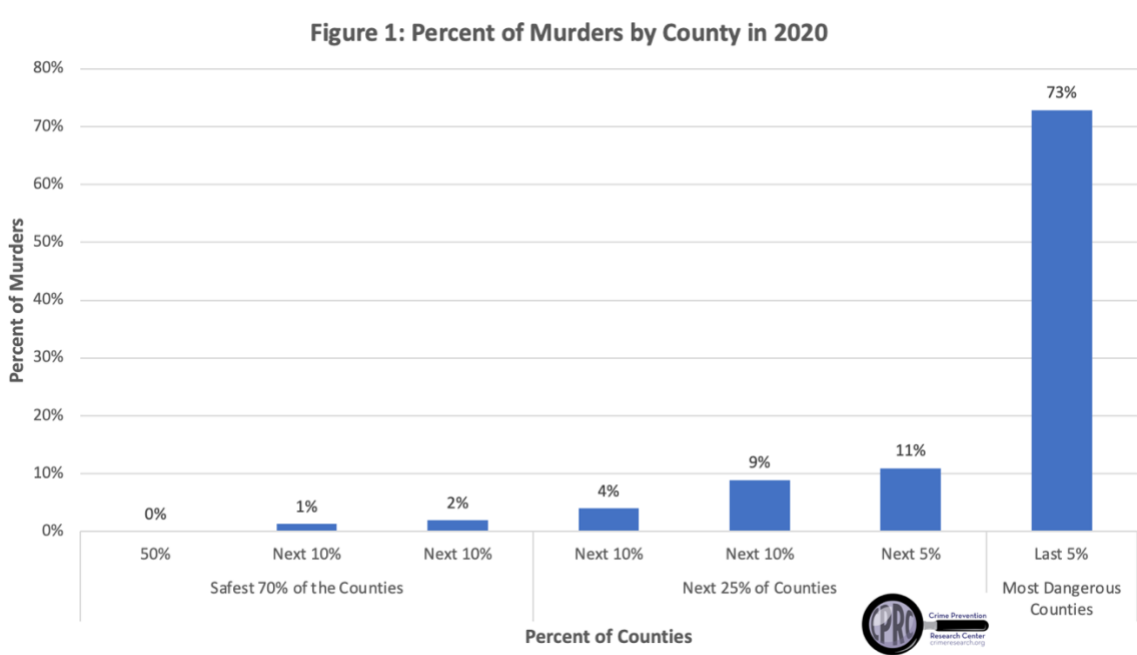
When it comes to murder, there are three types of counties in the United States. Most counties experience no murders, a smaller set where there are a few murders, and then a tiny set of counties where murders are very common.

In 2020, 52% of counties (with 10% of the population) had no murders. 68% of counties have no more than one murder, and about 18% of the population. These counties account for only 2.6% of all murders in the country.

The worst 1% of counties (the worst 31 counties) have 21% of the population and 42% of the murders. The worst 2% of counties (62 counties) contain 31% of the population and 56% of the murders. The worst 5% of counties contain 47% of the population and account for 73% of murders. But even within those counties, the murders are very heavily concentrated in small areas.

This concentration of murders is the highest in over a decade. Between 2010 and 2014, the percentage of murders in the worst 5% of the counties fell from 71% to 69%. But between 2014 and 2020, they had consistently climbed back by four percentage points, so murders were even more concentrated than in 2010. The one percent of worst counties drove that increase. The share of murders in these worst counties rose over this period, but there was no change in these counties' populations.

Figure 1 illustrates how few counties have a significant number of murders.



Breaking down the most dangerous counties in Figure 2 shows 56% of the murders occur in just 2% of the counties, 42% in just the worst 1% of the counties.

