Racial Disparities in Police Traffic Stops in North Carolina, 2000-2011

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Abstract

Based on analysis of over 13 million traffic stops, we show large variation in the rates at which individual officers search motorists after a traffic stop. Our previous analysis showed that, given a traffic stop, Blacks are 77 percent more likely than Whites to be searched, and that Hispanics are 96 percent more likely. Looking here at the behavior of individual police officers with at least 250 traffic stops, we show that certain officers have disparities of 1,000 percent or more in the rates at which they search motorists of different race or ethnicity. These results suggest important avenues for increased supervision by law enforcement. For example, rates of search vary dramatically across officers, with some searching fewer than 1 percent of the motorists they stop and others searching 20 percent or more. Similarly, some officers rarely search Whites but are more likely to search Blacks or Hispanics; others have the opposite pattern of disparity. We describe these disparities here and end with a few technical recommendations of how the traffic stop data collection process might be improved.

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Racial Differences in Traffic Stops

In 2012 we conducted extensive analysis as part of the NCAJ Racial Justice Task Force, looking at over 13 million traffic stops based on data collected by the NC DOJ, including information on each traffic stop in the state from 2000 through June 2011. Based on legislation passed in response to concerns about racial profiling on the highways, the state mandated that police officers collect demographic information including the gender, race, and ethnicity of each motorist stopped. The database, maintained by the NC DOJ, also included information about the reason for the stop (speeding, equipment violation, etc.), whether the motorist was searched (and on what basis), the outcome of the stop (whether the motorist was released with no action, given a verbal or written warning, or arrested), and whether contraband was found in the vehicle. We were given access to the data that underlie the NCDOJ web site http://trafficstops.ncdoj.gov/Default.aspx, allowing us increased flexibility in analyzing the data in ways beyond what can be done through the DOJ web site. We appreciate the cooperation of the DOJ in providing these data. Our previous analysis focused on the likelihood of being searched and revealed that Blacks and Hispanics were significantly more likely to be searched following a traffic stop as compared to Whites. (Information about our earlier study is available here: www.unc.edu/~fbaum/papers/NCAJ_Exec_Summary.pdf.) Here, we look at individual police officers to investigate differences in rates of search for all motorists and separately by race. (We make use of the "Officer ID" variable in the DOJ database, but we have no "key" that indicates which Officer ID number corresponds to which officer; this analysis is therefore completely anonymous.)

A Caveat about Data Quality

Over 54,000 distinct Officer IDs appear in the database. Almost 20,000 of them appear, however, only once. This may reflect officers who rarely make traffic stops, but it seems more likely that these may be "typos" – Officer IDs that were incorrectly entered, therefore not linked to the rest of the information from that same officer. Similarly at the other end, 21 Officer IDs are linked to more than 10,000 individual motorist stops. This may well be accurate, as the data cover 11 years. However, it may also be that two police departments, for example, are using a common ID number. Valid Officer IDs typically take this form: 6737, 0333, 5335, 6169, 10608. However, when we look at the 19,950 IDs that are used only once, we see such items as: TH245, 133/0299, mp3054, m-2, CHARLIE4, babyface, batman, chatterbox, checkmate, strongman, DADDYJOE, DELTA5, K7009K7009, ODDBALL, OCEAN.

Because of the non-numeric items in what should be a numeric data field, we have some concerns about the quality of the data being collected by the NC DOJ. Therefore, we look at the distribution of stops by officer with caution. Our method is to omit all those Officer IDs associated with relatively few stops and searches. If there are idiosyncratic errors in some number of Officer ID values, these should not be repeated, and certainly not hundreds of times. Therefore, in the analysis below we omit those Officer IDs that fall below certain thresholds, which we indicate in each case.[1]

[1] We have tested for various thresholds, 50, 100, 500, 1,000 and in each case we find relatively similar results, so we do not present multiple thresholds in the analysis below. Similarly, we have checked for robustness in our results when we omit "checkpoint stops" which are not

The Distribution of Stops by Officer

Figure 1 shows how many stops were made by each officer. It is a "cumulative frequency" plot, which means that for any numbers on the y axis (number of officers), the dots indicate how many officers have stopped at least that many motorists. All have stopped at least 1; 38,000 have searched at least two, and so on to the far tail of the distribution where it shows that a few officers have stopped more than 10,000 motorists.

Figure 1. The Number of Stops by Officer.

