

Analysis of Hispanic-White Differences in Traffic Stops and Searches by the NC State Highway Patrol, 2002-2013

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Table 1. Overview of the Data

Data Subsets	Observations
Total stops	8,426,400
-2000	568,482
-2001	539,095
-2014	215,150
-Passengers	20,185
-Checkpoint stops	126,605
Stops for analysis	6,977,076
Searches	45,619

Search Rate = 0.65

Figure 1. Number of Traffic Stops per Year

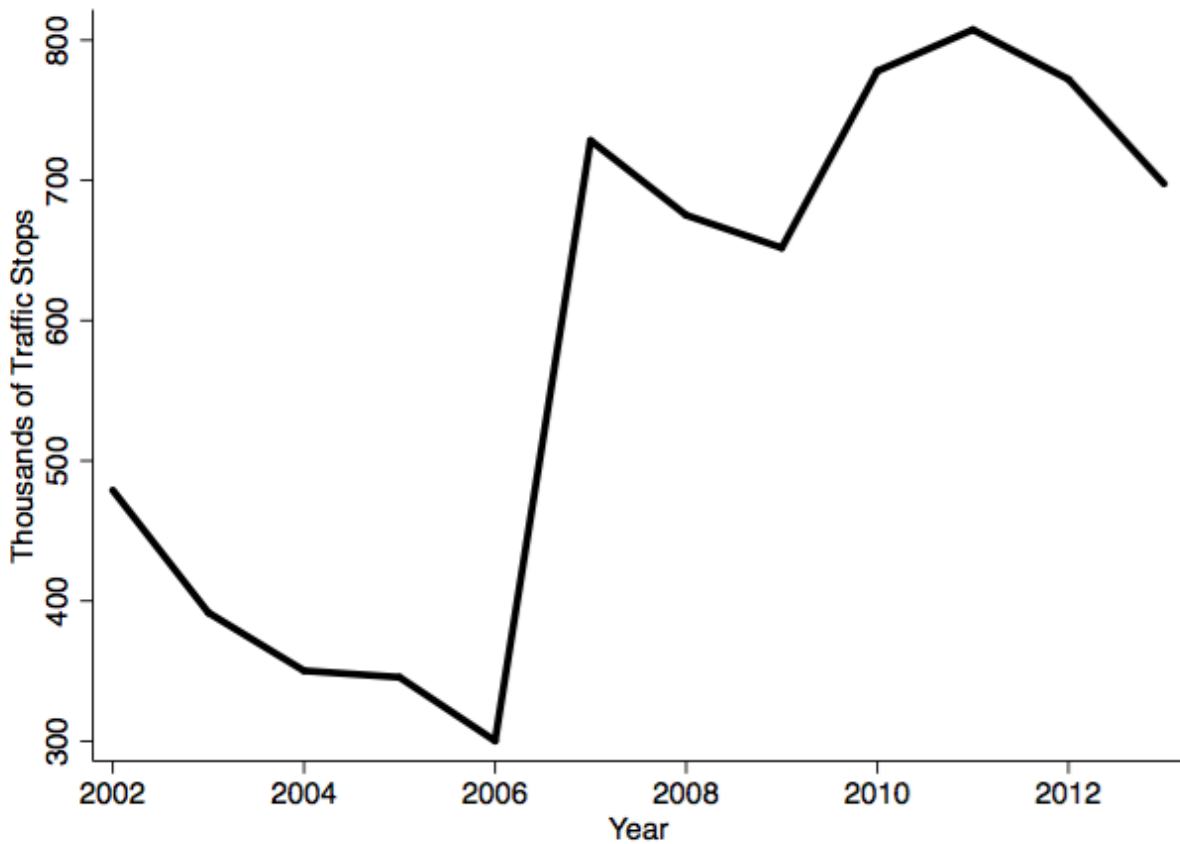


Figure 2. Ethnic Composition of Traffic Stops by Year

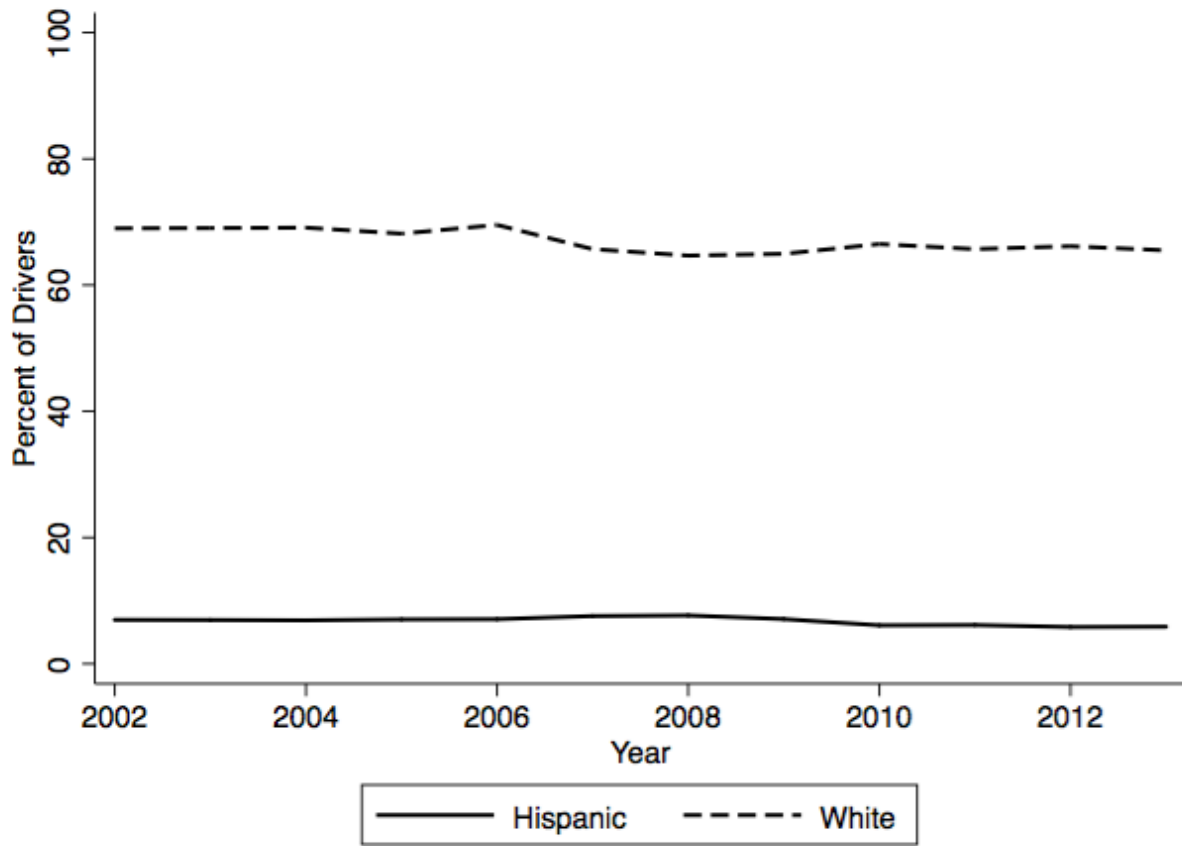


Table 2. Ethnic Composition of Traffic Stops by Purpose, Drivers

Purpose	Number	Percent	
		White	Hispanic
Total Stops	6,511,223	71.28	6.68
Speed Limit	3,604,343	71.07	5.59
Stop Light/Sign	104,358	73.33	8.13
Driving Impaired	62,023	69.85	16.73
Safe Movement	212,184	70.33	10.42
Vehicle Equipment	341,315	70.23	7.38
Vehicle Regulatory	641,310	73.77	5.21
Seat Belt	1,044,986	73.34	4.93
Investigation	632,282	68.50	11.27
Other Vehicle	334,274	68.21	12.62

Note: Includes only drivers. Excludes 126,605 checkpoint stops. Excludes 20,185 passengers.

Table 3. Percent Searched by Ethnicity and Purpose of Stop

Purpose	Number	% Total	% White	% His.	Ratio
					His.:White
Total Stops	6,511,223	-	93.32	6.68	-
Total Searches	45,619	0.65	0.53	1.59	3.00
Speed Limit	3,592,283	0.33	0.24	0.96	4.00
Stop Light/Sign	103,692	0.64	0.52	1.14	2.19
Driving Impaired	47,298	23.74	24.59	24.12	0.98
Safe Movement	208,478	1.75	1.35	3.65	2.70
Vehicle Equipment	339,532	0.52	0.40	1.04	2.60
Vehicle Regulatory	639,539	0.28	0.20	0.71	3.55
Seat Belt	1,042,492	0.24	0.19	0.45	2.37
Investigation	627,059	0.83	0.77	0.97	1.26
Other Vehicle	331,084	0.95	0.78	1.55	1.99

Note: See the appendix for this same table broken down for Men and Women.

Figure 3. Difference in Likelihood of Being Searched, by Ethnicity and Type of Stop

