



# The Relationship Between Perception of Income Inequality and Opinion of Income Distribution in the U.S.



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## Introduction

- Traffic stops are the most common form of police-initiated contact in the United States and a key site for examining racial disparities in enforcement (BJS 2022).
- Prior research consistently finds that Black drivers are searched at higher rates than White drivers, with evidence suggesting race may influence stop and search outcomes (Pierson et al. 2020; Knowles & Lowenkamp 2017).
- Most studies rely on national or multi-state data, while fewer focus on state-level variation despite differences in enforcement practices across jurisdictions.

## Research Questions

- To what extent does driver race predict the probability of a vehicle search during traffic stops in Connecticut?
- Does the time of day condition this association?

## Methods

### Sample

- Data were drawn from the Connecticut Traffic Stops – Racial Profiling Prohibition Project, which compiles stops reported under Public Act 12-74. Each observation represents a single traffic stop (N = 313,351). The analysis includes all cases with complete data on driver race and search outcome.

### Measures

- Driver race was recorded by the reporting officer and categorized as White, Black, Asian, or American Indian.
- Vehicle search was measured as a binary indicator of whether a search occurred during the stop (search conducted vs. no search).
- Time of day was coded as daytime or nighttime, with daytime defined as hours  $\geq 6$  and  $\leq 17$  (5 PM).

## Results

### Bivariate

- Chi-Square Test of Independence shows a statistically significant association between driver race and vehicle searches ( $\chi^2(2) = 638.57, p < .001$ ).
- Search rates differ by race: Black drivers (2.84%) are searched most often, followed by White drivers (1.46%), and drivers in the “Other” category (0.60%).
- These results indicate that the likelihood of a vehicle search is not evenly distributed across racial groups.

### Multivariate

- Logistic regression analyses show that Black drivers are significantly more likely to be searched than the reference group (O.R. = 1.87,  $p < .001$ ), while drivers in the “Other” category are significantly less likely to be searched (O.R. = 0.38,  $p < .001$ ).
- Male drivers are significantly more likely to be searched than female drivers (O.R. = 2.29,  $p < .001$ ).
- Stops conducted at night are associated with higher likelihood of a search compared to daytime stops (O.R. = 1.57,  $p < .001$ ).

