**Fatal Police Shooting Across the US from 2015 to 2020**

Do you hear the gunshots late at night? Have you ever wondered what was happening when the triggers were pulled? Every time you see the news on social media that innocent people are killed by police shooting, do you quiver in fear, anger, and maybe desperate?

In this article, we perform a set of visualizations and data analysis using Kaggle’s fatal police shooting data from the past 6 years (2015 – 2020) in United States to inform the audience about how fatal police shootings actually are evolving, give them an unbiased overview of the racial and age disparities in fatal police shooting, and encourage people to reflect more on what they can do to make real changes to this social tragedy.

“Michael Brown, 18, was killed by a police officer, in Ferguson, Missouri, who was responding to reports that Brown had stolen a box of cigars.”

“Tamir Rice, a boy of 12, was shot dead in Cleveland, Ohio by a police officer after reports of a male who was "probably a juvenile" pointing a gun that was ‘probably fake’ at passerby.”

“Walter Scott was shot in the back five times by a white police officer.”

“Alton Sterling was killed after police responded to reports of a disturbance outside a shop.”

“Philando Castile was killed while out driving with his girlfriend in St Paul, Minnesota.”

“Stephon Clark died after being shot at least seven times in his grandmother's backyard in Sacramento, California, by police who were investigating a nearby break-in.”

“Breonna Taylor, a 26-year-old emergency medical technician, was shot 8 times when officers raided her apartment in Louisville, Kentucky.”

“Daunte Wright was shot and killed in Brooklyn Center, just north of Minneapolis.”

“Ma'Khia Bryant, a 16-year-old African-American girl, was fatally shot by police officer Nicholas Reardon in southeast Columbus, Ohio.”

**Rate of Shooting Remains Steady, Unaffected by Public Awareness and Attention**

In the past five years, fatal police shootings news never ceased to appear in the public sight. In fact, dozens of fatal shootings happen each month, but most of them don’t appear on social media for various reasons. News like this always attract public attention immediately: in at least a week following the incidents, google search counts skyrockets; people go on to protests and parades, attracting more media attention and naturally lead to more media exposure, increasing a new round of surge in google search counts. But this increase in public awareness and attention does not seem to change anything—the shooting continues and overtime there’s no trend of any kind. People’s perception that there is an increase in fatal police shooting rate is merely a result of the amount of news articles about it circulating the internet.

**Virginia Might Be the Most Dangerous Place to Live?**

Police shootings have taken place all across the state and have occurred more frequently in States where populations are more concentrated. Among the States, Virginia State has the highest fatal police shooting rate, about 152 people are killed by police shooting per million, followed by Alabama (140 cases per million), New York (135 cases per million), Arizona (85 cases per million), and North Carolina (82 cases per million). While these numbers are huge comparing to the average fatal police shooting rate (28 cases per million) and median fatal police shooting rate (18 cases per million), the reasons remains unknown given limited information. Though it can be argued that the high fatal police shooting rate in New York State is due to the huge wealth gap, in Alabama is due to low GDP per capita, and in Arizona is due to its closeness to Mexico (which is famous for its narco-economy), these claims are unfounded; not to mention the common feature that these states share remains murky.

**Racial Disparity in Fatal Police Shooting Keeps Increasing**

There’s a decrease in fatal police shooting cases—for white people. The number dropped from 497 cases in 2015 to 404 cases in 2019. However, there’s almost no change in fatal police shooting cases for Hispanic (change from 172 cases in 2015 to 163 cases in 2019), Black people (change from 258 cases in 2015 to 250 cases in 2019), and Asians (increase from 14 cases in 2015 to 19 cases in 2019). The gap keeps increasing. Normalized by total populations of these people in United States, we can see that Natives and Black people are killed at a disproportionately high rate by police shooting. In 2017, Natives are killed at an astounding 37 people per million, closely followed by Black people (33 people per million), followed by Hispanic (15 per million), White (13 per million), and Asians (5 per million).

**Most of the Victims Are Adult Men**

People of all ages are being shot dead by police. The victims can be as young as 6 years old and can be as old as 86 years old. On average, around 70% of the victims are people that are aged 15-45. At the same time, over 95% of the victims are male and only less than 5% are female.

**Defunding the Police Might Not Be the Desired Solution**

With the rise of social awareness on fatal police shootings, many people have argued to defund the police in order to decrease the cases of fatal police shootings. While defunding the police can result in a decrease in fatal police shootings, it might also create instabilities in some communities due to the lack of funding to provide safety to those areas.

In fact, an unfortunate thing is people are only looking at times police make mistakes: When the police successfully stop a crime from happening, most of the time people don’t know because media will not report it since they think the police are just doing their jobs; but when the police shot someone dead by mistake, everybody knows immediately because media will make sure of that. But if we investigate it, we will see that the police are preventing crimes from happening most of the time and they seldom shoot wrong people. Although we really want to reduce the number of fatal police shooting of the people that intended no harm, we shouldn’t be solving this problem risking everyone’s safety.

So, an alternative solution to merely defunding the police is that we could look closer into the reasons behind those shootings. Police today are too militarized since they carry too much equipment from the military. The recruitment (and selection) almost covers nothing about racial / gender stereotypes—look at the police hiring tests: written exams, physical exams, medical background, drug tests, polygraph tests—none of them tests whether a person have hate towards any minority group. Therefore, to reduce the number of fatal police shootings, we could reallocate the police funding from things like purchasing new military grade equipment to redesigning the hiring tests for police. We can also enhance education on gender, age, racial equality, and human rights for police. Last but not least, we need to have faith in them—while acknowledging the fact that there are bad apples in the police force, we need to believe that most of them are good people. This will reduce the tension and hostility between people and police, making both parties feel a bit more comfortable upon interaction, hence might prevent tragedies from happening.