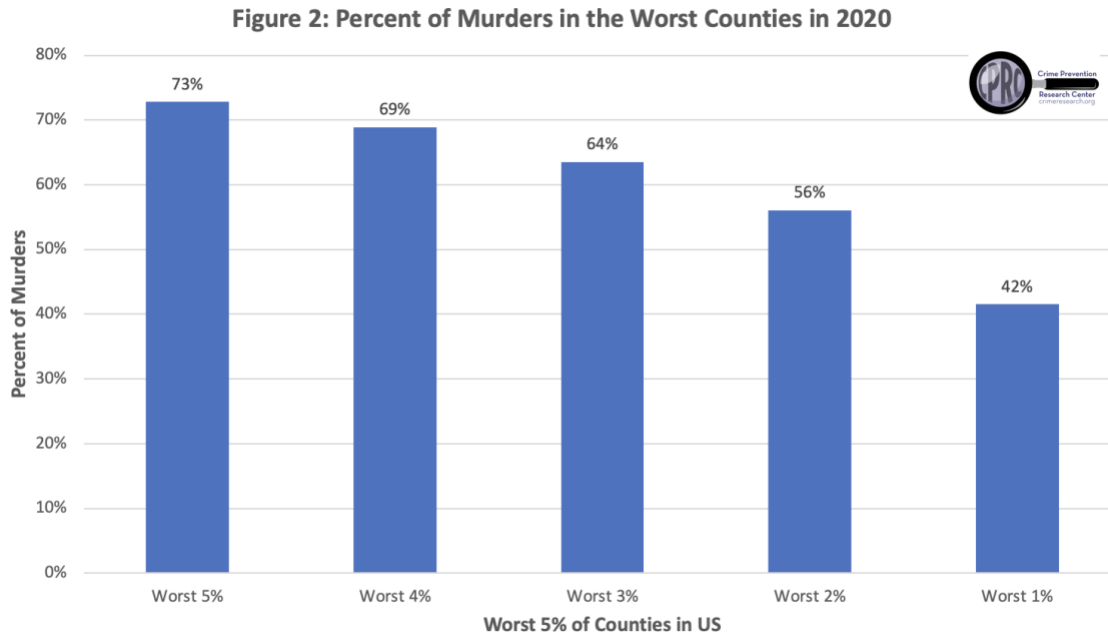
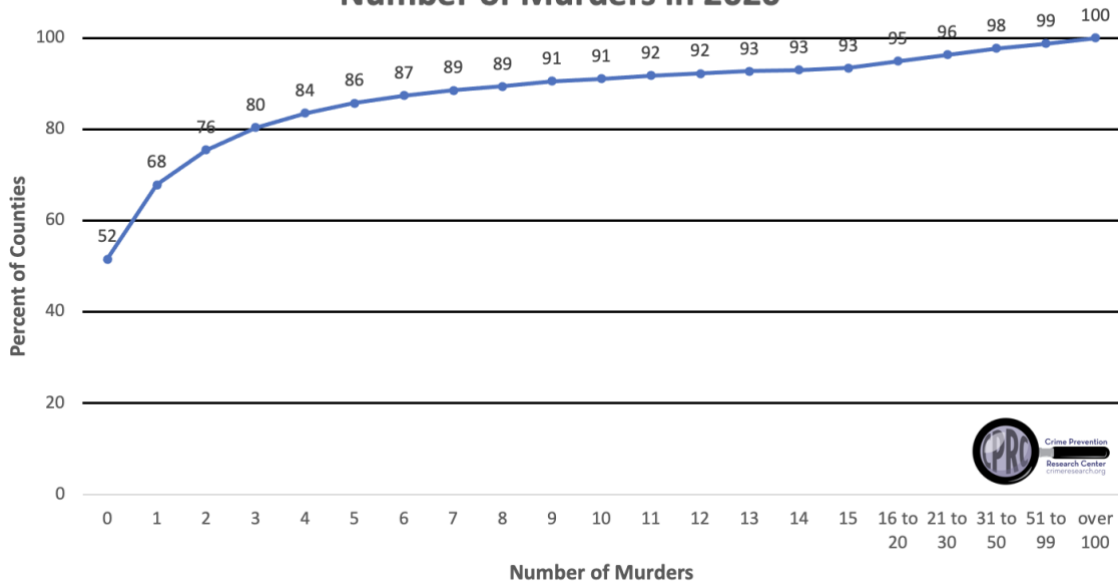


Figure 3 further demonstrates that with a cumulative perspective, 52% of counties have zero murders, 68% have at most one murder, 76% have at most two murders, and so on. To put it differently, only the top five percent of the counties have 16 or more murders.

In 2020, the murder rate was 5.84 per 100,000 people. If the 1% of the counties with the worst number of murders somehow were to become a separate country, the murder rate in the rest of the US would have been only 4.31 in 2020. Removing the worst 2% or 5% would have reduced the US rate to just 3.71 or 2.99 per 100,000, respectively.

