Deciphering The Debate over Police Killings of Black People

By Anne Larason Schneider, Ph.D.[i]
2210 E. Siesta Drive
Phoenix, AZ
602 828 2279
Anne.schneider@asu.edu

In this era when statistics too often are used to manipulate and deceive, we need to overcome our "cognitive laziness." We need to be willing and able to scratch beneath the headlines and talking points, to uncover the best available facts and incorporate these into our beliefs.

Consider these three statements:

"Blacks are 21 times more likely than whites to be killed by the police"
"Police shoot twice as many white people as black people"
 "White people are slightly more likely to be shot by police than black people"

Each statement is true, although each in its own way is misleading unless the reader takes the time to dig into the details and figure out what the research actually has found. Some will say that this simply proves you can lie with statistics, but it is very difficult to lie with statistics to the sophisticated reader.

To start, keep in mind these things:
- Talking points and headlines,, even when based on reputable research, tend to overgeneralize the findings by extending them to more people, in more places, in more years than the study actually included.
- People (ordinary people and experts) tend to believe studies that support what we already believe and disregard or question studies that challenge our beliefs.
- So, before withdrawing from this discussion in favor of what you already believe, read on!
- Studies use different data sources, different definitions, different methodologies, so it is necessary that the well-informed person pay attention to what has actually been found.

What follows here is a simple primer on how to disentangle the data on police shooting of black people. Useful conversations about the police and the black community need to begin with a shared understanding of facts, not with vitreol and hate.

Here are the critical things to pay attention to when hearing of another study regarding police and black people:
- **The count** - What are they actually counting? Police killing others? Police shooting others? Results of a simulated shooting?
- **The data** – How reliable and valid are the data? That is, if others looked at that same situation, would they count the same number (reliability); and do the data actually reflect what it claims to reflect (validity).
- **How many** – How many did they actually count, in the raw data, by race of the victim? Were there other demographic constraints, such as age, gender?
- **Where** – What is the geographical coverage? All of the U,S.? Houston?
- **When** – What is the time frame for when the data were collected? e.g., 2010? 2008-2012?
- **How is the raw data converted to a percentage or rate?** That is, what is the "base population" figure that is used to convert the raw data to an interpretable percent or rate? U.S. population by race? Arrests by race? Police contacts by race? [More about this below].

Now, lets apply that to some of the findings from the various studies.
Blacks are 21 times as likely to be killed by police as whites"
https://www.propublica.org/article/deadly-force-in-black-and-white

This statement is somewhat true, but **it overgeneralizes!** It presents the most egregious data in the data set, but if properly contextualized, it is true. The more accurate statement would be that young black men aged 15-19 were 21 times more likely to be killed by police than young white men of the same age in 2012.

On the other hand, when the researchers at ProPublica who developed the data were challenged by critics, they responded by showing all of their data which indeed confirmed that blacks aged 15 to 19 were overrepresented among persons killed by police but the ratio varied from 9:1 in 2010, 17:1 in 2011 and 21:1 in 2012. Over all years and all age groups, the ratio was typically that black people were 3 to 5 times more likely to be killed by police.   What's wrong with the study? Nothing except they overgeneralized and reported only the most dramatic of their findings.

The 21:1 ratio was produced this way:

- **What is being counted?** Number of people killed by police, by race of victim, for persons aged 15-19 in 2012.
- **The data** – Data are from the FBI's report, "Supplemental Homicide" https://www2.fbi.gov/ucr/cius2009/offenses/expanded_information/homicide.html but even though FBI has victim's race, this report does not show race of victim. Race of victim was obtained by ProPublica and others from the FBI. There were other data available for more years and broader age ranges in this same data set.
- **How many** – 1,227 shot dead (397 in 2010; 404 in 2011; and 410 in 2012). They report rates, but no raw numberrs: 31 per million of blacks were killed; 1.47 per million of whites in 2012.
- **Where** – U.S. population. By race, using Census bureau community survey updates.

- **When** – 2012 for the 21:1 ratio; 2010, 2011, 2012 for other ratios.
- **How is the raw data converted to a percentage or rate?** The authors divided the killings for each group (race and age) by that group's population in the U.S. to get 31 killings per million for black youth aged 15-19 and 1.47 per million for whites. They then calculated a ratio by dividing the (almost) 31 per million by the 1.47 per million for blacks to get the 21:1 ratio.

- The authors point out the problems with the FBI data, specifically that it undercounts police killings for both white and black and the definition "justifiable homicide" defined as police shootings of felons leaves a great murky area, as the videos on numerous occasions have shown police reports of these incidents to be questionable or flat out false.

What's wrong with this study? The authors had other years and other age ranges that they did not report in their initial release. The ratio for 15-19 year olds in 2010 was 9:1 and in 2011 was 17:1. The ratio for other age groups was much lower, typically 2 to 5 to 1. Black were still more likely to be killed by police, but the numbers were not as dramatic.

