Are Unarmed African Americans Disproportionately Killed by Police Compared to White

People?
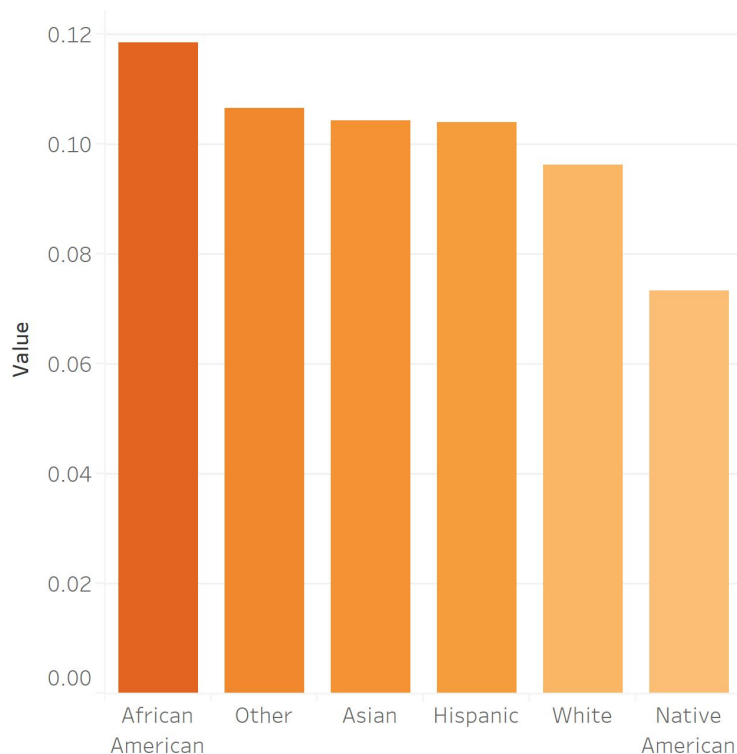
An independent study by Vincent Yabor

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The topic of racism and police brutality has been a hot one throughout this year.

It has always been a prevalent issue, but the awareness has gained more traction lately

with the Black Lives Matter movement. Some argue that police do not treat African

Americans any differently from others, while many beg to differ. I felt it necessary to

determine the answer once and for all so that I could educate not only myself, but also

my peers. I found data from The Washington Post's Github page that includes all killings

by police from 2015 through 2020 while being updated every few days (Washingtonpost

2020). This dataset was perfect for me for several reasons. First, it broke down the

5850 killings by race. Second, the data included whether or not the individuals were

armed along with what they were armed with. Further, there were several additional

categories such as threat level and whether or not the person was feeling. The latter

categories open up the possibility to further analysis.

Although 'unarmed' was already an option under the armed status, I saw it fit to

include toy weapons in my unarmed data analysis. Note that toy weapons do not

include airsoft or bb guns. The dataset already made that distinction. Using R, I

calculated the number of people from each race (Black, Asian, White, Hispanic, Native

American, and Other) who were unarmed and murdered by police. I divided the total

number of people within each race to find the respective proportions. I found that

11.83% of African Americans killed by police since 2015 were unarmed, as were 9.61 percent of white people, 10.42% of Asian people, 10.38% of Hispanic people, 7.32% of Native American people, and 10.64% of people killed who were classified as 'Other.' The following Tableau graph gives a visualization of the relative distance of these proportions.

Proportion of Unarmed People Killed by Police by Race

Some may argue that since the numbers are relatively close together, there must be essentially no difference. Or perhaps the disproportionality is coincidental. I would be inclined to disagree. I have conducted a one sided proportion test in R at an $\alpha = 0.05$ significance level to see if unarmed African Americans are more likely to be killed than unarmed White people. I ended up with a p-value of 0.01557 as well as a chi-squared test statistic of 4.6451. Since the p-value is smaller than 0.05, I can conclude with 95%

confidence that the proportion of unarmed African Americans killed compared to Whites is significant when you generalize to the entire population.
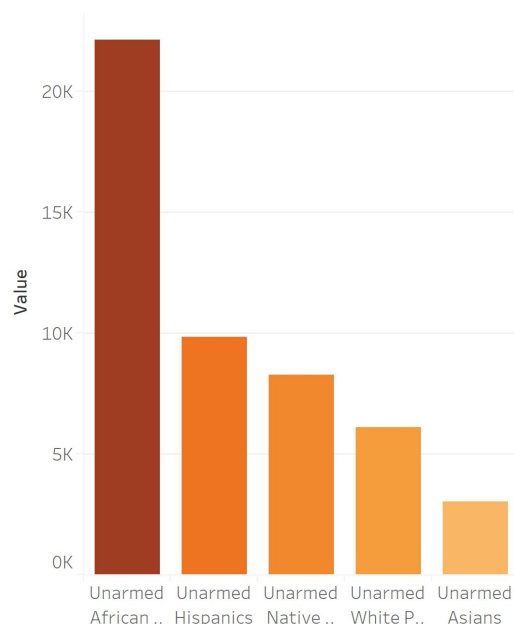
In addition, I decided to check out both the unarmed and total murders by race per million people. I gathered the percentage of the population for each race from the US Census website (U.S. Census Bureau). The following table summarizes the number of unarmed and total people killed by police by race per million.

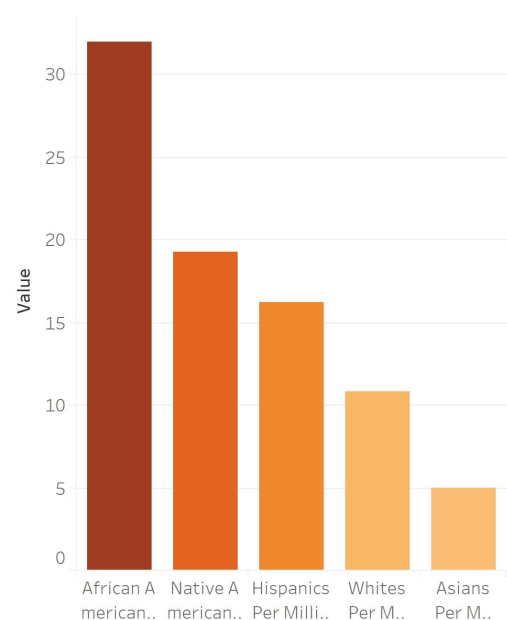|	African American	Hispanic	Native American	White	Asian
Unarmed	3.774091	1.679723	1.406103	1.038234	0.5163654
All Killed	31.89789	16.18792	19.21674	10.79924	4.957108

I have also included Tableau graphs for visualization. The source can be found at https://public.tableau.com/profile/vincent.yabor#!/vizhome/ProportionofUnarmedPeopleKilledbyPolicebyRace/Dashboard1

Unarmed People Killed by Police by Race Per Million

All People Killed by Police by Race Per Million

Based on the data, unarmed African Americans throughout the country are about 3.6 times more likely to be killed by police than White people. Further, any African American is 2.95 times more likely to be killed by police than White people. As a formality I have conducted proportion tests in R for these latter two cases. The p-values were both significant at less than 2.2e-16 for each case.

From the data, it is clear that there is a prejudice problem in this company within the police force. Systemic racism is what this country was unfortunately built on, and it still stands today. What we need to do as a society and as a nation is stand up for those who are oppressed and make the necessary systemic and political changes which will result in better programs for police such as de-escalation training, race training, mental health care, and more.

References

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