

# Racial Profiling in Police Stops in Dallas

## Introduction

Fairness in policing is in question in the United States, in the wake of several events involving police brutality and discrimination towards people of color, especially Blacks. It is often questioned if police suspect someone to have committed an offence on the basis of their race. Testing racial profiling in police stops can help answer this question. [1]In 2016, 12,404 police stops were recorded in New York, out of which only 10% of the subjects were Whites, in contrast to 52% of Blacks and 29% of Latinx. Notably, 76% of the subjects stopped, were innocents. There are certain benchmarks that are set to be followed by the police while stopping drivers and pedestrians. The frequency of the people stopped, belonging to a certain group of age, gender, race, and ethnicity may depend on the number of crimes committed in the past by that group and the proportion of their population in the respective place. In order to test racial profiling in police stops beyond the factors mentioned above, [2]“Veil of Darkness” hypothesis is used. [3]Pierson et al. states, “If black drivers comprise a smaller share of stopped drivers when it is dark and accordingly difficult to determine a driver’s race, that suggests black drivers were stopped during daylight hours in part because of their race.” This analysis will be testing the “Veil of Darkness” hypothesis for both, drivers and pedestrians in police stops. Furthermore, other trends in police stops with respect to the arrests of the subjects are analyzed.

## Analysis

The crime and policing data from 2016 in Dallas has a record of 2,384 incidences and information on 49 variables. This report uses information on traffic and pedestrian stops from the data. This data has a record of 92 traffic and 36 pedestrian stops. The racial data of 2 subjects in traffic stops is unknown. Fig.1 shows the racial distribution of the subjects, along with their gender in traffic stops. 84% of people of color were stopped, out of which 52% were Blacks, 30% belonged to Hispanic and 1% to Asian race. On the other hand, 14% of the subjects were Whites.

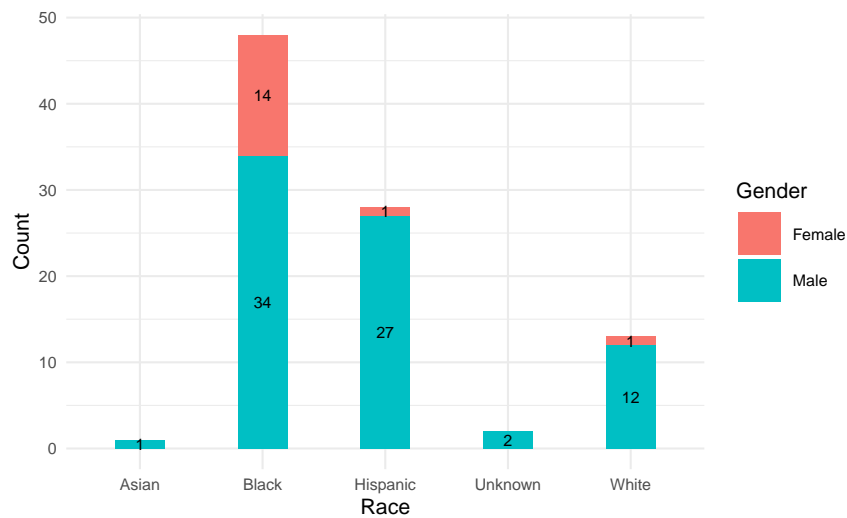


Fig.1. Count of race and gender in traffic stops

Analyzing the trends in treatment of a gender by the police across different races is also a key to understanding racial profiling. From Fig.1 it can be observed a significant number of females who were Blacks were stopped, in contrast to females of other races, which accounted for 88% of the total female subjects stopped in traffic stops. A similar trend is observed with the subjects in pedestrian stops in Fig.2. Although the data shows only 1 female pedestrian to have been stopped by the police, it is noteworthy that the subject belonged to Black race. Additionally, observing the total number of pedestrians stopped with respect to different races highlights that 72% of the subjects were Blacks. Whereas, only 19% were Whites and the rest 8% belonged to Hispanic race.