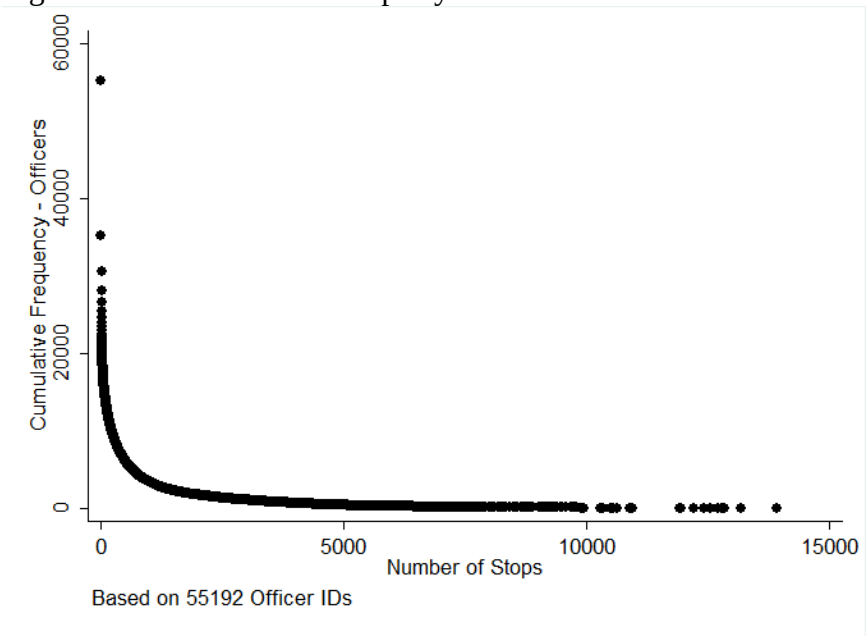

Table 1 shows these same data, indicating the large numbers of officers with very few stops. Fully 59 percent of the Officer IDs are associated with fewer than 11 traffic stops, over a 12 year period. Therefore, in the analysis to follow, we are careful to limit ourselves only to those Officer IDs with more than several hundred stops. We want to avoid statistical flukes and clerical errors and do so by omitting from our analysis all officers below a given threshold of stops. But Table 1 and Figure 1 give an idea of the entire dataset.

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recorded unless they result in a search. All the patterns we report here are robust with respect to these differences. There are approximately 53,000 checkpoint stops in our database of over 13,000,000 stops altogether. Because of this low percentage, including or omitting the checkpoint stops has little bearing on the overall patterns observed.

Table 1. Distribution of Officer IDs by Stop

Number of Stops	Officers w/ this many Stops	Percent of Total
1	19,949	36
2 - 10	12,796	23
11 - 100	9,049	16
101 - 1,000	10,049	18
1,001 - 10,000	3,328	6
10,001 +	21	0.04
Total	55,192	100

Stops of Black, White, and Hispanic Motorists

As indicated in Table 1, a small number of officers appear to be doing a very great percentage of the traffic stops. Figures 2 and 3 show the racial breakdown of these stops, and the searches that follow from them. They show, for each officer, the number of Whites stopped (on the y axis) and the number of Blacks (Figure 2) or Hispanics (Figure 3) stopped (on the x axis). In the left pane, the focus is on traffic stops; in the right pane, searches. The data on traffic stops show that some officers may patrol areas that are heavily White (for example, one officer in Figure 2 has stopped almost 10,000 Whites, but only 200 or so Blacks; this officer appears in the far upper-left of the figure). Similarly, there are officers, in the lower-right of the figure, who have stopped over 4,000 Blacks but only a few hundred Whites. Overall looking at the fairly even dispersion of points and the scale of the axes, we can conclude that for every traffic stop of a Black, there are typically two stops of a White motorist.

Moving to the right pane, the data on searches tell a very different story. If Whites and Blacks are searched at the same rate they are stopped, then the data points would once again be evenly distributed, with every search of a minority corresponding with approximately two searches of a White motorist. Instead, the figures skew out toward the right, meaning that certain officers are conducting searches of minority motorists with a much greater frequency than they search Whites. Figure 2 for example shows several officers who have searched more than 1,000 Blacks but fewer than 500 Whites. So the searches are predominantly focused on the Black motorists, and this tendency can be associated with particular Officer IDs. If stops and searches were neutral with respect to race, then the shapes of these two figures would be the same, with different scales, as there are fewer searches than stops. But this is not the case; the figures have discernibly different shapes.

Figure 2. Whites and Blacks Stopped (Left) and Searched (Right), by Officer

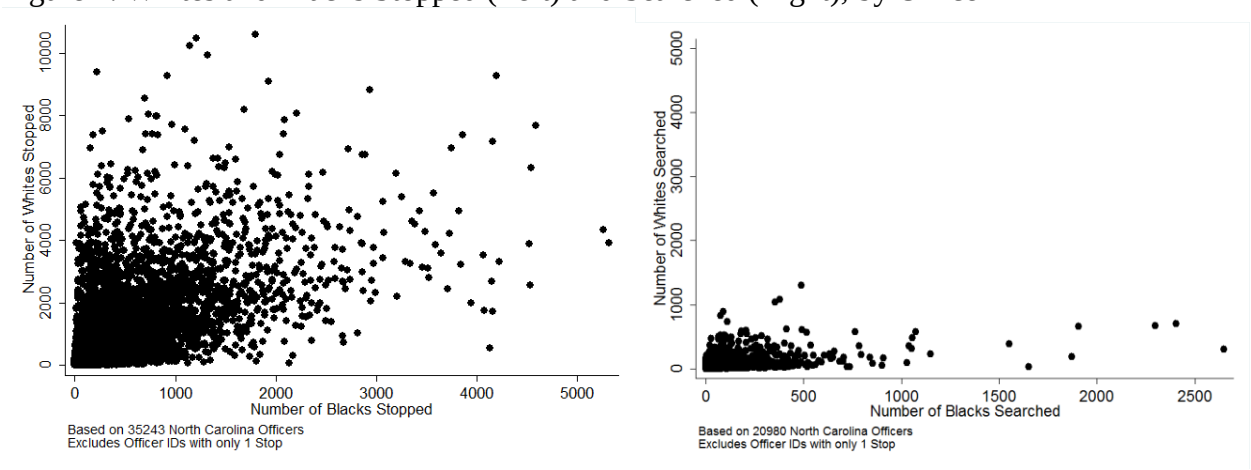


Figure 3 shows similar trends for Hispanics. Again, the left pane shows total traffic stops and the right pane shows the number of searches associated with each Officer ID.