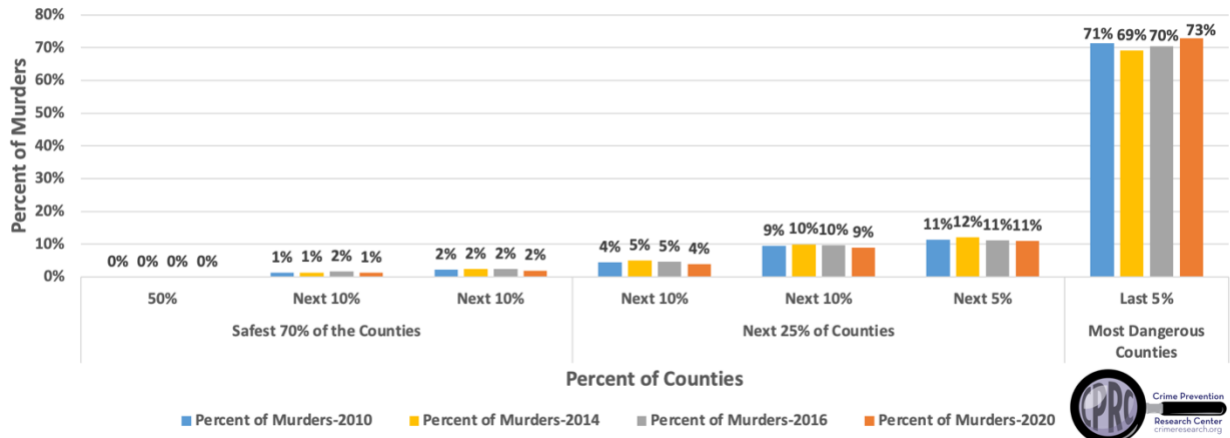
Figure 3: Cumulative Percent of Counties by Number of Murders in 2020



How has the Concentration Changed Over Time?

Figures 4 and 5 show how the concentration of murders has changed between 2010 and 2020. The most dangerous 5% of the counties accounted for 71% of the murders in 2010, falling to 69% in 2014, and then rising to 73% by 2020. The pattern for the worst 5% was consistent no matter how we broke down the worst 5% in Figure 5.

