

ILLINOIS
TRAFFIC
STOP **STUDY** 2012
ANNUAL
REPORT

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State of Illinois
Illinois Department of Transportation



Illinois Department
of Transportation

Illinois Traffic Stop Study 2012 Annual Report

Introduction

This is the ninth annual report of the Illinois Traffic Stop Study. Alexander Weiss Consulting, LLC prepared it for the Illinois Department of Transportation (IDOT). This report describes statewide results and related issues. A separate document includes the results from each of the agencies that participated in the study.

You will note that there are three changes to the report for 2012. First, we have added “commercial vehicle violations” to the choices for “reason for stop.” Second, we have added new information about the use of police dogs to search for drugs during traffic stops. Finally, we have changed the categories for race to be in conformance with state law, and the minority driving population estimates are now based on the 2010 census.

This report examines several items:

- Reporting procedures
- Agency participation
- Stop data
- The ratio of stops of minority drivers to the estimated minority driving population
- The reasons for traffic stops
- The duration of traffic stops
- The outcome of traffic stops
- Consent searches
- Dog Sniffs

Illinois Traffic Stop Study Procedures

Since January 2004, police agencies in Illinois have been required to submit data about traffic stops to the Illinois Department of Transportation. This requirement is in place through 2015.¹

A “traffic stop” occurs when an officer stops a motor vehicle for a violation of the Illinois vehicle code, or for a local traffic violation. The Traffic Stop Study data do not include traffic citations arising from traffic crashes, or in cases in which an officer stops a vehicle that has been linked to a specific crime, such as a vehicle wanted in connection with a robbery.²

Our analysis of traffic stops in Illinois is based on the following data elements:

- Race of driver
- Reason for the stop
- Duration of the stop
- Outcome of the stop
- Whether a consent search of the vehicle was requested and conducted

¹ Public Act 096-0658

² If an officer uses a traffic law violation as a pretext to stop a “suspicious” vehicle, that stop should be reported to IDOT.

- Whether contraband was found during the consent search.
- Whether a dog sniff was conducted during the stop, and the results of that sniff.

Agencies must submit traffic stop data for the calendar year to IDOT prior to March 1 of the following year. After a preliminary analysis is conducted the results are posted on a secure site at IDOT so that each agency may review its own results. Agencies have approximately ten days to identify possible errors in the report or to submit comments that are attached to agency reports.

Agency participation

In 2012, 923 law enforcement agencies in Illinois submitted traffic stop data to IDOT. This number is down from 2011 when 984 agencies submitted data. The complete list of non-complying agencies appears in Appendix "B".

Traffic Stops

In 2012 law enforcement agencies in Illinois reported 2,132,006 traffic stops to IDOT. This represents 34,607 fewer stops than 2011. Figure 1 illustrates the number of traffic stops for the nine years of the Traffic Stop Study (2004-2012) on a statewide basis. We can observe a rather substantial decline beginning in 2010. However, the decline has seemed to level off in 2012.

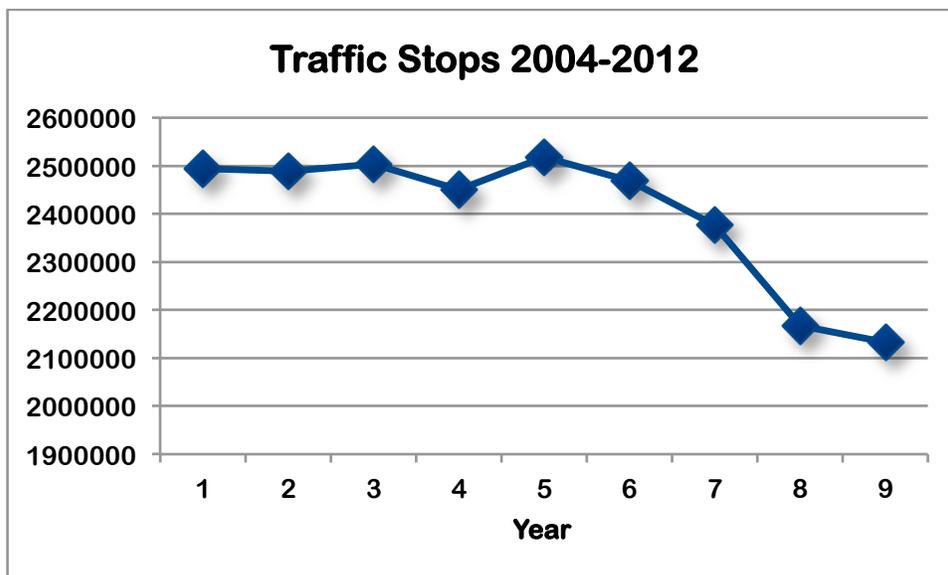


Figure 1 Traffic Stops 2004-2012

Year	Stops
2004	2493687
2005	2489326
2006	2503956
2007	2450348
2008	2517611
2009	2469404
2010	2376672
2011	2166613
2012	2132006

In Figure 2 we illustrate the number of stops for minority and white drivers.

