

Analysis of Hispanic-White Differences in Traffic Stops and Searches in Matthews, NC, 2002-2013

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Table 1. Overview of the Data

Data Subsets	Observations
Total stops	87,862
-2014	769
-Passengers	1,214
-Checkpoint stops	259
Stops for analysis	85,638
Searches	3,098

Search Rate = 3.62

Figure 1. Number of Traffic Stops per Year

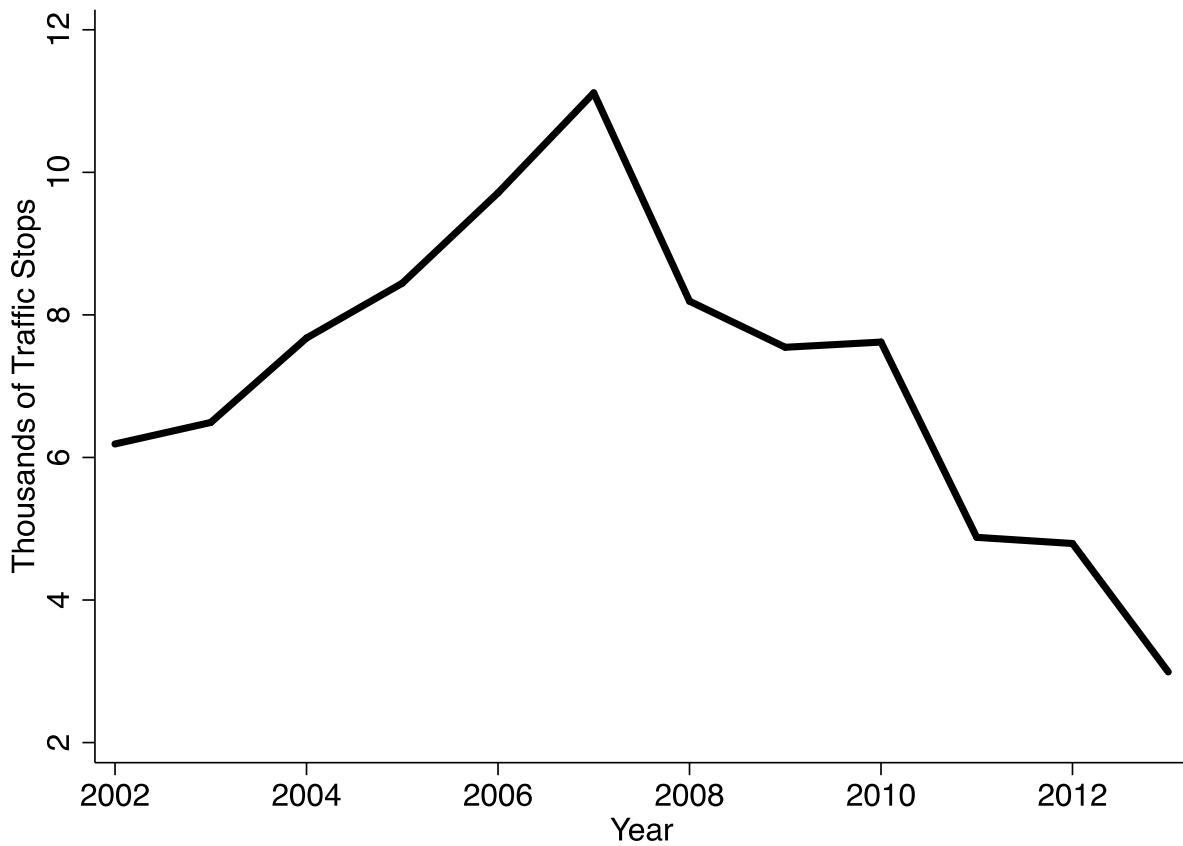


Figure 2. Ethnic Composition of Traffic Stops by Year

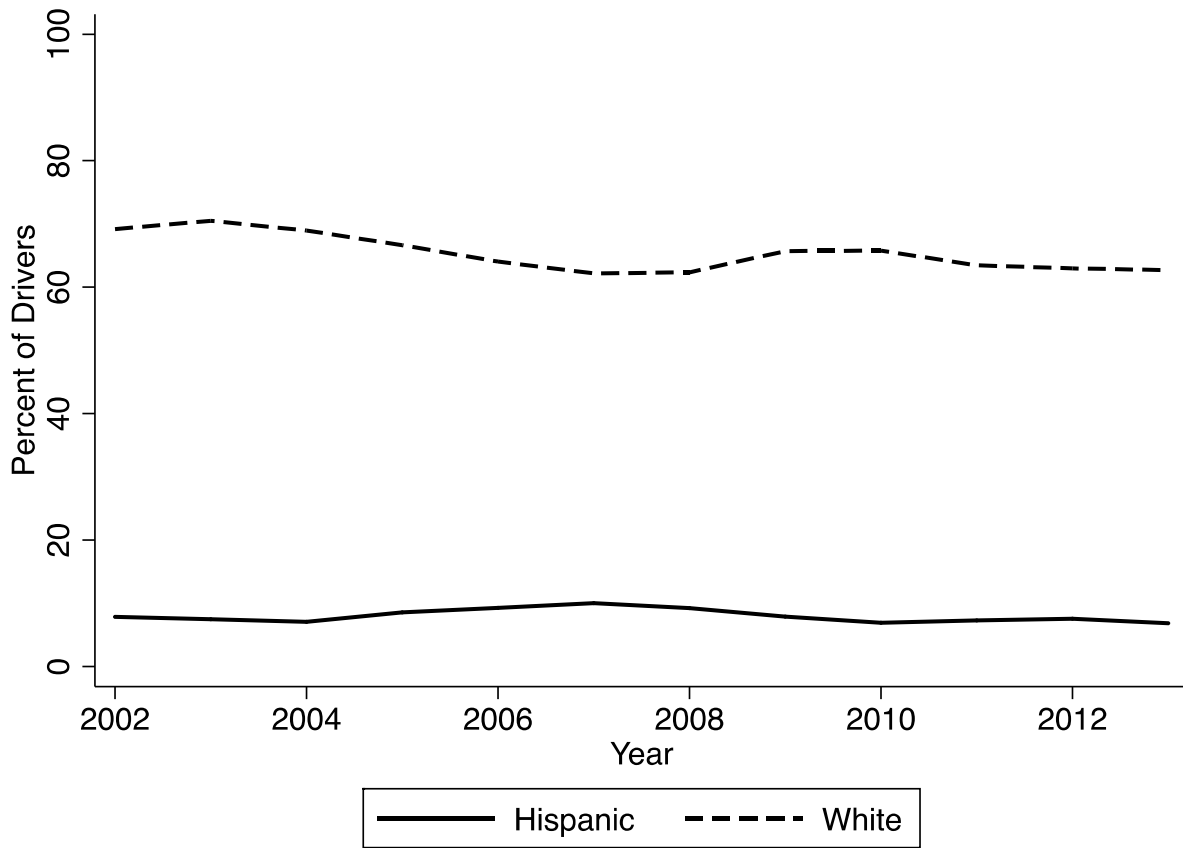


Table 2. Ethnic Composition of Traffic Stops by Purpose, Drivers

Purpose	Number	Percent	
		White	Hispanic
Total Stops	85,638	71.23	8.25
Speed Limit	35,205	68.61	8.25
Stop Light/Sign	6,891	77.86	6.86
Driving Impaired	734	81.88	15.80
Safe Movement	4,784	73.24	8.84
Vehicle Equipment	5,996	66.05	10.89
Vehicle Regulatory	23,055	73.84	6.12
Seat Belt	2,864	78.25	7.68
Investigation	3,295	66.86	15.66
Other Vehicle	2,814	67.79	12.40