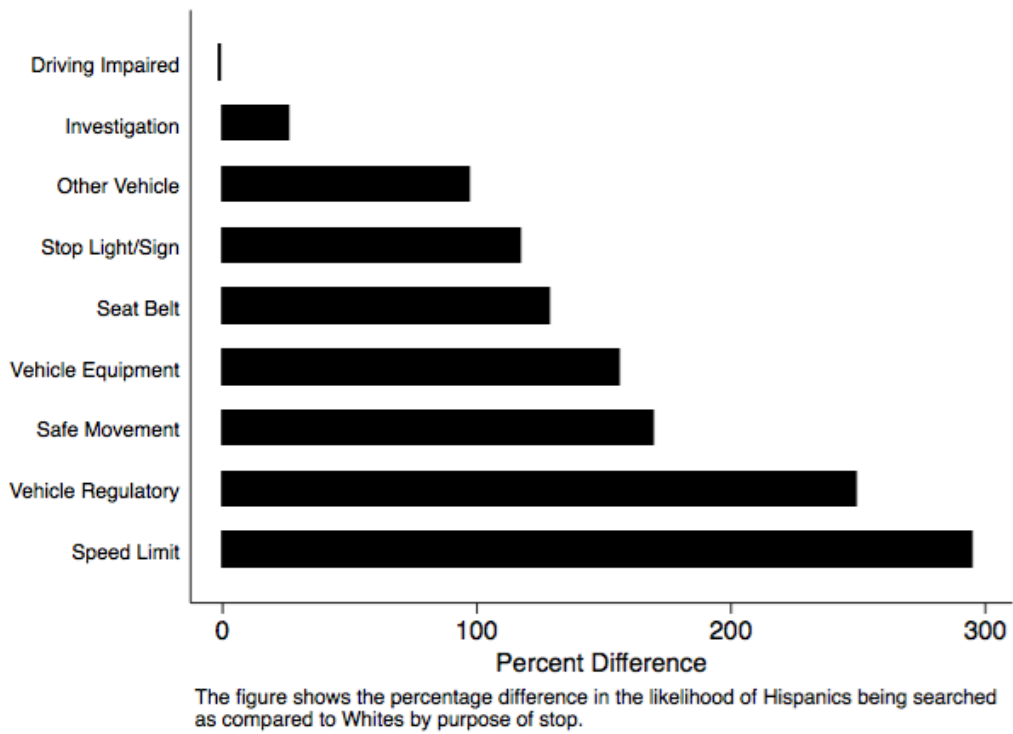


Figure 4. Ethnic Differences in the Likelihood of Search

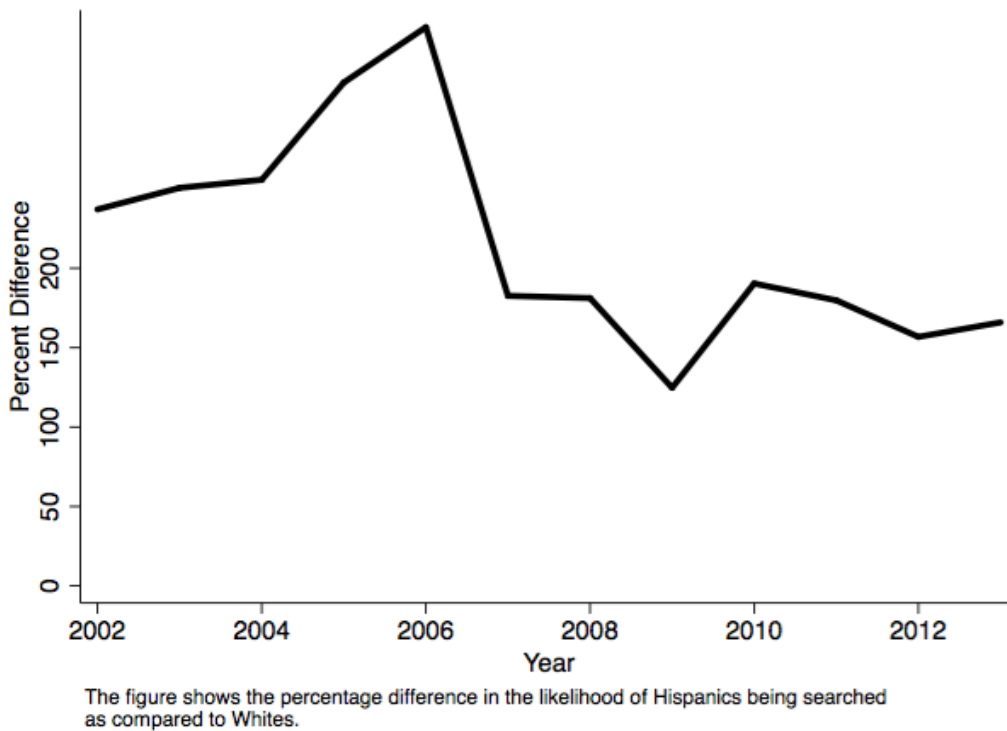
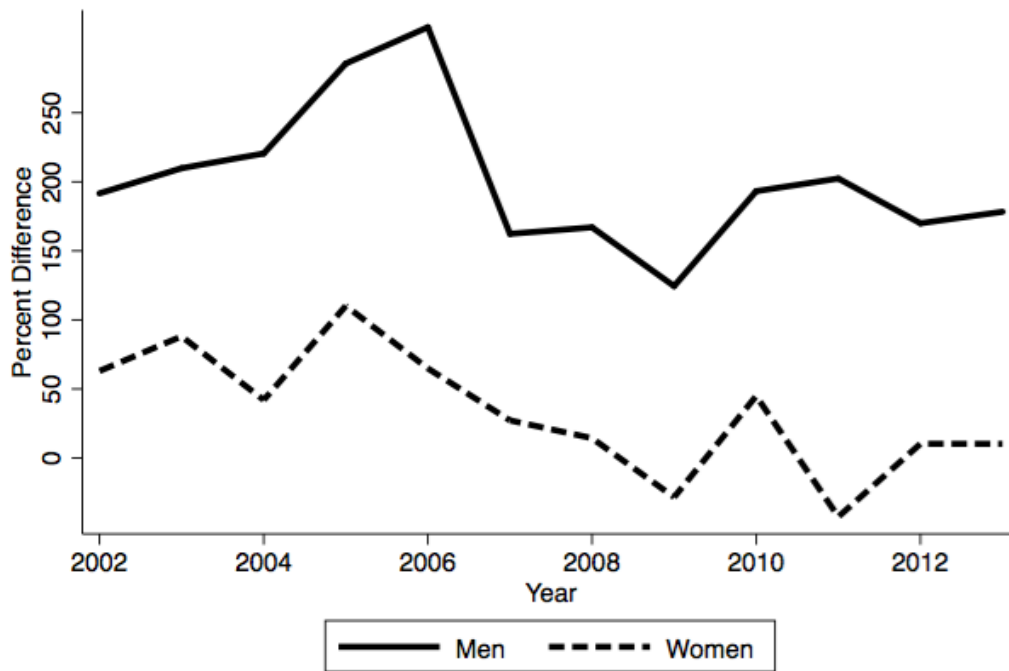
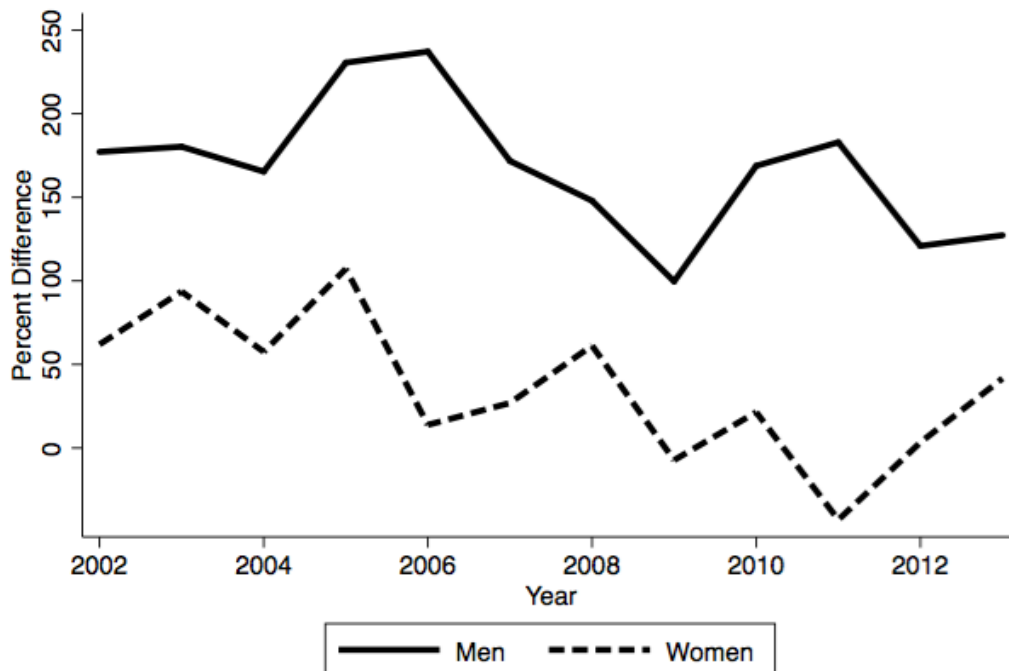


Figure 5. Ethnic Differences in the Likelihood of Search by Gender



The figure shows the percentage difference in the likelihood of Hispanics being searched as compared to Whites by gender.

Figure 6. Ethnic Differences in the Likelihood of Search by Gender, for Drivers Under 30



The figure shows the percentage difference in the likelihood of Hispanics being searched as compared to Whites by gender for motorists under 30.

