

Report on Traffic Stops Statistics For the State of Connecticut

For the Period of July 1, 2000 to June 30, 2001

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EXECUTIVE SUMMARY

Public Act No. 99-198 of the Connecticut General Assembly, “An Act Concerning Traffic Stops Statistics,” directed the Department of Public Safety and municipal police agencies to adopt a written policy prohibiting the practice of stopping, detaining, or searching any person based on the individual’s race, color, ethnicity, gender, or sexual orientation and instructed the Chief State’s Attorney to collect information on all police-initiated traffic stops in Connecticut. This report is a summary, analysis, and presentation of the traffic stops occurring in the State of Connecticut for the period of July 1, 2000 to June 30, 2001. These statistics are presented for the entire state and for each individual police agency in Connecticut.

Prior Research on Racial Profiling

Research on racial profiling has become increasingly prevalent in the past year. Results from research outside of Connecticut have generally found that African Americans and Hispanics are disproportionately stopped more often than whites; African Americans and Hispanics are disproportionately subjected to searches of their vehicles or person; and African Americans and Hispanics are either as likely as whites or less likely than whites to be in possession of drugs or other contraband following a search.

Collection of Traffic Stops Data

The Chief State’s Attorney, Connecticut Office of Policy and Management, and a law enforcement subcommittee comprised of representatives of state and local police agencies created a reporting format for collecting traffic stops data and instructed the Division of State Police and municipal agencies on its use. These data consisted of the name of the jurisdiction, date and time of the traffic stop, age, gender, race, ethnicity of the driver, the nature of the traffic stop, the General Statute violated, whether a vehicle search was conducted, and the disposition of the traffic stop.

Law enforcement officers were instructed to complete the traffic stop form immediately following the traffic stop. These forms were sent to the Chief State’s Attorney’s Office and forwarded to the Connecticut Department of Information Technology for compilation. The Office of Policy and Management reviewed the data for erroneous codes and missing information.

Analysis of Traffic Stops Data

The traffic stops data were presented two separate ways. The first method presented a statewide summary of the data and revealed no widespread patterns of racial and ethnic differences in the percentage of traffic stops compared to the population percentages from the 2000 U.S. Census for Connecticut. There were, however, some disparities in arrests, misdemeanor summonses, and searches as a function of race and ethnicity. The probability of being arrested was 1.5% higher for black drivers stopped (compared to white drivers) and 2% higher for Hispanic drivers stopped (compared to non-Hispanic white drivers). These differences are more pronounced for the issuance of misdemeanor summonses. Black drivers stopped had a 10.5% probability of receiving a misdemeanor summons compared to a 6% probability for white drivers stopped. Hispanic drivers stopped had a 14% chance of receiving a

misdemeanor summons compared to a 5% chance for non-Hispanic white drivers stopped. Moreover, the probability of being searched was higher for black motorists stopped than white motorists stopped (6.5% to 3%) as well as for Hispanic motorists stopped when compared to non-Hispanic white motorists stopped (9% to 3%).

The second method computed a measure of disproportionality that compared black to non-black motorists and Hispanic to non-Hispanic motorists to assess disparities across the 92 police agencies in Connecticut. This analysis showed that the majority of departments exhibited disparities of less than 5% in regards to stopping and/or arresting black and Hispanic drivers. The largest disparities were found in the issuance of misdemeanor summonses and searches of motor vehicles. The average police department disproportionality score for motor vehicle searches was 2% for black drivers and 4% for Hispanic drivers respectively. Additionally, 70% of departments exhibited less than 5% disparity for black drivers and 61% exhibited less than 5% for Hispanic drivers.

Conclusions

The findings of traffic stops statistics from July 1, 2000 to June 30, 2001 were consistent with the findings from the *Interim Report*. There do not appear to be widespread disparities as a function of race or ethnicity. The differences observed in stopping minority drivers, the nature of the traffic stops, and dispositions were generally small. The most notable disparities were found in the issuance of misdemeanor summonses and motor vehicle searches.

A major limitation of traffic stops research has been the inability to conclusively explain differences in traffic stops, dispositions, or searches. The presence of any differences cannot solely be explained by police decisions without knowing the proportion of minority drivers or the proportion of drivers violating traffic laws. Our analysis of extraneous influences has aided in the understanding of why some disparities were present. One important finding was that police departments stopping a higher percentage of minority drivers bordered towns or cities having a high percentage of minority residents. This finding suggests that outside factors may explain disparities in the traffic stops statistics rather than systematic differences across law enforcement agencies.

