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Illinois Traffic Stop Study 2013 Annual Report

Introduction

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

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 does 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
- 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

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.

approximately ten days to identify possible errors in the report or to submit comments that are attached to agency reports.

Agency participation

In 2013, 943 law enforcement agencies in Illinois submitted traffic stop data to IDOT. This number is up from 2012 when 923 agencies submitted data. The complete list of non-complying agencies appears in Appendix "B".

Traffic Stops

In 2013, law enforcement agencies in Illinois reported 2,095,876 traffic stops to IDOT. This represents 36,130 fewer stops than 2012. Figure 1 illustrates the number of traffic stops for the 10 years of the Traffic Stop Study (2004-2013) on a statewide basis.



Figure 1 Traffic Stops 2004-2013

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



Figure 2 Statewide Traffic Stops by Race 2013

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

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

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



Figure 3 Percentages of Stops by Individual Race

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

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.

In 2013, the statewide ratio was 1.22 up slightly from 2012 when the ratio was 1.19. Figure 4 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.



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. 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 2013, the mean duration for stops of white drivers was

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.

11 minutes and for minority drivers it was 12. The median duration for both groups was 10 minutes. These are the same results as 2012.

Figure 6 illustrates the mean and median duration times by race for statewide data. You will note that the mean duration 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 2013, there were 1,098,060 traffic stops in which a citation was issued. A citation was issued in 52% of all stops.

Figure 8 shows the relationship between race and citation for white and minority drivers. Figure 9 shows the analysis by individual race.









Consent Searches

The next post-stop analysis examines vehicle consent searches⁸. 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.

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

- 1. Was a consent search requested?
- 2. Was permission to conduct the search granted?
- 3. Was the search conducted?
- 4. Was contraband found during the consent search?

In 2013, police officers performed 22,805 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.



Figure 10 Consent Searches Performed

⁸ Data is also collected concerning consent searches of drivers and passengers; however, this analysis only examines consent searches of vehicles.



Figure 11 Consent Searches Performed by Individual Race

Most law enforcement agencies perform few, if any vehicle consent searches. In fact, in 2013, only 93 agencies (about ten percent of the participating agencies) performed fifty or more (about one per week) vehicle consent searches. Table 1 illustrates the agencies that conducted more than three hundred vehicle consent searches. Interestingly, these eleven agencies account for 37% of all the vehicle consent searches conducted in the state.

Rank	Agency	Vehicle Consent Searches
1	Illinois State Police	2124
2	Chicago Police	1319
3	Aurora Police	1157
4	Springfield Police	896
5	McHenry County Sheriff	596
6	Lake County Sheriff	419
7	Grundy County Sheriff	410
8	Rockford Police	408
9	Jacksonville Police	388
10	Posen Police	383
11	Belleville Police	358

Table 1 Agencies that Conducted More than 300 Vehicle Consent Searches

In Table 2, we examine more closely the consent search data by individual race for 2013. There is 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	1369506	395170	5047	259276	61647	5212
Requested	14011	7637	43	4699	204	42
Granted (% Of Requested)	12164(87%)	6809 (89%)	35 (81%)	4330 (92%)	188(92%)	40(95%)
Performed (% of Stops)	11747(.9%)	6603 (1.7%)	35 (.7%)	4202(1.6%)	180 (.3%)	38(.73%)

 Table 2 Consent Search Process 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 2013 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. A similar outcome has occurred in each year since we started collecting hit rate data.

In Figure 12, we illustrate the relationship between driver race for the three largest categories and whether contraband was found. For example, white drivers were involved in 52% of all stops in which a consent search was performed, but 62% 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 14% of the cases in which contraband was found.



Figure 12 Searches and Hit Rates

Consent searches are often the subject of scrutiny, particularly in communities where the searches are disproportionately performed on minority drivers. In response some are taking action to correct these problems. The city of Austin, Texas, for example, recently joined a group of communities that require officers to gain written consent before conducting a consent search. The chief of police issued this statement regarding the policy:

Officers should be aware that overuse of the consent search can negatively impact the Department's relationship with our community and only request a consent search when they have an articulable reason why they believe the search is necessary and likely to produce evidence related to an investigation.⁹

The city of Fayetteville, North Carolina has similar policy on consent searches:

- Consent to search, given freely and voluntarily does not require that the person first be warned of his right to withhold consent or his right to withdraw.
- Officers shall not request consent to search any vehicle based upon a mere hunch of criminal activity. Although, as a matter of law, no such showing is required, Officers shall articulate at least one reasonable factor that the driver and/or occupant(s) may be involved in criminal activity. Extreme nervousness, by itself, is not sufficient to support a reasonable factor.

⁹ Austin Police Department, 2012 Annual Racial Profiling Report. February 2013

- When a consent search is requested, whether in a home or in a vehicle, a written consent form will be provided to the person having authority to grant permission to search for their review and signature.
- A consent search will cease at any point that the person being searched revokes their consent absent probable cause established by the officer during the consent search.¹⁰

Dog Sniffs

This is our second annual examination of dog sniffs during traffic stops.¹¹ In 2013 agencies reported 6924 dog sniffs. Dog Sniffs were conducted in .3% of stops with white drivers, and .3% of stops in which the driver was a minority. Three hundred and twenty-nine agencies reported having conducted at least one dog sniff.

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. It is interesting to observe that the results of searches based on dog sniffs are more productive than those of consent searches.