Figure 7. Search Rates by Ethnicity, Gender, and Age Group

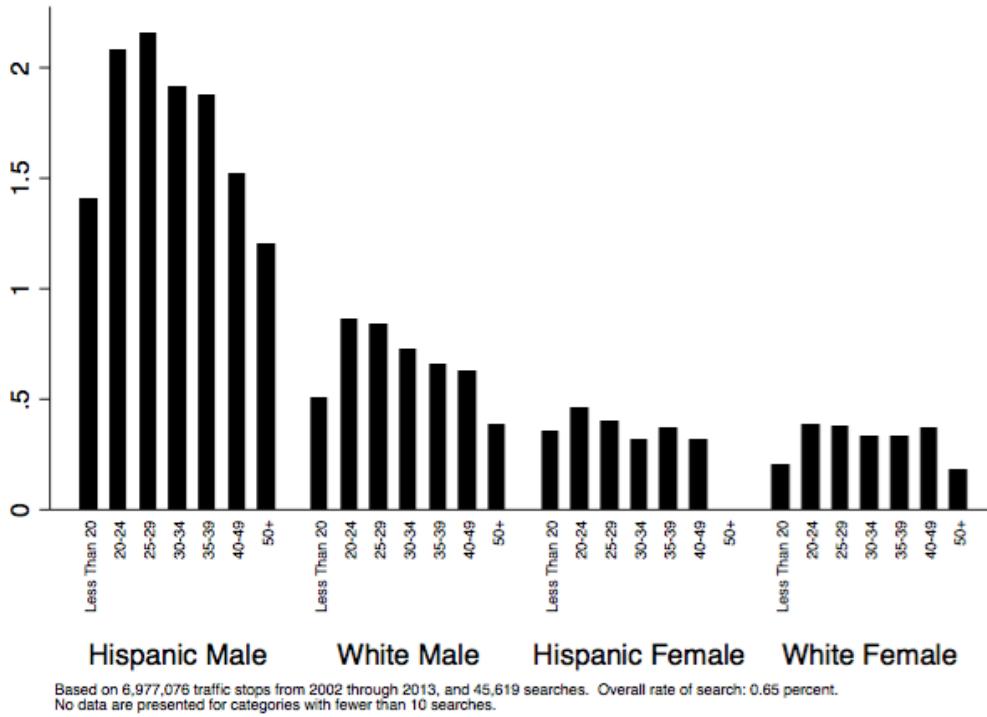


Figure 8. Number of Stops, by Ethnicity and Gender

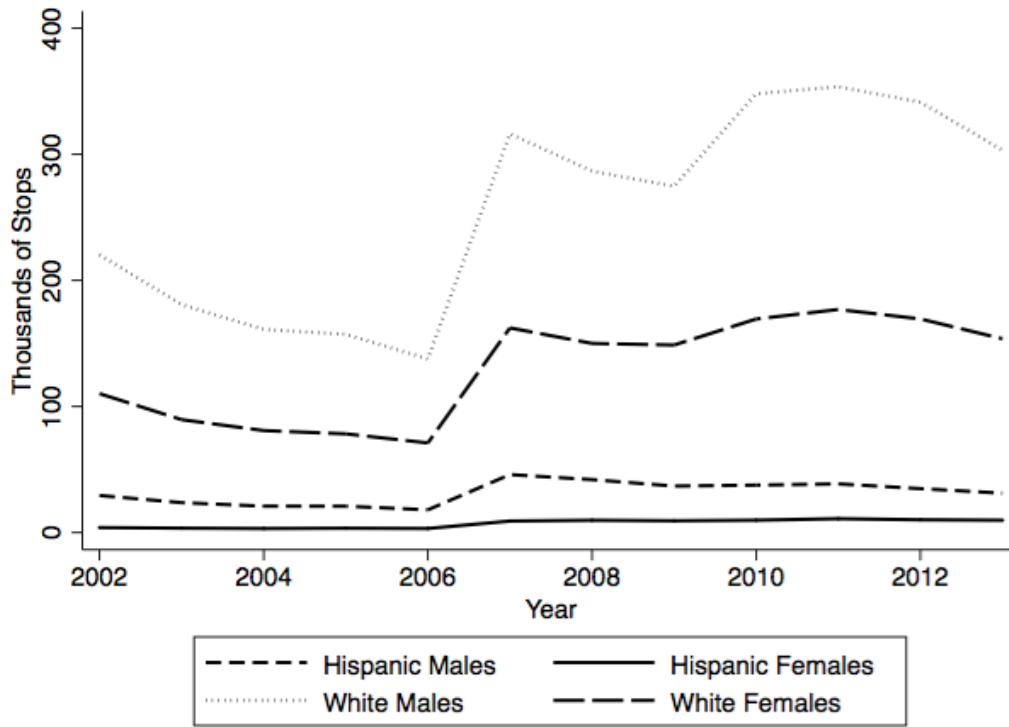


Figure 9. Percent of Stops Resulting in a Search, by Ethnicity and Gender

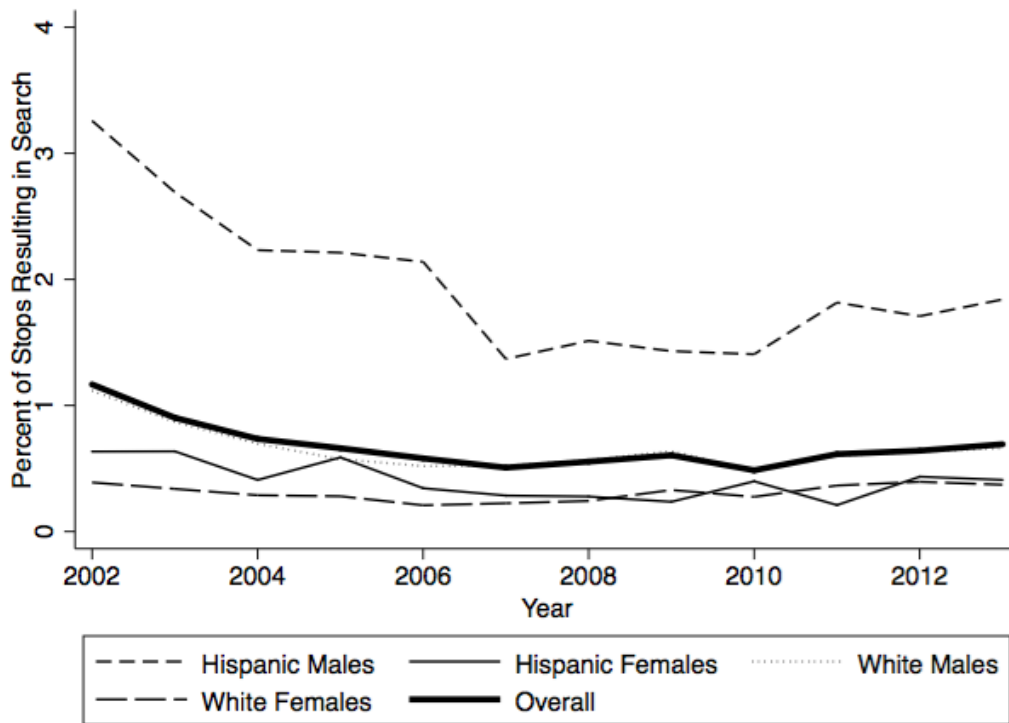


Table 4. Type of Search by Ethnicity

Search Type	Number	% Total	% White	% His.	Ratio
					His.:White
Total Stops	6,511,223	-	93.32	6.68	-
Total Searches	45,619	0.65	0.53	1.59	3.00
Consent	4,839	0.07	0.04	0.33	8.25
Search Warrant	155	0.00	0.00	0.00	-
Probable Cause	3,975	0.06	0.05	0.08	1.60
Incident to Arrest	31,917	0.46	0.39	0.99	2.54
Protective Frisk	4,733	0.07	0.06	0.19	3.17

Note: See the appendix for this same table separately for Men and Women.

