

Illinois Traffic Stops Statistics Study 2008 Annual Report



**The University of Illinois at Chicago
Center for Research in Law and Justice
Alexander Weiss
Dennis P. Rosenbaum**

Illinois Traffic Stops Statistics Study 2008 Annual Report

Introduction

Six years ago Illinois launched a significant effort to identify racial bias 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. Data collection began on January 1, 2004 and was originally scheduled to end December 31, 2007. Public Act 094-0997, however, has extended the collection time period, and, in addition, has charged the newly created Racial Profiling Prevention and Data Oversight Board with evaluating the necessity of mandatory data collection. Their recommendation is due no later January 1, 2010.

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 2008, the fifth year of data collection. The reports for 2004, 2005, 2006 and 2007, as well as a detailed methodological overview of the project are available at the Illinois Department of Transportation (IDOT) website www.dot.il.gov.

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 2008, the following sixty three (63) law enforcement agencies failed to submit data:

ALBANY POLICE	EAST CARONDELET POLICE
ALTAMONT POLICE	ELIZABETHTOWN POLICE
BELGIUM POLICE	ENFIELD POLICE
BRIDGEPORT POLICE	ERIE POLICE
BUCKNER POLICE	FARINA POLICE
BUDA POLICE	FAYETTE COUNTY SHERIFF
CAIRO POLICE	FILLMORE POLICE
CAVE-IN-ROCK POLICE	FOX RIVER VALLEY GARD POLICE
CHADWICK POLICE	FYRE LAKE ASSOCIATION
CHESTERFIELD POLICE	GRAND TOWER POLICE
COATSBURG POLICE	GREENVIEW POLICE
CUBA POLICE	HEBRON POLICE
DALLAS CITY POLICE	HURST POLICE
DOWNNS POLICE	

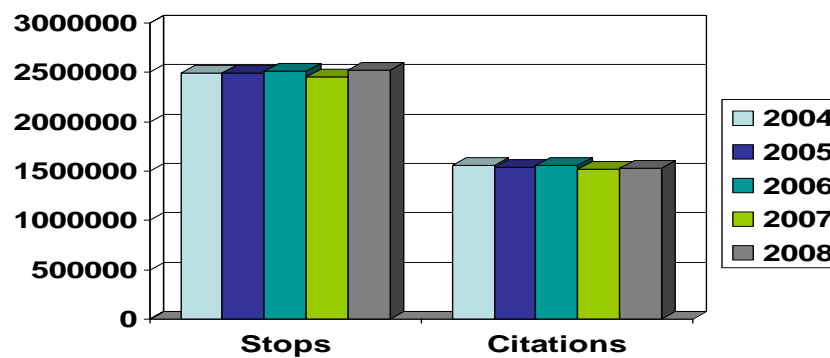
INDIANOLA POLICE
IRVINGTON POLICE
JONESBORO POLICE
KEITHSBURG POLICE
KILBOURNE POLICE
LAKE BLOOMINGTON POLICE
LAWRENCE COUNTY SHERIFF
LIVINGSTON POLICE
LUDLOW POLICE
MAQUON POLICE
MCNABB POLICE
MOLINE METRO AIRPORT AUTHORITY
POLICE
MT. AUBURN POLICE
NEPONSET POLICE
NEW HAVEN POLICE
NEW WINDSOR
OLD SHAWNEETOWN POLICE
PATOKA POLICE

POTOMAC POLICE
ROYALTON POLICE
SANDOVAL POLICE
SHIPMAN POLICE
SPAULDING POLICE
ST. JOHNS POLICE
ST. FRANCISVILLE POLICE
ST. PETER POLICE
TAMPICO POLICE
THOMSON POLICE
VALIER POLICE
VERMONT POLICE
WESTFIELD POLICE
WESTVILLE POLICE
WHITEASH POLICE
WILLISVILLE POLICE
WILSONVILLE POLICE
WINCHESTER POLICE

Stop Data Analysis

Our analysis for 2008 is based on data received from 949 law enforcement agencies. These departments reported 2,518,825 stops. Figure 1 illustrates the number of vehicle stops and citations for the past five years.