Police kill twice as many white people as black people."
http://libertynews.com/2014/12/facts-cops-kill-whites-at-almost-double-the-rate-that-cops-kill-blacks/

The Liberty News Headline actually said this: "FACTS: Cops Kill Whites at Almost Double The Rate That Cops Kill Blacks." This is actually quite false and the data in the study do not make this claim – it is a claim made by the person writing the story. In the

story itself, they say that the police kill twice as many whites as blacks – and that is true in raw numbers, not rates The headline uses the word "rate" which implies that they have accounted for the fact that there are far more white people in the U.S. than black people and that they calculated a RATE. But the headline and talking point are false, even though the story itself quoting from a researcher, uses a rate (proportion of white and black people, respectively, killed).

What did they count? Deaths caused by police
The data – they used Center for Disease Control data, which records all deaths in the U.S. by type, including law enforcement-caused deaths.

How many – they counted 386 white deaths by law enforcement in 2012 and 140 black deaths in that year. That's where they got the "fact" that more whites than blacks were killed by police.

Where – U.S.
When – various years, the headline is from 2012. Other years also reported
How is raw data converted to a rate? For the headline, and the ensuing attack on main stream media, they did not correct for population at all, so even though they say "rate" the talking point of more whites being shot is just the raw count, not a rate.

In fairness to the author of the study, it was not the study itself that made this claim, but the writer of the article for Liberty news, which was then picked up by others. The CDC data from 1999 to 2011 show 2151 deaths of whites and 1130 of blacks. Dividing by population this produces a rate of 3.6 per million for white people and 9.4 per million for black people – a ratio of blacks being 2.6 times as likely to be killed by police.

Blacks are slightly LESS likely to be shot by police than whites."

This statement is the main headline from Roland Fryer's study that is being widely reported. He is an economist at Harvard; and it is somewhat true, but also greatly overgeneralized.   http://www.nber.org/papers/w22399 . Why is this so different from the ProPublica (and other studies)? Because:
- This study uses SHOOTINGS, not KILLINGS.
- It is confined mainly to one place – Houston, but with some data also from Austin, Dallas, six places in Florida, and Los Angeles county. It is not for the entire U.S.
- Perhaps most importantly, the raw number of shootings (not killings) is divided by the number of "encounters" with the police, not by the population.

Critics of the contention that blacks are more at risk than whites claim that blacks place themselves more at risk of being shot or killed by police because blacks commit more crimes and therefore it makes sense that they are more likely to be killed or shot by police. Others note that black people are more likely to shoot police than white people are (blacks and police shoot one another at about the same rate), but none of these objections changes the underlying fact that black people have a higher probability of Being shot by police but they also have a higher probability of having an encounter with the police.

Black people in the Houston and other cities that Fryer studied were more likely to have an encounter with the police – perhaps because as some say they commit more crimes, but as others say, the police think they are more likely to have committed a crime (police profiling). Regardless of the reason, Blacks were disproportionately represented among police encounters in the cities in Fryer's study. When dividing the raw number of shootings by the number of encounters, whites were slightly less likely to be shot. In Houston, 52% of the shootings over the past 15 years involved a black suspect whereas 58% of the encounters involved blacks. Thus, blacks were slightly underrepresented among those who were shot. Fryer also finds, however, that in non-fatal use of force, blacks are about twice as likely to be handled roughly as whites.

Better data are needed, and several media sources have begun collecting data based on local media accounts, social media, and informers who report deaths by police. Because newspaper and other media in most cities have become watchdogs on this and because deaths by police ARE reported in the media, these data add an important element to the calculations.

The Washington Post began collecting data 1/1/2015 and as of July, 2016 had counted 1,495 deaths with a ratio of blacks being 2.6 times more likely to be killed by police than whites. This is the same ratio as the CDC data found for 1999 to 2011. How do you calculate this ratio? First, divide the number shot by the population (e.g., 732 white people divided by 202,229,636 million whites) to get the probability of being shot (.0000036 or 3.6 per million) and then the probability for blacks (381 incidents divided by 40,282,810 = .0000094 or 9.4 per million) and then divide the white ratio probability (3.6 per million) into the black (9.4) to find that blacks are 2.6 times more likely to be killed by police during this time period.

The Guardian also has a project called "The Counted," which counts the number of people killed by police in the United States beginning January, 2015, using a variety of social media. They publish a brief media account of each incident, along with a picture of the victim if it is available. Using the rate per million, they have found 3.49 blacks per million killed by police, 3.4 Native Americans, 1.69 Hispanic and 1.48 White so far in 2016. This is a ratio of 3.0 -- blacks so far this year are about 3 times more likely to have been shot by police than whites.

Is there any reasonable conclusion? Yes, Blacks have been more likely to be shot and killed by police in the United States over the past several years (at least), and the ratio of Black toWhite risk varies from about 2 to 1, to as much as 20 or more to 1, depending on age and the time period used in the study.

The point of this colum, however is a broader one. Readers and consumers of "facts" need to be cautious and careful to avoid being deceived. Cognitive laziness is not a good character trait!

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[i] Anne Schneider is a retired political science professor and former Dean of the College of Public Programs at Arizona State University.