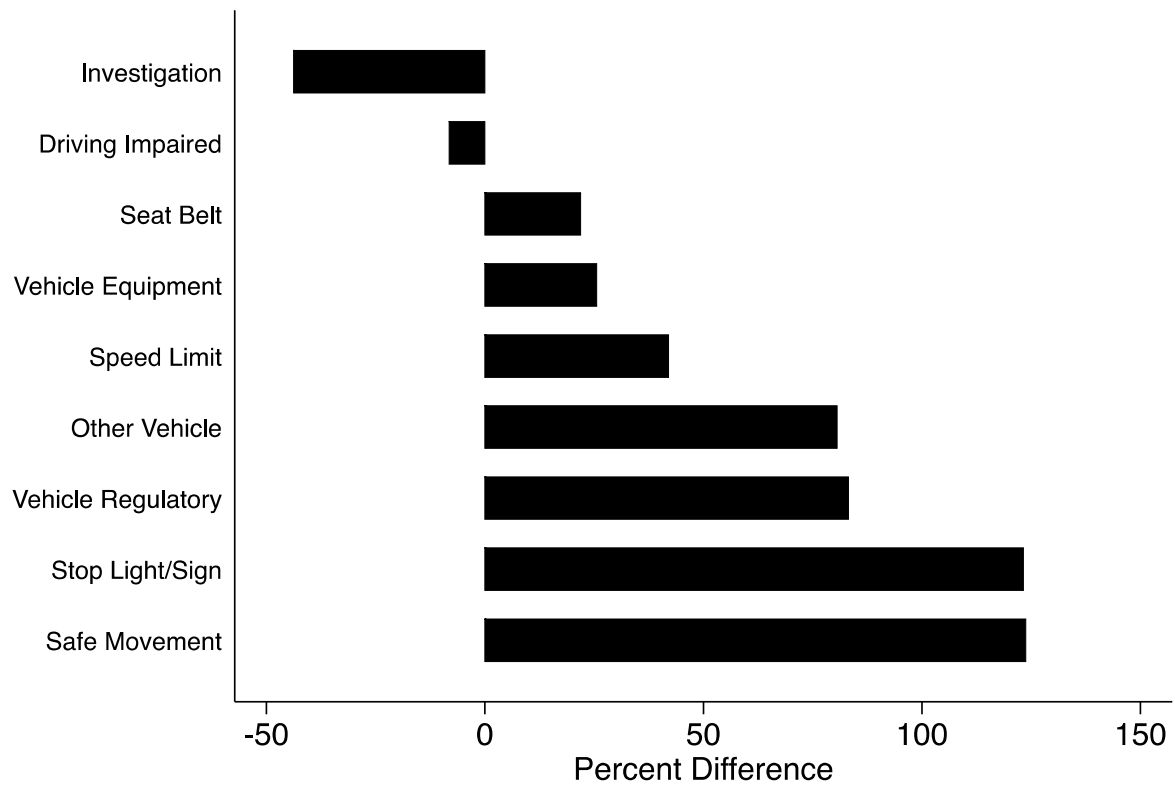
Note: Includes only drivers. Excludes 259 checkpoint stops. Excludes 1,214 passengers.

Table 3. Percent Searched by Ethnicity and Purpose of Stop

Purpose	Number	% Total	% White	% Hispanic	Ratio
					Hispanic:White
Total Stops	85,638	-	71.23	8.25	-
Total Searches	3,098	3.62	3.32	5.42	1.63
Speed Limit	35,205	2.51	2.40	3.41	1.42
Stop Light/Sign	6,891	1.65	1.42	3.17	2.23
Driving Impaired	734	65.26	67.59	62.07	0.92
Safe Movement	4,784	4.62	4.23	9.46	2.24
Vehicle Equipment	5,996	3.99	4.02	5.05	1.26
Vehicle Regulatory	23,055	1.70	1.24	2.27	1.83
Seat Belt	2,864	3.46	2.61	3.18	1.22
Investigation	3,295	12.66	14.48	8.14	0.56
Other Vehicle	2,814	9.03	6.82	12.32	1.81

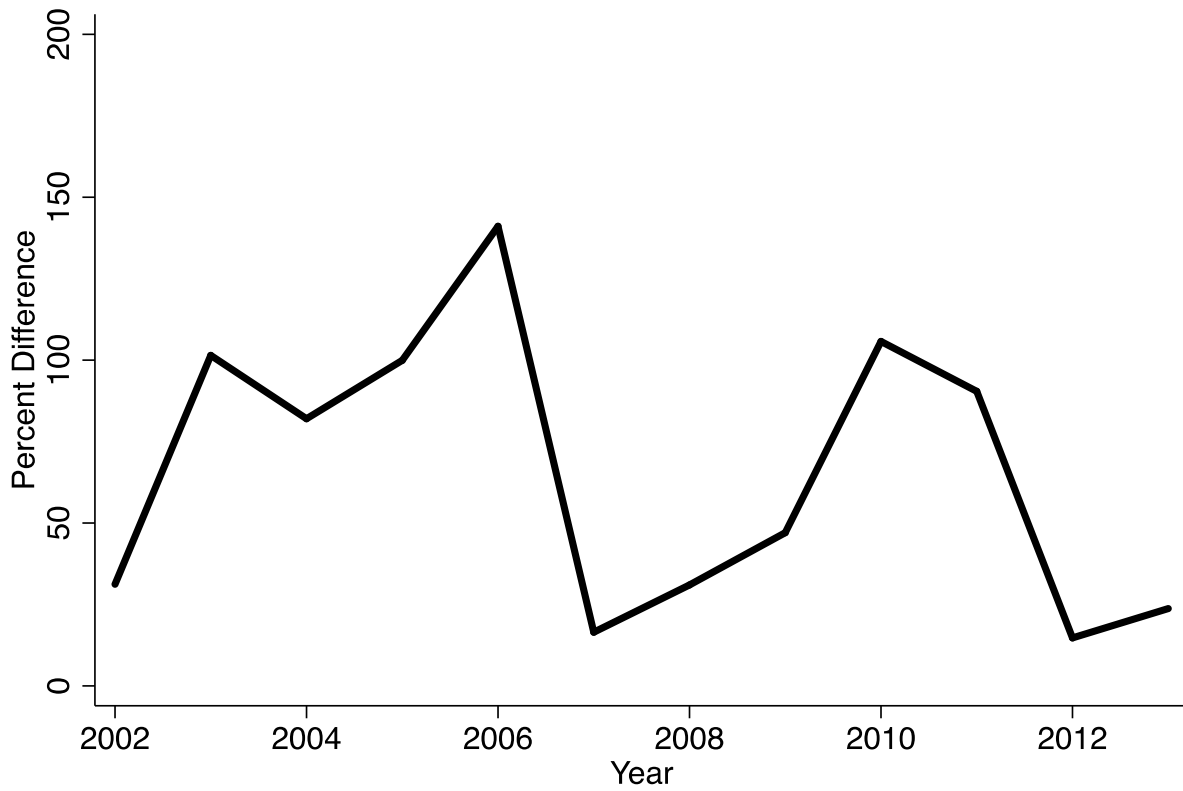
Note: See the appendix for this same table broken down for Men and Women.