Figure 1
Summary Stop Data 2004-2008



As can be seen, the data are very similar from year to year, although the number of stops and citations is up slightly over 2007. This indicates two important things. First, it suggests that the data submission and collection process is reliable over time. That is, the systems for gathering and reporting the data are working and have been institutionalized. Secondly, this consistency in stops from year to year supports the notion that the mandatory collection of data has not visibly changed officer behavior. Although we do not know the number of stops that were conducted in the years before data collection, it is clear that the “chilling effect” on productivity, which many people predicted, has not occurred on a statewide level.

Agency Performance

In this report, and the 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 Results

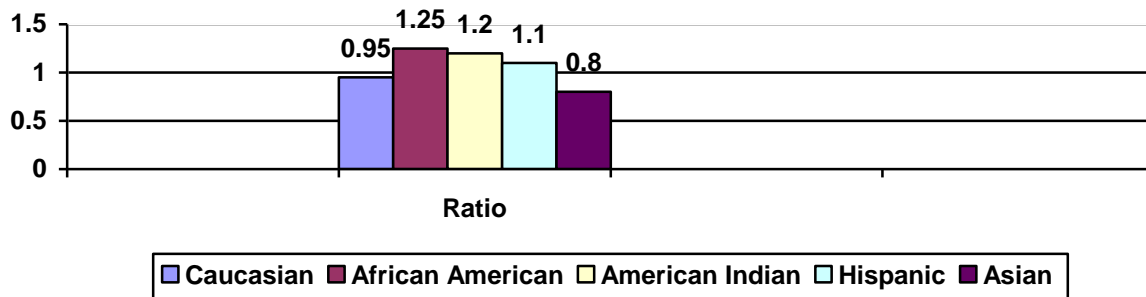
In this first analysis we examine whether minority drivers are more or less likely to be stopped than white drivers. That is, we attempt to assess the extent to which a law enforcement agency's stops of minority drivers mirrors the number of minority drivers on that community's roadways. This task poses significant methodological challenges.¹ 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 percentage of minority drivers stopped by an agency and the community's estimated minority driving population. In 2008, the statewide ratio was 1.13. That is, the percentage of minority drivers stopped in the state was 32.14 percent, but the estimated minority driving population in Illinois is 28.48 percent. This ratio indicates that a minority driver was roughly 13 percent more likely to be stopped than a Caucasian driver.²

In addition to comparisons of Caucasian and minority drivers we also examine the ratios of each race. This is illustrated in Figure 2.

¹ For a detailed description of our methodological approach see the 2004 Annual Report.

² A ratio of 1 would indicate that the percentage of minority drivers stopped by police is equal to the estimated minority driving population.

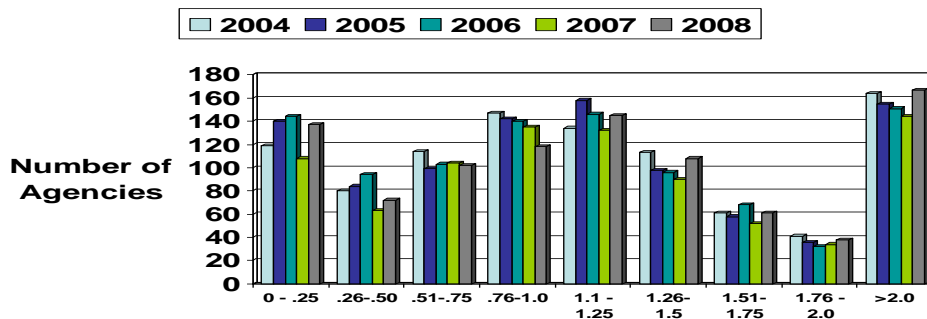
**Figure 2
Stop Ratios by Race:2008**



As we can see, the ratios for Caucasian and Asian drivers are at or below 1. Ratios for African American, Hispanic and American Indian drivers exceed 1; indicating that these groups are more likely to be stopped than we would expect given our estimate of the minority driving population.

