

Illinois Traffic Stops Statistics Study 2009 Annual Report

The logo for the University of Illinois at Chicago (UIC) is centered within a light blue rectangular box. It consists of the letters "UIC" in a bold, black, sans-serif font, followed by the text "University of Illinois at Chicago" in a smaller, black, sans-serif font.

UIC University of Illinois
at Chicago

**The University Of Illinois at Chicago
Center for Research in Law and Justice
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Introduction

Six years ago Illinois launched a statewide effort to determine whether police officers in Illinois engaged in racial profiling in police traffic stops. Illinois was one of the first states to require that every law enforcement agency provide annual data about traffic stops conducted in their communities. In many ways this was a pioneering effort. At present 25 states require the collection of similar data during traffic stops.¹ Moreover, other states are considering the adoption of mandatory data collection. For example, beginning in January 2011, police officers in Wisconsin will be required to submit traffic stop data. The Wisconsin Office of Justice Assistance will be required to analyze this data to determine:

(a) Whether the number of traffic stops involving motor vehicles operated or occupied by members of a racial minority is disproportionate to the number of traffic stops involving motor vehicles operated or occupied solely by persons who are not members of a racial minority.

(b) Whether the number of searches involving motor vehicles operated or occupied by members of a racial minority is disproportionate to the number of searches involving motor vehicles operated or occupied solely by persons who are not members of a racial minority.

The authors of this report provided testimony about the Illinois program to the Wisconsin Traffic Stop Data collection Advisory Committee.²

Data collection in Illinois began on January 1, 2004 and was originally scheduled to end December 31, 2007. Public Act 094-0997, however, extended the collection time period, and, in addition, charged the Racial Profiling Prevention and Data Oversight Board with evaluating the

¹ <http://www.racialprofilinganalysis.neu.edu/background/jurisdictions.php>

² Clearinghouse Rule 10-010: PROPOSED ORDER OF THE STATE OF WISCONSIN OFFICE OF JUSTICE ASSISTANCE CREATING RULES [PUBLIC HEARING RULE DRAFT]

necessity of mandatory data collection. Public Act 096-0658 signed by Governor Quinn on 8-25-2009 extends data collection and analysis through 2015.

This document was prepared by the Center for Research in Law and Justice of the University of Illinois at Chicago. It examines data collected during CY 2009, the sixth year of data collection. The reports for the years 2004 through 2008, as well as a detailed a methodological overview of the project are available at the IDOT website www.dot.il.gov.

Agency Participation

While data collection under the act is mandatory, we continue to have agencies each year that do not submit data, this in spite of significant efforts by IDOT to both facilitate and ensure submission. For 2009 the following forty-eight law enforcement agencies failed to submit data:

BRIDGEPORT POLICE
BROOKPORT POLICE
BUNCOMBE POLICE
BUNKER HILL POLICE
CENTREVILLE POLICE
CHADWICK POLICE
CHESTERFIELD POLICE
CISSNA PARK POLICE
CRAINVILLE POLICE
CUBA POLICE
DALLAS CITY POLICE
DOWNNS POLICE
ELIZABETHTOWN POLICE
ENFIELD POLICE
FARINA POLICE
FILLMORE POLICE
GREENVIEW POLICE
GULFPORT TOWN MARSHALL
HEBRON POLICE
HURST POLICE
IRVINGTON POLICE
JOY POLICE
KILBOURNE POLICE
KINMUNDY POLICE
LAWRENCE COUNTY

SHERIFF
LIVINGSTON POLICE
LUDLOW POLICE
MAQUON POLICE
MCNABB POLICE
MORTON COLLEGE POLICE
MULBERRY GROVE POLICE
NEPONSET POLICE
NORRIS CITY POLICE
PATOKA POLICE
PERCY POLICE
PIPER CITY POLICE
RANKIN POLICE
SAN JOSE POLICE
SHIPMAN POLICE
ST JOHNS POLICE
ST. FRANCISVILLE POLICE
ST. PETER POLICE
THOMPSONVILLE POLICE
THOMSON POLICE
TISKILWA POLICE
VALIER POLICE
WESTFIELD POLICE
WILLISVILLE POLICE

Stop Data Analysis

Our analysis for 2009 is based on data received from 970 law enforcement agencies. These departments reported 2,470,554 stops; however only 2,469,404 of the stops submitted included information about the driver's race. As a result, only those stops are included in our analysis. Figure 1 illustrates the number of vehicle stops and citations for 2009.