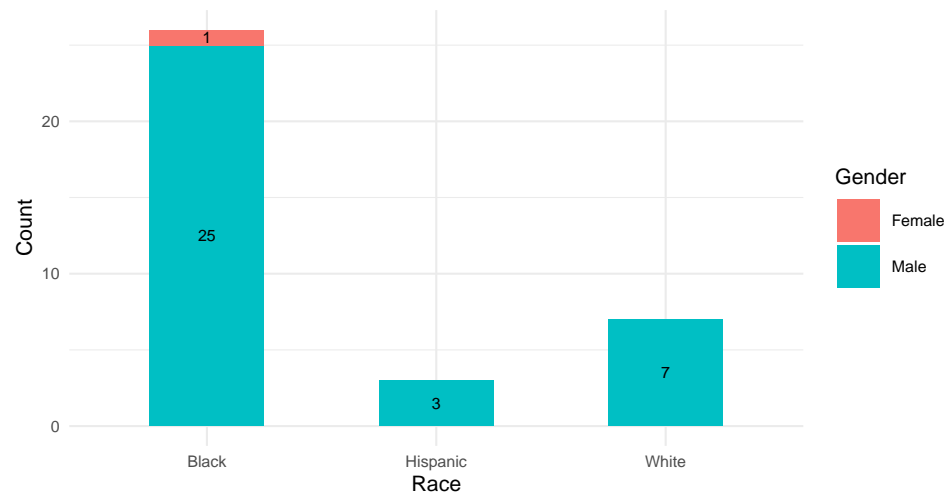


Fig.2. Count of race and gender in pedestrian stops

According to the hypothesis, after sunset the police cannot identify a person’s race accurately from a distance and make stop decision based on it, as compared to the daylight. Given that the sunset timings vary according to seasons, an average timing of 7PM is considered for the analysis. The incident time before 7PM is grouped into day and after 7 PM into night. It is also important to assume [2]that racial differences in traffic patterns, driving behavior, and exposure to law enforcement do not vary between daylight and darkness, then we can test for racial profiling by comparing the race distribution of stops made during daylight to the race distribution of stops made after dark. Fig.3 shows racial proportion of the drivers stopped in traffic stops in daylight and at night throughout the year.

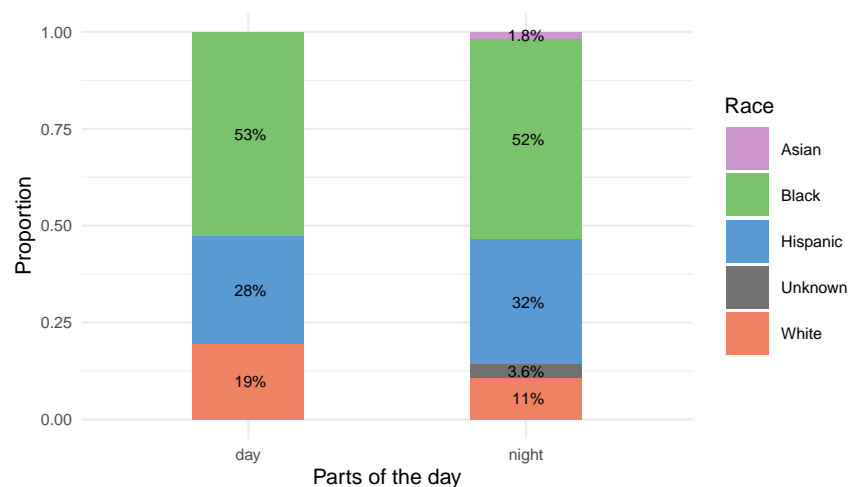


Fig.3. Proportion of races in traffic stops during day and night

The proportion of Blacks in traffic stops is not significantly lower in the night as compared to day, yet a decrease by 1% is observed. While, the percentage of Whites has also reduced from 19% to 11%, it is worthwhile to note that 1.8% of Asians were stopped in the night, which was nil during the day. The percentage of Hispanics is also observed to have increased by 4% at night. There is a lack of data about the race of the remaining 3.6% of the subjects stopped at night.