We recommend that a more focused examination of misdemeanor summonses and searches be undertaken on a local level. The limited data collected from the traffic stops forms do not allow for in-depth analysis of these. Of particular interest would be the types of misdemeanor summons and searches. Specific to searches, it would be helpful to look at the time of day of the search, the time needed to conduct the search, if the search was incident to arrest, and whether the search yielded criminal evidence. Other research has consistently found that searches of minorities do not uncover more criminal evidence than searches of whites.

The numbers presented in this report do not definitively confirm or disprove the existence of racial profiling among individual departments or individual police officers. The decision to stop a motor vehicle and how to dispose of this traffic stop is ultimately made on an individual basis. We can only urge police departments to be proactive in examining their traffic stops data to insure that motorists are being treated fairly and to explain any differences in the stopping, disposing, and searching of minority motorists.

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INTRODUCTION

This report presents and summarizes data collected from police-initiated traffic stops occurring in the State of Connecticut from July 1, 2000 to June 30, 2001. It follows the *Interim Report of Traffic Stops Statistics* (Cox, Pease, Miller, and Tyson, 2001) that analyzed and presented traffic stops data from January 1, 2000 to June 30, 2000. These statistics are presented for the entire state and for each individual police agency in Connecticut. There are four sections to this report. The first section provides an overview of the Public Act that directed the Chief State's Attorney in collecting the traffic stops data along with a review of other literature involving racial profiling and the use of traffic stops data to assess it. The second section discusses the data collection process employed by the Chief State's Attorney with the support of the Connecticut Office of Policy and Management as well as a summary of the information collected from each traffic stop. The third section of this report presents a summary and statistical analysis of statewide data. The fourth section summarizes the traffic stops for every police jurisdiction in the state.

This report is presented in the same format as the *Interim Report*. There are two major changes to this report. The 2000 U.S Census was released earlier in the year, which allowed us to incorporate the most recent population data in our analyses and provided better-defined ethnic categories of Hispanic, non-Hispanic other, and non-Hispanic white. Also, a series of analyses are included that address issues raised from the *Interim Report*. Namely, differences in the traffic stops across race and ethnicity depending on the age of the driver, gender of the driver, and time of the traffic stops.

Throughout this report we commonly use the terms black, white, Asian, and Native American to describe people of different races and Hispanic, non-Hispanic other, and non-Hispanic white to describe people of different ethnicities. These terms are being used in order to be consistent with the racial and ethnic categories on the traffic stops forms and the terminology of the U.S. Census.

Summary of Public Act No. 99-198

Public Act No. 99-198 of the Connecticut General Assembly was signed into law by Governor Rowland on June 28, 1999 and went into effect on October 1, 1999. There were three components to this Act. The first component defined the concept of "racial profiling" as:

"...the detention, interdiction or other disparate treatment of an individual solely on the basis of the racial or ethnic status of such individual."

The first component of the Act also instructed the Division of State Police, municipal police departments, and all other law enforcement agencies not to engage in racial profiling, in that, the race or ethnicity of an individual cannot be the only factor in establishing probable cause or reasonable and articulable suspicion for the purposes of arrest, detention, or an investigatory stop of a motor vehicle.

The second component of this legislation directed municipal police agencies and the Department of Public Safety to adopt a written policy prohibiting the stopping, detaining or searching of any person based on race, color, ethnicity, age, gender or sexual orientation. This part of the legislation also provided the guidelines for collecting information from traffic stops.

This information consists of:

- (1) the number of persons stopped for traffic violations;
- (2) the characteristics of the persons stopped (race, color, ethnicity, gender and age);
- (3) the nature of the traffic violation that resulted in the stop (criminal investigation, motor vehicle violation, or equipment violation);
- (4) the disposition of the traffic stop (e.g., warning, ticket, arrest);
- (5) whether a vehicle search was conducted;
- (6) other information deemed appropriate by the police agency involved.

In addition, each police agency is required to provide summary reports of this information to the Chief State's Attorney, who in turn, is required to provide a report to the Governor and General Assembly. The final report is to be presented no later than January 1, 2002.

The final section of the legislation stipulated that the Chief State's Attorney, in conjunction with the Commissioner of Public Safety, the Attorney General, the Chief Court Administrator, the Police Officer Standards and Training Council, the Connecticut Police Chiefs Association, and the Connecticut Coalition of Police and Correctional Officers, create and distribute a format for law enforcement officers to use when collecting information on traffic stops. Furthermore, an additional form was developed and distributed by the Chief State's Attorney to be used for reporting complaints made by citizens who feel they were stopped for a motor vehicle violation based solely on their race, color, ethnicity, age, gender or sexual orientation. This report is limited to an analysis and presentation of the data collected from the traffic stops.