We also examined the distribution of ratios across all of the agencies. This allows us to understand where a given agency falls when compared with others. Figure 3 illustrates the number of agencies in each of the ratio categories for the past five years.

**Figure 3
Distribution of Ratios
2004 - 2008**



There are a number of important aspects of this analysis. First, the majority of agencies (60 percent) have ratios less than 1.25³. During 2008, the percentage of agencies with

³ A ratio of 1.25 indicates that a minority driver is about 25 percent 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.

ratios of greater than 2 (18 percent) rose over 2007 (15 percent). Appendix one contains the ratio data for each agency for the years 2004 to 2008.

Reason for Stop

The second part of our analysis examines the reason for the traffic stop. Our working hypothesis is 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 2008 the marginal distributions are as follows:

Reason for Stop	Caucasian	Minority
Moving Violation	73.91%	68.19%
Equipment	18.32%	21.06%
License/Registration	7.77%	10.75%

This table illustrates the percentage of stops within each race for the three classifications of violation. For example, 73.91 percent of the Caucasian drivers that were stopped were stopped for a moving violation, and 68.19 percent 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.

Outcome of the Stop

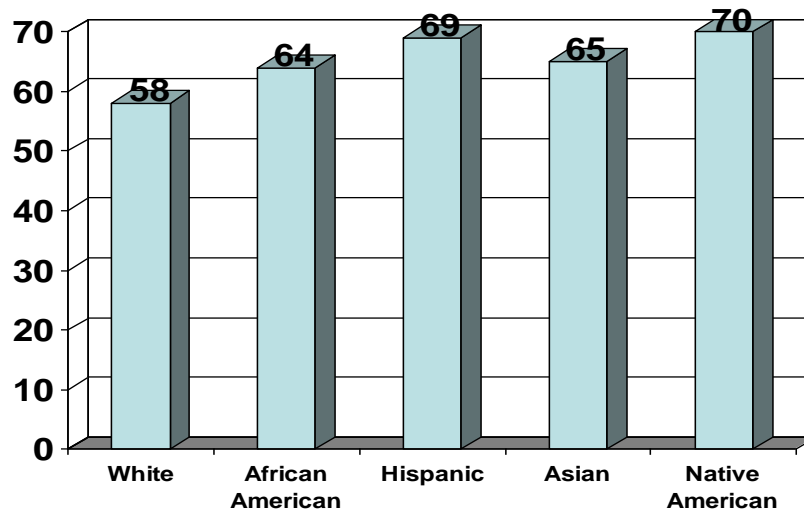
The third component of the analysis is the outcome of the stop. We examine the extent to which race influences the disposition of the contact. The three post-stop measures (outcome, duration and consent search) are important because they are more reliable than the pre-stop indicators. Pre-stop measures 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 draw a conclusion about the race of the driver, so these measures are better indicators of the effect of driver race on officer behavior.⁴

In Illinois, in 2008, minority drivers were about eight percent more likely to be cited on a traffic stop than Caucasian drivers. This is down from 2006, when minorities were about

⁴ 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.

ten percent more likely to be cited, but up slightly over 2007. Citation rates also tend to vary by individual race. The following figure shows the percentage of drivers cited by race.

Figure 4
Percentage of Drivers Cited by Race (2008)



These data are quite consistent with traffic stop data analyzed in a recent report by the United States Department of Justice.⁵ In this study of traffic stops nationwide, dispositions also differed by race. The results appear in the following table.

⁵ Matthew R. Durose, Erica Smith, and Patrick Langan. *Contacts between Police and Public, 2005*. Bureau of Justice Statistics, April 2007.

Race/ Hispanic Origin	Percentage of Drivers Ticketed
White (non-Hispanic)	56.2%
Black/African American	55.8%
Hispanic/Latino	65%
Other	63.6%

Duration of Stop

Beginning in January 2007, police officers were 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.