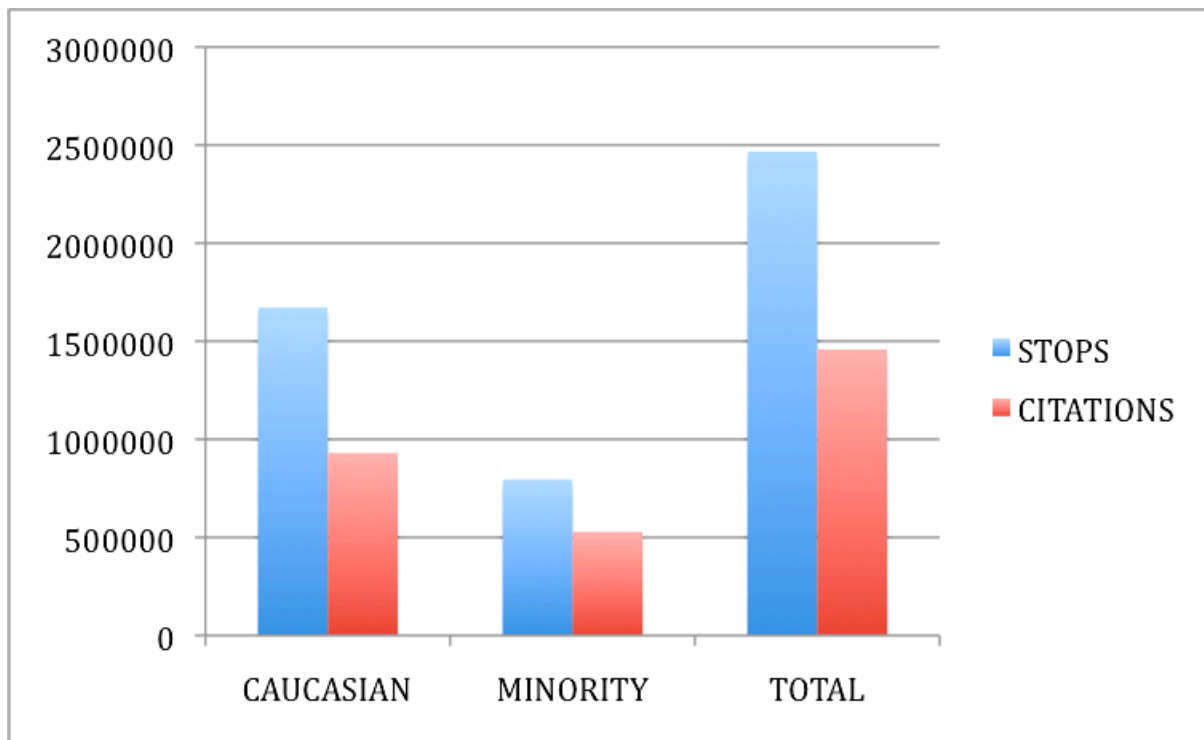


Figure 1 Statewide Stops and Citations

Agency Performance

In this report, as in previous reports, we analyze agency performance on six dimensions:

- The comparison (ratio) of stops of minority drivers in a community with the estimated minority driving population of that community
- The reason for the stop
- The duration of the stop
- The outcome of the stop
- The distribution by race of consent searches
- Whether the consent search resulted in the seizure of contraband.