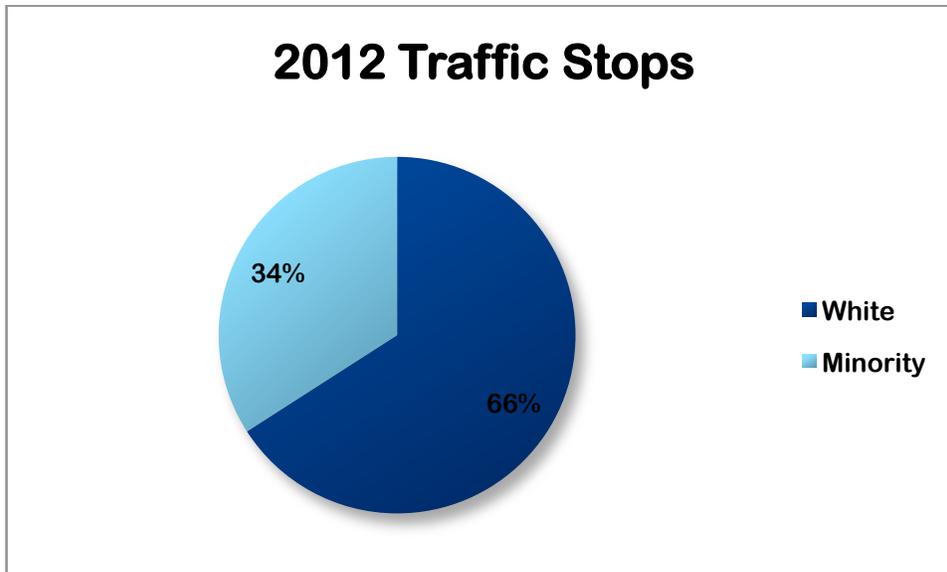


Figure 2 Statewide Traffic Stops by Race 2012

Figure 3 shows traffic stops for each of the new racial categories:

- White (WH)
- African-American (AA)
- American Indian (AI)
- Hispanic (HIS)
- Asian (ASN)
- Native Hawaiian or Pacific Islander (NH)³

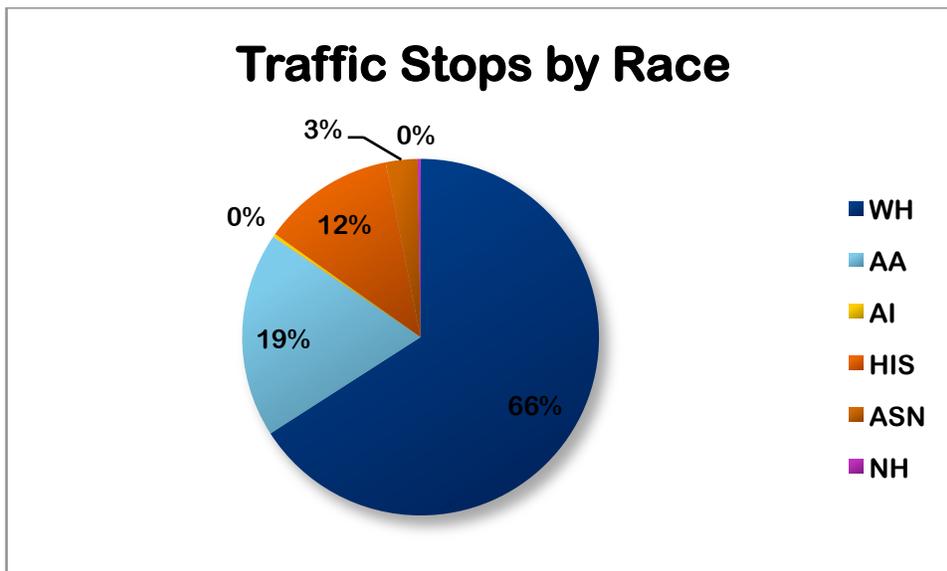


Figure 3 Percentages of Stops by Individual Race

³ In Figure 3 a percentage of "0" indicates a percentage of less than one percent.

Ratios

Our analysis uses several measures to test the extent to which race plays a part in traffic stops. We have classified these measures as “pre-stop” measures and “post-stop” measures. Pre-stop measures examine behaviors related to the stopping of the vehicle, and post-stop measures illustrate what happens after the vehicle has been stopped and the officer contacts the driver.

The first pre-stop measure is the “ratio”. This measure looks at the likelihood that minority drivers will be stopped by a law enforcement agency. To quantify this likelihood we calculate the ratio between the percentage of minority stops of an agency and that community’s estimated driving population, or as it is often called, the “benchmark”.⁴

To illustrate this idea, consider an agency in which 22% of traffic stops involved minority drivers. In this same community the estimated driving population was 20%. The ratio for this agency would be 22/20 or 1.1. In other words, in this community, a minority driver is 10% more likely to be stopped than we would expect based on the estimated minority driving population. A ratio of 2, for example, would indicate that a minority driver was twice as likely to be stopped than we would expect.⁵

In 2012 the statewide ratio was 1.19, up slightly from 2011 when the ratio was 1.16. Figure 5 illustrates the distribution of ratios across the reporting agencies. As we can see 70% of the law enforcement agencies had ratios below 1.25, while 13% had ratios of 2 or greater.

⁴ For a detailed description of the construction of the estimated driving population see the 2004 Annual Report available from IDOT.

⁵ A ratio of zero occurs when an agency makes no stops of minority drivers.