	White	Minority
Total Dog Sniff Searches	4283	2641
Dog Alerts (% of Searches)	2608 (61%)	1779 (67%)
Search Performed (% Alerts)	2551 (98%)	1746 (98%)
Contraband Found (% Performed)	1625 (64%)	957 (55%)

 Table 3 Results of Dog Sniff Searches

¹⁰ Fayetteville Police Department Operating Procedure 3.5.2

¹¹ During our review of the 2012 data we discovered that an agency reported erroneously that every one of their 7,504 stops included a dog sniff. In fact, the agency conducted fewer than 12. This error had the effect of distorting the reported statewide dog sniffs, and our calculation of the percentage of sniffs in which the dog alerted. We have corrected this issue for the 2013 analysis.

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 White 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 154,529 stops of minority drivers for equipment violations. This represented 21% 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, 2013				
Agency:	Illinois State Wide			
,				

Stops						
	White Drivers	Minority Drivers				
Total Stops	1369506	726352				
Percentage Stops	65.34	34.66				
Duration (Mean\Median)	11\10	12\10				
Estimated Minority Driving Population		28.48				
Ratio		1.22				

Reason for Stop							
	White Drivers		Minority Driver				
Total	1369506		726352				
Moving Violations	976107 71%		475384	65%			
Equipment Violations	242036 18%		154529	21%			
Licensing / Registration Violations	133948 10%		88314	12%			
Commercial Vehicle Violations	17415	1%	8105	1%			

Outcome for Stop						
	White Drivers Minority Driver					
Total	1369506		726352			
Citation	673880 49%		424180	58%		
Written Warning	438044	32%	165444	23%		
Verbal Warning/ Stop Card	257582	19%	136728	19%		

Consent Searches							
	White Drivers		Minority Drivers				
Total	1369506		726352				
Requested	14011	1%	12625	2%			
Granted	12164	87%	11402	90%			
Performed	11747	97%	11058	97%			
Found	3008	26%	1869	17%			

Dog Sniff Searches						
	White Drivers Minority Drivers					
Total Vehicle Dog Sniffs	4283		2641			
Dog Alerts	2608 61%		1779	67%		
Search Performed	2551	98%	1746	98%		
Contraband Found	1625	64%	957	55%		

K	ey Indicators	Total	WH	AA	AI	HIS	ASN	NH	N/S
	Stops	2095876	1369506	395170	5047	259276	61647	5212	18
Duratio	on(Mean/Median)	12\10	11\10	12\10	11\10	13\10	10\10	10\10	<mark>9\8</mark>
	Moving	1451491	976107	250760	3671	168979	47959	4015	9
Reason	Equipment	396585	242036	86018	849	57730	9177	755	6
For Stop	License	222262	133948	55536	487	27760	4154	377	3
FOI SLOP	Commercial Vehicle	25520	17415	2856	40	4807	357	45	0
	N/S	18	0	0	0	0	0	0	18
	Citation	1098060	673880	225491	2781	158370	34457	3081	0
Outcome	Written Warning	603488	438044	91878	1220	54828	16482	1036	0
of Stop	Verbal Warning/SC	394310	257582	77801	1046	46078	10708	1095	18
	NS	18	0	0	0	0	0	0	18
	Requested	26636	14011	7637	43	4699	204	42	0
Consent	Granted	23566	12164	6809	35	4330	188	40	0
Searches	Performed	22805	11747	6603	35	4202	180	38	0
	Found	4877	3008	1133	5	688	37	6	0
	Sniffs	6924	4283	1911	5	664	52	9	0
Dog Sniff	Alerts	4387	2608	1379	3	361	31	5	0
Searches	Alert Search	4297	2551	1356	3	351	31	5	0
	Found	2582	1625	759	1	177	17	3	0

Appendix B: Non-complying Agencies

ANNAWAN POLICE ASSUMPTION POLICE BATH POLICE **BELGIUM POLICE BRADFORD POLICE** BRIDGEPORT POLICE **BROOKLYN POLICE BUCKNER POLICE BUDA POLICE BUNCOMBE POLICE** BUREAU POLICE **CAMBRIA POLICE** CENTREVILLE POLICE **CLAYTON POLICE CRAINVILLE POLICE CROSSVILLE POLICE** DONGOLA POLICE DONNELLSON POLICE ENFIELD POLICE EWING POLICE **GLADSTONE POLICE GOLCONDA POLICE GRAYVILLE POLICE GREAT LAKES NAVAL STATION GREENVIEW POLICE** HARDIN COUNTY SHERIFF HUME POLICE HUTSONVILLE POLICE JOHNSTON CITY POLICE JOY POLICE KILBOURNE POLICE

LOSTANT POLICE LUDLOW POLICE LYNDON POLICE MCNABB POLICE METAMORA POLICE METROPOLITAN AIRPORT AUTHORITY MOUND CITY POLICE NEPONSET POLICE NEW BOSTON POLICE OGLE COUNTY SHERIFF PITTSBURG POLICE PROPHETSTOWN POLICE SHIPMAN POLICE SPAULDING POLICE SPILLERTOWN POLICE ST. FRANCISVILLE POLICE ST. JOHNS POLICE STONE PARK POLICE TAMMS POLICE TAYLOR SPRINGS POLICE THEBES POLICE THOMSON POLICE TILDEN POLICE **TISKILWA POLICE TOLUCA POLICE** VALIER POLICE VERMONT POLICE WARSAW POLICE WESTFIELD POLICE WILSONVILLE POLICE