Ratio

In this first analysis we examine whether minority drivers are more or less likely to be stopped than Caucasian drivers. That is, we attempt to assess the extent to which a law enforcement agency's stops of minority drivers mirrors the number of minority drivers on that community's roadways. This task poses significant methodological challenges.³ Nonetheless, we have developed a reliable and consistent measure that remains instructive. We refer to this measure as the ratio. It shows the relationship between the percentages of minority drivers stopped by an agency and the community's estimated minority driving population. In 2009, the statewide ratio was 1.12, down from 1.13 in 2008. That is, the percentage of minority drivers stopped in the state was 32%, but the estimated minority driving population in Illinois is 28.48%. This ratio indicates that a minority driver was roughly 12 percent more likely to be stopped than a Caucasian driver.⁴

In addition to comparisons of Caucasian and minority drivers we also examine the ratios of each race. This is illustrated in Table 1.

³ For a detailed description of our methodological approach see the 2004 Annual Report

⁴ A ratio of 1 would indicate that the percentage of minority drivers stopped by police is equal to the estimated minority driving population.

	<i>African American</i>	<i>Native American</i>	<i>Asian</i>	<i>Hispanic</i>
% Driving Population	13	0.14	3.5	10.9
% 2009 Stops	17.7	0.16	3.12	11.3
Ratio	1.36	1.14	0.89	1.03

Table 1 Ratio for Minority Drivers

As we can see the ratio for Asian drivers is below 1, the ratio for Hispanics is close to 1 and ratios for African American, and American Indian drivers exceed 1.

We also examined the distribution of ratios across all of the reporting agencies. This allows us to understand where a given agency falls when compared with others. Figure 2 illustrates the number of agencies in each of the ratio categories during 2009.

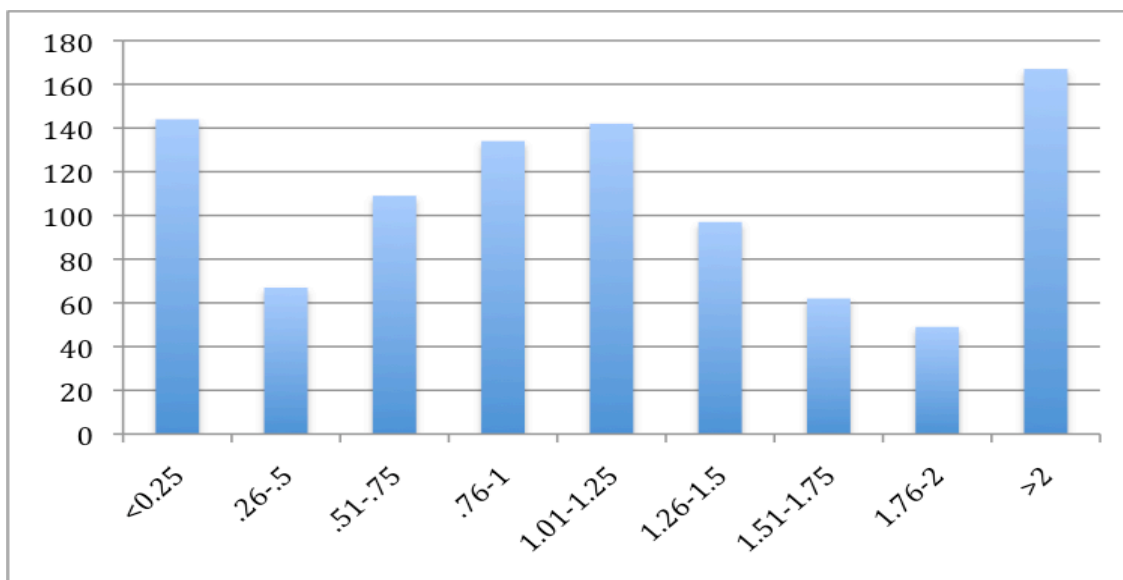


Figure 2 Distributions of Agency Ratios

At the statewide level there are two important results in this analysis. First, in 2009 the majority of agencies (61%) reported ratios less than 1.25⁵. Second, during the same period, 17.1% of agencies had ratios of greater than 2. This compares favorably with 2008 in which 18% of agencies exceeded that threshold. In an appendix to this report we provide the ratio data for each agency for the years 2004 to 2009.⁶