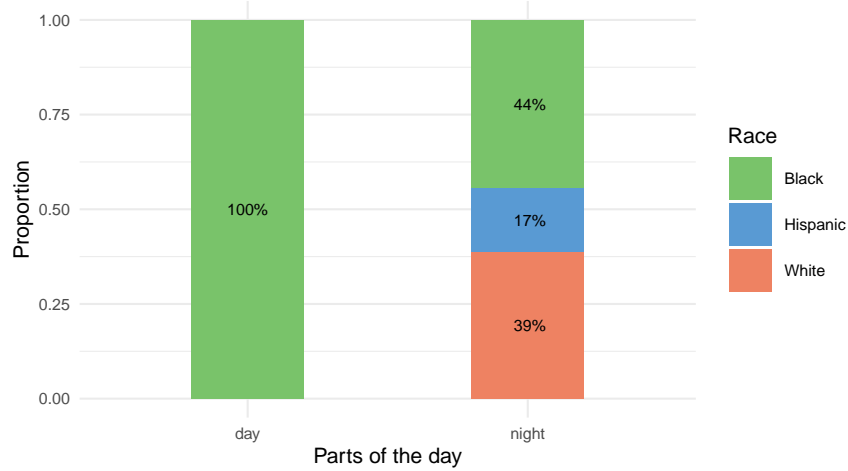


Fig.4. Proportion of races in pedestrian stops during day and night

Furthermore, the trends in pedestrian stops in Fig.4 illustrates stronger evidence for the hypothesis. All the subjects stopped during the day belonged to Black race. This is highly in contrast to only 44% of Blacks stopped at night. In addition, Whites and Hispanic people were stopped at a proportion of 39% and 17% respectively in the dark.

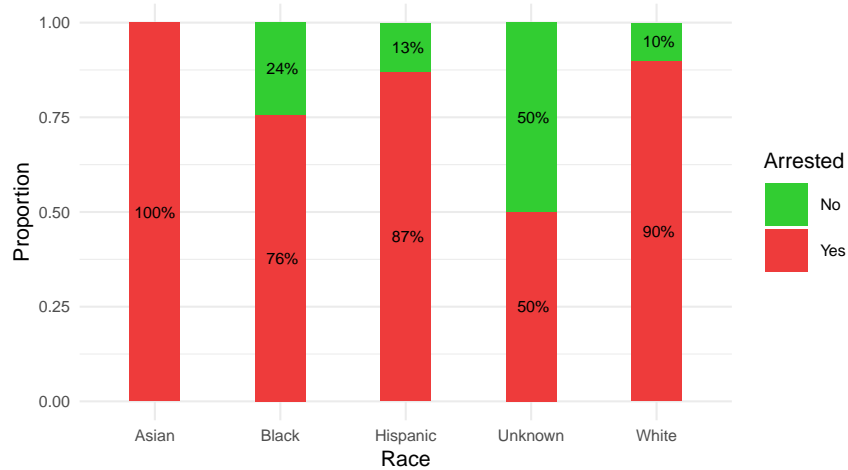


Fig.5. Proportion of races arrested in police stops

Further, patterns in police behavior towards subjects of different races are analyzed using arrest data. Fig.5 analyses the arrest data in police stops, including both traffic and pedestrian stops. While, 76% of the total number of Blacks stopped were arrested, a larger proportion of 90% of Whites were arrested. In addition, all the Asians and 87% of Hispanics who were stopped were arrested. From Fig.1 and Fig.2 it is observed that a larger number of Blacks were stopped by police. However, the proportion of Blacks arrested is lower compared to other races, suggesting that many Blacks stopped were probably innocents and had no intentions of committing crime but, were suspected otherwise.

## Conclusion

The above analysis shows some evidence of racial profiling at police stops in the city of Dallas in the US. Firstly, although there was only a small reduction in the proportion of Blacks in traffic stops during day and night in this sample, it was evident that people from various other races were also stopped after sunset. It is noteworthy that a significant number of Black females were stopped as compared to White females. Hence, there is no evidence to reject [2]“Veil of Darkness” hypothesis. This suggests that racial profiling is at least a part of the factors influencing stop decisions at police stops. Secondly, applying the same hypothesis to pedestrian stops yielded stronger evidence of stopping people of different races, which constituted 39% of Whites and 17% of Hispanic people, as opposed to none during the day; in addition to a decrease in proportion of Blacks at night. More evidence for racial bias in police stops was obtained from arrest data. In conclusion, large scale studies and meticulous analysis of various aspects impacting the stop decisions of police is essential, as it is crucial to mitigate racial bias in policing to establish public’s trust in the justice system.

## References

- [1]*Stop-and-Frisk-Data*. NYCLU. Available from: <https://www.nyclu.org/en/stop-and-frisk-data>;2019.
- [2]Jeffrey Grogger & Greg Ridgeway. *Testing for Racial Profiling in Traffic Stops From Behind a Veil of Darkness*. Journal of the American Statistical Association. 101:475, 878-887, DOI: 10.1198/016214506000000168;2006.
- [3]Pierson, E., Simoiu, C., Overgoor, J. et al. *A large-scale analysis of racial disparities in police stops across the United States*. Nat Hum Behav 4, 736–745. Available from: <https://doi.org/10.1038/s41562-020-0858-1>;2020.

## Bibliography

- [1]Winston Chang. *R Graphics Cookbook*. R Graphics Cookbook.O’Reilly;2013.
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