Public Act No. 99-198 originally had a sunset date of January 1, 2002. However, Public Act No. 01-9 was passed in the summer of 2001 by the General Assembly that extended Public Act No. 99-198 for one year (until January 1, 2003).

Summary of the Interim Report on Traffic Stop Statistics

The *Interim Report of Traffic Stops Statistics* (Cox, Pease, Miller, and Tyson, 2001) was presented to the Governor and General Assembly in January of 2001. This report provided an initial look at the traffic stops data collected during the first six months of 2000. The *Interim Report* was based on 316,158 traffic stops and found that minority drivers did not appear to be systematically treated differently than non-minority drivers on a statewide basis. These analyses revealed that although some disparities were present, these were small and appeared to be limited to a small number of police agencies. Even though disparities between the treatment of black

and non-black drivers and Hispanic and non-Hispanic drivers were more apt to occur for the issuance of misdemeanor summons and motor vehicles searches, these differences were small.

While the *Interim Report* found that disparate treatment of minority drivers was not prevalent throughout Connecticut, it was beyond the scope of the report to conclude that individual police officers do not practice racial profiling. The decision to stop a motor vehicle and how to dispose of this traffic stop is ultimately made on an individual basis. The report did, however, recommend that Connecticut police agencies be proactive in monitoring the activities of individual officers to decrease the possibility that enforcement decisions are solely being based on race or ethnicity of motorists.

The failure to definitely explain why disparities exist has continued to be a major limitation of studies about traffic stops. To address this limitation, the *Interim Report* included an analysis of extraneous influences in an attempt to better understand why some disparities were present. One important finding was that cities/towns where a higher percentage of minority drivers were stopped bordered towns or cities having a high percentage of minority residents. This finding supports the belief that outside factors may be associated with disparities in the traffic stops statistics and do not indicate systematic racial profiling by law enforcement agencies.

Prior Research on Racial Profiling

The term “racial profiling” as defined by Ramirez, McDevitt, & Farrell (2000, p. 3) “is any police-initiated action that relies on the race, ethnicity, or national origin rather than the behavior of an individual or information that leads the police to a particular individual who has been identified as being, or having been, engaged in criminal activity.” Racial profiling as applied in this report describes the law enforcement practice of disproportionately targeting minority drivers for pretextual traffic stops. These pretextual stops offer law enforcement the opportunity to stop, detain, and possibly search any driver the officer believes may be involved in other criminal activity such as drug trafficking. Some civil rights advocates argue that race constitutes the real reason the driver is stopped and the traffic violation serves only the “pretext” for the stop since traffic codes offer limitless opportunities for police to stop drivers. The concerns are whether racial and ethnic minority drivers are disproportionately stopped for traffic stops and if drivers are being unfairly targeted for traffic stops solely based on their race or ethnicity.

A 1999 Gallup poll (Newport, 1999) revealed that 59% of Americans believe that racial profiling of motorists by police is widespread and 85% of Americans expressed disapproval of the practice. When broken down by race, 77% of African Americans and 56% of whites believe the practice is widespread. When Americans were asked whether they felt they were ever stopped by police because of their race or ethnic background, 42% of African Americans and 6% of whites said yes. Seventy-two percent (72%) of African American men aged 18-34 felt they were stopped by police because of their race or ethnic background.

Anecdotal evidence indicates that motorists have felt humiliated, frightened, angry, and helpless during these stops, particularly when police search their cars for drugs or other contraband after informing the driver s/he was stopped for a broken taillight or other minor traffic violations (ACLU, 2000; Harris, 1997; 1999; Meeks, 2000).

Lawsuits alleging racial profiling have been filed in Oklahoma, New Jersey, Maryland, Illinois, Florida, Pennsylvania, and Colorado (U.S. General Accounting Office, 2000 March). Although the law allows race and ethnicity to describe a particular suspect, race and ethnicity cannot be used as a single factor to stop-and-search (Ramirez, McDevitt, & Farrell, 2000).

History Of Racial Profiling

The practice of profiling began when the Federal Aeronautics Administration (FAA) developed a set of characteristics they believed could help identify potential skyjackers. Although the characteristics were not disclosed to the public, the use of the skyjacker profile tended to meet with favorable judicial review since the characteristics could be applied to less than one-half of one percent of the flying public and accurately identified over 90% of skyjackers (Patton, 1988).