Reason for Stop

The second part of our analysis examines the reason for the traffic stop. We suggest that if race is not a factor in the decision to stop a vehicle, then the reasons for the stop should be relatively similar across the races. For 2009 the marginal distributions are as follows:

Reason for Stop	Caucasian	Minority
Moving Violation	73%	66%
Equipment	18%	22%
License/Registration	8%	11%

Table 2 Stop Dispositions by Race

This table illustrates the percentage of stops within each race for the three classifications of violation. For example, 73% of the Caucasian drivers that were stopped were stopped for a moving violation, and 66% of minority drivers stopped were stopped for a moving violation. Two important observations emerge from these data. First, the distribution of reasons within the races is quite similar across the races. Second, this distribution has been relatively unchanged since data collection began.

⁵ A ratio of 1.25 indicates that a minority driver is about 25% more likely to be stopped than a Caucasian driver. A ratio of 2 indicates that a minority driver is twice as likely to be stopped.

⁶ Some agency reports indicate a ratio of zero. This occurs when the agency has only stopped Caucasian drivers.

Outcome of the Stop

The third component of the analysis is the outcome of the stop. We examine the extent to which race influences the disposition of the contact. The three post-stop measures (outcome, duration and consent search) are important because they are more reliable than the pre-stop indicators. Pre-stop measures are problematic because they assume that an officer knows the race of the driver before they make the stop. Very often, particularly at night, and when the vehicles are driving quickly, this is not the case. By contrast, once an officer initiates a contact he or she can more readily draw a conclusion about the race of the driver, so these measures are better indicators of the effect of driver race on officer behavior.⁷

In Illinois in 2009 minority drivers were about 7 percent more likely to be cited on a traffic stop than Caucasian drivers. This is down from 2006, when minorities were about 10 percent more likely to be cited, and down from 2008 a year in which minority drivers were 8 percent more likely to be cited.

Citation rates also tend to vary by individual race. The following figure (3) shows the percentage of drivers cited by race in 2009. You will note that Hispanic drivers are cited 65% of the time, whereas Caucasian drivers are cited 56 % of the time.

⁷ Police officers do not ask the driver to provide their race. However, most researchers believe that the officer's opinion about the race is valid because that opinion is what may influence their actions.