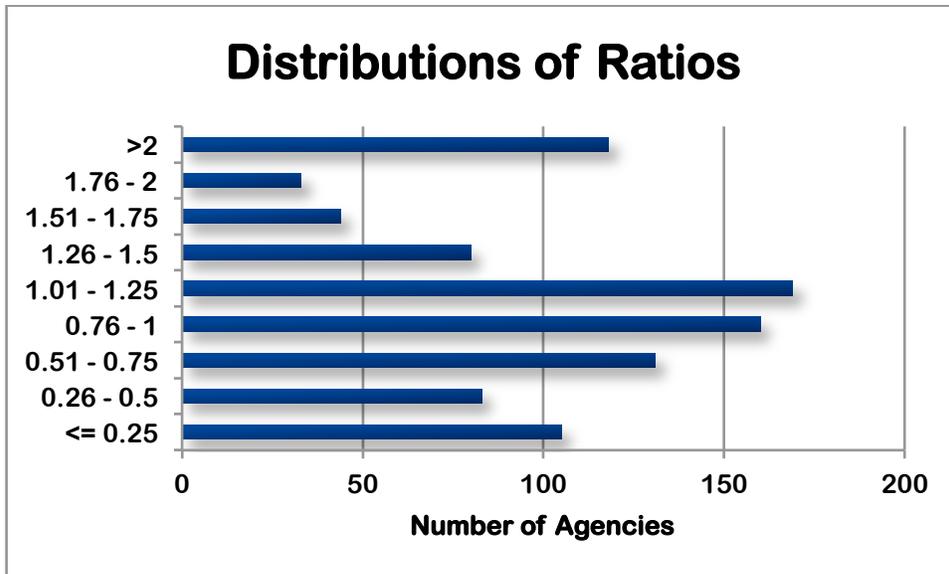


Figure 4 Distributions of Ratios by Agency

Reason for Stop

The second pre-stop measure is the reason for the stop. We are seeking to determine whether race is a determinant factor in the decision to make a traffic stop. To do this we examine the distribution of reasons within race, assuming that if race is not a factor the distribution of reasons within each race will be similar. This is illustrated in Figure 5. For this year's analysis we have added a new category under reason for stop; commercial vehicle violations. In this figure we see the reason for the stop as expressed as a percentage of all the stops for that race.

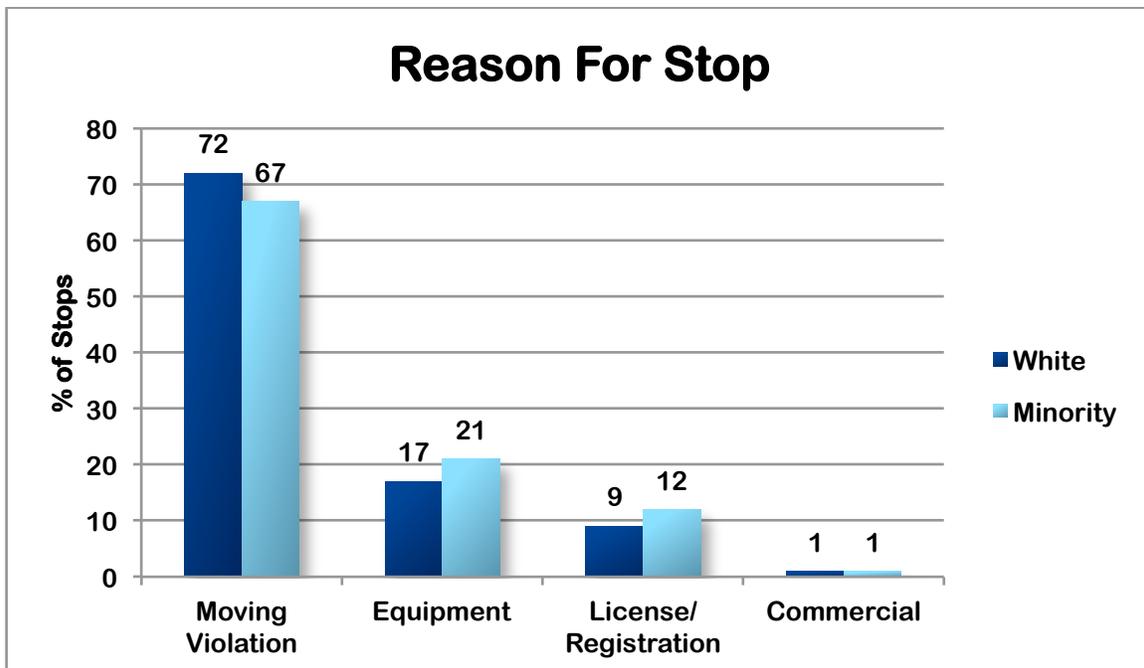


Figure 5 Reasons for Stop by Race

Duration of Stop

Our first post-stop measure is the duration of the stop. Post-stop measures may be more instructive because by this point in the encounter the officer has contacted the driver and drawn a conclusion about the driver's race.

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 white drivers.

In our analysis we included two measures of average duration, the *mean* and *median*. The mean is calculated by summing the total time for all traffic stops and then dividing by the number of stops. The mean is susceptible to extreme values. That is, an unusually long traffic stop can cause the mean to be larger, and thus it may not be representative of a central or average value. If we take the times for all the stops and place them in order we can derive the median. 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.⁶ In 2012 the mean duration for stops of white drivers

⁶ 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.

was 11 minutes and for minority drivers it was 12. The median duration for both groups was 10 minutes. These are the same results as 2011.

Figure 6 illustrates the mean and median duration times by race for statewide data. You will note that the mean stop for African Americans and Hispanics is longer than the mean for the other races.