Table 5. Distribution of Officer IDs by Stop

Number of Stops	Officers w/ this many Stops	Percent of Officers	Cumulative Percent	Percent of Stops	Cumulative Percent
1	2,644	36.28	36.28	0.04	0.04
2 – 10	1,475	20.24	56.53	0.09	0.13
11 - 100	975	13.38	69.91	0.40	0.53
101 – 1,000	552	5.58	77.48	3.39	3.92
1,001 +	1,641	22.52	100.00	96.08	100.00
Total	7,287	100	-	100	-

Figure 10. Number of Hispanic and White Motorists Stopped, by Officer

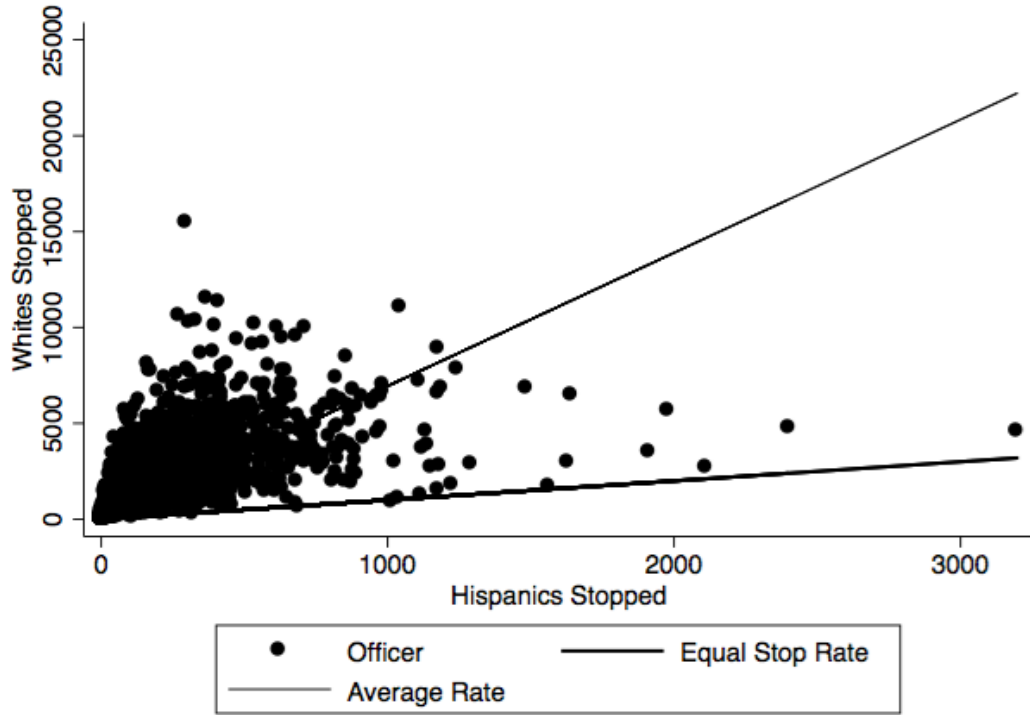


Figure 11. Number of Hispanic and White Motorists Searched, by Officer

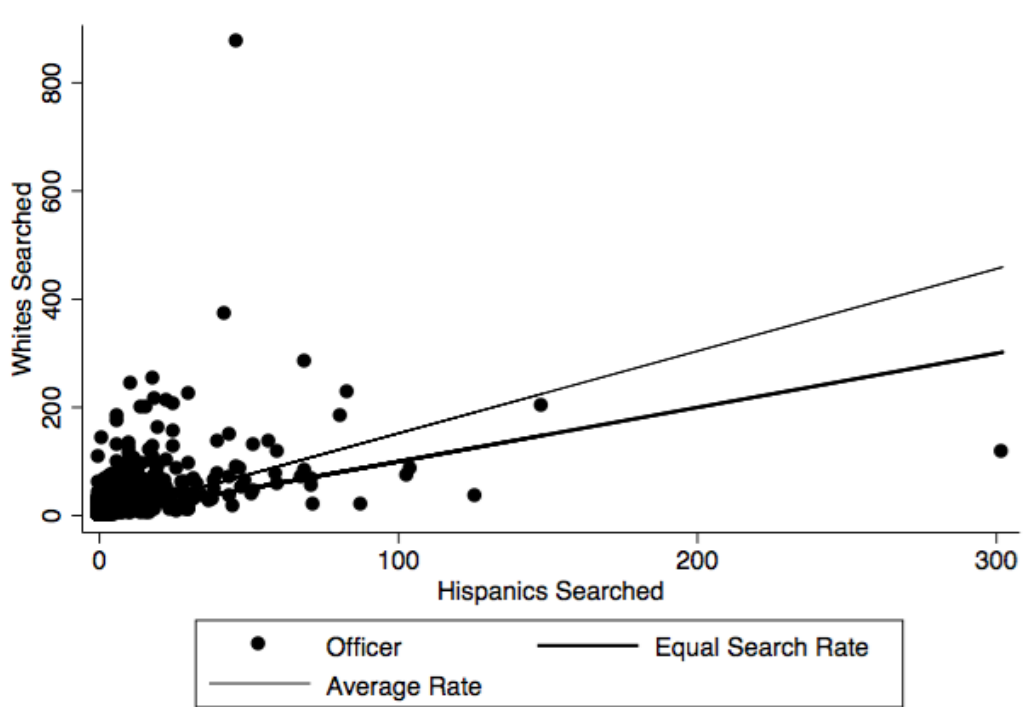
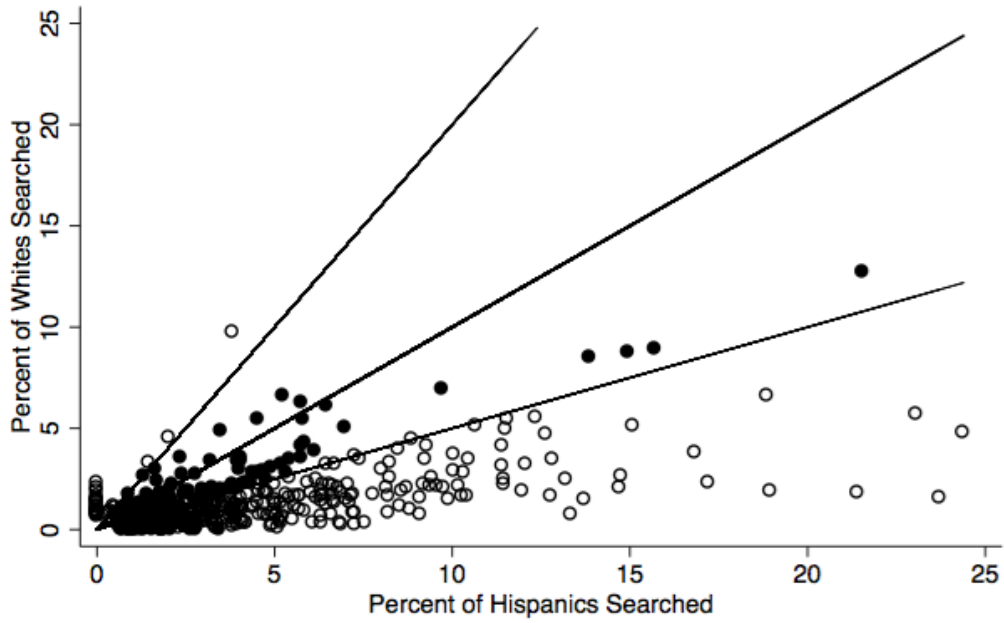