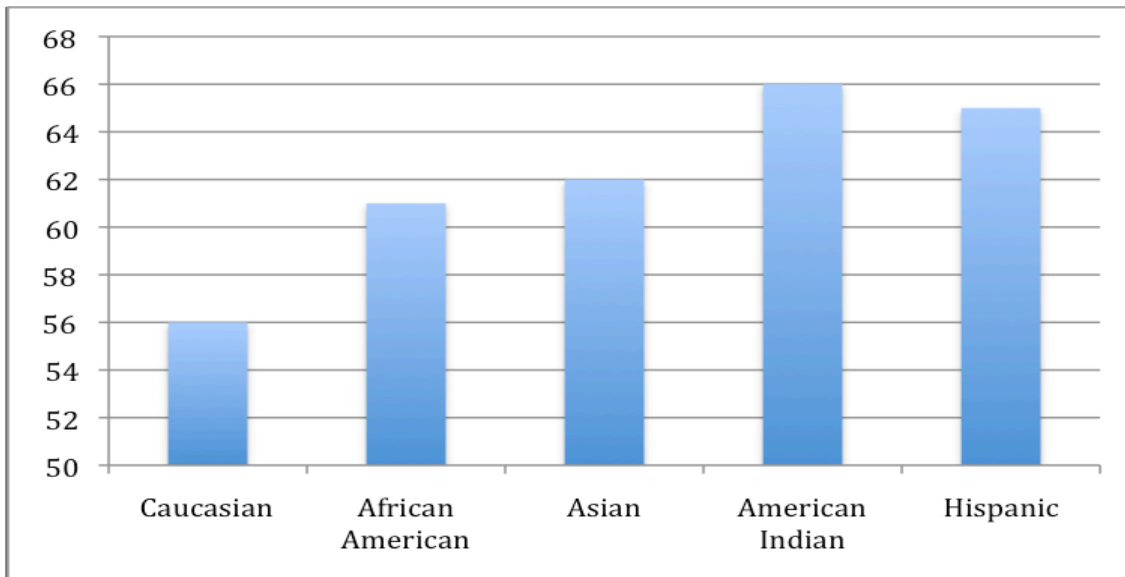


Figure 3 Citation Rates by Race

Duration of Stop

Since January 2007, police officers have been required to include data about the duration of traffic stops. The purpose of adding this data element was to test whether minority drivers are subjected to longer stops than Caucasian drivers.

In our analysis we included two measures of average duration, the *mean* and *median*.⁸ The mean is calculated by summing the total time for all traffic stops and then dividing by the number of stops. The median is derived by taking the times for all the stops and placing them in order. The median represents the value **in the middle** of the ordered distribution. Another way of explaining this is that half of the values in the distribution are below the median and half are above.

Because of the manner in which these measures are constructed the mean tends to be more sensitive to extreme values. It is particularly

⁸ In this analysis we used conventional approaches to rounding. For example, 4.4 became 4, and 4.6 became 5.

problematic in this analysis. Many of the agencies that participate in this study use data from computer aided dispatch (CAD) systems as the source of the duration data. When an officer begins a stop the dispatcher enters the start time in the system, and when they complete the stop they enter that time. The “duration” is defined as the end time minus the start time. Unfortunately, if the dispatcher fails to enter the stop time (or if the officer fails to notify the dispatcher) the duration time will be skewed. It may be the case that the “clock” will continue to run for an extended time - perhaps even a day. If an agency finds big differences between the mean and median duration times it is important to closely examine the data to determine whether there are real differences by race or anomalies related to data collection.

Our analysis of statewide data indicated very little difference by race on the duration measure. The mean duration for stops involving Caucasian drivers was 12 minutes; for minority drivers 14 minutes. The median time (10 minutes) was equal across the categories. These results were the same in 2008.

The following chart shows the mean and median duration times by individual race.