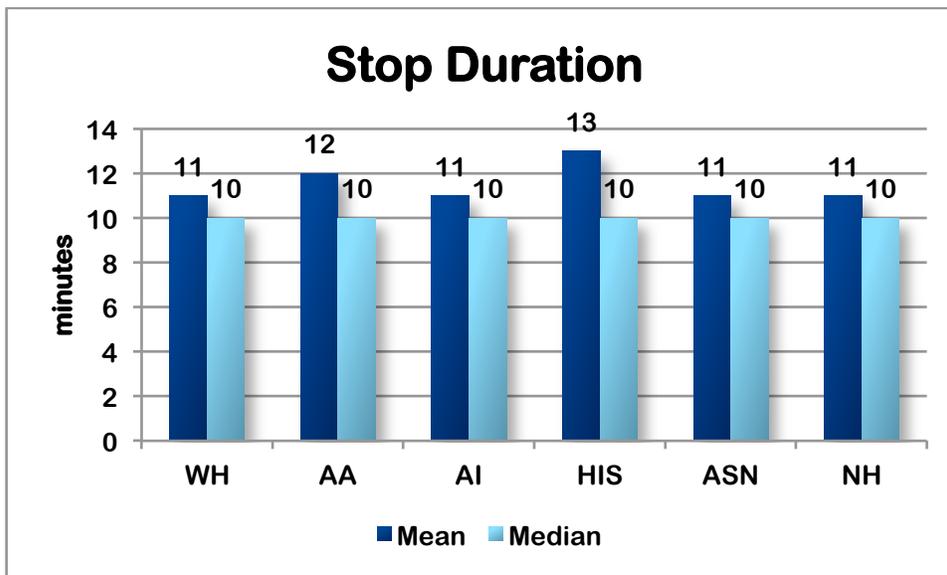


Figure 6 Duration of Stop by Race

Outcome of Stop

The next post-stop measure is the outcome of the stop. We use three categories to define the outcome: citation, written warning, and verbal warning/stop card.⁷ Figure 7 compares white drivers and minority drivers on the three possible outcomes.

⁷ Not all agencies issue written warnings.

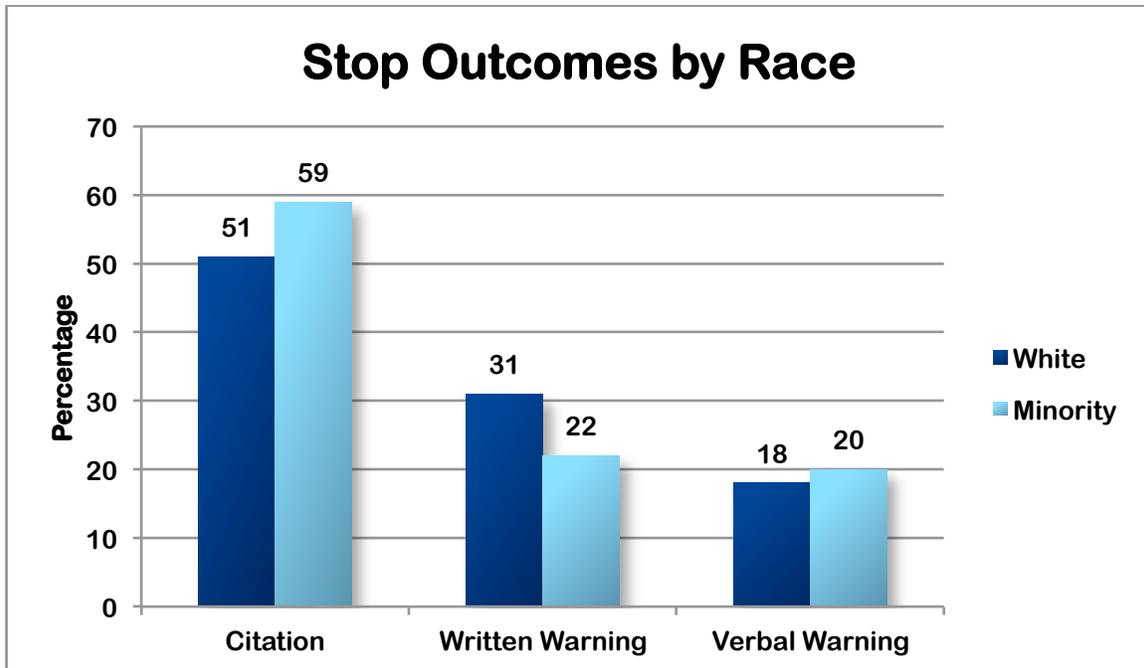


Figure 7 Outcomes of Stops by Race

In 2012 law enforcement officers in Illinois wrote 1,142,018 citations during reported traffic stops. A citation was issued in 54% of all stops.

Figure 8 shows the relationship between race and citation for white and minority drivers. Figure 8 shows the analysis by individual race.