During the 1970's and 1980's "War on Drugs", the Drug Enforcement Administration (DEA) created a "drug courier profile" (Patton, 1988; Ledwin, 1988). The "drug courier profiles" were based on the physical, psychological and behavioral characteristics of previous drug traffickers and were initially used to stop, question, and search those who were considered suspicious or likely to be carrying drugs on airplanes. The use of the drug courier profile was then expanded to include the identification of individuals engaged in drug trafficking on highways and in train and bus stations. Civil libertarians saw the drug courier profile as more problematic than the skyjacker profile because it included many characteristics that could be applied to law abiding citizens such as exiting the plane last, looking nervous, making a phone call after exiting the plane, using public transportation to leave the airport, using cash to purchase the plane ticket, and carrying no luggage (Patton, 1988). The U.S. Supreme Court generally supported searches made on the basis of a drug courier profile as long as the factors used to comprise the profile did not include race.

However, Harris (1999) argued that race was an important component of the drug courier profile. He summarized the 1985 Florida Department of Highway Safety and Motor Vehicles' guidelines for the police on "The Common Characteristics of Drug Couriers" which included "scrupulous obedience to traffic laws' and drivers wearing 'lots of gold', or who do not 'fit the vehicle,' and 'ethnic groups associated with drug trade'" (Harris, 1999, p. 5). In 1986, the Drug Enforcement Administration developed a highway drug interdiction program known as "Operation Pipeline" which Harris (1999, p. 6) maintained trained law enforcement officers to target minority motorists through the use of pretextual traffic stops. Although the "Operation Pipeline" passed the scrutiny of the U.S. Department of Justice's Civil Rights Division in 1997 (GAO, 2000), Harris (1999) believed the training materials were implicitly biased toward targeting minorities.

Drug Possession and Race

It is because of these early drug courier profiles and their associations with racial and ethnic minority groups that some critics believe minority drivers are more likely to be stopped, questioned, and searched on the highways (Harris, 1997; 1999; Meeks, 2000) through the use of the pretextual traffic stop (Cole, 1999). Although law enforcement agencies generally deny the existence of racial profiling, some law enforcement officials have publicly acknowledged and defended racial profiling as an effective law enforcement tool in the war against drugs (Goldberg, 1999 June 20; Kocieniewski, 1999 March 2; Toby, 2000).

There is, however, no data to substantiate the assumption that African Americans or Hispanics are more likely than whites to be carrying drugs in their vehicles or on their persons as they travel through airports. Search data collected on I-95 in Maryland from January 1995 through September 1996 found little difference between African-Americans (28.4%) and whites (28.8%) with regard to the likelihood of possessing contraband (Lamberth, 1996). Data collected in New Jersey revealed similar findings with 10.5% of searches of white motorists and 13.5% of searches of African-American motorists resulting in an arrest or seizure of contraband (Verniero & Zoubek, 1999). A North Carolina study (Zingraff et al., 2000) found that contraband was found on 26.3% of African Americans searched during traffic stops made by the North Carolina Highway Patrol and 33% of whites. Search data from the Washington state traffic stop report found contraband 32.6% of the time when whites were searched and 21.5% of the time when blacks were searched (Washington State Patrol and Criminal Justice Training Commission, 2001). Findings from a 1998/99 New York “stop and frisk” study revealed that 12.6% of whites stopped were arrested, 10.5% of African-Americans and 11.3% of Hispanics.

A nationwide study conducted by the U.S. Customs Service (2000) in airports found that while African-Americans and Hispanics comprised 43% of airline passengers searched, contraband was found on 6.3% of African-Americans, 2.8% of Hispanics, and 6.7% of whites. In 1998, black women who were U.S. citizens were twice as likely as white women who were U.S. citizens to be strip searched, and 9 times more likely than white women to be X-rayed. Criminal evidence was recovered less than half the rate of criminal evidence found for white women.

A Bureau of Justice Statistics study on citizen-police contacts (Langan, Greenfield, Smith, Durose, and Levin, 1999) found that drugs or other contraband was found during a traffic stop search 8% of the time when the driver was African American, 10% of the time when the driver was Hispanic, and 17% of the time when the driver was white. Although blacks and Hispanics reported being searched more often than whites, criminal evidence was found less often.

Review of Traffic Stop Studies

Ten states, Connecticut, California, Kansas, Massachusetts, North Carolina, Oklahoma, Rhode Island, Tennessee, and Washington have enacted legislation requiring state and local law enforcement personnel to collect data on traffic stops. New Jersey is required to collect data on motorist stops as a result of a December 1999 consent decree resulting from a case filed in U.S. District Court by the Justice Department (U.S. General Accounting Office, 2000 March). In a

similar case filed against Maryland, a memorandum of understanding signed in January of 2000 required Montgomery County Police Department to record data on traffic stops. Some local jurisdictions have also initiated data collection on motor vehicle stops.