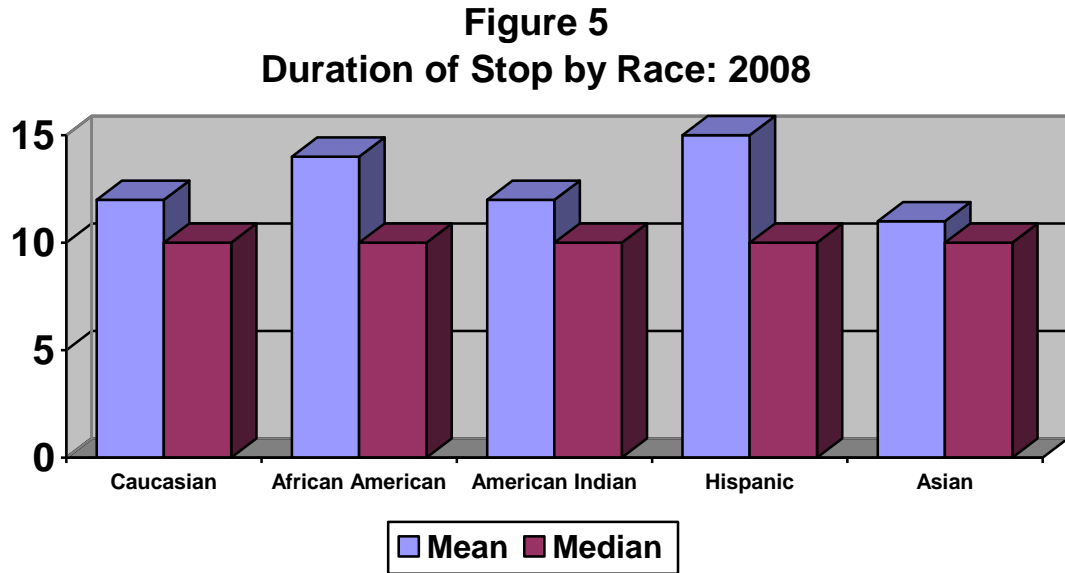
In our analysis we included two measures of average duration, the *mean* and *median*.⁶ The mean is calculated by summing the total time for all traffic stops and then dividing by the number of stops. The median is derived by taking the times for all the stops and placing them in order. The median represents the value **in the middle** of the ordered distribution.

Because of the manner in which these measures are constructed the mean tends to be more sensitive to extreme values. It is particularly problematic in this analysis. Many of the agencies that participate in this study use data from computer-aided dispatch 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 Caucasian drivers was 12 minutes; for minority drivers 14 minutes. The median time (10 minutes) was equal across the categories.

⁶ In this analysis we used conventional approaches to rounding. For example, 4.4 became 4, and 4.6 became 5.

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



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

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

In 2008, police officers in Illinois requested 25,471 consent searches, a 4.8 percent reduction over 2007. *The number of consent searches in Illinois has dropped by 33 percent since 2004, the first year of data collection.* In 2008, only one percent of all drivers stopped were asked for permission to search their car. Those requests were

granted by 23,198 drivers (91 percent). Police officers actually performed 22,235 consent searches, or in 96 percent of the cases in which consent was given.⁷

In the statewide data we found very similar experience across the races relative to refusal. Caucasian drivers agreed to consent searches 90.2 percent of the time, while minority drivers agreed 91.75 percent. We also obtained the consent rates by individual race. These data are described below. As can be seen, there is little evidence to suggest that differential search rates can be explained by differential consent rates.

	Caucasian	African American	American Indian	Hispanic	Asian
Requested	11767	8934	24	4485	261
Granted	10624	8111	19	4203	241
Percentage	90.2%	90.7%	80%	94%	92.3%

As in past years, in 2008 consent searches were conducted disproportionately by race. The following table illustrates this relationship. As we can see, a Hispanic driver is 2.4 times as likely to be the subject of a consent search as a Caucasian driver, and an African-American driver is about 3 times as likely as a Caucasian driver⁸.