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



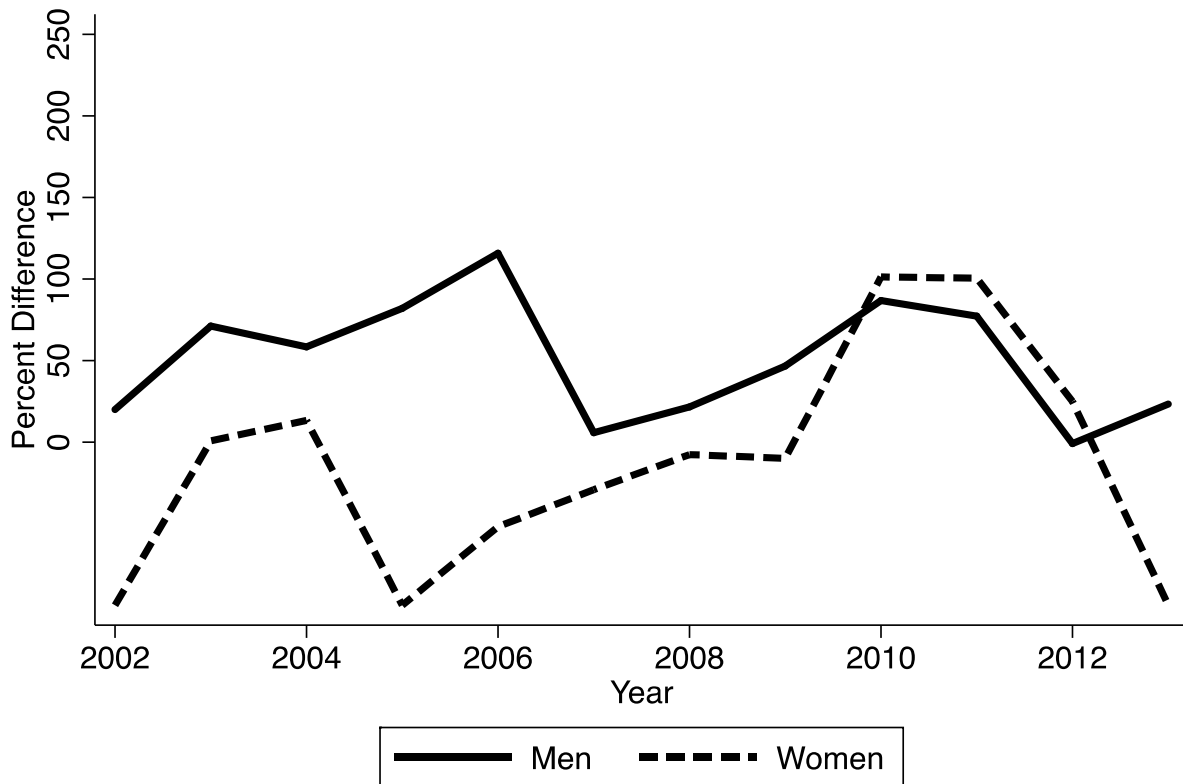
The figure shows the percentage difference in the likelihood of Hispanics being searched as compared to Whites by purpose of stop.

Figure 4. Ethnic Differences in the Likelihood of Search



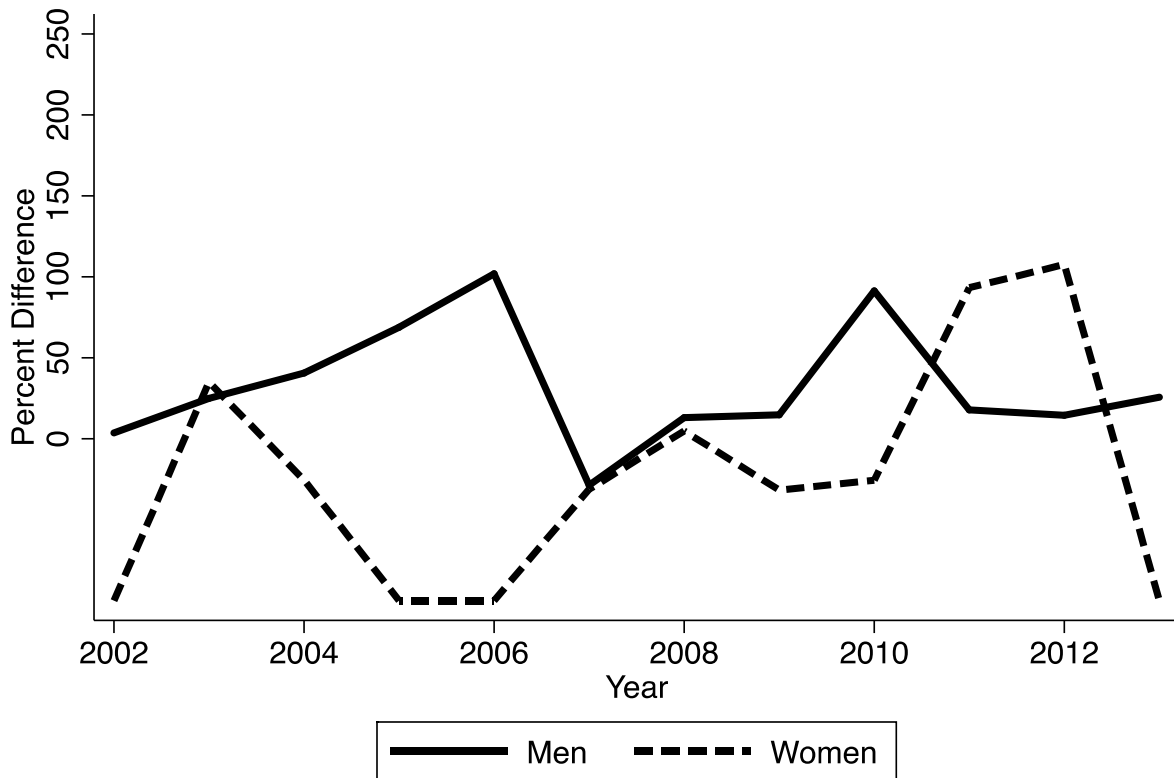
The figure shows the percentage difference in the likelihood of Hispanics being searched as compared to Whites.

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



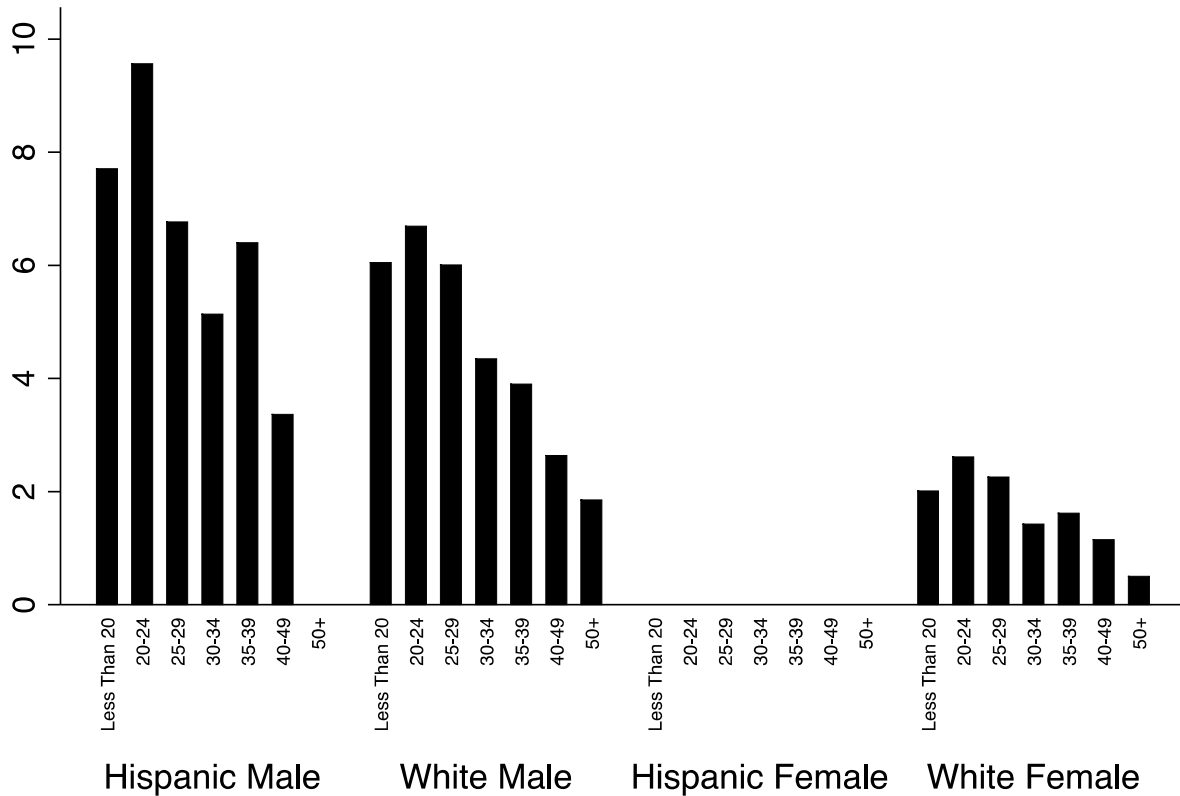
The figure shows the percentage difference in the likelihood of Hispanics being searched as compared to Whites by gender.