Ramirez, McDevitt, and Farrell (2000) recommend that police departments create a data collection task force and partner with an independent academic or research team who will analyze the data. Input from the research team analyzing the data can help in the development of the data collection process. Interpreting the findings can be difficult. It is not enough to present the racial and ethnic percentages of drivers stopped. These percentages must be compared to an appropriate benchmark. Some studies have tried to determine the racial and ethnic percentages of all drivers on a particular stretch of road during a specific period of time as well as the racial and ethnic breakdown of traffic violators (Lamberth, 1996). Other studies have chosen the racial and ethnic composition of a particular state, city, or district within a city as an appropriate benchmark, and some studies have tried to use racial and ethnic composition of the driving age population in a given area.

Early studies of racial disparities in traffic stops found that black and Hispanic drivers were searched significantly more often than whites (Harris, 1997). For instance, a review of 1,100 videotaped traffic stops made on I-95 by the Volusia County, Florida deputy sheriffs revealed that 75% of the drivers stopped were either African American or Hispanic even though they comprised about 5% of the drivers on this roadway. The tapes also showed that police searched about 50% of the cars stopped and 80% of those searched were African-American or Hispanic. In addition, data on traffic stops resulting in a canine or consent search by the Maryland State Police from January 1995 through June 1996 discovered that 75% of the 732 drivers searched were African American and 5% were Hispanic.

More recently, several jurisdictions have initiated formal data collection procedures and have released preliminary reports detailing their findings. We have included a chart identifying the states and municipalities (Engel, Calnon, and Bernard, forthcoming) and have highlighted the findings from some of these reports below.

During July through September of 1999, San Jose, CA collected data on 100,000 traffic stops. The preliminary analysis of data showed that the racial and ethnic composition of San Jose was 43% white, 31% Hispanic, 21% Asian, and 4.5 % black. The percent of traffic stops was reported as 29% white, 43% Hispanic, 16% Asian, and 7% black. However, the San Jose Police Department believed that within each district, the traffic stops tended to show closer representation of the districts racial and ethnic composition.

San Diego has released their analysis of data collected on 91,552 traffic stops from January - June 2000 (Cordner, Williams, and Zuniga, 2000). The preliminary findings indicate that Hispanics and African Americans are stopped more often than their population percentages would predict and are searched and arrested significantly more often than Asian or white drivers. Hispanic residents aged 15 and older represented 20.2% of the city's population, yet represented 34.9% of equipment violation stops and 50.1% of searches subsequent to vehicle stops. African-American residents aged 15 and older comprise 8% of the city's population and represented 14.3% of equipment violation stops and 19.5% of searches subsequent to vehicle stops. It is

possible that the data from the San Diego study overestimate the degree to which police stops of Hispanic drivers are disproportionate. Since San Diego is close to the Mexican border, there may be a higher percentage of Hispanic drivers in San Diego than the population data would suggest. The research team (Cordner, Williams, and Zuniga, 2000) recommended a more in-depth analysis of these preliminary data.

Missouri has analyzed traffic stop data collected between August 28, 2000 and December 31, 2000. Examination of 453,189 traffic stops revealed that African Americans comprised 10.47% of the population 18 and older, but 13.2% of all traffic stops at a rate 27% higher than expected (Nixon, 2000). Whites, Asians, and Native Americans were stopped a little less than expected and Hispanics were stopped at a rate nearly equal to their population proportion. The search rate for all motorists stopped was 7%. Whites and Native Americans were searched at rates consistent with the search rate for all motorists. Asians were searched at a rate below the statewide average. African Americans, however, were 1.7 times more likely than whites to be searched and Hispanics were twice as likely as whites to be searched.

A review of North Carolina State Highway Patrol traffic stops during 1998 found that African American men were more likely to be issued citations than white men and are 64% more likely to be searched than white men (Zingraff, Mason, Smith, Tomaskovic-Devey, Warren, McMurray, Fenlon, 2000).

The Washington State Patrol (2001) analyzed traffic stops collected between May 1, 2000 through October 31, 2000 and compared the percentage of traffic stops with the racial and ethnic populations of the driving age population. Whites comprised 85% of the driving age population and non-whites comprised 15% of the driving age population. Although it does not appear that non-white motorists were disproportionately targeted with regard to the initial traffic stop (whites comprised 83.7% of the stops and nonwhites comprised 16.3% of the stops), nonwhites were more likely to be arrested (47.3% to 37.8%) and subjected to searches (3.7% to 2.0%). The searches, however, were less likely to yield contraband when conducted with nonwhites (21.5%) compared to whites (32.6%).