Figure 3. Whites and Hispanics Stopped (Left) and Searched (Right), by Officer

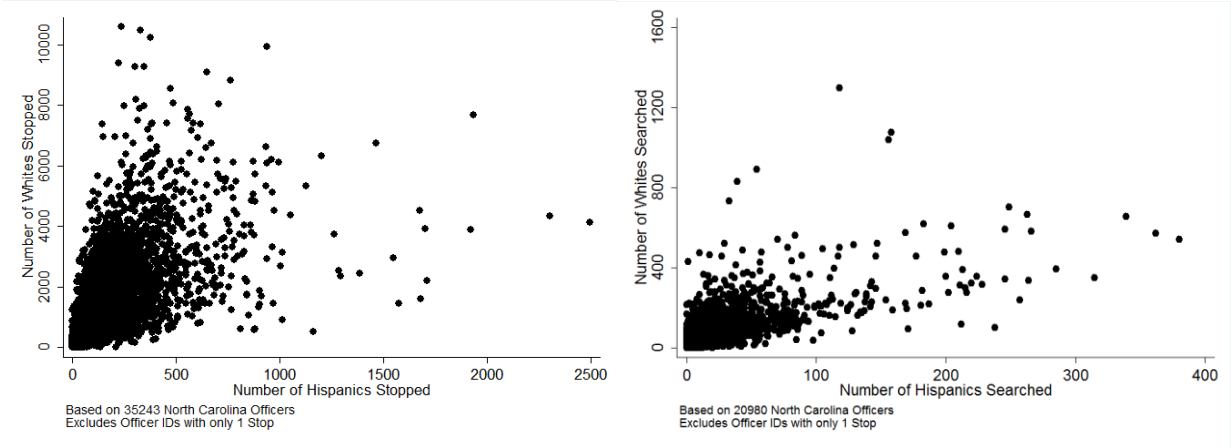


Figure 3 tells a story very similar to Figure 2. While the numbers of Hispanics stopped and searched is lower than the numbers of Blacks, the tendency to search Hispanics at a much higher rate than Whites is clear by the greater right-skew in the graph showing searches as compared to that showing traffic stops.[2]

Racial Differences in Searches

In our 2012 analysis for the Racial Justice Task Force, we noted that about 3.37 percent of all traffic stops resulted in a search. This ratio was 77 percent higher when the driver of the car was Black as compared to White, and it was 96 percent higher when the driver was Hispanic as

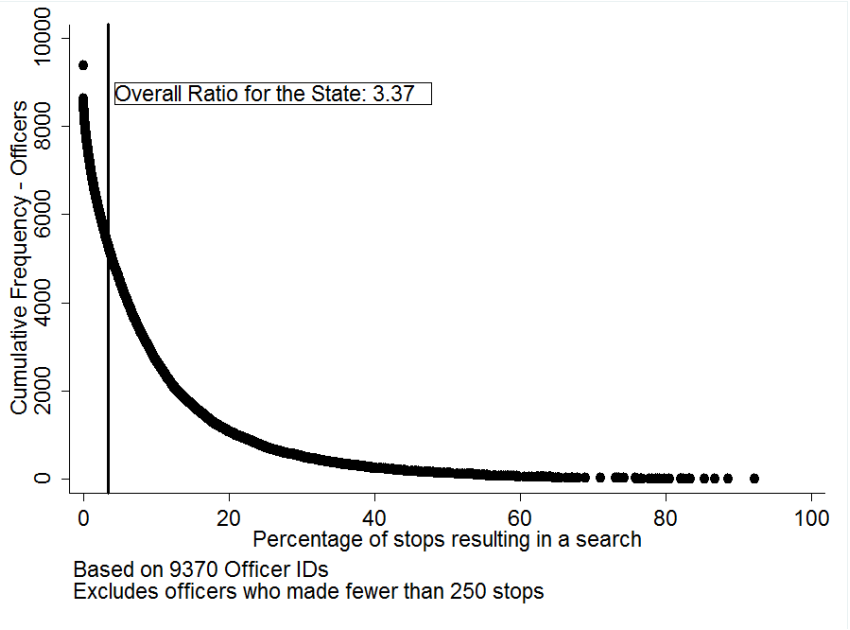
[2] We replicated the analysis in Figure 3 while excluding searches conducted at traffic checkpoints. The number of officers declined from 20,980 to 20,948; with such a small difference in numbers there was no change in the pattern displayed in Figure 3.

compared to White. The figures below show how these ratios can be computed for individual police officers. Very simple graphs identify individual officers whose pattern of searching motorists differ dramatically depending on race or ethnicity.

Frequency of Searches per Stop

Figure 4 shows that some officers are much more likely to search motorists than others. Whereas the overall state average is 3.37 percent of traffic stops lead to a search, certain officers are well above or below this rate. The figure, which excludes officers with fewer than 250 stops, shows that a few officers actually searched more than half of those motorists they stopped.

Figure 4. Percentage of Stops Resulting in a Search, by Officer



Black-White Comparisons in Rate of Search

Overall, our earlier report showed that the ratio of Black to White searches is 1.77. (That is, Blacks are 77 percent more likely than Whites to be searched, given a traffic stop.) Figure 5 shows that, for some officers, this ratio exceeds 5 to 1. (Note that the figure excludes officers with fewer than 500 stops and 50 searches.)