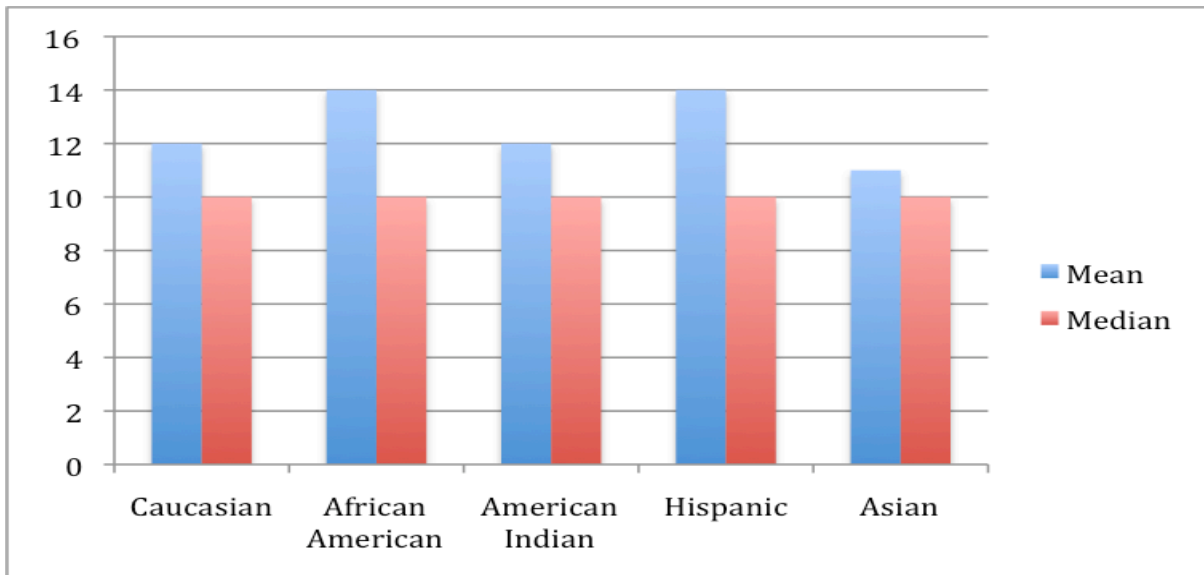


Figure 4 Mean and Median Duration Times

Consent Searches

The final area of our analysis examines consent searches. Consent searches are an important element in the examination of bias in traffic stops. Police officers have many legal justifications for searching motor vehicles without a warrant. Courts have, in general, given police officers wide latitude in conducting such searches, because when the vehicle is “released” any evidence in the vehicle may be unrecoverable. A recent paper suggests that courts in Illinois have been particularly supportive of the use of pre-textual traffic stops as a basis to conduct vehicle searches.⁹

We are particularly interested in consent searches, those in which the decision to request a search is largely that of the individual officer.

In prior reports we have demonstrated that consent searches are applied disproportionately by race in Illinois. This year’s findings are similar.

In 2009 police officers in Illinois requested 26243 consent searches, a 3% increase over 2008. Prior to this year the number of consent searches in Illinois had dropped by 33% since, the first year of data collection. The increase in 2009 is the first since the data collection program began.

In 2009 only one percent of all drivers stopped were asked for permission to search their car. Those requests were granted by 22926 drivers (87%). Police officers actually performed 22086 consent searches, or in 96% of the cases in which consent was given.¹⁰ In 84% of the cases in which officers asked for consent to search a vehicle a search was actually conducted.

We first examined whether race influenced a driver’s decision to consent to a search. Caucasian drivers agreed to consent searches 90.2% of the time, while minority drivers agreed 91.75%. We also obtained the consent rates by individual race. These data are described below. Although the

⁹ Vagrants in Volvos: Ending Pretextual Traffic Stops and Consent Searches of Vehicles in Illinois
Timothy P. O’Neill. Loyola University Chicago Law Journal [Vol. 40,2009]

¹⁰ It is not clear why, after having been granted consent, an officer would not conduct a search.

refusal rates are similar across races, there are differences among African American, American Indian and Hispanic drivers. While the number of consent searches of American Indians is too small to draw meaningful conclusions, the gap between Caucasian and Hispanic has increased in 2009, due, in large part, to a lower consent rate among Caucasian drivers.¹¹

	Caucasian	African American	American Indian	Hispanic	Asian
Requested	13625	7705	38	4600	275
Granted	11558	6875	35	4224	234
Percentage	85%	89%	92%	92%	85%

Table 3 Consent Search Refusals by Race

We next examined the relationship between driver race and consent search. As in past years, in 2009 consent searches in Illinois were conducted disproportionately by race. The following table illustrates this relationship. As we can see, a Hispanic driver is 2.2 times as likely to be the subject of a consent search than a Caucasian driver, and an African-American driver is about 2.3 times as likely as a Caucasian driver¹².

	Caucasian	African American	American Indian	Hispanic	Asian
Stops	1672913	436368	4011	279061	77051
Consent Searches Performed	11112	6661	35	4058	220
Percentage	.66%	1.53%	.87%	1.45%	.28%
Ratio ¹³		2.31	1.31	2.2	.87%

Table 4 Consent Searches Performed by Race

Finally, we examine whether a consent search resulted in a seizure of contraband, defined as drugs, drug paraphernalia, weapons, stolen

¹¹ In 2008 Caucasian drivers consented 90.2% of the time.

¹² Our analysis actually measures whether the vehicle was searched and not the driver or passengers. It is based on the race of the driver of that vehicle.

¹³ This ratio expresses the percentage of searches in a given race relative to Caucasian.

property or “other” contraband. Knowing whether or not contraband is found allows us to calculate the “hit rate,” or the likelihood that a consent search results in the seizure of contraband.

In 2009 when the vehicle of a Caucasian driver was consent searched, police officers found contraband **24%** of the time. By contrast when a vehicle driven by a minority driver was consent searched, officers found contraband **16%** of the time.