In a Bureau of Justice Statistics national self-report survey (Langan et al., 2001) on police contacts with the public, 52% of the respondents who reported a contact with the police reported it in the form of a traffic stop either as a driver or passenger. Whereas, 86% of whites felt the police had a legitimate reason to make the traffic stop, only 74% of blacks and 82% of Hispanics felt the stop was legitimate. With regard to stops of licensed drivers, a larger percentage of blacks (12.3%) than whites (10.4%) were stopped. Although blacks (11.0%) and Hispanics (11.3%) were more than twice as likely as whites (5.4%) to have their vehicle or person searched during a traffic stop, the outcome of the searches showed blacks (8%) and Hispanics (10%) to be much less likely to be found with criminal evidence than whites (17%).

In summary, research on racial profiling has become more prevalent in the past year. Results from research outside of Connecticut has generally found that African Americans and Hispanics are disproportionately stopped more often than whites; African Americans and Hispanics are disproportionately subjected to searches of their vehicles or person; and, African Americans and Hispanics are either as likely as whites or less likely than whites to be in possession of drugs or other contraband following a search.

Table 1. Engel, Calnon, and Bernard's Summary of Published Racial Profiling Reports*

Site & Year Published	When Data Collected	Voluntary or Mandated	External / Internal Data Analysis	What Data Collected	Base Rates	Findings & Conclusions
Maryland (1996)	Jan 1995-Sept 1996	Mandated by civil lawsuit settlement	External research team (Lamberth)	All stops on I-95 by state police followed by searches.	% law-violating drivers (>55 mph), used rolling survey	Blacks represent 17.5% of violating pop. & 72% of stops & searches. Blacks & whites violate traffic code at same rate. Conclude police action is discriminatory.
New Jersey (1996)	April 1988-May 1991	Mandated by court in <i>N.J. v. Soto</i>	External research team (Lamberth)	Stops, citations and arrests	% law-violating drivers (>60 mph) used rolling survey	Blacks overrepresented in stops & arrests. Blacks & whites violate traffic code at same rate. Conclude that race is a consistent & decisive explanatory factor.
New Jersey (1999)	1997-1998 1994-1998	Mandated by consent decree	External (Attorney General Verniero)	2 yrs of stops 4 yrs of searches on NJ Turnpike	% population	Blacks more likely to be ticketed and searched than whites. Conclude that there was differential treatment by race.
NY City (1999)	Jan 1998-Mar 1999	Voluntary (Attorney General, OAG)	External team from OAG (AG Spitzer)	Pedestrian stops and frisks ¹	% population	Blacks stopped 23% more often than whites. Greatest disparity in mostly white neighborhoods. Patterns of disparity not explained by neighborhood crime rate; likely discrimination.
Ohio (1999)	Jan-Dec 1998	Voluntary (requested by State Legislators)	External research team (Harris)	Stops resulting in citations	% driving-age population	Blacks in 4 Ohio cities were twice as likely to be ticketed as whites. Lack race-neutral explanation for disparity; conclude likely is discrimination.
North Carolina (2000)	Jan-Dec 1998	Voluntary in anticipation of mandatory legislation	External research team (Zingraff et al.)	Stops, citations, written warnings, searches/seizures detentions & arrests	Estimated % of licensed drivers in a district	Blacks more likely to be issued citation, given written warning, and searched. Clear disparities, but plan to collect more data to determine if discrimination.
Philadelphia (2000)	1997-1999 Ongoing collection	Mandated by civil lawsuit settlement	External (ACLU)	Pedestrian and automobile stops and detentions ¹	% population	Considerably higher percentages of blacks stopped & detained than whites. Conclude that substantial racial disparity likely reflects discrimination by officers.
San Diego (2000)	Jan-June 2000	Voluntary (PD Chief)	External research team (Cordner et al.)	Stops, citations, searches/seizures, verbal & written warnings & arrests	% driving-age population	Hispanics & blacks overrepresented in stops, searches and arrests. Conducting further analysis & data collection to explain disparity.
San Jose (2000)	July-Sept 1999	Voluntary (PD Chief)	Internal (SJPD Crime Analysis Unit)	Initial stops	% population	Latinos and blacks disproportionately stopped. Disparity attributed to concentration of minorities in neighborhoods with high police presence.
Texas (2000)	Mar-July 2000	Voluntary	Internal (Texas Dept. of Public Safety)	Stops, citations, written warnings, searches/seizures, & drug interdiction	% population	No disparity for blacks and Hispanics for stops, citations, and written warnings. Disparity increases for searches & drug drug interdiction. Deny discrimination.
Connecticut 2000	Jan-June	Mandated by legislative act	External research team (Cox et al.)	Stops, citations, searches, written & verbal warnings, and arrests	% population	Small disparity in stops, limited to few agencies. Towns bordering high % minority stop higher % minority drivers. Conclude not systematic discrimination.
Washington (2001)	May 1-Oct 31, 2000	Mandated by legislative act	External (Criminal Justice Training Commission)	Stops, arrests, & searches	% driving-age population & % drivers causing traffic accidents	Only minor disparity in stops, larger disparities for arrests & searches. Conclude that more detailed analyses are needed to determine reasons for disparity.
Richmond (2001)	Feb 14-Mar 31, 2001	Voluntary (Department)	External (Richmond Dept. of Information Technology)	Stops, warnings, searches/seizures, arrests	% driving-age population	Minorities disproportionately stopped. No significant differences in searches. Blacks more likely than whites to be warned than arrested. Conclude officers of both races disproportionately target minorities in traffic stops.

