



# The Association Between Race, Traffic Stop Frequency, and Traffic Stop Outcome

Ezekiel Popoola, Applied Data Analysis, Wesleyan University



## Introduction

- 71% of Black adults reported experiencing at least one instance of racial discrimination, compared to 43% of Hispanic adults and 23% of White adults (Hamel et al., 2020).
- The study revealed that 41% of Black Americans reported being stopped or detained due to their race, compared to just 16% of Hispanic Americans and 5% of White Americans (Hamel et al.).
- Research indicates that racial biases persist in police traffic stops, with Black and Hispanic drivers disproportionately targeted compared to White drivers (Carvalho et al., 2022; Tapp, 2020).

## Research Questions

- Are Connecticut drivers searched during traffic stops at disproportionate rates by race?
- Do these disproportionate searches yield more frequent findings of contraband?

## Methods

### Sample

- The data for this analysis comes from the Connecticut Traffic Stops Study, which includes every recorded traffic stop in Connecticut during 2022. Police officers are required to report details of each stop, including location, demographics of the driver time, intervention type, outcomes, etc. For this study, only stops involving individuals aged 16 to 107 were included, omitting stops of those under the legal driving age.

### Measures

- The primary independent variable in this analysis is the race of the driver, as recorded by officers during each traffic stop. Racial categories include Black, Asian, White, and American Indian, represented by the race codes "B," "A," "W," and "I," respectively, while the sex of the driver was recorded by "M" for Males and "F" for females.
- The dependent variables
  - **Search Frequency:** Whether a vehicle was searched during the traffic stop, recorded as "1" for yes or "0" for no.
  - **Contraband Discovery:** Whether the search found contraband, recorded as "1" for True or "0" for false.

- These variables were chosen to evaluate both the likelihood of vehicle searches and their outcomes, providing insight into search frequency and effectiveness across racial groups and sexes.

## Results

### Bivariate

- Logistic regression analysis revealed that subject race significantly predicts vehicle searches. Compared to the baseline group (Asian drivers), drivers reported as Black (OR 6.44,  $p < 2e-16$ ), American Indian (OR 1.90,  $p = .00964$ ), and White (OR 3.25,  $p < 6.6e-11$ ) experienced significantly higher odds of being searched, with Black drivers having the highest search rate (Fig. 1).

