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Taking Another Look At Murder Statistics



By *Carl Bialik*

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As end-of-year crime statistics are tallied, newspapers in recent weeks have been running headlines comparing their local crime rates with other cities and with prior years.

"L.A. County homicides decrease by 6%," the Los Angeles Times [reported](#). The Dallas Morning News [headlined](#) its report, "Murders fall, rapes rise in '06," while noting that Dallas was likely to retain its reputation as the most crime-ridden city with a population of one million or more. According to the [Minneapolis Star Tribune](#), violent crime "rose sharply" in 2006, but the rate of increase declined during the year.

But while murder stats make for good headlines, they may not be the best gauge of violent crime, or a city's safety. I took a look at two compelling theories from criminologists that call into question the way the numbers are used.

The first theory, proposed by the federally funded Improving Crime Data project run by researchers from Georgia State University and the University of Missouri-St. Louis, holds that a city's stats should be adjusted for underlying demographic characteristics. The idea is to figure out if a city's murder rate is higher or lower than you would expect it to be. To do that, researchers examined factors that appeared to contribute to a higher murder rate, including the number of people living in poverty, the city's racial makeup and the divorce rate. (They also identified factors that didn't appear to have an impact on murder rates, including population density. More detail on the calculations can be found [here](#).)

The thinking is that those underlying factors can't be controlled, so when you take them out, you can more clearly evaluate how well police and city policies are preventing homicides.

"It helps you direct the police forces in a way that is data-driven rather than either political or serendipitous," said Robert Friedmann, professor of criminal justice at Georgia State University and principal investigator on the ICD project. He added, "When you're ranking a city on raw rates, it doesn't take into account the nature of the city."

Think of a comparison between two hospitals' death rates (a topic I [wrote](#) about last year). If Hospital A has a higher proportion of patients suffering from life-threatening diseases, it wouldn't be fair to compare its death rate to Hospital B, which tends to treat patients with milder complaints. Prof. Friedmann's team believes that certain cities (Atlanta, Detroit) have higher underlying risk of murder than others (Denver, San Francisco).

The group relies on stats from the federal government, so its most recent ranking is for 2004. According to that [ranking](#), San Francisco was No. 1 among 67 cities in adjusted homicide rates, despite ranking 30th in the raw rates. Atlanta, conversely, fell to No. 46 from No. 7 after the adjustments. And Detroit dropped to No. 37 on the list from No. 3 -- suggesting that the city's demographic profile helps explain what the Detroit News earlier this month [called](#) an "abysmal" crime picture for the city.

The project's underlying premise, that a city's economic and demographic makeup forecasts crime rates, has controversial implications. I asked Prof. Friedmann whether his model is suggesting that African Americans are more likely to commit murder than whites living in similar circumstances. "On the face of it, it looks troubling," he replied. But he offered another explanation: Blacks are disproportionately the victims of homicide. Also, his model shows only that a city's black population correlates with homicide rates, not that it causes them -- some other underlying factor may be influencing the numbers. "It seems to me that if you take the racial attributes out of a politically correct discussion and just look at the facts, it is something that makes sense to analyze," Prof. Friedmann said.

Meanwhile, Anthony Harris, professor emeritus of criminal justice at the University of Massachusetts at Amherst, is behind another theory getting a lot of attention. He has for several years argued that murder numbers are not a good measuring stick because they can be heavily influenced by the emergency medical care someone receives. The difference between life and death on the operating table can determine whether a murder rate rises.

Prof. Harris was the lead author of a [study](#) in 2002 examining the decline in the murder rate between 1960 and 1999. Prof. Harris focused on the role improved medical care had on "lethality," which is the proportion of violent crimes that result in death. Even though the number of potentially deadly attacks surged in that time period, and the proportion of attacks involving guns also rose, lethality actually decreased by 70% -- to under 2% from nearly 6%. He concluded that improved medical-response times and trauma surgery were responsible for turning many would-be murders into assaults.

To demonstrate the effect of medical care, the researchers compared counties nationwide by various medical criteria, and found, for instance, that counties with at least one hospital were associated with 24% lower lethality than those without a hospital. Prof. Harris also found other medical factors that contributed to a drop in lethality of violent crimes, including the addition of physicians to a county's population and the presence of a facility for performing open-heart surgery.

The Harris study was, by necessity, indirect: The researchers lacked the data to track individual cases and determine whether the same injury was more likely to cause death in 1960 than in 1999. Instead, they tracked broad trends in crime and health care.

Prof. Harris told me that looking at all violent crime, rather than homicide, would better serve lawmakers and police. "If people were looking at aggravated assault and the use of guns in producing serious injury, I think the debate would be totally different," he says. "The big social indicator is injury by gun, and its long-term medical effects."

Derral Cheatwood, professor of sociology at the University of Texas at San Antonio, who has studied the relationship of medical resources to homicide rates in Maryland and Pennsylvania, told me that one of the biggest changes is the approach to treatment at the scene of a crime. "It has shifted from the 1960s, where you put someone in an ambulance, rush them to the hospital and treat them there, to an emergency medical vehicle, where you start to treat them right away and stabilize them," he said. (Bill Doerner, professor of criminology and criminal justice at Florida State University, offered up an interesting anecdote: As recently as 50 years ago, ambulances in Leon County, Fla., were run out of funeral parlors, presenting something of a conflict of interest.)

Lethality has actually edged up since Prof. Harris completed his study. One possible reason for the increase, he said: Several large cities, including Los Angeles and Las Vegas, have closed trauma centers, which can be particularly expensive to operate. "Homicide rates are where trauma centers really have an impact," Connie Potter, executive director of the National Foundation for Trauma Care, told me. A May 2004 [report](#) from her group declared a "crisis" in U.S. trauma centers, with 30 closed since 2001.

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Thanks to everyone who posted to the most recent [forum](#) about my [column](#) on fuel-economy numbers. I'll be reading, and responding to, your comments about crime statistics in a [new forum](#) this week. And please remember to use your full name with posts. (If you have a comment or suggestion unrelated to this week's column, please email me directly at numbersguy@wsj.com.)

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