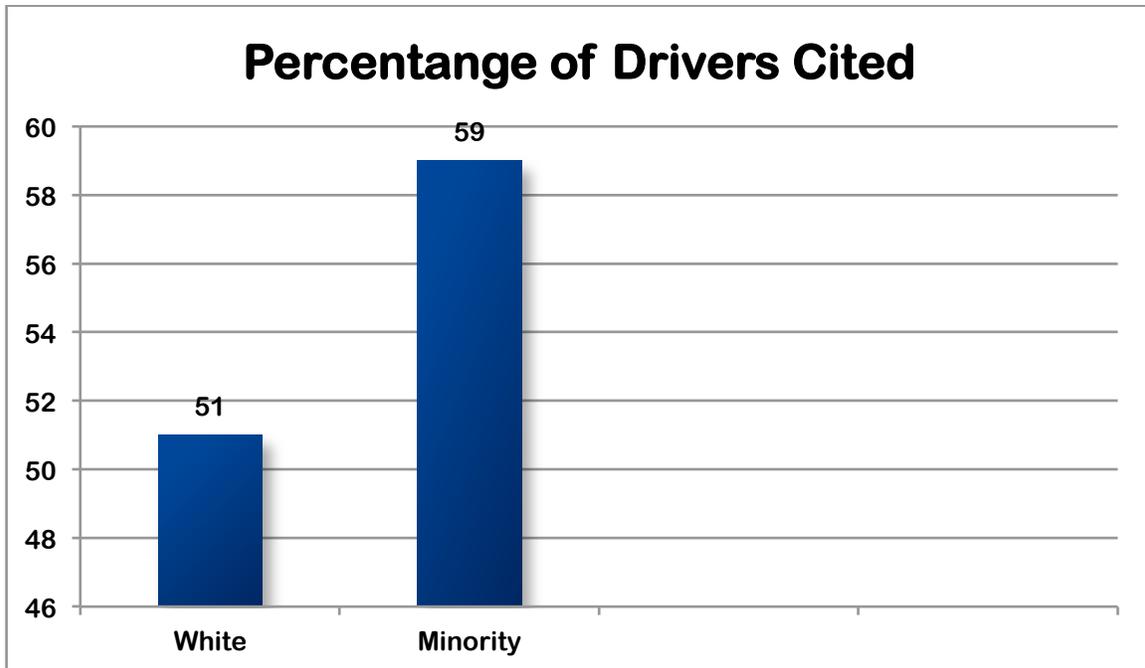


Figure 8 Percentage of Drivers Cited by Race

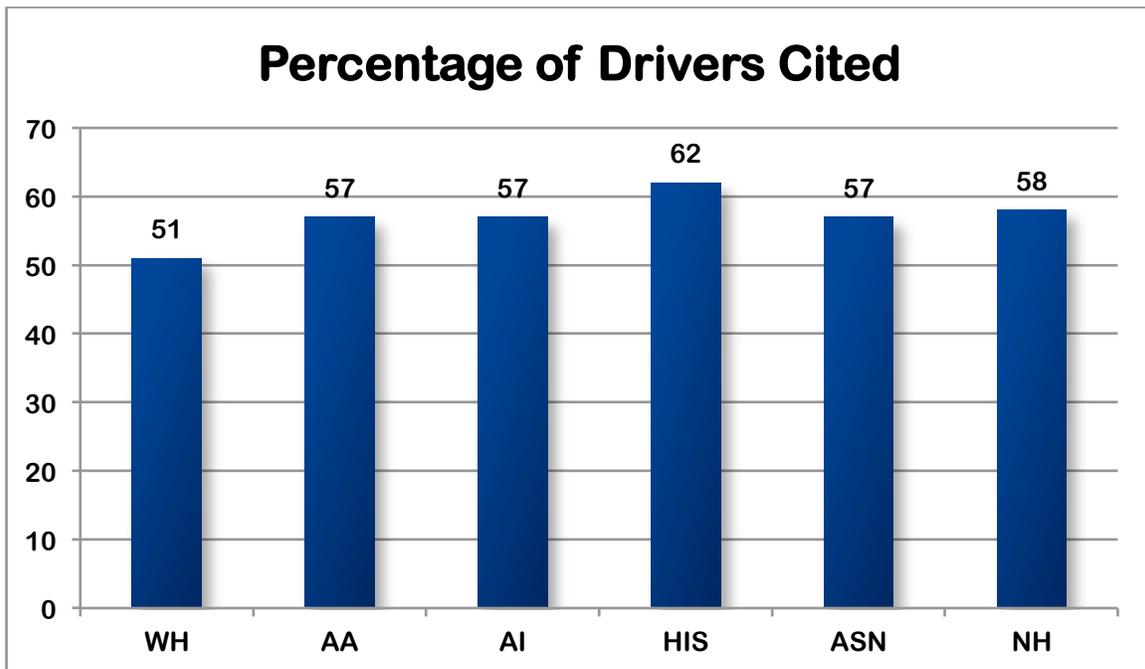


Figure 9 Percentage of Drivers Cited by Individual Race

Consent Searches

The next post-stop 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 consent searches, those in which the decision to request a search is largely that of the individual officer.

Consent searches are often a point of contention, particularly concerning the whether the consent was voluntary. In Milwaukee police officers must now complete a form each time they obtain consent to search. Drivers must sign the form acknowledging their consent. If they refuse to sign the form their consent must be recorded by audio and video.⁸

In our analysis we treat the consent search has a four step-process:

- Was a consent search requested?
- Was permission to conduct the search granted?
- Was the search conducted?
- Was contraband found during the consent search?

In 2012, police officers performed 24003 vehicle consent searches. This equates to a consent search occurring in about one percent of all stops. Figure 10 illustrates the total number of consent searches performed by race and Figure 11 shows the number performed by individual race.

⁸ <http://www.jsonline.com/watchdog/watchdogreports/new-policy-will-help-milwaukee-police-track-searches-b9922470z1-209592461.html>