Figure 5. Black-White Search Ratios, by Officer

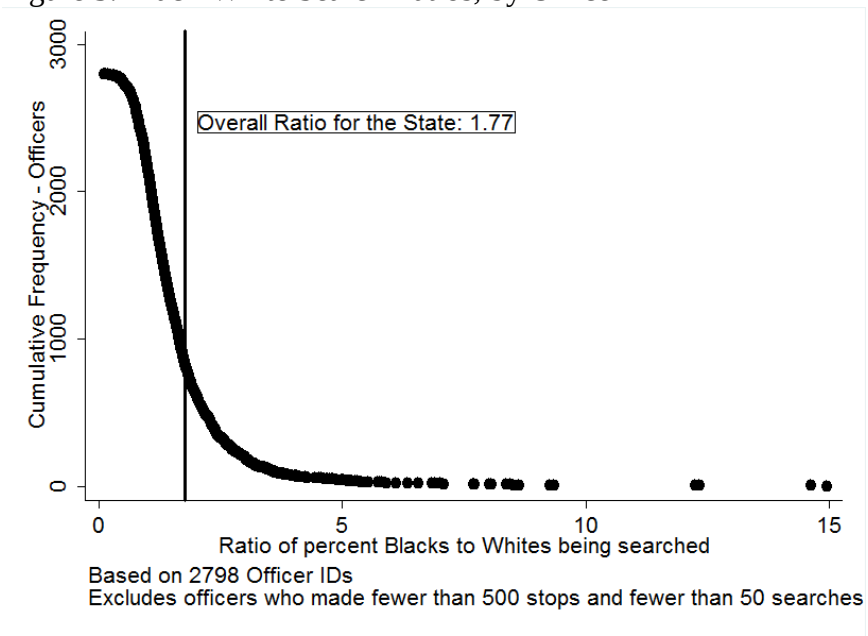
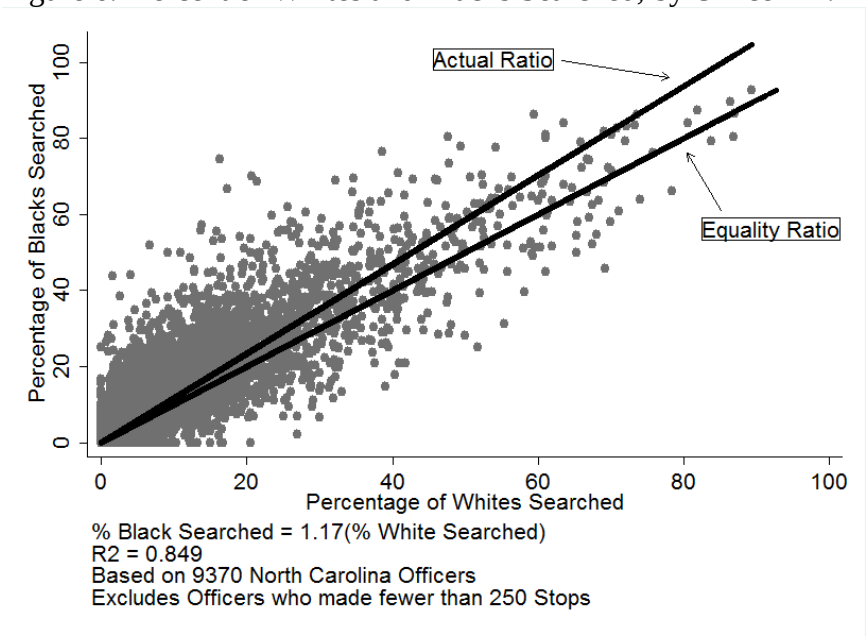


Figure 6 shows that, looking at individual officers, for every one percent more that an officer searches a White motorist, they search 1.17 percent more Blacks. It also makes clear that some officers are simply searching very large percentages of those they stop. The two lines in the figure represent the 45-degree line that would represent a 1:1 ratio between Blacks and Whites being searched, and the actual data based on a statistical regression. That regression suggests that 1.17 percent of Blacks are searched for each one percent of Whites, and this is controlling for the officer who made the traffic stops. We can think of this as a general average for the North Carolina police force. That is, we do not simply have a few officers who search Blacks while not searching Whites (though we do have a few: these are the dots at the upper-left part of the figure, showing for example that they searched 10 percent of the Whites but 30 to 60 percent of the Blacks). Rather, on average, we have a very high correlation between the percentages of motorists of either race who are searched. Overlaid on this generally high correlation remains tendency for a given officer to search Blacks at a higher rate than Whites; that rate is 1.17 times higher.

Figure 6 shows that there is great individual disparity by officer ID in the rates at which Blacks and Whites are searched. In the upper-left of the figure are officers who searched, for example, 40 to 80 percent of all the Blacks they stopped. In some cases these individual officers searched only very small percentages of White motorists. At the bottom-right of the figure, we see some officers with the opposite statistical tendency: They search a higher percentage of Whites as compared to Blacks. There are comparatively few of these officers, however, as the figure makes clear.