Figure 12. Percent of White and Hispanic Drivers Searched, by Officer



Includes 656 officers with a minimum of 50 White stops, 50 Hispanic stops, and a search rate above the department average of 0.65 for either ethnicity. The hollow circles indicate high disparity officers. 33 officers search Whites at more than twice the rate that they search Hispanics. 470 officers search Hispanics at more than twice the rate that they search Whites.

Appendix

Table A1. Ethnic Composition of Traffic Stops by Purpose, Passengers

Purpose	Number	Percent	
		White	Hispanic
Total Stops	9,457	56.61	24.41
Speed Limit	3,435	48.03	24.72
Stop Light/Sign	90	65.22	23.33
Driving Impaired	1,569	69.37	23.65
Safe Movement	718	53.83	36.35
Vehicle Equipment	402	56.05	21.89
Vehicle Regulatory	369	57.82	25.47
Seat Belt	865	63.04	13.99
Investigation	800	60.51	16.75
Other Vehicle	995	52.93	34.87

Table A2. Percent of Men Searched by Ethnicity and Purpose of Stop

Purpose	Number	% Total	% White	% His.	Ratio
					His.:White
Total Stops	4,656,678	-	72.04	8.16	-
Total Searches	38,439	0.83	0.64	1.87	2.92
Speed Limit	10,361	0.46	0.32	1.15	3.59
Stop Light/Sign	558	0.85	0.66	1.42	2.15
Driving Impaired	12,254	24.60	25.63	24.47	0.95
Safe Movement	3,091	2.16	1.60	4.25	2.66
Vehicle Equipment	1,499	0.66	0.48	1.20	2.50
Vehicle Regulatory	1,470	0.37	0.26	0.87	3.35
Seat Belt	2,168	0.29	0.23	0.51	2.22
Investigation	4,298	0.83	0.73	1.09	1.49
Other Vehicle	2,740	1.18	0.91	1.80	1.98

Table A3. Percent of Women Searched by Ethnicity and Purpose of Stop

Purpose	Number	% Total	% White	% His.	Ratio
					His.:White
Total Stops	2,320,397	-	69.83	3.71	-
Total Searches	7,180	0.31	0.31	0.36	1.16
Speed Limit	1,699	0.13	0.11	0.22	2.00
Stop Light/Sign	108	0.28	0.29	0.21	0.72
Driving Impaired	2,471	20.24	21.35	17.56	0.82
Safe Movement	615	0.89	0.86	1.00	1.16
Vehicle Equipment	284	0.25	0.25	0.24	0.96
Vehicle Regulatory	301	0.12	0.11	0.12	1.09
Seat Belt	327	0.11	0.10	0.17	1.70
Investigation	925	0.80	0.95	0.27	0.28
Other Vehicle	450	0.44	0.50	0.32	0.64

Table A4. Type of Search by Ethnicity: Men

Search Type	Number	% Total	% White	% His.	Ratio His.:White
Total Stops	4,656,678	-	72.04	8.16	-
Total Searches	38,439	0.83	0.64	1.87	2.92
Consent	4,260	0.09	0.05	0.39	7.80
Search Warrant	131	0.00	0.00	0.01	-
Probable Cause	3,377	0.07	0.06	0.09	1.50
Incident to Arrest	26,578	0.57	0.46	1.16	2.52
Protective Frisk	4,093	0.09	0.07	0.22	3.14

Table A5. Type of Search by Ethnicity: Women

Search Type	Number	% Total	% White	% His.	Ratio His.:White
Total Stops	2,320,397	-	69.83	3.71	-
Total Searches	7,180	0.31	0.31	0.36	1.16
Consent	579	0.02	0.02	0.07	3.50
Search Warrant	24	0.00	0.00	0.00	-
Probable Cause	598	0.03	0.03	0.03	1.00
Incident to Arrest	5,339	0.23	0.24	0.23	0.96
Protective Frisk	640	0.03	0.03	0.04	1.33