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



Based on 85,638 traffic stops from 2002 through 2013, and 3,098 searches. Overall rate of search: 3.62 percent. No data are presented for categories with fewer than 10 searches.

Figure 8. Number of Stops, by Ethnicity and Gender

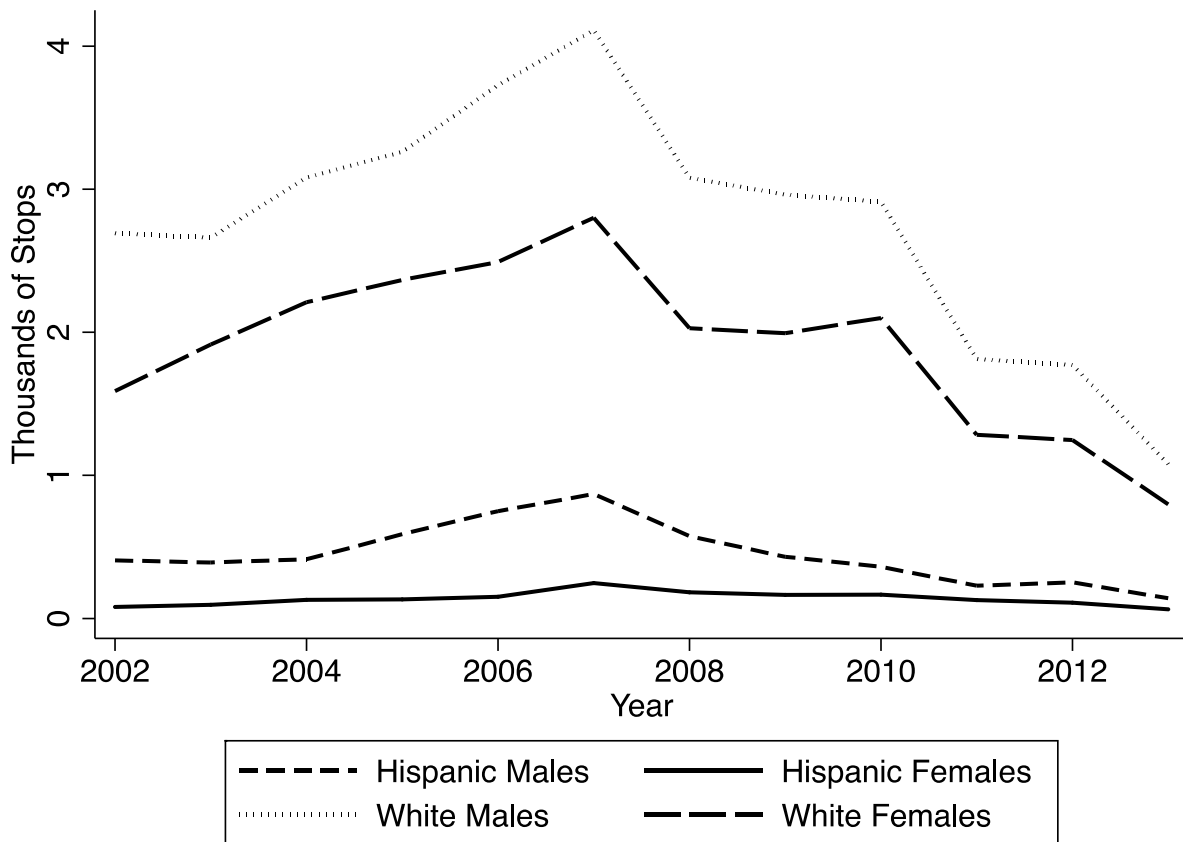


Figure 9. Percent of Stops Resulting in a Search, by Ethnicity and Gender

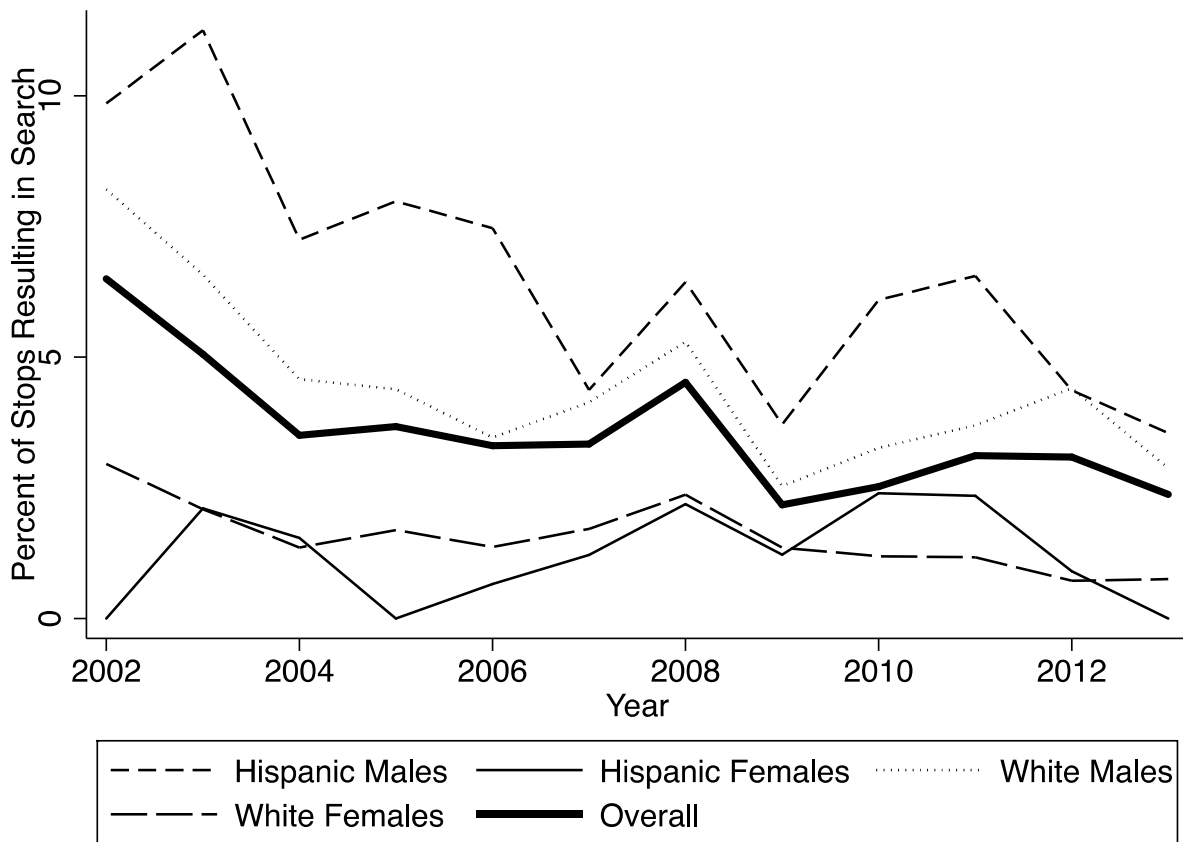


Table 4. Type of Search by Ethnicity

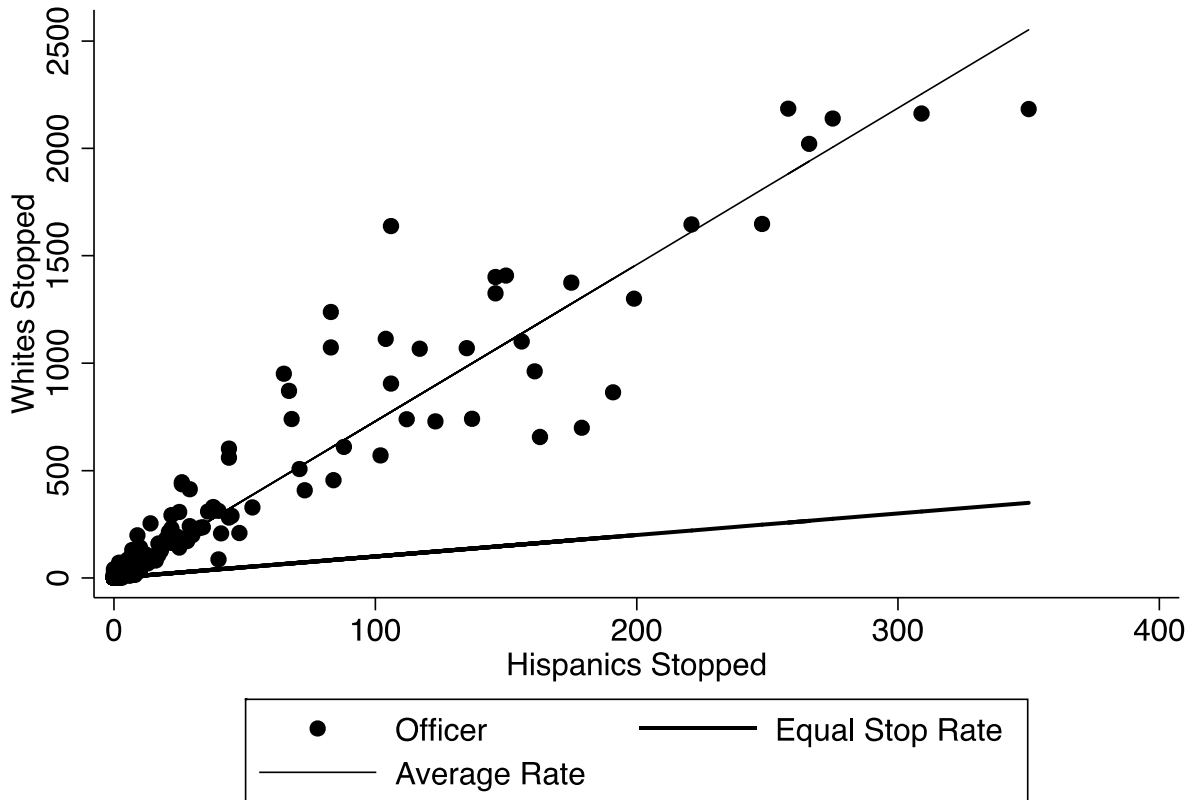
Search Type	Number	% Total	% White	% Hispanic	Ratio
					Hispanic:White
Total Stops	85,638	-	71.23	8.25	-
Total Searches	3,098	3.62	3.32	5.42	1.63