Figure 4: Percent of Murders



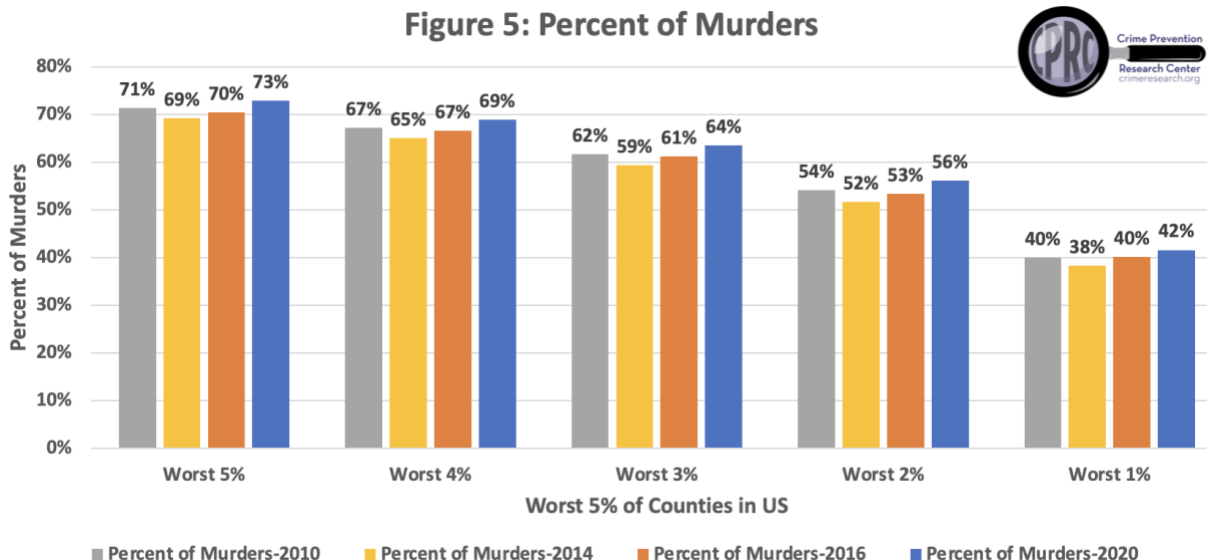
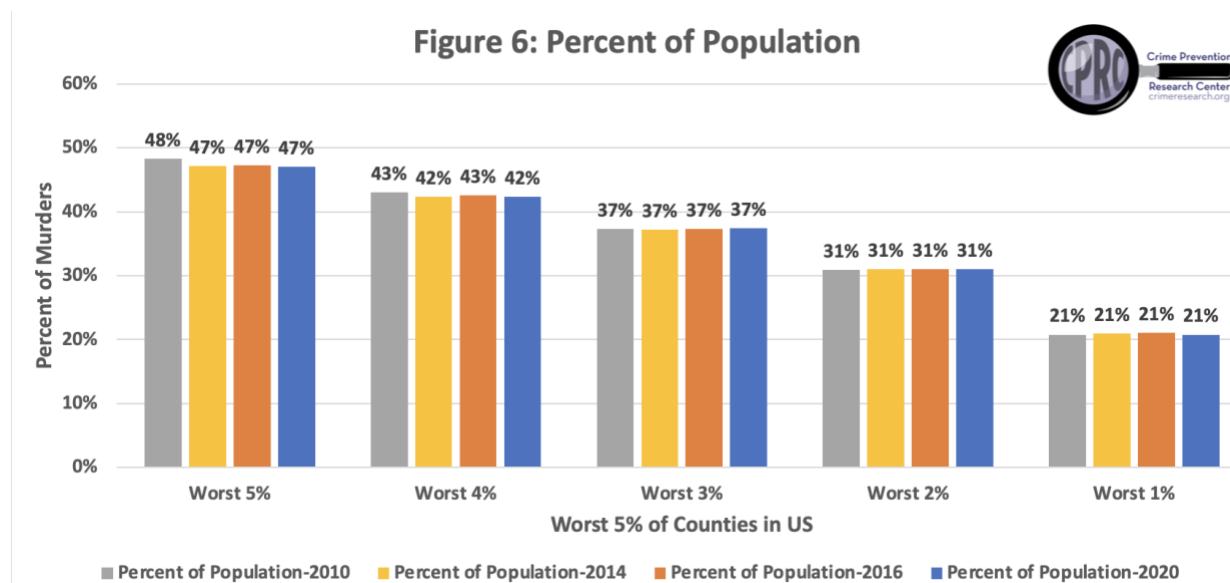


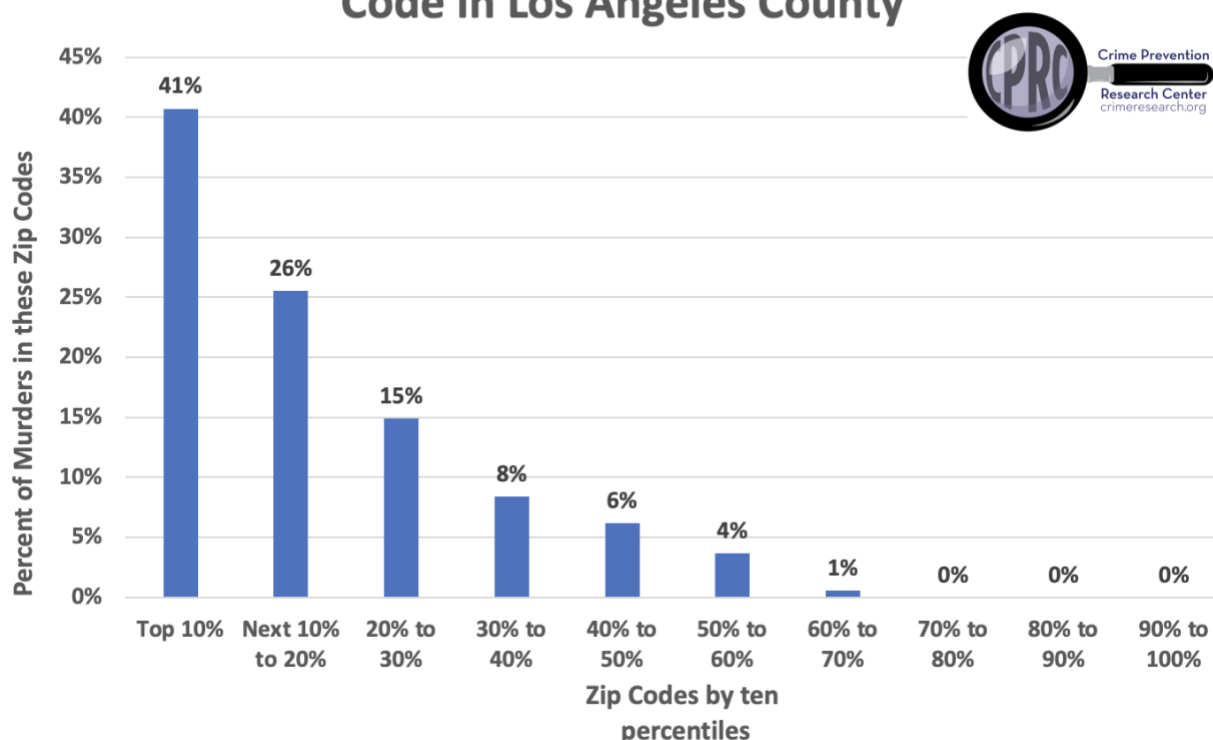
Figure 6 shows that the changes in the share of murders in the 5% of the worst counts were not driving by changes in their share of the population.