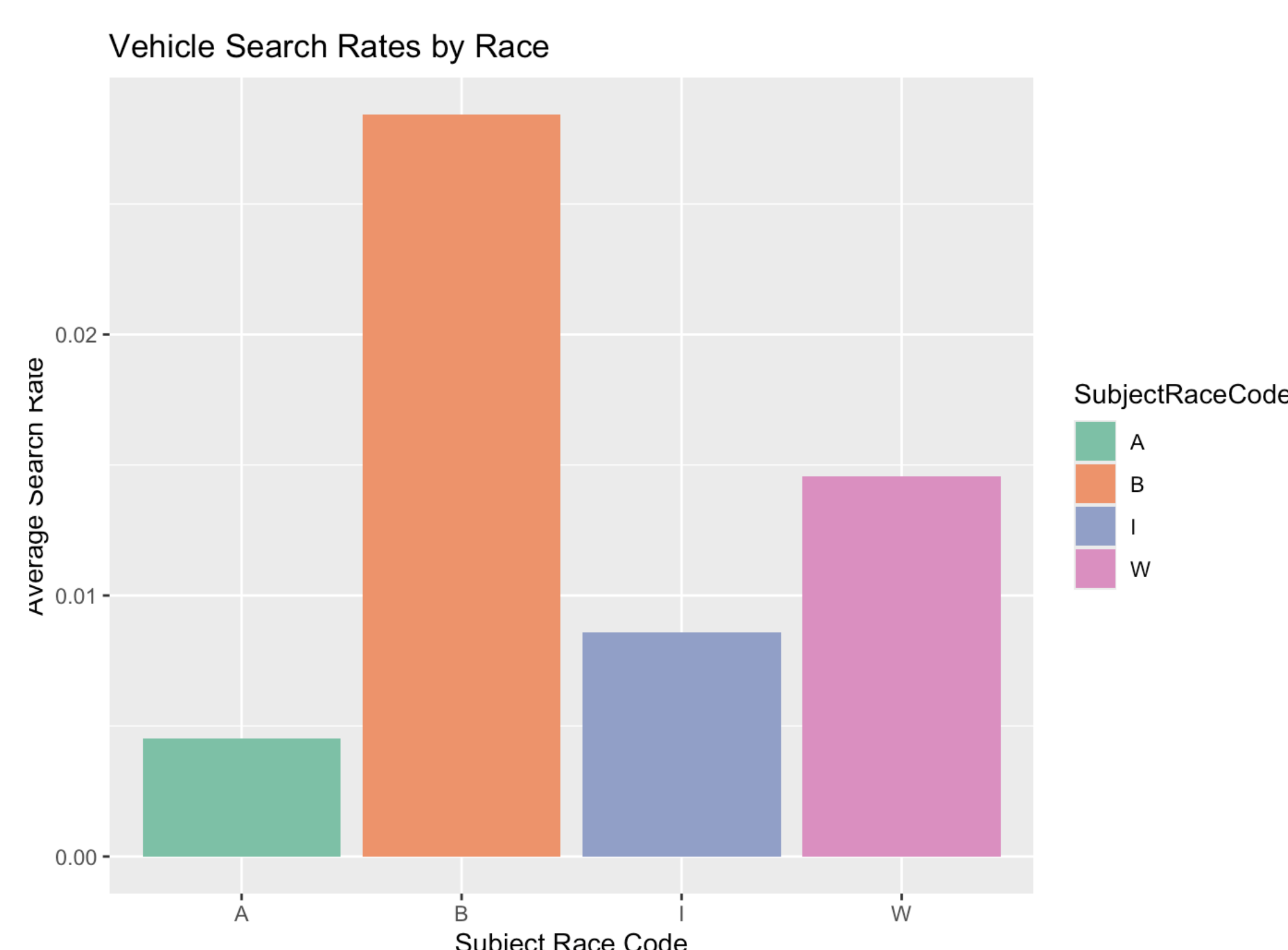


Figure 1: Vehicle Search Rates by Race

### Multivariate

- Logistic regression analyses showed that White drivers who were stopped were 3.07 times more likely to be found with contraband than Asian drivers (OR 3.07,  $p = 0.066$ ) (Fig. 2).
- Males were found to be 1.36 times more likely to be found with contraband than Females (OR 1.36,  $p < 0.001$ ).
- Black (OR = 2.52) and American Indian (OR = 1.94) drivers were associated with higher rates of contraband discovery, but these findings were found to be statistically insignificant with p-values of 0.131 and 0.381, respectively.

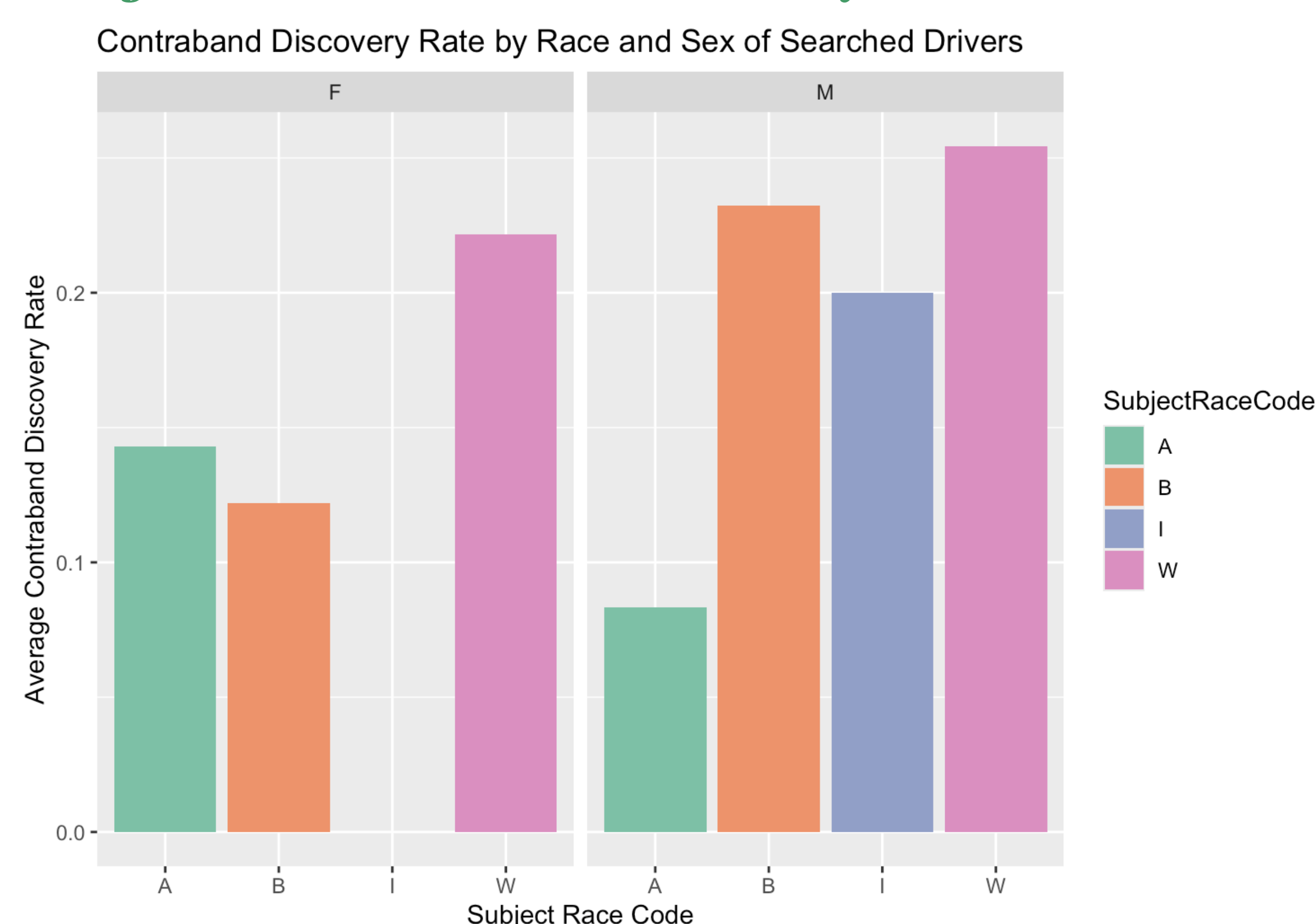


Figure 2: Contraband Discovery Rate by Race and Sex of Searched Drivers

## Discussion

- Even though Black drivers are searched at a much higher rate than any other recorded race, White drivers have the highest rate of Contraband being found.
- These findings may help to exemplify that the biases in policing are not due to their effectiveness but, instead, underlying racial biases.
- More research is needed to determine the roots of these biases and how said biases can be dissolved in efforts to increase trust between police and citizens of color.

## References

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