Who are the victims of Police Violence in the largest Brazilian State?

Motivation

In several countries, the issue of public safety has been considered a serious social problem. Social inequality, unemployment and food insecurity are possibly important reasons to explain this phenomenon and why it has worsened over the years. Additionally, illegal practices, trade of drugs and arms and lack of functional justice mechanisms results in insecurity and the use of violence as a solution to conflicts. In 2018, of the homicides that occurred in Brazil, around 10% of them resulted from police intervention and in the State of São Paulo, 20% of the homicides resulted from this same reason. Cases like Douglas Martins, Claudia Silva Ferreira, Genivaldo de Jesus Santos, George Floyd and many others show how necessary and immediate this discussion is.

Objective

Describe the profile of victims of police violence and to assess the association between sociodemographic variables and this violence in the State of São Paulo.

Methodology

Open and public data were used, obtained from the website of the Secretary of Public Security of the State of São Paulo (SSP-SP), in the period of Jan/2013 to May/2022. The database contains information from police reports (PR) carried out at police stations in the State of São Paulo. The variables obtained are sex, age, race/color of the victims of police violence and whether the police officer was on service or not. Continuous variables were described by median and interquartile range (IQR). To assess associations, the Chi-square and Wilcoxon tests were performed. An application (app) for the visual interface of these analyzes was created from the Shiny package. All figures of this work were made in the app through a Dashboard with the main results. The software used in these analyzes was R, through the "gtsummary" packages to generate tables and "ggplot" and "ploty" to generate graphs and maps.

Limitations

The SSP-SP website has few sociodemographic variables available and among those we had access to, some have missing data.

Results

We found a high number of cases of police violence in the PRs, since among the approaches carried out in the period from 2013 to 2022, 67% resulted in violence, this percentage contemplating injury (49.3%) or more seriously, death (17.8%) . This means that two thirds of the PRs were victims of some type of police violence. These numbers are alarming and show that police brutality is part of the state's inability to exercise legitimate force, often resorting to violence.

As for age, we see that the victims are young, with half of the individuals aged up to 23 years and it is a variable significantly associated with the outcome of police violence (p<0.001). Another variable that was significantly associated with police violence was the status of the police officer on duty or off duty (p<0.001) and it is noteworthy that 21.9% of the police officers involved in situations of police violence were off duty.