Even within the Counties with the murders, the murders are heavily Concentrated within those counties

Even within counties murders and other violent crimes are concentrated, though not as concentrated as they are across counties. Figure 7 shows the distribution of murders across zip codes in Los Angeles County, California in 2020. The worst 10% of the zip codes account for 41% of the murders, the worst 20% have 67%, and the worst 30% have 82%. By contrast, the safest 40% of the counties have just 1% of the murders. Recent research shows that murders in Los Angeles County have become less concentrated over time, but they are still fairly concentrated.²

Figure 7: The Concentration of Murders by Zip Code in Los Angeles County



In a study in the journal *Criminology* using data from about a decade ago, David L. Weisburd has a paper titled "[The law of crime concentration and the criminology of place](#)" that shows for eight cities 25% of violent crime occurred on one percent of the streets and that about half occurred on five percent of the streets.³

Gun Ownership

According to a 2021 PEW Research Center survey, the household gun ownership rate in rural areas was 79% higher than in urban areas.⁴ Suburban households are 37.9% more likely to own guns than urban households. Despite lower gun ownership, urban areas experience much higher murder rates. One should not put much weight on this purely "cross-sectional" evidence

over one point in time, and many factors determine murder rates. However, it is still interesting to note that so much of the country has both very high gun ownership rates and zero murders.

Conclusion

Murders in the United States occur in very small areas, and that concentration has increased since 2014. The concentration in 2020 is now greater than in 2010. Few appreciate how most of the counties in the US has no murders each year, and that 70% of the counties account for just 3% of the murders. Murder isn't a nationwide problem. It's a problem in a small set of urban areas and even in those counties murders are concentrated in small areas inside them, and any solution must reduce those murders.

Data Appendix

The data is acquired from the FBI's 2020 Supplementary Homicide Report (SHR) and is available from the FBI's Crime Data Explorer.⁵ Since some States did not report any data to the SHR Program or the reported data could be substantially below (i.e., less than 50%) the FBI's estimate, we used those states' open crime data as substitution. According to the Office of Juvenile Justice and Delinquency Prevention (OJJDP), Alabama, Florida, and Pennsylvania's SHR data are either not available or determined to underreport in 2020.⁶ Thus, Alabama's data is collected from Crime in Alabama which is submitted by local law enforcement agencies through Alabama's Uniform Crime Reporting System.⁷ Florida's data is obtained through Florida's Uniform Crime Reports (UCR), which is publicly available on the Florida Department of Law Enforcement (FDLE) website.⁸ Pennsylvania's data is extracted from the Pennsylvania Uniform Crime Reporting (UCR) system, which collects monthly crime data throughout the Commonwealth of Pennsylvania.⁹ Map is generated at <https://www.mapchart.net/usa-counties.html>.