Figure A6. Stops by Day of the Week

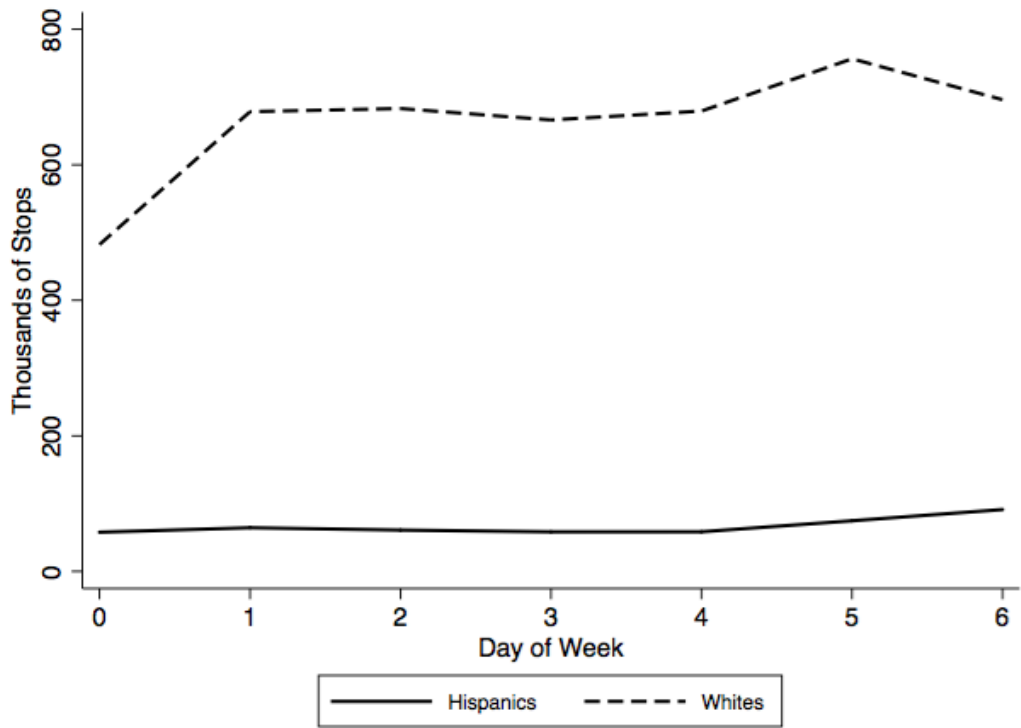


Figure A7. Searches by Day of the Week

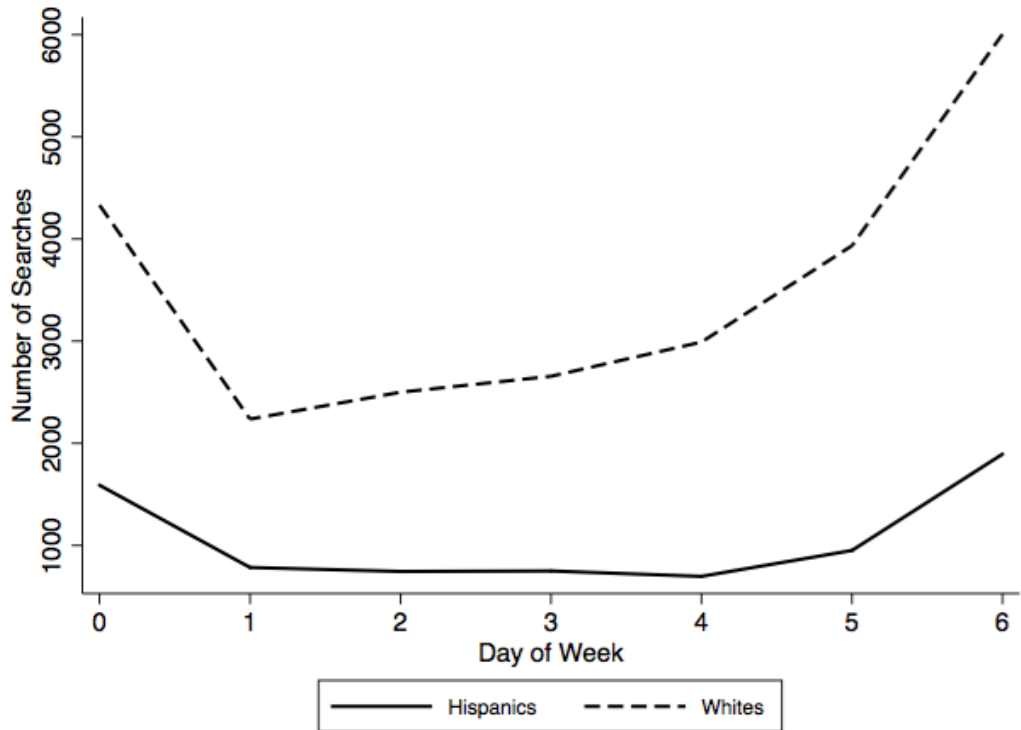
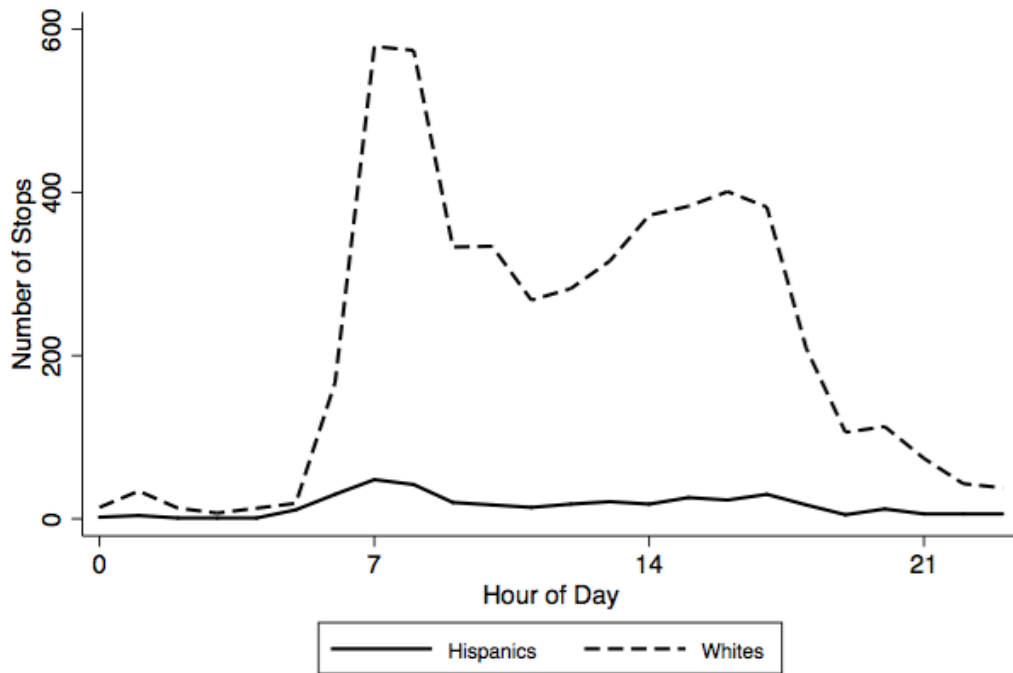
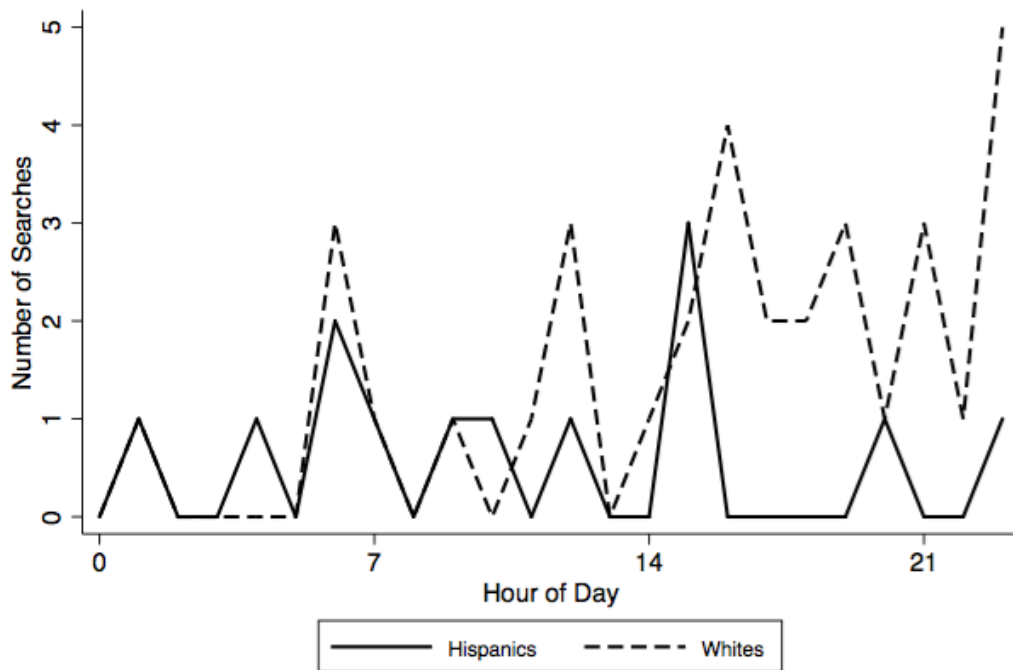