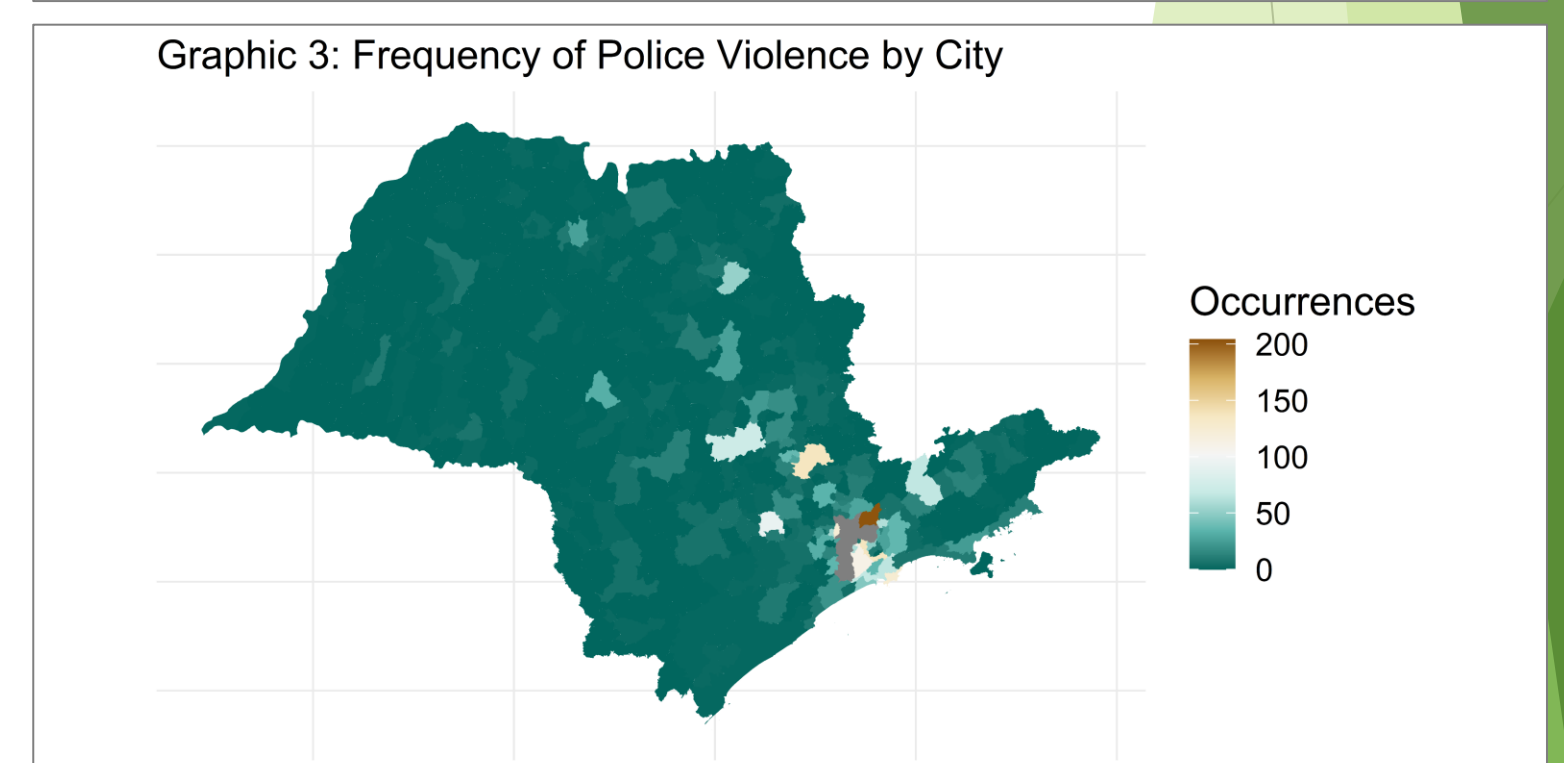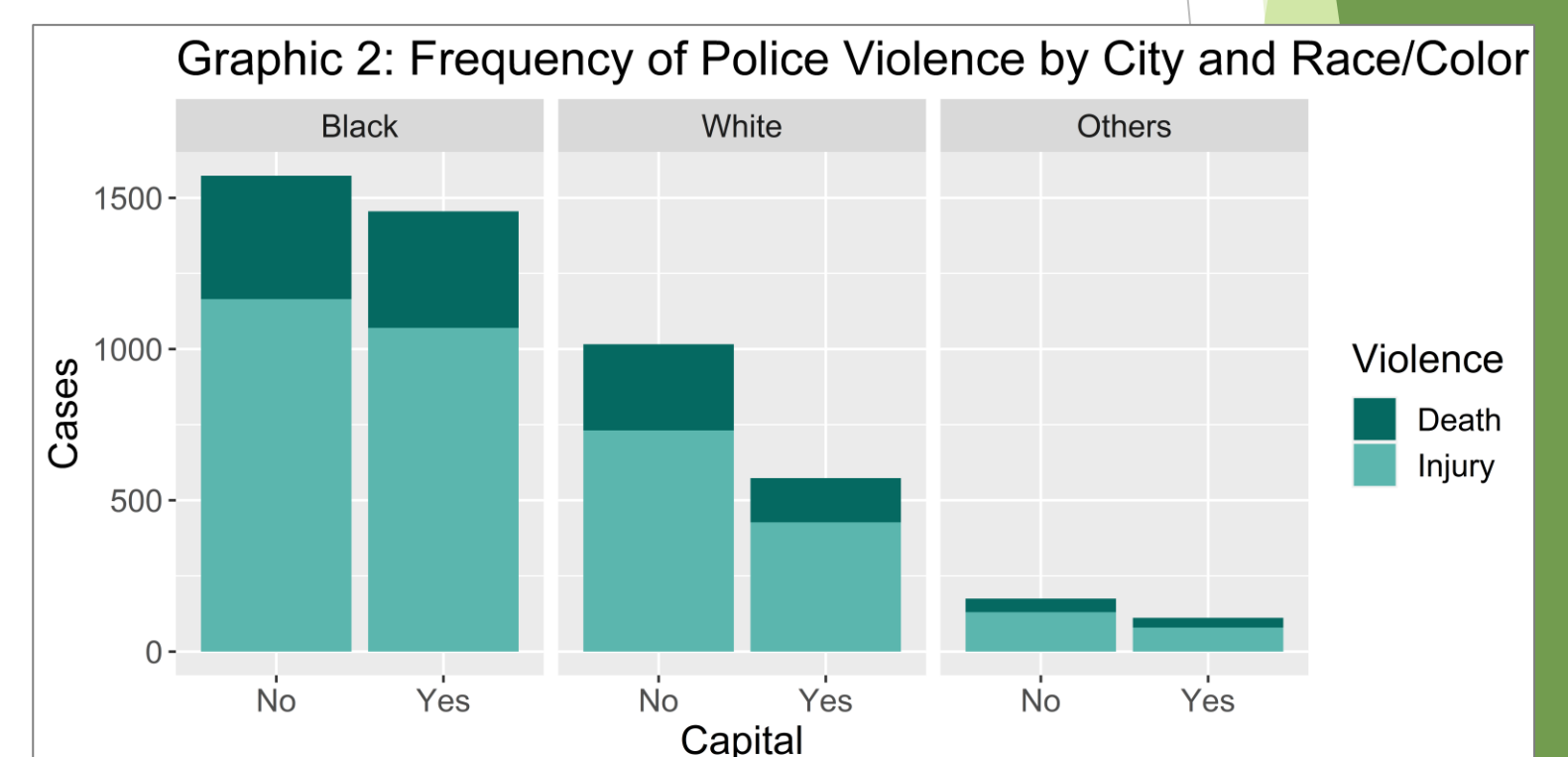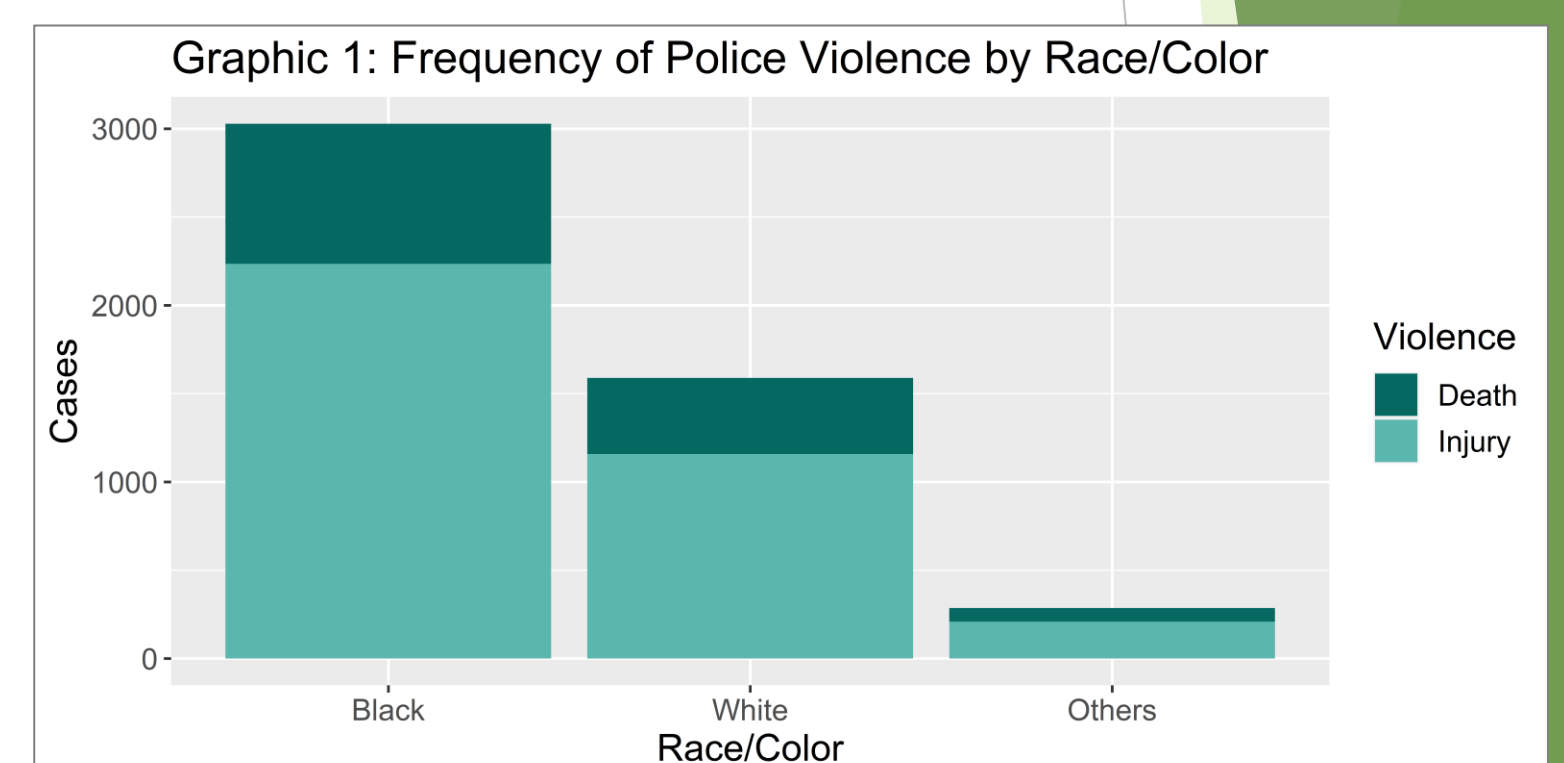### Table 1: Description of the variables, according to the occurrence or not of police violence, and p values