While we have been unable to locate a copy of his research, Robert Muggah (Igarapé Institute) says "[that 99% of violence in the USA is concentrated in 5% of street addresses.](#)"¹⁰

Appendix Worst 1% (Red) and next 1% (Orange) of counties in 2020 in terms of number of murders

County	State	Murders
Cook	ILLINOIS	775
Los Angeles	CALIFORNIA	691
Harris	TEXAS	537
Philadelphia	PENNSYLVANIA	495
New York City (including Bronx, Kings, New York, Queens, and Richmond)	NEW YORK	465
Wayne	MICHIGAN	379
Shelby	TENNESSEE	311
Maricopa	ARIZONA	299
Baltimore City	MARYLAND	291
Dallas	TEXAS	281
Marion	INDIANA	234
Miami Dade	FLORIDA	231
Washington	DIST. OF COLUMBIA	207
San Bernardino	CALIFORNIA	203
Milwaukee	WISCONSIN	201
Orleans	LOUISIANA	191
Jackson	MISSOURI	184
Franklin	OHIO	175
Cuyahoga	OHIO	172
Bexar	TEXAS	161
Tarrant	TEXAS	156
St Louis	MISSOURI	156
Jefferson	KENTUCKY	151
Broward	FLORIDA	149
Alameda	CALIFORNIA	148
Riverside	CALIFORNIA	147
Duval	FLORIDA	143
Clark	NEVADA	139
Kern	CALIFORNIA	127
Mecklenburg	NORTH CAROLINA	126
East Baton Rouge	LOUISIANA	124
San Diego	CALIFORNIA	118
King	WASHINGTON	114
Fulton	GEORGIA	114

DeKalb	GEORGIA	113
Orandge	FLORIDA	111
Davidson	TENNESSEE	110
Hinds	MISSISSIPPI	107
Sacramento	CALIFORNIA	106
Hamilton	OHIO	96
Denver	COLORADO	94
Hennepin	MINNESOTA	92
Fresno	CALIFORNIA	91
St Louis	MISSOURI	91
Palm Beach	FLORIDA	90
Pulaski	ARKANSAS	90
Allegheny	PENNSYLVANIA	89
Bernalillo	NEW MEXICO	87
Oklahoma	OKLAHOMA	84
San Joaquin	CALIFORNIA	83
Prince George s	MARYLAND	82
Tulsa	OKLAHOMA	82
Hillsborough	FLORIDA	81
Pima	ARIZONA	80
Essex	NEW JERSEY	78
	NORTH	
Guilford	CAROLINA	77
Genesee	MICHIGAN	67
Caddo	LOUISIANA	67
Lake	INDIANA	66
Erie	NEW YORK	65
Orange	CALIFORNIA	63
Richmond	VIRGINIA	63
Travis	TEXAS	57

End Notes

¹ James Varney, "LA's Crime Surge Migrates to Wealthy, Whiter Zip Codes of Boldface Names," Real Clear Investigations, April 13, 2022 (https://www.realclearinvestigations.com/articles/2022/04/13/las_crime_surge_migrates_to_wealthy_whiter_zip_codes_of_boldface_names_826600.html).

² Ibid.

³ David L. Weisburd, "The law of crime concentration and the criminology of place," *Criminology*, Vol. 53, no. 2, May 2015 (https://www.researchgate.net/publication/276150162_The_law_of_crime_concentration_and_the_criminology_of_place).

⁴ Katherine Schaeffer, "Key facts about Americans and guns," PEW Research Center, September 13, 2021 (<https://www.pewresearch.org/fact-tank/2021/09/13/key-facts-about-americans-and-guns/>).

⁵ <https://s3-us-gov-west-1.amazonaws.com/cg-d4b776d0-d898-4153-90c8-8336f86bdfec/masters/shr/shr-2020.zip>

Murders reported by Tribal Agencies or State Police, for which county code is "000" or "300", are not included in this map due to lack of information on incident location. For the same reason, New York City, which is composed of five counties: Bronx County, Kings County, New York County, Queens County, and Richmond County, is treated as a whole in this study.

⁶ <https://www.ojjdp.gov/ojstatbb/ezashr/asp/methods.asp>

⁷ Hudnall, M., Lewis, D., Parton, J. (December 2022). Crime In Alabama. Retrieved from <https://crime.alabama.gov>

⁸ <https://www.fdle.state.fl.us/CJAB/UCR/Annual-Reports/UCR-Offense-Data>

⁹ <https://www.ucr.pa.gov/PAUCRSPUBLIC/SRSReport/CrimeTrends>

¹⁰ <https://www.youtube.com/watch?v=2e1l8-S5g4I>