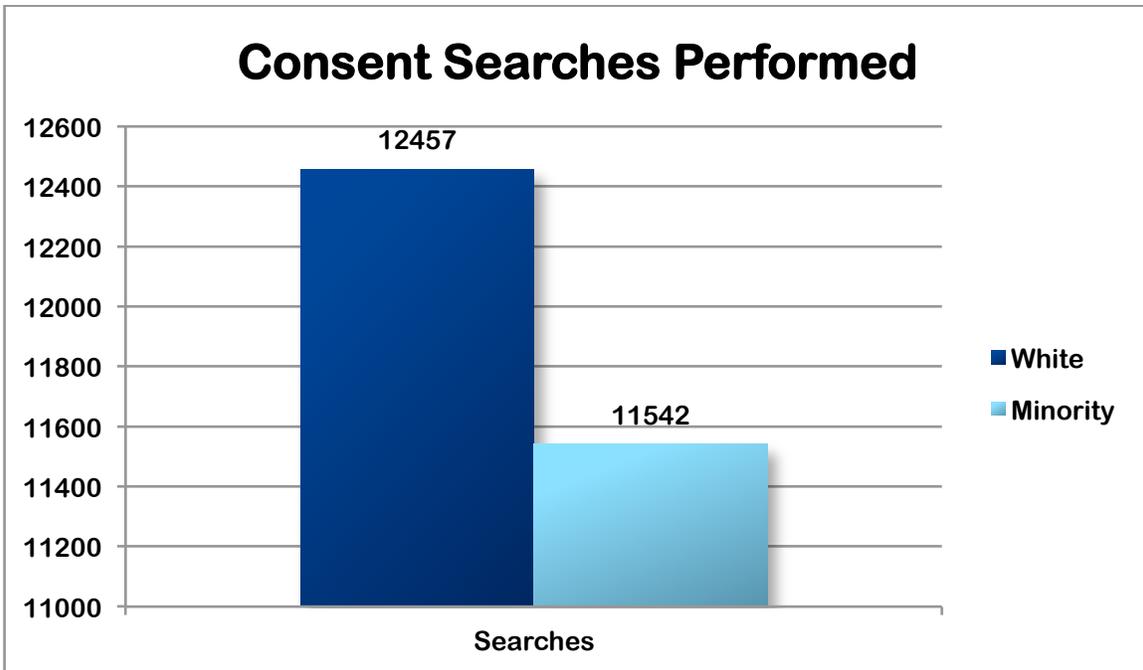


Figure 10 Consent Searches Performed

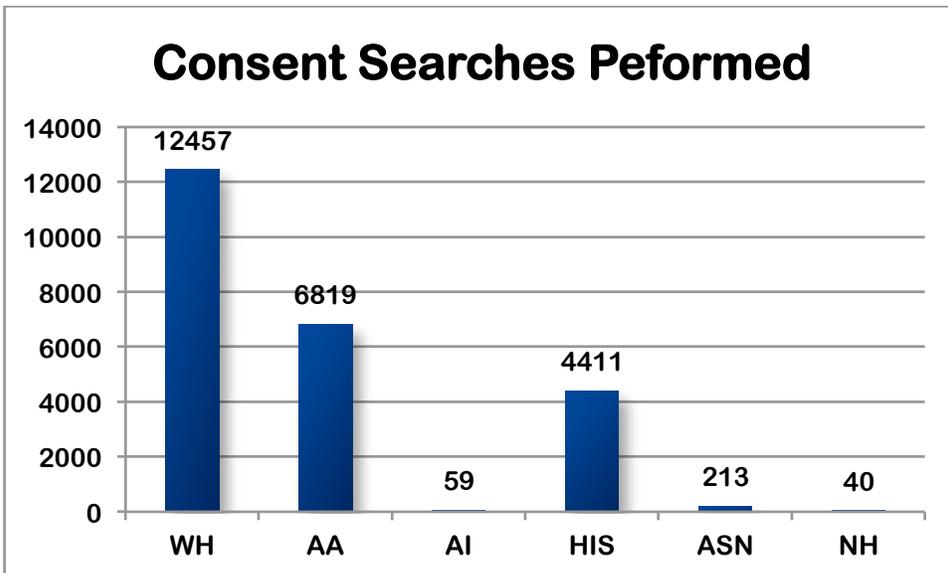


Figure 11 Consent Searches Performed by Individual Race

In Table 1 we examine the consent search data by individual race for 2012. There are important data in these findings. First we observe how infrequently consent searches are conducted. Second, we observe the decision to permit consent does not vary much by race, whereas in the past there were marked differences. Third, African American and Hispanic drivers are still about twice as likely to be the subject of a vehicle consent search than other drivers, relative to how frequently they are stopped.

	White	African American	American Indian	Hispanic	Asian	NH
Stops	1404896	396608	6285	256501	61457	5562
Requested	14916	8069	74	5218	250	48
Granted (% Of Requested)	13005(87%)	7085 (88%)	64 (86%)	4599 (88%)	220(88%)	41(85%)
Performed (% of Stops)	12457(.9%)	6819 (1.7%)	59 (.94%)	4411(1.7%)	213 (.3%)	40 (.72%)

Table 1 Consent Search Process by Race

Prior to this year, the disparity between consent searches rates for White, Hispanic and African-American drivers was getting smaller. This is illustrated in Figure 12. However, in 2012 there were more consent searches in each group and the disparity grew.

