# Racial Disparities in Traffic Stops

Presentation to the San Francisco Police Commission, November 2, 2022

Magnus Lofstrom, Joe Hayes, Brandon Martin, and Deepak Premkumar



Supported with funding from Arnold Ventures



## California has taken steps to reduce racial disparities in policing

- In 2015, California passed the Racial Identity Profiling Act (RIPA)
  - Rich data source on stops and disparities in policing
- Our earlier research showed that:
  - People of color have different experiences in searches, enforcement, intrusiveness, and use of force than white residents
  - Differences in stop context and jurisdiction contribute to disparities,
    but inequities remain after accounting for such factors
  - Traffic stops are a key driver of these disparities



### In this study, we ask whether certain traffic stops could be enforced in alternative ways

- Ideally, alternative enforcement methods:
  - Could improve officer and civilian safety, reduce racial disparities,
    and enhance police efficiency without jeopardizing public safety
- This study uses RIPA data on 3.4 million traffic stops made by the state's 15 largest law enforcement agencies in 2019

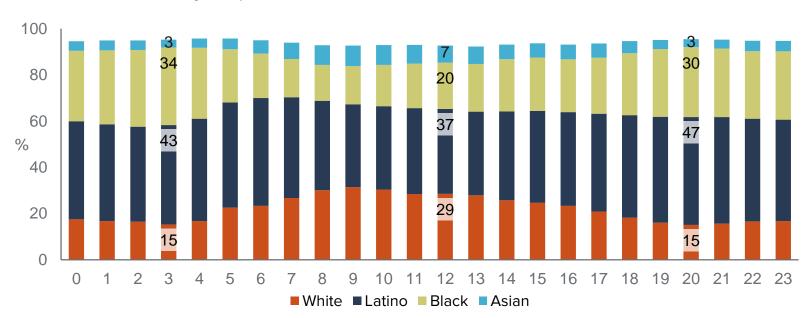


### Nighttime stops by local law enforcement are mostly for non-moving violations

- More than half of traffic stops made by local police and sheriff departments from 9 p.m. to 3 a.m. are for non-moving violations
- Among all traffic stops, 211,000 stops (6%) resulted in no enforcement or discovery of contraband
  - About half occurred in the late p.m./early a.m.
  - Officers spent a total of 80,000 hours on these stops
- Law enforcement, mostly local police officers, confiscated firearms in 905 traffic stops
  - About half of these were in stops for non-moving violations

## Largest racial disparities occur around midnight, especially in stops by police

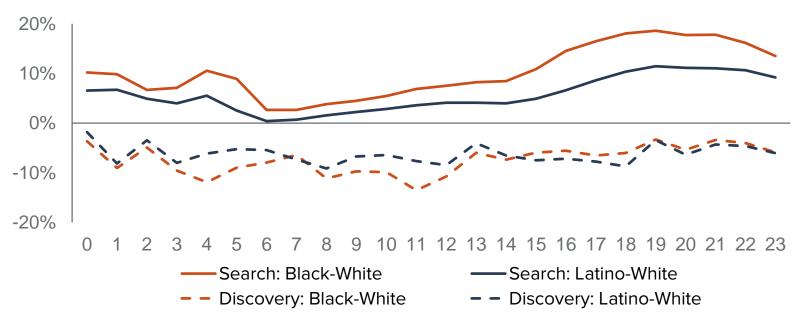
Racial distribution by stop hour – Police





### Search disparities are greatest in evening stops by local officers, but discovery rates are low

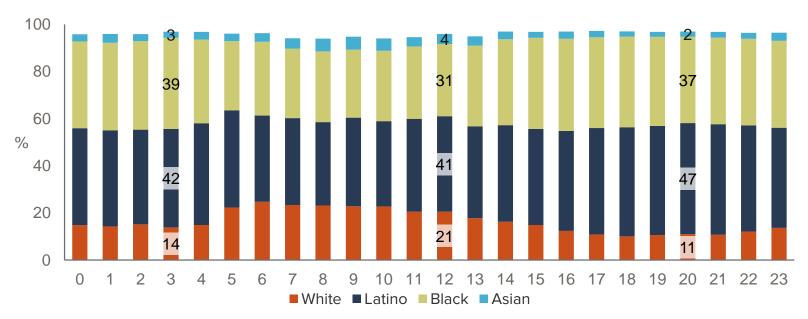
Racial disparity in search and discovery rates – Local law enforcement