¹ New York City's report analyzes pedestrian stops only. Philadelphia's report analyzes pedestrian and car stops. For all other studies, "stops" refers only to traffic stops by police.

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COLLECTION AND INTERPRETATION OF TRAFFIC STOPS DATA

Public Act No. 99-198 went into effect on October 1, 1999, with the collection of traffic stops data beginning on January 1, 2000. During the three months prior to January 1, 2000, the Chief State’s Attorney and the Office of Policy and Management met with a law enforcement subcommittee comprised of representatives of state and local police agencies (hereafter referred to as the “law enforcement subcommittee”) to create the reporting format and data collection process. Representatives from the West Hartford Police Department and the Division of State Police were asked to join the law enforcement subcommittee due to their experience in collecting and reviewing traffic stops data (the West Hartford Police Department created a traffic stops form prior to the legislation and the Division of State Police had completed an internal review of its traffic stops). The following section summarizes the data collection process.

Format of the Traffic Stops Data

The Chief State’s Attorney, the law enforcement subcommittee, and the Office of Policy and Management developed a form for all law enforcement officers in the State of Connecticut to complete when making a traffic stop (Figure 1). Regardless of the circumstances surrounding the traffic stop, every officer was required to complete this form. Police officers were not asked to complete this form when responding to traffic accidents or nontraffic-related incidents. The information to be collected in this form was set forth in Public Act No. 99-198.

Figure 1. Sample Traffic Stops Data Collection Form.

State of Connecticut Traffic Stops Statistics			
Department – ORI: _____		Town: _____	
Date: ___/___/___	Time: ___:___	Age: ___	Gender: <i>Male</i> <i>Female</i> <i>Unknown</i>
Race: (Circle One)	W - White B - Black I - Indian Amer./Alaskan Native A - Asian/Pacific Islander U - Unknown	Ethnicity: (Circle One)	H - Hispanic N - Not Hispanic U - Unknown
Stop Nature: (Circle One)	I - Investigation, Criminal V - Violation, Motor Vehicle E - Equipment, Motor Vehicle	Statute: _____	Vehicle Search: <i>Y -Yes</i> (Circle One) <i>N - No</i>
Disposition: (Circle One)	U - Uniform Arrest Report M - Misdemeanor Summons I - Infraction Ticket V - Verbal Warning W - Written Warning N - No Disposition	Event Number: _____ (as defined by your department)	

Definitions of the Items on the Data Collection Form

This form contains 13 items of information that were completed by the law enforcement officer making the traffic stop. The definitions and explanations of these items are below.

Department – ORI

The ORI number represents an identification code number assigned by the Federal Bureau of Investigation. This number is unique for each law enforcement agency in the United States.

Town

This item is the name of the town or jurisdiction of the police officer making the traffic stop.

Date

This item is the date of the traffic stop.

Time

This item refers to the time of day when the traffic stop occurred.

Gender

This item refers to the observed gender of the driver of the motor vehicle.

Age

This item refers to the observed age of the driver at the time of the traffic stop.

Race

This item refers to the observed race of the driver of the stopped motor vehicle. The options available to the reporting police officer are White/Caucasian, Black, American Indian, Asian/Pacific Islander, or unknown. Public Act No. 99-198 specified that the race of the driver would be determined solely on the observation and perception of the police officer responsible and that this “information shall not be required to be provided by the person stopped.”

Ethnicity

This item refers to the observed ethnicity of the driver of the stopped motor vehicle. Specifically, the police officer conducting traffic stop was asked to determine whether the driver was Hispanic, not Hispanic, or of unknown ethnicity. Similar to determining the race of the driver, the police officer based this decision on his or her own observation and perception.

