

# Racial Disparities in Search Rates: Examining the Meaning Behind Them

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# Research Questions

- Is race/ethnicity a predictor for determining who will receive a search? If so, how strong of a predictor is it?
- Is race/ethnicity a predictor of being searched, **while controlling for alternative explanations (i.e. situational factors)**?

# Methodology: Data

- Five years of traffic stops from an Oregon PD (2002-2006): 52,262 stops and 3,208 searches (scantron collection)

	Population	% Stopped	Proportion Searched
African American	1.1	2.1	7.8
American Indian	0.7	0.1	NA
Asian	6.6	2.9	3.9
Hispanic	5.0	4.8	11.0
White	84.4	87.2	5.9
Other	2.4	2.8	4.5

# Methodology: Analyses and DVs

- Binary logistic regression.
  - **Dependent Variable:**
    - Discretionary Search (any mention of a consent, plainview, or weapon patdown search)
  - **Independent Variables:**
    - Race, gender, # of passengers, daylight, city residency, reason for the stop, patrol district, year
- Eighteen contingency table analyses – Are African Americans and Hispanics more likely than Whites to demonstrate stop characteristics associated with a higher search likelihood?

# Model 1: Race/Ethnicity Only

**Table 1. The Relationship of Race/Ethnicity to Discretionary Searches**

	Coef.	Robust S.E.	Percent Change in Odds
African American driver →	.27*	.13	31
Hispanic driver →	.29***	.09	35
Asian driver	-.31*	.15	-27
American Indian	-.54	.72	-42
Other race driver	-.24*	.14	-21
Constant	-3.08***	.02	

N = 52208

\*p ≤ .05, \*\*p ≤ .01, \*\*\*p ≤ .001

Reference categories: White driver

# Fit Statistics for Model 1

- McKelvey & Zavoina's  $R^2 = 0.003$
- Adjusted Count  $R^2 = 0.000$
- None of the 2,309 discretionary searches can be accurately predicted, at a probability greater than 0.06, knowing the driver's race/ethnicity alone.

**Table 2. Factors Predicting Discretionary Searches**

	Coef.	Robust S.E.	Percent Change in Odds
African American driver →	-.31*	.14	-27
Hispanic driver →	-.07	.10	-7
Asian driver	-.63***	.15	-47
American Indian	-1.05	.73	-65
Other race driver	-.44**	.15	-36
Female	-.59***	.05	-45
Number of passengers	.37***	.02	45
Daylight stop	-2.17***	.06	-89
City resident	.06	.05	6
ORS violation	-1.06***	.12	-65
Call for service	1.57***	.18	383
Preexisting information	1.86***	.19	540
Equipment violation	-.35***	.05	-30
City ordinance violation	1.14***	.21	213
Other violation	2.29***	.19	886
Missing violation code	.79*	.29	120
Constant	-2.91***	.12	

N = 52208, \*p ≤ .05, \*\*p ≤ .01, \*\*\*p ≤ .001

Reference categories: White driver, NE sector, Year 2002, Moving violation

**Table 3. Comparison of search risk factors between African American and Hispanic drivers to White drivers**

<b>Risk Factors for Being Searched</b>	<b>African Americans (Compared to Whites)</b>	<b>Hispanics (Compared to Whites)</b>
1) Stopped in patrol beat with highest # of searches	Yes, more likely	No, not more likely
2) Night-time stop	Yes, more likely	Yes, more likely
3) Passengers in Vehicle	Yes, more likely	Yes, more likely
4) Male driver	Yes, more likely	Yes, more likely
5) Stop reason – preexisting knowledge	Yes, more likely	Yes, more likely
6) Stop reason – call for service	No, not more likely	Yes, more likely
7) Stop reason - other	No, not more likely	Yes, more likely
8) Stop reason - missing	No, not more likely	No, not more likely

# Fit Statistics for Model 2

- McKelvey & Zavoina's  $R^2 = 0.369$
- Adjusted Count  $R^2 = 0.002$
- Greater ability to predict the actual searches

Probability Level	# of Accurate Predictions
.1 - .2499	1,100
.25 - .4999	278
.50 - 1	67

# Conclusions

- 1) The **race** of the driver is **not a strong predictor** of the most **discretionary search types**.
- 2) Other factors increase the likelihood of being searched for a driver of any race/ethnicity.
  - \*male, nighttime stop, one or more passengers, call for service stop, or stopped for preexisting information
- 3) However, **stops of African American and Hispanic drivers exhibit significantly greater “risk factors” related to searches** than White drivers.

# Limitations

- 1) No information on individual officers (attitudes, perceptions, experience).
- 2) The data is aggregated so we can only examine searches for the entire department as a group, rather than within officers.
- 3) Limited information on the context of the stops (demeanor and behavior of drivers/passengers, evidence of alcohol/drugs, condition of car, characteristics of the community).
- 4) The findings are not necessarily generalizable to other areas; replication is necessary.

# Implications

- Understanding the relationship between race/ethnicity and search rates is very complex and having a better understanding can be both valuable for law enforcement and citizens.
- It's important to have distinctions of search types and access to other stop characteristics to derive meaning from the analysis of traffic stop data.