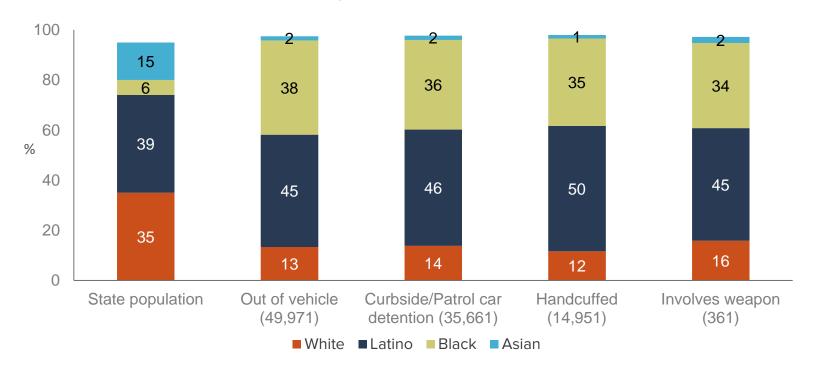
## Black drivers make up notably high shares of nighttime stops with no discovery/enforcement

Racial distribution by stop hour, no discovery/no enforcement – Police





#### Black drivers are notably overrepresented in noenforcement/discovery stops with intrusive actions





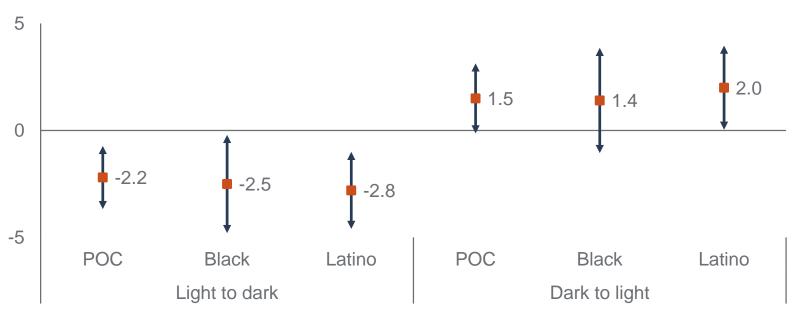
## Testing for racial bias in the likelihood of being stopped

- Racial bias is one possible reason for disparities, but other factors may also contribute
  - Vehicle conditions and driving patterns due to work, school, and leisure may differ across race/ethnicity and time of day
- "Veil of darkness" theory posits that light conditions affect officers' ability to determine the race/ethnicity of a driver
- We study the effects of sudden changes in light conditions at given times in the morning and evening coinciding with Daylight Saving Time (DST) switches in March and November



### Our findings show some evidence of racial bias in stop decisions among local law enforcement

Estimated % point change in share of drivers stopped by local law enforcement





### Nighttime traffic stops made by local law enforcement deserve particular consideration

- These stops:
  - Are predominantly for non-moving violations
  - Involve higher search rates than daytime stops, but discovery rates are lower
  - Are more likely to lead to no enforcement/no discovery
  - Involve the greatest racial disparities
- However, firearms are confiscated in a number of these stops



#### **Policy considerations**

- Alternative enforcement methods:
  - Mailing warnings or citations for non-moving violations
  - Red light cameras and automated speed cameras (not legal in CA)
  - It's possible that these methods may also reduce the number of firearms confiscated
- Addressing racial inequities:
  - Research support for implicit bias training is not strong
  - Evidence-based practices include diversifying police staff and reallocating officers to calls from same-race/ethnicity neighborhoods



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#### Notes on the use of these slides

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. The full report can be found at:

https://www.ppic.org/publication/racial-disparities-in-traffic-stops/

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Thank you for your interest in this work.