Consent	835	0.98	0.84	1.23	1.51
Search Warrant	6	0.01	0.01	0.01	-
Probable Cause	524	0.61	0.55	0.72	1.82
Incident to Arrest	1,662	1.94	1.86	3.36	2.51
Protective Frisk	71	0.08	0.06	0.10	-

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

Table 5. Distribution of Officer IDs by Stop

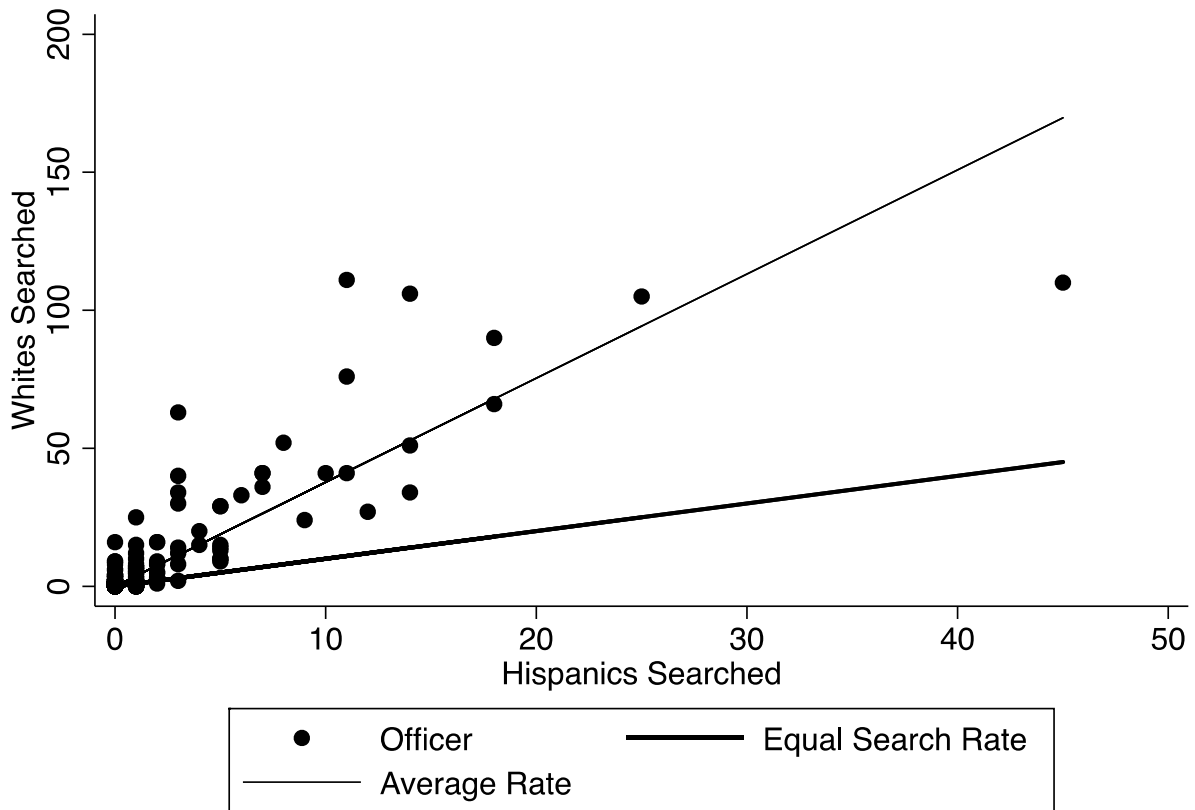
Number of Stops	Officers w/ this many Stops	Percent of Officers	Cumulative Percent	Percent of Stops	Cumulative Percent
1	659	55.94	55.94	0.77	0.77
2 – 10	306	25.98	81.92	1.23	2.00
11 - 100	114	9.68	91.60	4.76	6.76
101 – 1,000	69	5.86	97.45	25.38	32.14
1,001 +	30	2.55	100.00	67.86	100.00
Total	1,178	100	-	100	-