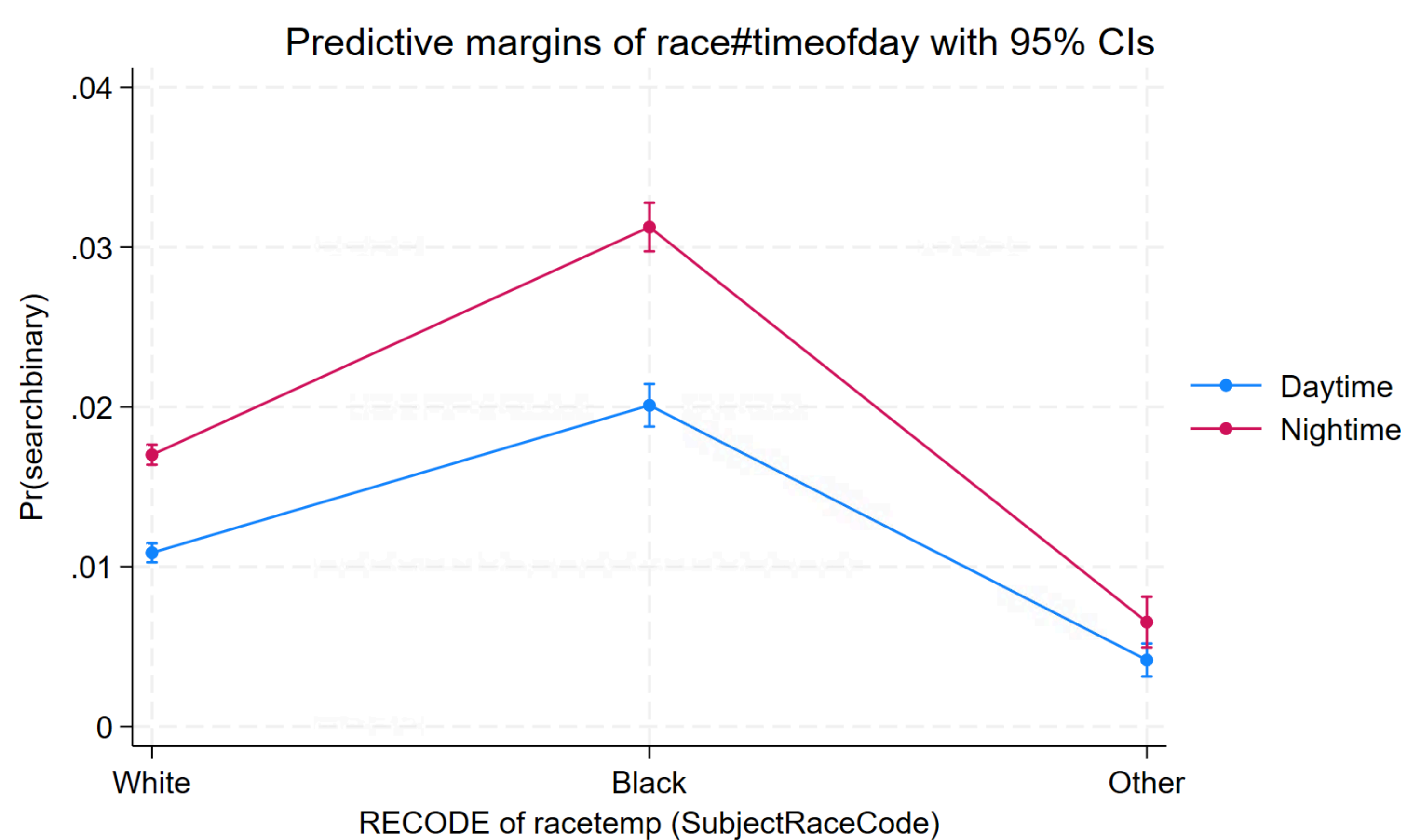


Figure 1: Predicted Probability of Vehicle Search by Driver Race and Time of Day

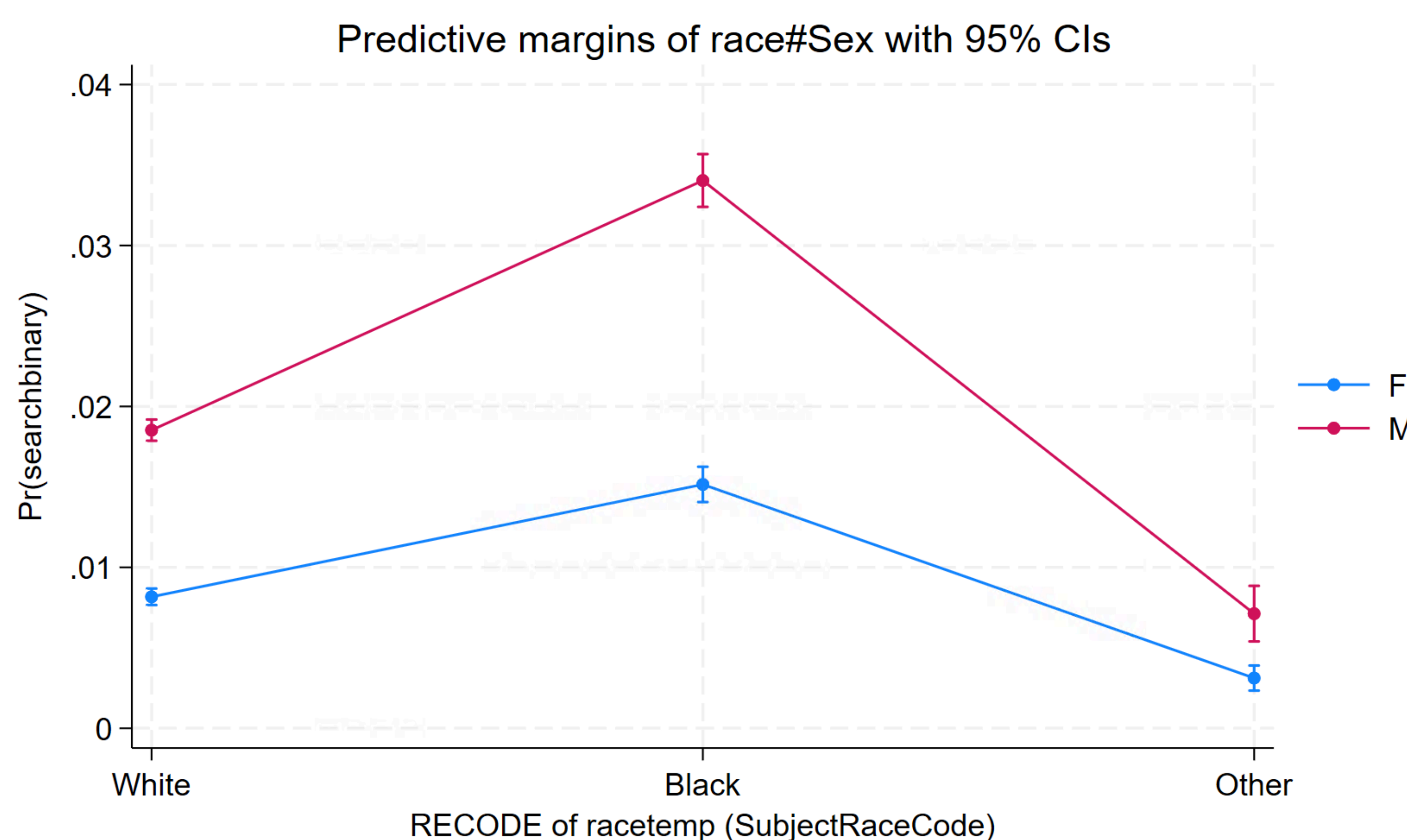


Figure 2: Predicted Probability of Vehicle Search by Driver Race and Sex

## Discussion

- Although vehicle searches are rare overall, they are not evenly distributed across racial groups, with Black drivers experiencing higher search rates than other groups.
- There is a statistically significant association between driver race and the likelihood of a vehicle search, indicating that search outcomes vary systematically by race.
- Vehicle searches occur more frequently during nighttime stops than daytime stops, suggesting that time of day also influences search likelihood.
- Future research should examine how race and time of day interact, as well as incorporate additional variables (e.g., location, reason for stop) to better understand the factors shaping search decisions.

## References

- Smith, M. R., Makarios, M., & Alpert, G. P. (2006). Differential Suspicion: Theory Specification and Gender Effects in the Traffic Stop Context. *Justice Quarterly*, 23(2), 271–295. <https://doi.org/10.1080/07418820600688883>
- Pierson, E., Simoiu, C., Overgoor, J., Corbett-Davies, S., Ramachandran, V., Phillips, C., & Goel, S. (2025). Traffic stop patterns among young novice drivers. *Transportation Safety & Environment*. <https://www.sciencedirect.com/science/article/pii/S2666188826000195>
- 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 (2020). <https://doi.org/10.1038/s41562-020-0858-1> U.S.