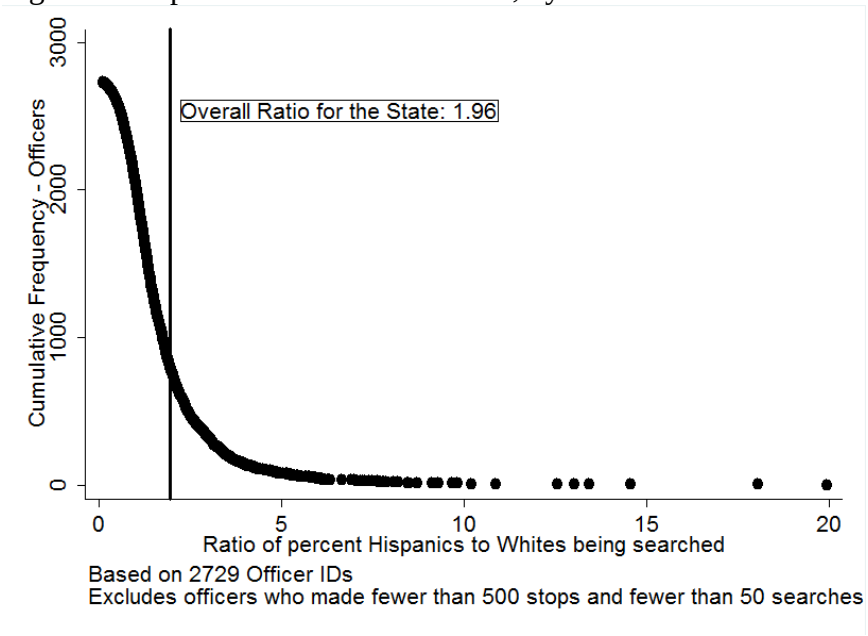
Figure 6. Percent of Whites and Blacks Searched, by Officer ID.



Hispanic-White Comparisons in Rate of Search

Overall, our earlier report showed that the ratio of Hispanic to White searches is 1.96. (That is, Hispanics are 96 percent more likely than Whites to be searched, given a traffic stop.) Figure 7 shows that, for some officers, this ratio exceeds 5 to 1. (Note that the figure excludes officers with fewer than 500 stops and 50 searches.)

Figure 7. Hispanic-White Search Ratios, by Officer



Identifying the Officer IDs Associated with the Greatest Differences in Rates of Search, by Race or Ethnicity of the Motorist

The NC DOJ database has the capacity to identify individual officers associated with the greatest differences in the rates at which they search Blacks, Whites, and Hispanics following a traffic stop. Tables 2 and 3 show the 100 Officer IDs associated with the greatest discrepancies in the rates at which they search Blacks and Hispanics as compared to Whites. The first part of the table shows the 50 officers with the greatest tendency to search Whites as compared to Blacks. At the bottom we show the 50 officers with the opposite tendency. We list only 100 Officer IDs simply as a matter of convenience and for illustration. (Full data for all officers is available.) The tables show the numbers of each group stopped, searched, the percentage searched, and the difference in the percentage searched (ratio). The table makes clear that for some officers, searching a White (or Black) motorist is an extremely rare event. Some of the ratios are calculated on numbers of searches that may be too low to draw strong conclusions. (For example one officer searched one Black motorist and one White, but had stopped 232 Blacks and 4,182 Whites.) In spite of occasional concern based on low numbers of occurrence, some powerful trends emerge. In Table 2, nine officers are shown to have searched more than 10 percent of the Black motorists they stopped. In contrast, only two officers searched more than ten percent of White motorists they stopped. Table 3 reveals a similar trend among Hispanics: 13 officers searched more than 10 percent of the Hispanic motorists they pulled over. The first part of Table 3 also reveals large numbers of Officer ID's associated with high percentage of White searches but very few searches of Hispanic drivers. The reasons for these disparities, and the different patterns for Blacks and Hispanics are unclear.

The data laid out in Tables 2 and 3 may be a very useful management tool for police departments seeking information about officer-level differences in how motorists are treated.

Table 2. 50 Lowest and 50 Highest Black-White Search Ratios

Rank	Officer ID	White Stops	Black Stops	White Searches	Black Searches	% Whites Searched	% Blacks Searched	Ratio B:W
Lowest 50 Black-White Search Ratios								
1	19799246	265	1168	6	2	2.26	0.17	0.08
2	1266	345	506	16	2	4.64	0.40	0.09
3	11635	2389	1748	14	1	0.59	0.06	0.10
4	19868156	180	334	5	1	2.78	0.30	0.11
5	789	457	350	35	3	7.66	0.86	0.11
6	TBA1	340	361	8	1	2.35	0.28	0.12
7	1793	863	111	66	1	7.65	0.90	0.12
8	11971	3560	1305	23	1	0.65	0.08	0.12
9	11123	2522	1089	18	1	0.71	0.09	0.13
10	11597	2986	436	47	1	1.57	0.23	0.15
11	293847	753	337	14	1	1.86	0.30	0.16
12	1773	1867	90	125	1	6.70	1.11	0.17
13	535911	158	361	22	9	13.92	2.49	0.18
14	10357	1275	456	15	1	1.18	0.22	0.19
15	10798	1215	805	8	1	0.66	0.12	0.19
16	11607	2542	408	33	1	1.30	0.25	0.19
17	15225	541	573	5	1	0.92	0.17	0.19
18	19709295	2055	2945	121	34	5.89	1.15	0.20
19	M0337	589	364	8	1	1.36	0.27	0.20
20	19715172	273	193	41	6	15.02	3.11	0.21
21	225705	3895	4523	341	83	8.75	1.84	0.21
22	10154	1299	281	22	1	1.69	0.36	0.21
23	12009	2725	757	17	1	0.62	0.13	0.21
24	19825631	789	412	9	1	1.14	0.24	0.21
25	10432	1792	1158	14	2	0.78	0.17	0.22
26	62327D	173	389	2	1	1.16	0.26	0.22
27	1202	698	164	19	1	2.72	0.61	0.22
28	10040	2024	592	15	1	0.74	0.17	0.23
29	21415	524	766	3	1	0.57	0.13	0.23
30	283146	187	802	11	11	5.88	1.37	0.23
31	12008	809	860	8	2	0.99	0.23	0.24
32	11601	3997	1294	13	1	0.33	0.08	0.24
33	10076	1964	475	52	3	2.65	0.63	0.24
34	C1663	403	139	12	1	2.98	0.72	0.24
35	HP1285	205	338	15	6	7.32	1.78	0.24
36	1344	720	247	48	4	6.67	1.62	0.24
37	T141	1001	833	19	4	1.90	0.48	0.25
38	F1068	263	170	6	1	2.28	0.59	0.26
39	9491	498	59	32	1	6.43	1.69	0.26
40	1237	965	387	28	3	2.90	0.78	0.27
41	12046	1287	209	46	2	3.57	0.96	0.27