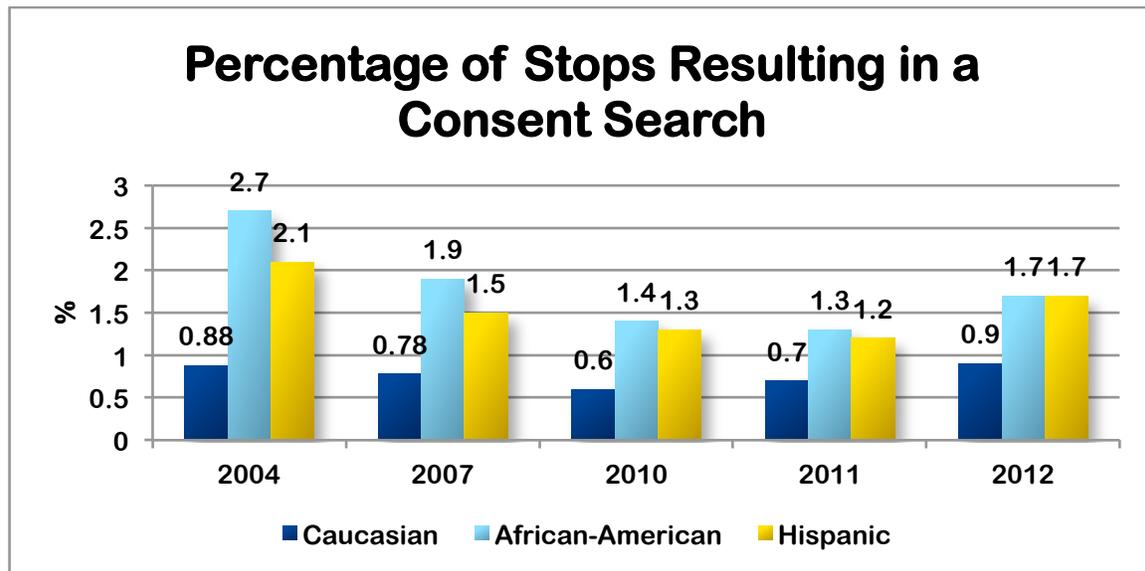


Figure 8 Percentages of Stops Resulting in a Consent Search by Race

Next we examine whether a consent search resulted in a seizure of contraband, defined as drugs, drug paraphernalia, weapons, stolen property, alcohol, 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 2012 when the vehicle of a white driver was consent searched, police officers found contraband **26%** of the time. By contrast when a vehicle driven by a minority driver was consent searched, officers found contraband **17%** of the time. In Table 2 we describe the hit rates by individual race.

	White	African American	American Indian	Hispanic	Asian	NH
Stops	1404896	396608	6285	256501	61457	5562
Performed	12457	6819	59	4411	213	40
Contraband Found (% Performed)	3227 (26%)	1277 (19%)	11 (19%)	670 (15%)	48 (23%)	9 (23%)

Table 2 Consent Search "Hit Rates" by Race

In Figure 11 we illustrate the relationship between driver race and whether contraband was found. For example, white drivers were involved in 52% of all stops in which a consent search was performed, but 59% of the time contraband was found during a stop it was in a vehicle driven by a white driver. By contrast, Hispanic drivers were involved in 18% of consent searches but in only 12% of the cases in which contraband was found.

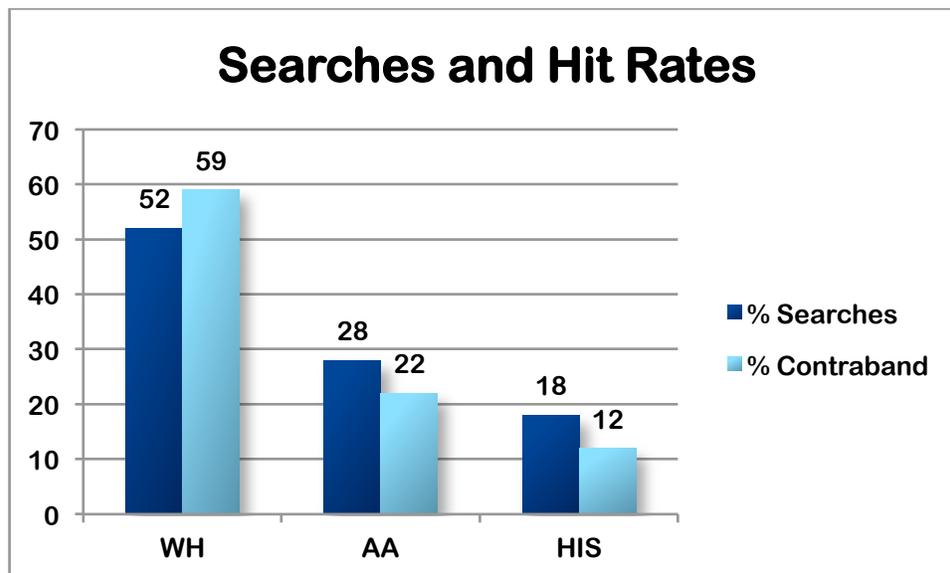


Figure 9 Searches and Hit Rates

Dog Sniffs

"The use of drug-detection dogs by law enforcement has become one of the focal points in government efforts to enforce drug laws. Until recently however, courts were unclear whether the Fourth Amendment permitted police to use a drug-detection dog to sniff the exterior of a vehicle during a lawful, routine traffic stop without any suspicion of drug-related activity. In January 2005, the U.S. Supreme Court in *Illinois v. Caballes* held that a dog sniff conducted during a lawful, routine traffic stop that

reveals nothing more than the presence or absence of an illegal substance does not violate the Fourth Amendment".⁹

This is our first examination of dog sniffs during traffic stops. In 2012 agencies reported 16454 dog sniffs. Dog Sniffs were conducted in .8% of stops with white drivers, and .7% of stops in which the driver was a minority.

In addition to the number of sniffs conducted, data is also gathered to identify how often the dog alerts, how often a subsequent search of the vehicle is conducted and whether or not contraband is found. The results are shown in Table 3.

	White	Minority
Total Dog Sniff Searches	11381	5073
Dog Alerts (% of Searches)	2914 (26%)	2004 (40%)
Search Performed (% Alerts)	2381 (97%)	1959 (98%)
Contraband Found (% Performed)	1840 (65%)	1096 (56%)

Table 3 Results of Dog Sniff Searches

⁹ <http://adams.law.ou.edu/olr/articles/vol57/vol574/fields574.pdf>

Appendix A: 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. 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 321 stops of minority drivers for equipment violations. This represented 30.34 % 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.

Next, 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.

Finally, we can observe data about the use of drug detection dogs.