The following table shows the “hit rate” data for the years 2007 to 2009.

	2007 Caucasian	2007 Minority	2008 Caucasian	2008 Minority	2009 Caucasian	2009 Minority
Consent Searches Performed	10826	12560	10210	12025	11112	10974
Contraband Found	2659	1624	2488	1820	2677	1721
Hit Rate	24.56%	12.93 %	24.37%	15.14%	24%	16%

Table 5 Consent Search Hit Rates 2007-2009

Another way to think about the relationship between race and hit rate is to calculate the *conditional probability*. That is, we calculate the probability of finding contraband given the probability of having been consent searched. For Caucasian drivers the conditional probability of finding contraband, given the probability of being searched is 30%; for minority drivers the conditional probability is 11%.¹⁴

¹⁴ Conditional probability is calculated by dividing the probability of finding contraband by the probability of being asked to grant a consent search.

Interpreting Agency Reports

In this section we illustrate how to interpret an agency report. There are two components to each report. The first provides a comparison by race on several measures. The second part provides the “raw” data that is used to conduct the analysis. We begin with the analysis section.

ILLINOIS TRAFFIC STOP STUDY, 2009				
Stops				
	Caucasian Drivers		Minority Drivers	
Total Stops	8358		5752	
Percentage Stops	59.23		40.77	
Duration (Mean\Median)	12\10		15\10	
Estimated Minority Driving Population			25.4	
Ratio			1.61	
Reason for Stop				
	Caucasian Drivers		Minority Drivers	
Total	8358		5752	
Moving Violations	5849	69.98%	3616	62.87%
Equipment Violations	1601	19.16%	1325	23.04%
Licensing / Registration Violations	908	10.86%	811	14.10%
Outcome for Stop				
	Caucasian Drivers		Minority Drivers	
Total	8358		5752	
Citation	8166	97.70%	5591	97.20%
Written Warning	19	0.23%	18	0.31%
Verbal Warning/ Stop Card	173	2.07%	143	2.49%
Consent Searches				
	Caucasian Drivers		Minority Drivers	
Total	8358		5752	
Requested	65	0.78%	72	1.25%
Granted	62	95.38%	62	86.11%
Performed	62	100%	62	100%
Found	15	24.19%	16	25.81%

The first part of the report provides summary information on the number of stops of Caucasian and minority drivers, the estimated minority driving population for that community, and the ratio.

The next part of the report provides information about the reason for the stop. The percentages provided describe the distribution *within each race*. For example, we observe that there were 1325 stops of minority drivers for equipment violations. This represented 23.04 % of all the minority stops.

In the third section we describe the outcome of the stop. You will observe that not all agencies issue written warnings, and thus each stop will be classified as either a citation or a verbal warning/stop card.

Finally, we can see information about consent searches. Although we include consent search data for all agencies, readers should take great care in drawing conclusions when an agency has fewer than 50 consent searches per year.

Below we have illustrated the second component of the agency report. It includes the actual data used to construct the analyses.

Key Indicators		Total	Caucasian	African American	Am. Indian	Hispanic	Asian	N/S
Stops		14110	8358	5129	9	362	252	0
Duration (Mean/Median)		13\10	12\10	16\10	10\10	15\10	10\10	0\0
Reason For Stop	Moving	9465	5849	3187	7	232	190	0
	Equipment	2926	1601	1200	0	89	36	0
	License	1719	908	742	2	41	26	0
	N/S	0	0	0	0	0	0	0
Outcome Of Stop	Citation	13757	8166	4983	9	353	246	0
	Written Warning	37	19	16	0	1	1	0
	Verbal Warning/ SC	316	173	130	0	8	5	0
	N/S	0	0	0	0	0	0	0
Consent Searches	Requested	137	65	71	0	1	0	0
	Granted	124	62	61	0	1	0	0
	Performed	124	62	61	0	1	0	0
	Found	31	15	16	0	0	0	0

Some agency reports include comments or analytical support provided by the agency. This material can be found immediately after the data summary.