	Caucasian	African American	American Indian	Hispanic	Asian
Stops	1708508	438938	4705	291576	73884
Consent Searches Performed	10210	8111	19	4203	241
Percentage	.6%	1.85%	.4%	1.44%	.33%
Ratio⁹		3.08	.66	2.4	.5

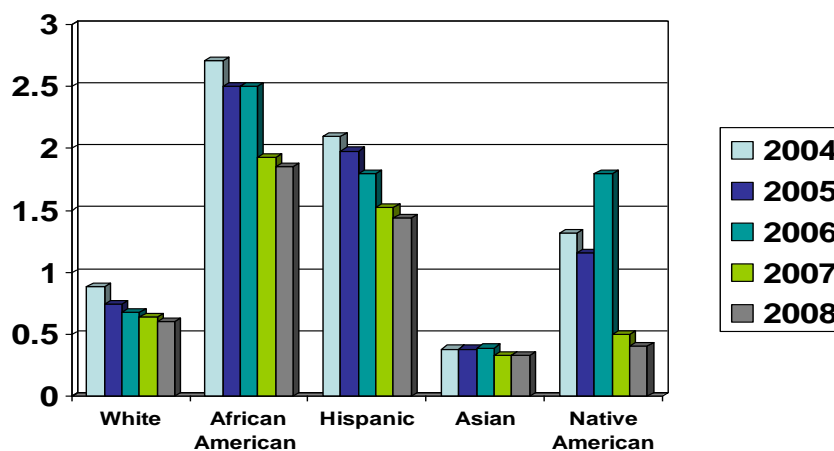
We can also examine these outcomes over the last five years (Figure 6). Interestingly, the percentage of drivers subject to consent searches has dropped significantly within each category during each of the five years of the study.

⁷ It is not clear why, after having been granted consent, an officer would not conduct a search.

⁸ 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.

⁹ This ratio expresses the percentage of searches in a given race relative to Caucasian.

Figure 6
Percentage of Drivers Consent Searched by
Race
2004-2008



Finally, we examine a data element added in 2007. During the first three years of our study, agencies were asked to provide information regarding whether a consent search resulted in a seizure of contraband defined as drugs, drug paraphernalia, weapons, stolen property or “other” contraband. While many agencies provided this information, it was not made a mandatory data field until 2007. 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 2008, when the vehicle of a Caucasian driver was consent searched, police officers found contraband **24.37 percent** of the time. By contrast when a vehicle driven by a minority driver was consent searched, officers found contraband **15.14 percent** of the time. These values are largely unchanged over 2007. Thus, although minority drivers are about 2.5 times as likely as Caucasian drivers to be the subject of a consent search,

police are 1.6 times more likely to find contraband in the vehicle driven by a Caucasian driver. This pattern is quite consistent with results found in other similar studies.¹⁰

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 35 percent; for minority drivers the conditional probability is 9 percent.¹¹

Summary

This is the fifth annual report of the Illinois Traffic Stops Statistics Study. There are several important conclusions that can be drawn based on this and previous year's studies.

- The ratio of minority drivers stopped to the minority driving population has improved each year. That is, the percentage of minority drivers stopped by the police is getting closer to the estimated driving population.
- Law enforcement agencies continue to pay careful attention to this issue and many have introduced policies and procedures to correct deficiencies.
- Our newest measures of post-stop performance -- duration of stop -- suggests that traffic stops of minority drivers consume about the same time as those for Caucasian drivers.
- The number of consent searches in Illinois continues to decline, but minority drivers are still more likely to be consent searched than Caucasian drivers. Differential refusal rates do not appear to contribute to this difference.
- Police officers conducting consent searches are far more likely to find contraband in a vehicle driven by a Caucasian driver than by a minority driver. While there has been a significant amount of attention devoted to this issue, there is little evidence at this point of substantial improvement.

¹⁰ <http://www.aclu-sc.org/downloads/8/483749.pdf>.
<http://www.amstat.org/about/pdfs/DrivingWhileBlackintheCityofAngels.pdf>.

¹¹ Conditional probability is calculated by dividing the probability of finding contraband by the probability of being asked to grant a consent search.