ILLINOIS TRAFFIC STOP STUDY, 2012								
Agency:	ST. CLAIR COUNTY SHERIFF							
Stops								
	Caucasian Drivers				Minority Drivers			
Total Stops	2382				2363			
Percentage Stops	50.2				49.8			
Duration (Mean\Median)	11\10				12\10			
Estimated Minority Driving Population Ratio					33.46 1.49			
Reason for Stop								
	Caucasian Drivers				Minority Drivers			
Total	2382				2363			
Moving Violations	1668	70.03%		1287	54.46%			
Equipment Violations	400	16.79%		545	23.06%			
Licensing / Registration Violations	307	12.89%		526	22.26%			
Commercial Vehicle Violations	7	0.29%		5	0.21%			
Outcome for Stop								
	Caucasian Drivers				Minority Drivers			
Total	2382				2363			
Citation	1217	51.09%		1391	58.87%			
Written Warning	4	0.17%		9	0.38%			
Verbal Warning/ Stop Card	1161	48.74%		963	40.75%			
Consent Searches								
	Caucasian Drivers				Minority Drivers			
Total	2382				2363			
Requested	11	0.46%		19	0.80%			
Granted	11	100%		15	78.95%			
Performed	11	100%		14	93.33%			
Found	6	54.55%		6	42.86%			
Dog Sniff Searches								
	Caucasian Drivers				Minority Drivers			
Total Dog Sniff Searches	2				5			
Dog Alerts	2	100%		5	100%			
Search Performed	2	100%		5	100%			
Contraband Found	1	50%		1	20%			
Summary by Agency								
Key Indicators	Total	WH	AA	AI	HIS	ASN	NH	N/S
Stops	4745	2382	2246	18	74	19	6	0
Duration(Mean/Median)	11\10	11\10	12\10	11\10	12\10	10\10	11\12	0\0
Reason For Stop	Moving	2955	1668	1220	9	40	14	0
	Equipment	945	400	515	1	23	5	0
	License	833	307	507	7	11	0	0
	Commercial Vehicle	12	7	4	1	0	0	0
	N/S	0	0	4	1	0	0	0
Outcome of Stop	Citation	2608	1217	1327	11	39	9	0
	Written Warning	13	4	8	0	0	1	0
	Verbal Warning/SC	2124	1161	911	7	35	9	0
	N/S	0	0	0	0	0	0	0
Consent Searches	Requested	30	11	16	0	2	1	0
	Granted	26	11	12	0	2	1	0
	Performed	25	11	11	0	2	1	0
	Found	12	6	6	0	0	0	0
Dog Sniff Searches	Total	7	2	4	0	1	0	0
	Dog Alerts	7	2	4	0	1	0	0
	Search Performed	7	2	4	0	1	0	0
	Contraband Found	2	1	1	0	0	0	0

Appendix B: Non-complying Agencies

ANNA POLICE	FILLMORE POLICE
ASHKUM POLICE	FISHER POLICE
ASSUMPTION POLICE	FITHIAN POLICE
ATLANTA POLICE	GLASFORD POLICE
AUGUSTA POLICE	GOLCONDA POLICE
BECKEMEYER POLICE	GOREVILLE POLICE
BELGIUM POLICE	GRAND RIDGE POLICE
BLUE MOUND POLICE	GREAT LAKES NAVAL STATION
BLUFFS POLICE	GREENVIEW POLICE
BRIDGEPORT POLICE	HARDIN COUNTY SHERIFF
BROCTON POLICE	HENNING POLICE
BROOKLYN POLICE	HILLCREST POLICE
BUCKLEY POLICE	HUME POLICE
BUNCOMBE POLICE	HURST POLICE
BUREAU POLICE	HUTSONVILLE POLICE
CAMBRIA POLICE	INA POLICE
CERRO GORDO POLICE	INDIANOLA POLICE
CHERRY POLICE	ISLAND LAKE POLICE
CHRISTOPHER POLICE	JOY POLICE
CISSNA PARK POLICE	KEITHSBURG POLICE
DONNELLSON POLICE	KILBOURNE POLICE
EAST ST. LOUIS POLICE	KINMUNDY POLICE
ELSAH POLICE	KIRKLAND POLICE
ENFIELD POLICE	LOSTANT POLICE
EWING POLICE	LUDLOW POLICE

LYNDON POLICE
MAQUON POLICE
MAZON POLICE
MCNABB POLICE
MORRISONVILLE POLICE
MOUND CITY POLICE
NAPLATE POLICE
NORTH UTICA-UTICA POLICE
NORWOOD POLICE
OLD SHAWNEETOWN POLICE
ORANGEVILLE POLICE
PIPER CITY POLICE
PLYMOUTH POLICE
RIDGWAY POLICE
ROUND LAKE PARK POLICE
RUTLAND POLICE
SAFE
SAN JOSE POLICE
SHEFFIELD POLICE
SHIPMAN POLICE
SPAULDING POLICE
SPILLERTOWN POLICE
ST. FRANCISVILLE POLICE
THAYER POLICE
TILDEN POLICE
TISKILWA POLICE
TOLEDO POLICE
TOLUCA POLICE
UNION PACIFIC RAILROAD-CENTRAL
POLICE
UNITED STATES DEPARTMENT OF
VETERANS AFFAIRS - NORTH CHICAGO
DIVISION
VALIER POLICE
VILLA GROVE POLICE
WALNUT POLICE
WARSAW POLICE
WASHBURN POLICE
WESTFIELD POLICE
WHITEASH POLICE
WORDEN POLICE
WILSONVILLE POLICE