- Department of Justice, Office of Justice Programs. (n.d.). Impact of drivers' race, gender, and age during traffic stops: Assessing interaction. <https://www.ojp.gov/library/publications/impact-drivers-race-gender-and-age-during-traffic-stops-assessing-interaction>
- Knowles, J. C., & Lowenkamp, C. T. (2017). Veil of darkness analysis of traffic stops in Durham, NC. RTI International [https://www.rti.org/sites/default/files/resources/14396494\\_VOD\\_Durham\\_FINAL\\_R.pdf](https://www.rti.org/sites/default/files/resources/14396494_VOD_Durham_FINAL_R.pdf)
- Baumgartner, F. R., Epp, D. A., & Shoub, K. (2020). At the intersection: Traffic stops and racial profiling. *Journal of Race, Ethnicity, and Politics*. <https://baum.unc.edu/articles/ATTheIntersection-JREP-forthcoming2020.pdf>
- Engel, R. S., Calnon, J. M., & Bernard, T. J. (2002). Police behavior during traffic stops. *Albany Law Review*, 66. <https://law.bepress.com/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2585&context=alea>
- Camp, N. P., V. Prabhakaran, R. C. Hetey, B. Monin, D. Jurafsky, and J. L. Eberhardt. 2025. “Racial Disparities in the Discretionary Context of Traffic Stops: How Organizational Practices Shape Institutional Interactions.” *Journal of Social Issues* 81, no. 3: e70017. <https://doi.org/10.1111/josi.70017>
- Xu, W., Smart, M., Tilahun, N., Askari, S., Dennis, Z., Li, H., & Levinson, D. (2024). The racial composition of road users, traffic citations, and police stops. *Proceedings of the National Academy of Sciences of the United States of America*, 121(24), e2402547121. <https://doi.org/10.1073/pnas.2402547121>