Death/Injury resulting from P.I	N	No, N = 2,416[1]	Yes, N = 4,909[1]	p-value[2]
Age	5,667	21.0 (18.0, 27.0)	23.0 (19.0, 31.0)	<0.001
Missing		496	1,162	
Race/Color	7,325			0.091
Black		1,462.0 (60.5%)	3,033.0 (61.8%)	
Others		120.0 (5.0%)	286.0 (5.8%)	
White		834.0 (34.5%)	1,590.0 (32.4%)	
Sex	7,283			0.3
Female		6.0 (0.3%)	20.0 (0.4%)	
Male		2,382.0 (99.7%)	4,875.0 (99.6%)	
Missing		28	14	
Capital	7,325	1,006.0 (41.6%)	2,140.0 (43.6%)	0.11
Police Situation	7,325			<0.001
Day Off		688.0 (28.5%)	1,075.0 (21.9%)	
On Duty		1,728.0 (71.5%)	3,834.0 (78.1%)	

[1] Median (IQR); n (%)
[2] Wilcoxon rank sum test; Pearson's Chi-squared test

According to race/color, 61.8% (n=3033) of the victims are black. When relating police violence to location, the map shows that violence occurs more intensively in the capital and its metropolitan region. We see that for black people, the number of deaths is similar in the capital and upstate.

Graphic 1: Frequency of Police Violence by Race/Color

Graphic 2: Frequency of Police Violence by City and Race/Color

Graphic 3: Frequency of Police Violence by City

Conclusion

The victims of police violence have color and it is black. In addition, this population is very young. Based on the results found, the proportion of black victims is almost twice as high as expected, since only 34.6% of the São Paulo population are of this race/color.

It is important that violence data be analyzed, irrefutably pointing out situations that are often generated by the State itself. In this way, we can use statistical tools for social purposes, supporting actions and the development of public policies. The application (app) developed in this project has this objective, making the dissemination of information and analysis, so that data and statistics are the tools to point out a failure of the State that mainly affects minorities.