42	21134	1810	697	19	2	1.05	0.29	0.27
43	4975	1759	382	33	2	1.88	0.52	0.28
44	10134	2456	973	9	1	0.37	0.10	0.28
45	700	483	331	26	5	5.38	1.51	0.28
46	10051	541	160	12	1	2.22	0.63	0.28
47	10023	3514	2343	21	4	0.60	0.17	0.29
48	19734910	403	235	6	1	1.49	0.43	0.29
49	19845931	436	378	4	1	0.92	0.26	0.29
50	TROOPER	506	92	19	1	3.75	1.09	0.29
Highest 50 Black-White Search Ratios								
1	377	375	152	1	4	0.27	2.63	9.87
2	512541	250	392	2	31	0.80	7.91	9.89
3	6417	1009	74	22	16	2.18	21.62	9.92
4	11665	1996	201	3	3	0.15	1.49	9.93
5	89415D	181	329	2	37	1.10	11.25	10.18
6	10971	1311	515	3	12	0.23	2.33	10.18
7	88314	915	132	4	6	0.44	4.55	10.40
8	10444	1225	470	1	4	0.08	0.85	10.43
9	MP9937	2466	818	2	7	0.08	0.86	10.55
10	19767441	316	324	1	11	0.32	3.40	10.73
11	10092	3554	124	16	6	0.45	4.84	10.75
12	213	431	280	2	14	0.46	5.00	10.78
13	482	1345	1339	1	11	0.07	0.82	11.05
14	1916	819	222	1	3	0.12	1.35	11.07
15	B625	191	560	1	34	0.52	6.07	11.60
16	65067	760	177	7	19	0.92	10.73	11.65
17	11168	1514	86	6	4	0.40	4.65	11.74
18	10558	971	247	2	6	0.21	2.43	11.79
19	55399	1016	251	3	9	0.30	3.59	12.14
20	1982	662	472	11	96	1.66	20.34	12.24
21	442800	208	483	3	86	1.44	17.81	12.35
22	10291	1225	590	1	6	0.08	1.02	12.46
23	10214	2332	748	2	8	0.09	1.07	12.47
24	331116	391	432	2	28	0.51	6.48	12.67
25	19822710	357	211	2	15	0.56	7.11	12.69
26	11890	2282	170	1	1	0.04	0.59	13.42
27	11170	3468	128	4	2	0.12	1.56	13.55
28	10712	1762	128	1	1	0.06	0.78	13.77
29	7632	410	148	2	10	0.49	6.76	13.85
30	10523	5200	1841	1	5	0.02	0.27	14.12
31	350572	660	295	2	13	0.30	4.41	14.54
32	226	788	383	9	64	1.14	16.71	14.63
33	11393	3129	641	1	3	0.03	0.47	14.64
34	10095	2573	166	28	27	1.09	16.27	14.95
35	10828	2804	82	2	1	0.07	1.22	17.10
36	10482	4184	232	1	1	0.02	0.43	18.03

37	11155	824	89	2	4	0.24	4.49	18.52
38	5847	475	38	2	3	0.42	7.89	18.75
39	11506	2349	375	1	3	0.04	0.80	18.79
40	SOUTHERN	1085	580	1	11	0.09	1.90	20.58
41	MP3823	1597	226	1	3	0.06	1.33	21.20
42	19739721	313	220	1	15	0.32	6.82	21.34
43	476994	1511	438	4	25	0.26	5.71	21.56
44	123246	254	418	1	36	0.39	8.61	21.88
45	355	386	168	4	40	1.04	23.81	22.98
46	35456B	441	149	1	8	0.23	5.37	23.68
47	11968	1375	116	1	2	0.07	1.72	23.71
48	338742	316	329	1	26	0.32	7.90	24.97
49	55350	871	117	3	12	0.34	10.26	29.78
50	21046	516	69	1	4	0.19	5.80	29.91

Note: Excludes Officer IDs associated with fewer than 500 stops and those that do not have any searches of Blacks or Whites.