Figure A8. Stops by Hour of the Day



The figure excludes cases where the hour and minute was exactly 0:00. These cases were presumed to be missing data.

Figure A9. Searches by Hour of the Day



The figure excludes cases where the hour and minute was exactly 0:00. These cases were presumed to be missing data.

Figure A10. Correlation Between Percent Difference in Likelihood of Hispanic Men being Searched as Compared to Whites and Odds-Ratios from Logistic Regression

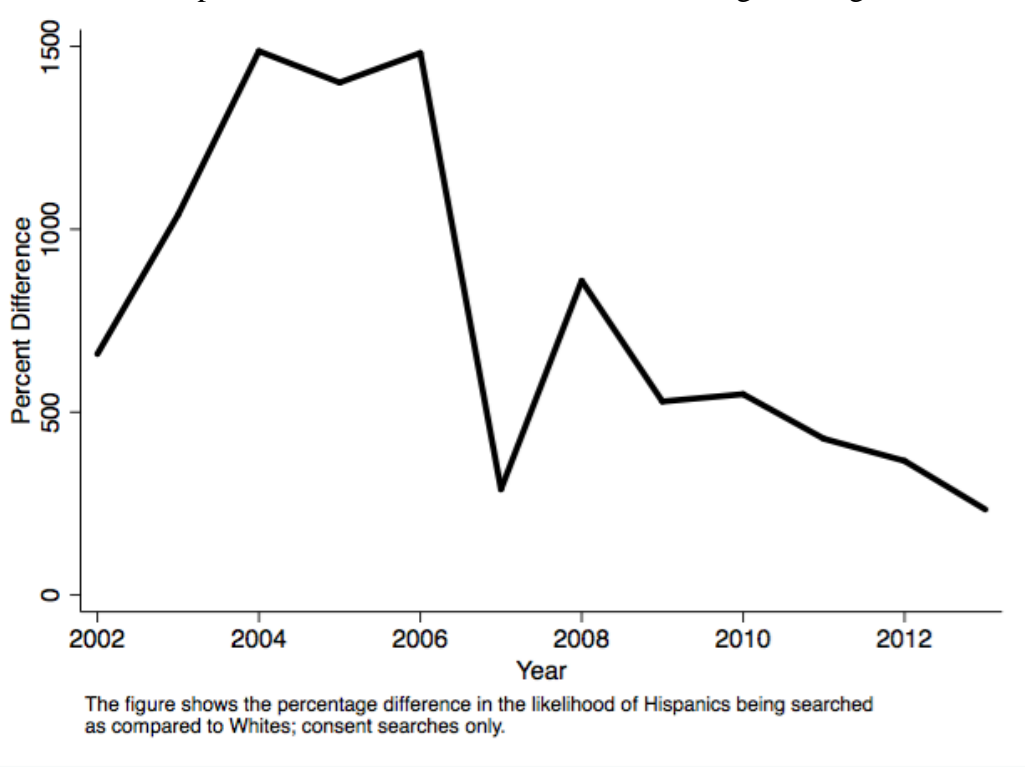


Table A6. Likelihood of Finding Contraband Given a Search, by Ethnicity

Contraband	Number	% Total	% White	% Hispanic
Yes	6,747	14.79	15.14	11.43
No	38,872	85.21	84.22	88.57
Total	45,619	100.00	100.00	100.00

Table A7. Differential Outcomes by Whether or not a Search Occurs

Ethnicity	Search Occur	N	No Action	Verbal Warning	Written Warning	Citation Issued	Arrest	Total
Hispanic	No	458,441	2.01	1.28	10.05	85.18	1.47	100.0
Total	No	6,931,456	3.07	1.56	14.66	80.10	0.62	100.0
White	Yes	24,656	0.17	0.33	4.42	13.92	81.15	100.0
Hispanic	Yes	7,411	0.26	0.55	16.91	12.10	70.18	100.0
Total	Yes	45,619	0.19	0.36	7.13	14.07	78.25	100.0