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



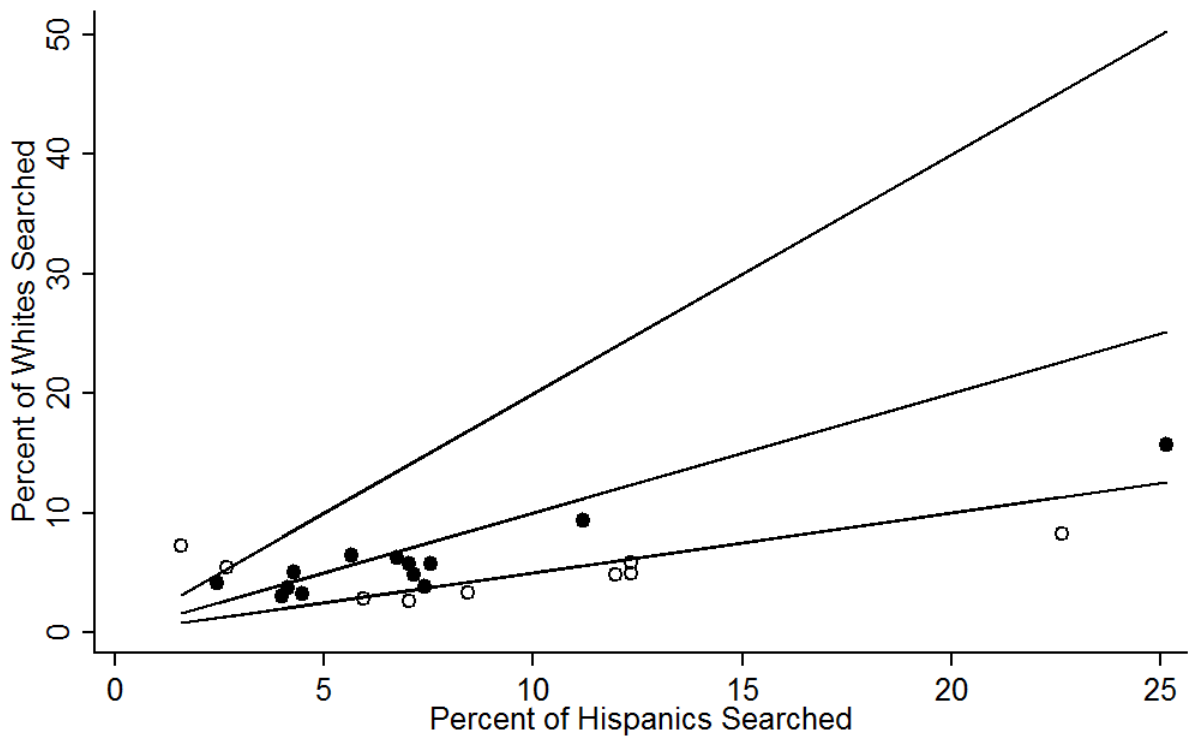
On average, officers stop 7.29 Whites for each Hispanic stopped.

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



On average, officers search 3.77 Whites for each Hispanic searched.

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



Includes 22 officers with a minimum of 50 White stops, 50 Hispanic stops, and a search rate above the department average of 3.62 for either ethnicity. The hollow circles indicate high disparity officers. 2 officers search Whites at more than twice the rate that they search Hispanics. 7 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	1,204	24.61	13.12
Speed Limit	318	56.63	13.84
Stop Light/Sign	50	74.47	6.00
Driving Impaired	88	83.33	25.00
Safe Movement	83	75.76	20.48
Vehicle Equipment	133	66.69	13.53
Vehicle Regulatory	134	58.68	9.70
Seat Belt	53	52.08	9.43
Investigation	226	65.22	8.41
Other Vehicle	119	53.92	14.29

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

Purpose	Number	% Total	% White	% Hispanic	Ratio
					Hispanic:White
Total Stops	52,174	-	70.88	10.37	-
Total Searches	2,594	4.97	4.49	6.68	1.49
Speed Limit	21,196	3.51	3.27	4.23	1.29
Stop Light/Sign	4,065	2.56	2.19	4.33	1.98
Driving Impaired	554	68.05	69.84	65.71	0.94
Safe Movement	3,029	6.11	5.58	10.61	1.90
Vehicle Equipment	3,997	5.25	5.15	6.24	1.21
Vehicle Regulatory	13,065	2.38	1.71	2.77	1.62
Seat Belt	1,931	4.66	3.54	3.37	0.95
Investigation	2,373	14.75	17.13	9.76	0.57
Other Vehicle	1,964	11.35	8.35	13.86	1.66

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

Purpose	Number	% Total	% White	% Hispanic	Ratio
					Hispanic:White
Total Stops	33,464	-	71.74	4.95	-
Total Searches	504	1.51	1.62	1.33	0.82
Speed Limit	14,009	0.99	1.17	0.96	0.82
Stop Light/Sign	2,826	0.35	0.34	0.67	1.97
Driving Impaired	180	56.67	61.59	27.27	0.44
Safe Movement	1,775	2.05	2.00	5.38	2.69
Vehicle Equipment	1,999	1.45	1.99	-	-
Vehicle Regulatory	9,990	0.82	0.65	0.82	1.26
Seat Belt	933	0.96	0.84	2.38	2.83
Investigation	922	7.27	8.45	1.04	0.12
Other Vehicle	850	3.65	3.61	2.17	0.60

Table A4. Type of Search by Ethnicity: Men

Search Type	Number	% Total	% White	% Hispanic	Ratio Hispanic:White
Total Stops	52,174	-	70.88	10.37	-
Total Searches	2,594	4.97	4.49	6.68	1.49
Consent	731	1.40	1.19	1.53	1.29
Search Warrant	6	0.01	0.01	0.02	2.00
Probable Cause	441	0.85	0.77	0.91	1.18
Incident to Arrest	1,351	2.59	2.42	4.09	1.69
Protective Frisk	65	0.12	0.10	0.13	1.30

Table A5. Type of Search by Ethnicity: Women

Search Type	Number	% Total	% White	% Hispanic	Ratio Hispanic:White
Total Stops	33,464	-	71.74	4.95	-
Total Searches	504	1.51	1.62	1.33	0.82
Consent	104	0.31	0.32	0.24	0.75
Search Warrant	0	-	-	-	-
Probable Cause	83	0.25	0.25	0.12	0.48
Incident to Arrest	311	0.93	1.04	0.97	0.93
Protective Frisk	6	0.02	0.01	-	-