Table 3. 50 Lowest and 50 Highest Hispanic-White Search Ratios

Rank	Officer ID	White Stops	Hisp. Stops	White Searches	Hisp. Searches	% Whites Searched	% Hisp. Searched	Ratio H:W
Lowest 50 Hispanic-White Search Ratios								
1	530	235	37	54	1	22.98	2.70	0.12
2	2606	623	38	128	1	20.55	2.63	0.13
3	464571	461	46	77	1	16.70	2.17	0.13
4	15434	347	47	46	1	13.26	2.13	0.16
5	TBA18	316	53	37	1	11.71	1.89	0.16
6	WB1322	479	23	127	1	26.51	4.35	0.16
7	MH2254	419	32	77	1	18.38	3.13	0.17
8	3243	500	123	46	2	9.20	1.63	0.18
9	443661	329	74	25	1	7.60	1.35	0.18
10	526	265	33	45	1	16.98	3.03	0.18
11	418938	81	14	32	1	39.51	7.14	0.18
12	3773	262	38	36	1	13.74	2.63	0.19
13	GPD113	444	64	36	1	8.11	1.56	0.19
14	2765	428	20	111	1	25.93	5.00	0.19
15	GPD136	350	37	49	1	14.00	2.70	0.19
16	874	631	49	66	1	10.46	2.04	0.20
17	2837	227	19	61	1	26.87	5.26	0.20
18	3071	1026	47	220	2	21.44	4.26	0.20
19	395	1305	414	15	1	1.15	0.24	0.21
20	WB1380	485	47	48	1	9.90	2.13	0.21
21	8005	206	287	10	3	4.85	1.05	0.22
22	2069	329	58	26	1	7.90	1.72	0.22
23	BR549	628	40	71	1	11.31	2.50	0.22
24	535911	158	64	22	2	13.92	3.13	0.22
25	B0714	786	8	430	1	54.71	12.50	0.23
26	NANC	499	48	90	2	18.04	4.17	0.23
27	125	843	196	124	7	14.71	3.57	0.24
28	3456	1016	188	22	1	2.17	0.53	0.25
29	49	332	79	17	1	5.12	1.27	0.25
30	758	579	69	33	1	5.70	1.45	0.25
31	1229	489	80	24	1	4.91	1.25	0.25
32	8910	936	104	69	2	7.37	1.92	0.26
33	26575	1796	140	97	2	5.40	1.43	0.26
34	887	796	91	99	3	12.44	3.30	0.27
35	19807854	186	69	10	1	5.38	1.45	0.27
36	35655H	178	14	47	1	26.40	7.14	0.27
37	493722	193	118	6	1	3.11	0.85	0.27
38	283146	187	62	11	1	5.88	1.61	0.27
39	391263	321	58	20	1	6.23	1.72	0.28
40	157194	269	36	27	1	10.04	2.78	0.28
41	789	457	94	35	2	7.66	2.13	0.28

42	455469	282	48	83	4	29.43	8.33	0.28
43	496182	51	9	20	1	39.22	11.11	0.28
44	19877	328	38	60	2	18.29	5.26	0.29
45	312174	122	150	39	14	31.97	9.33	0.29
46	919	1537	111	47	1	3.06	0.90	0.29
47	6785	471	70	45	2	9.55	2.86	0.30
48	471090	128	61	7	1	5.47	1.64	0.30
49	403	358	89	40	3	11.17	3.37	0.30
50	1210	2435	392	82	4	3.37	1.02	0.30
Highest 50 Hispanic-White Search Ratios								
1	11489	1268	225	5	14	0.39	6.22	15.78
2	10330	456	23	5	4	1.10	17.39	15.86
3	11940	906	99	4	7	0.44	7.07	16.02
4	10605	565	23	3	2	0.53	8.70	16.38
5	217	320	26	3	4	0.94	15.38	16.41
6	11129	2085	249	1	2	0.05	0.80	16.75
7	10998	1962	468	1	4	0.05	0.85	16.77
8	CABA151	1812	144	3	4	0.17	2.78	16.78
9	10742	3456	123	5	3	0.14	2.44	16.86
10	10071	1378	27	15	5	1.09	18.52	17.01
11	4485	1077	63	1	1	0.09	1.59	17.10
12	W4331	527	13	7	3	1.33	23.08	17.37
13	10943	2664	151	1	1	0.04	0.66	17.64
14	11981	1342	150	1	2	0.07	1.33	17.89
15	10095	2573	107	28	21	1.09	19.63	18.04
16	55399	1016	92	3	5	0.30	5.43	18.41
17	11890	2282	122	1	1	0.04	0.82	18.70
18	85046D	316	1	16	1	5.06	100.00	19.75
19	10971	1311	176	3	8	0.23	4.55	19.86
20	10491	2704	136	2	2	0.07	1.47	19.88
21	10050	678	272	2	16	0.29	5.88	19.94
22	11920	1527	114	2	3	0.13	2.63	20.09
23	89415D	181	27	2	6	1.10	22.22	20.11
24	10746	652	75	5	12	0.77	16.00	20.86
25	11023	2681	127	1	1	0.04	0.79	21.11
26	10575	1689	63	5	4	0.30	6.35	21.45
27	11504	1931	44	2	1	0.10	2.27	21.94
28	11499	429	37	1	2	0.23	5.41	23.19
29	10856	453	19	1	1	0.22	5.26	23.84
30	11354	3159	330	2	5	0.06	1.52	23.93
31	19822165	373	53	2	7	0.54	13.21	24.63
32	10689	5052	127	16	10	0.32	7.87	24.86
33	11845	2158	39	11	5	0.51	12.82	25.15
34	10002	570	22	1	1	0.18	4.55	25.91
35	11047	2415	93	1	1	0.04	1.08	25.97
36	10712	1762	65	1	1	0.06	1.54	27.11

37	10167	1105	119	4	12	0.36	10.08	27.86
38	21348	451	32	1	2	0.22	6.25	28.19
39	10942	9393	220	3	2	0.03	0.91	28.46
40	10690	3932	129	7	7	0.18	5.43	30.48
41	MP3823	1597	100	1	2	0.06	2.00	31.94
42	1378	414	9	6	5	1.45	55.56	38.33
43	11733	2193	150	3	8	0.14	5.33	38.99
44	21404	2315	50	1	1	0.04	2.00	46.30
45	11506	2349	96	1	2	0.04	2.08	48.94
46	11353	3586	142	1	2	0.03	1.41	50.51
47	11688	1859	205	2	12	0.11	5.85	54.41
48	10291	1225	45	1	2	0.08	4.44	54.44
49	10744	551	7	1	1	0.18	14.29	78.71
50	11314	2981	232	2	14	0.07	6.03	89.94

Note: Excludes Officer IDs associated with fewer than 500 stops and those that do not have any searches of Hispanics or Whites.