Figure A1. Stops by Day of the Week

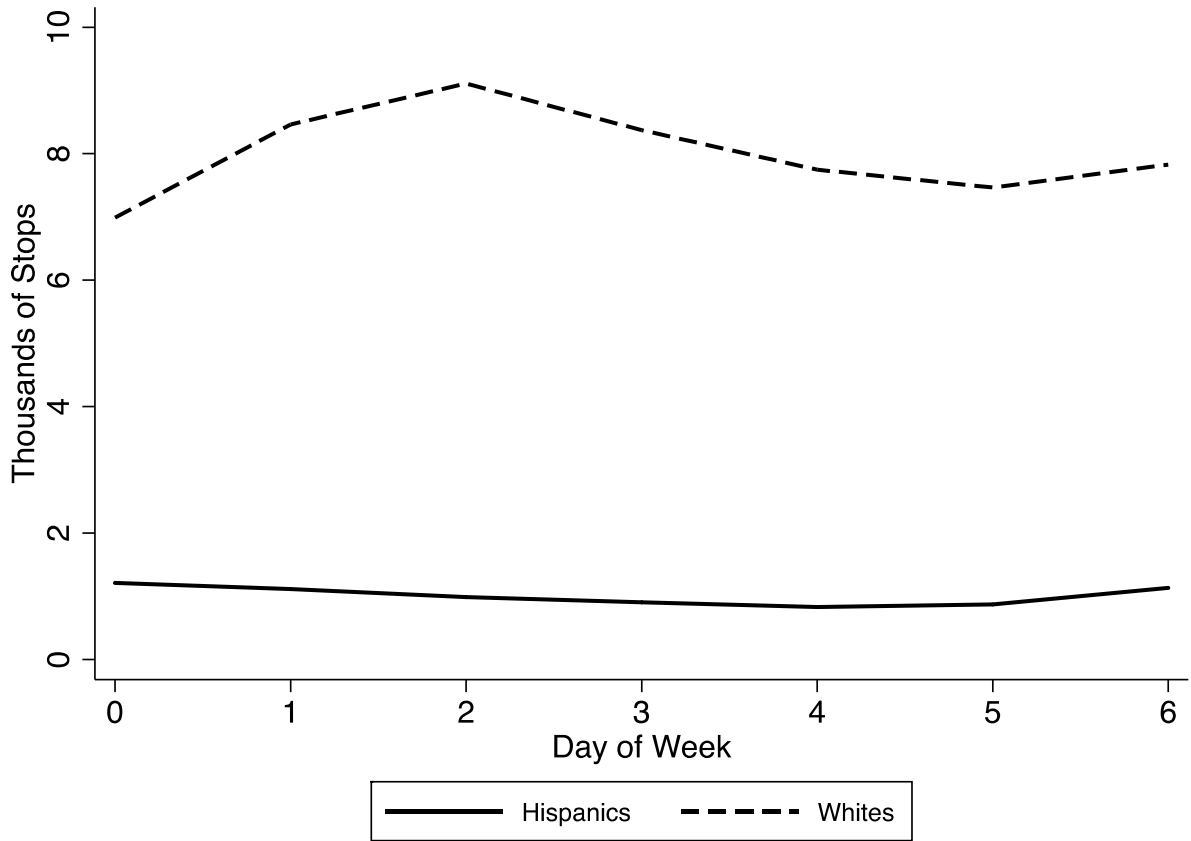


Figure A2. Searches by Day of the Week

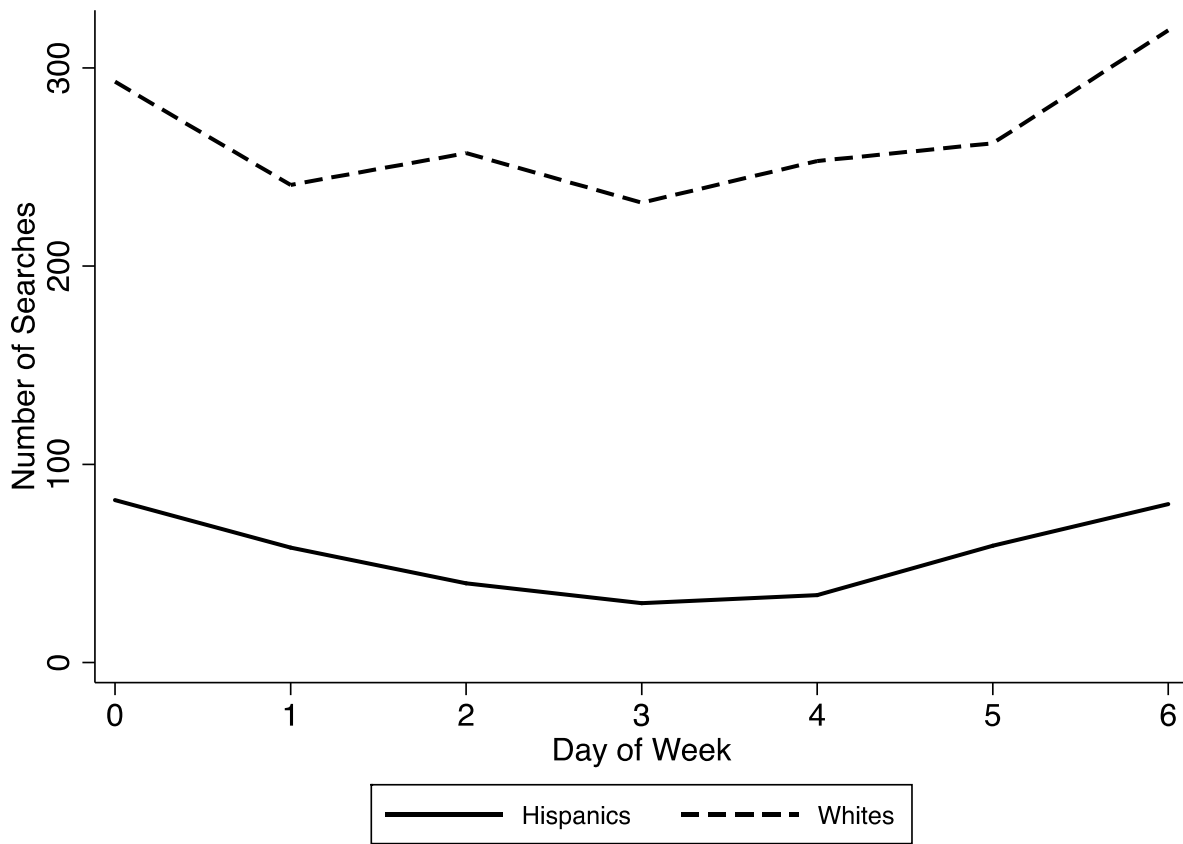
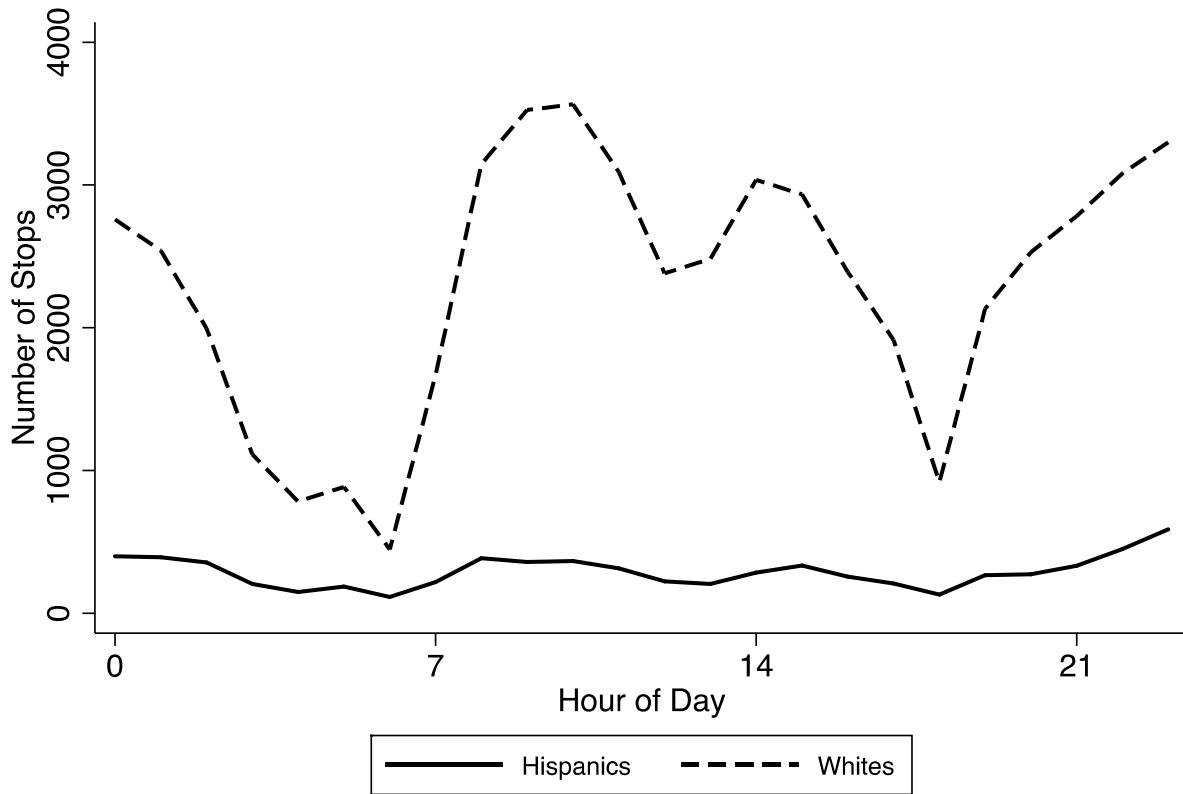
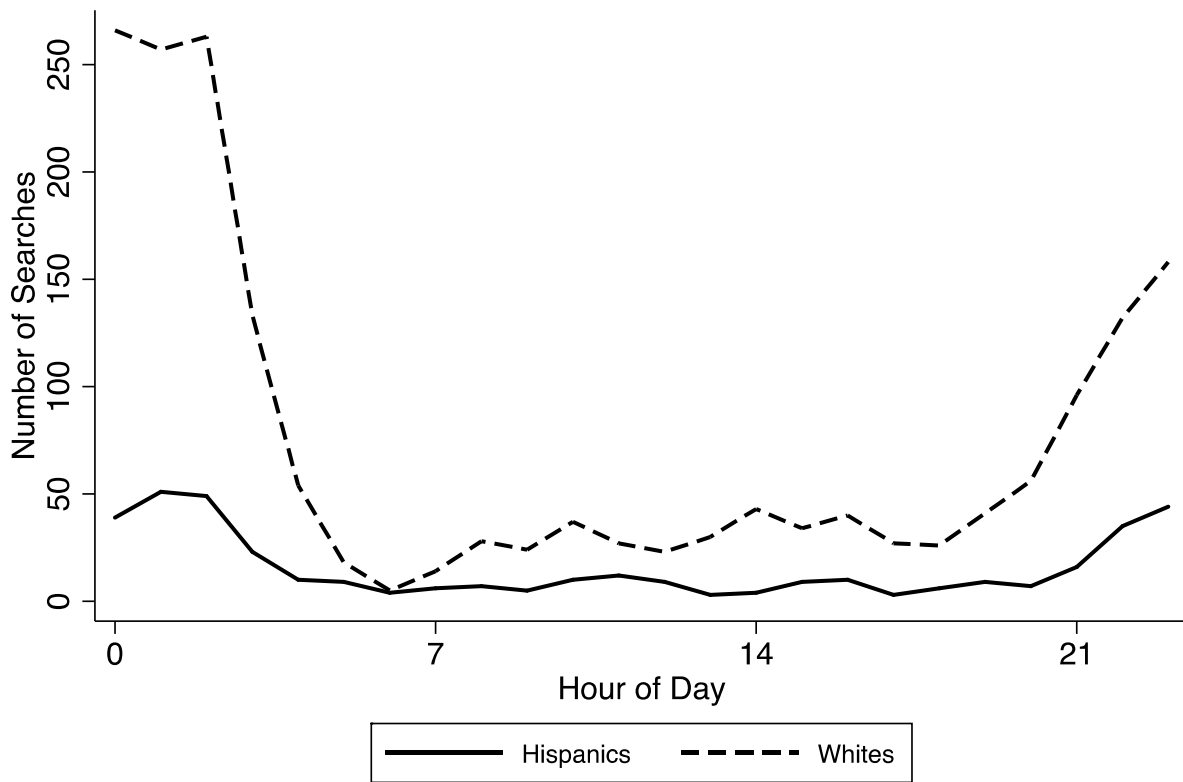


Figure A3. Stops by Hour of the Day



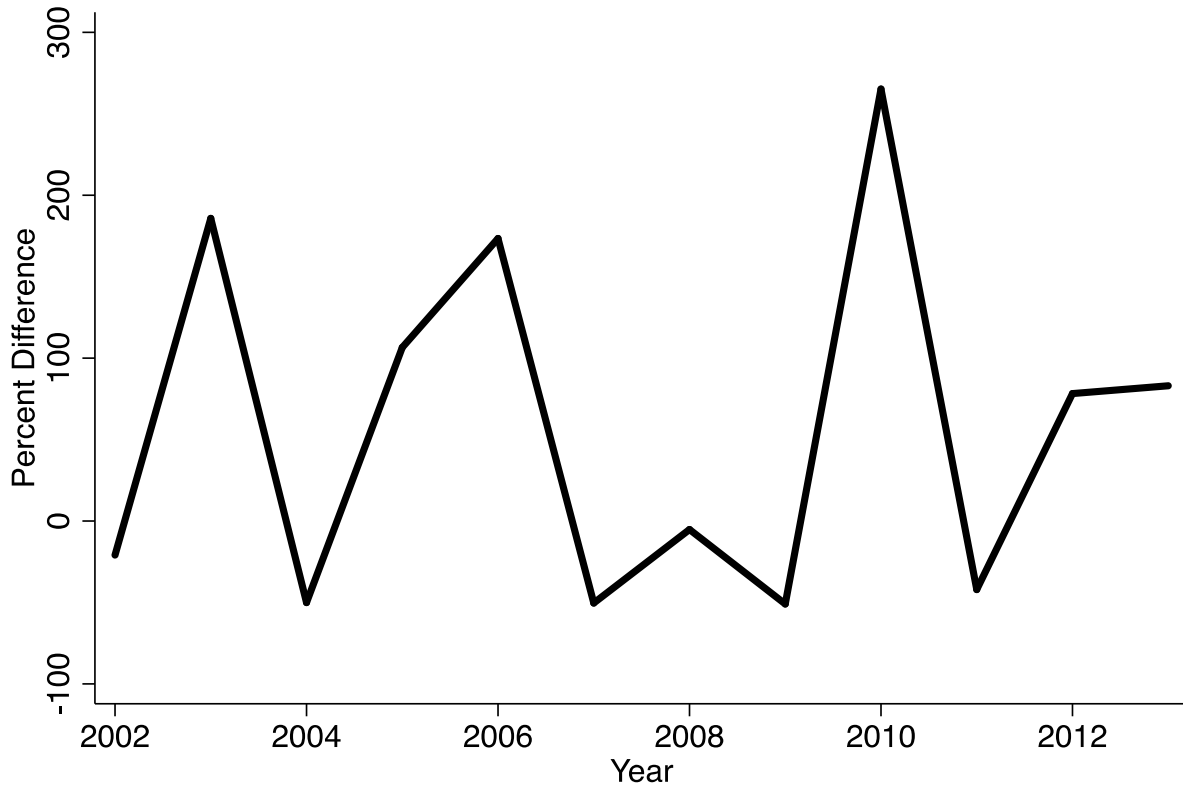
The figure excludes cases where the hour and minute was exactly 0:00. These cases were presumed to be missing data.

Figure A4. 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 A5. Ethnic Differences in the Likelihood of Search: Consent Searches Only



The figure shows the percentage difference in the likelihood of Hispanics being searched as compared to Whites; consent searches only.

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

Contraband	Number	% Total	% White	% Hispanic
Yes	757	24.44	26.28	15.67
No	2,341	75.56	73.72	84.33
Total	3,098	100.00	100.00	100.00

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

Race	Search Occur	N	No Action	Verbal Warning	Written Warning	Citation Issued	Arrest	Total
White	No	54,112	3.66	9.03	17.96	68.64	0.70	100.0
Hispanic	No	6,681	3.38	5.91	9.85	79.94	0.91	100.0
Total	No	82,540	3.62	8.58	16.77	70.31	0.73	100.0
White	Yes	1,857	0.97	2.37	2.58	29.83	64.24	100.0
Hispanic	Yes	383	1.57	1.31	2.87	28.72	65.54	100.0
Total	Yes	3,098	1.16	2.00	2.78	32.12	61.94	100.0