Conclusions

In 1999 the legislature mandated that state police agencies gather data on potential racial profiling on the highways. Since 2000, these data have been systematically collected. Our analyses suggest that significantly different events ensue when White and minority drivers are pulled over. Further, we can identify individual Officer IDs whose actions may be outside the norms of how other officers behave. The rates at which individual officers search motorists very widely, and the treatment of White and minority drivers is sufficiently different to suggest that the legislature was correct to mandate the collection of this information.

The data collected through the SBI-122 form are not enough to determine whether the observed patterns are justified. A full study to determine whether these disparities are justified would involve direct observation. Failing that, linking geographic and time data with actual crime reports would allow some greater understanding. The differences across individual officers documented here show that this is potentially an important avenue for improvement in police management and practice.

Appendix and Technical Recommendations

In the appendix we reproduce a copy of the SBI-122 form on which these data are based. If the commission is in a position to recommend any changes to the form, we would respectfully recommend these items for consideration.

1. That the form be made electronic rather than paper-based. This would reduce clerk-related errors.
2. That Officer ID, Agency ID, and any other repetitive items be pre-programmed into the electronic form.
3. That geographical location data (GIS coordinates) be stamped into the form.
4. That time information be stamped automatically.

Attached: SBI-122

TRAFFIC STOP REPORT

Agency Name | **Date (Month/Day/Year)** | **Time**

County of Stop | **Officer ID Number**

City of Stop

Part I

Initial Purpose of Traffic Stop *(check only one)*

- ☐ Checkpoint
- ☐ Driving While Impaired
- ☐ Investigation
- ☐ Other Motor Vehicle Violation
- ☐ Safe Movement Violation
- ☐ Seat Belt Violation
- ☐ Speed Limit Violation
- ☐ Stop Light / Sign Violation
- ☐ Vehicle Equipment Violation
- ☐ Vehicle Regulatory Violation

Vehicle Driver Information

Driver's Age _____ **Driver's Race** ☐ White ☐ Black ☐ Native American ☐ Asian ☐ Other

Driver's Sex ☐ Male ☐ Female

Driver's Ethnicity ☐ Non-Hispanic ☐ Hispanic *(Person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish Culture)*

Enforcement Action Taken as a Result of the Traffic Stop *(check only one)*

- ☐ Citation Issued
- ☐ No Action Taken
- ☐ On-View Arrest → If arrest made, who was arrested?
  - ☐ Driver
  - ☐ Passenger(s)
- ☐ Verbal Warning
- ☐ Written Warning

Physical Resistance Encountered

Did Officer(s) encounter any physical resistance from Driver and/or Passenger(s)?	☐ Yes	☐ No
Did Officer(s) engage in the use of force against the Driver and/or Passenger(s)?	☐ Yes	☐ No
Did injuries occur to the Officer(s) as a result of the stop?	☐ Yes	☐ No
Did injuries occur to the Driver as a result of the stop?	☐ Yes	☐ No
Did injuries occur to the Passenger(s) as a result of the stop?	☐ Yes	☐ No

Vehicle/Driver/Passenger(s) Search

Was a search initiated subsequent to the traffic stop? ☐ Yes* ☐ No

***If search was initiated, complete Part II**

Traffic Stop Report

Part II

Type of Search *(check only one)*

☐ Consent ☐ Search Warrant ☐ Probable Cause ☐ Search Incident to Arrest ☐ Protective Frisk

Basis for Search

☐ Erratic/Suspicious Behavior ☐ Observation of Suspected Contraband ☐ Suspicious Movement

☐ Informant's Tip ☐ Other Official Information ☐ Witness Observation

Person(s)/Vehicle Searched

Was the Vehicle Searched?	☐ Yes	☐ No
Was the Driver Searched?	☐ Yes	☐ No
Was a Passenger(s) Searched?	☐ Yes	☐ No
Were the Personal Effects of the Driver and/or Passenger(s) Searched?	☐ Yes	☐ No

Identify the sex, race, and ethnicity of each passenger searched

	Age	Sex		Race					Ethnicity	
		Male	Female	White	Black	Native American	Asian	Other	Hispanic	Non-Hispanic
Passenger 1										
Passenger 2										
Passenger 3										
Passenger 4										

Contraband Found

Contraband found as a result of the search: ☐ None **OR** complete the following:

☐ Drugs _____ Ounces _____ Pounds _____ Dosages _____ Grams _____ Kilos

☐ Alcohol _____ Pints _____ Gallons

☐ Money _____ Dollar Amount

☐ Weapons _____ Number of Weapons

☐ Other _____ Dollar Amount

Property Seized

Property seized as a result of the search: ☐ None **OR** complete the following:

☐ Motor Vehicle ☐ Personal Property ☐ Other Property

Office Use Only	Date	Initials
Reviewed		
Entered		