Nature of the Traffic Stop

This item provides the reason the law enforcement officer conducted the traffic stop. Traffic stops data were collected only for officer-initiated traffic stops. There are three general reasons a police officer can legally conduct a traffic stop: a criminal investigation, a motor vehicle violation, or an equipment violation.

Statute

This item records the Connecticut General Statute that was allegedly violated, thereby causing the traffic stop. Public Act No. 98-198 did not require police officers to report this information. This optional item was included for use by individual police departments and was not part of this study.

Vehicle Search

The item asked if a search of the stopped motor vehicle was conducted concurrent to the traffic stop. Police officers can conduct warrantless vehicle searches during traffic stops under limited circumstances. These instances are: (1) when a police officer has reasonable suspicion to believe that an occupant in the motor vehicle possesses a weapon and his/her safety could be in jeopardy (this is commonly referred to as a *Terry Stop*); (2) if an officer has probable cause to believe a crime has been committed, the driver or other occupants of the motor vehicle can be arrested and the entire motor vehicle searched; (3) if an officer has probable cause to believe that there is illegal contraband in the motor vehicle (primarily illegal drugs); (4) if the driver gives the police officer consent to search his/her motor vehicle; and (5) a police officer, during the process of conducting a routine traffic stop, sees contraband, stolen property, or other dangerous items in the motor vehicle (Connecticut Law Enforcement Publications, 2000).

Disposition of the Traffic Stop

Along with the reason why the traffic stop occurred, police officers were required to report the disposition. There are basically six different ways police officers end a traffic stop. These are discussed in order of most restrictive to least restrictive.

A *Uniform Arrest Report* takes place when the police officer determines that a criminal offense has occurred or the driver is wanted under an arrest warrant. In these instances, the driver is taken into police custody and detained.

A *Misdemeanor Summons* can be issued for less serious criminal offenses or motor vehicle violations that are not infractions or serious criminal offenses. These, most often, include serious motor vehicle offenses such as driving while under the influence of intoxicating liquor and/or drugs, reckless operation of a motor vehicle (excessive speeding), failure to maintain motor vehicle insurance, operating a motor vehicle under a suspended driver's license, evading responsibility for personal injury or property damage, and offenses involving an accident resulting in a death. When issued a misdemeanor summons, the individual is not always arrested or detained, but is required to appear in court.

An *Infraction Ticket* can be issued by the police officer in cases where the driver commits a minor motor vehicle violation (e.g., speeding, failing to stop at a red light or stop sign, failing to use a turn signal).

The police officer can issue a *Written Warning* to the driver for a motor vehicle or equipment violation. There are two types of written warnings that can be issued. The first type of written warning is for motor vehicles that do not display valid emissions stickers. Under these cases, the driver must have the vehicle's emissions tested. Failure to do this results in the suspension of the vehicle's registration by the Connecticut Department of Motor Vehicles. The second type of written warning is issued for defective equipment (e.g., malfunctioning brakes, horns, windshield wipers, headlights, tail lights, turn signals) or minor motor vehicle violations.

A *Verbal Warning* can also be given to the driver of the vehicle. Verbal warnings are generally issued when police officers want to make drivers aware of minor traffic offenses.

It is possible for police officers to provide *No Disposition* to a traffic stop. This situation most often occurs during a criminal investigation traffic stop. For example, a police officer is dispatched to a neighborhood in response to a citizen complaint of a suspicious vehicle. After making the traffic stop, the driver of the vehicle is simply lost and needs directions. The police officer provides the motorist with directions. Since there were no criminal or motor vehicle violations, the officer does not provide a disposition.

Event Number

Some of the police agencies assigned unique identification numbers to the traffic stop forms to aid in the collection and compilation of data. The recording and collection of this information was left to the discretion of the police agencies.

Collection of the Traffic Stops Data

Law enforcement officers completed the traffic stop form immediately following the traffic stop. Officers were permitted to use either paper forms or electronic forms, depending on the preference of the individual police agencies. Police agencies were not required to use the form created by the Chief State's Attorney, the law enforcement subcommittee, and the Office of Policy and Management, but were required to collect the information using the same format. These forms were sent to the Chief State's Attorney's Office and forwarded to the Connecticut Department of Information Technology for compilation. The Office of Policy and Management reviewed the data for missing and erroneous codes.

Issues in Dealing with Traffic Stops Statistics

It is important that the traffic stops data are presented in the most straightforward and comprehensive manner possible. The statewide traffic stops data are discussed separately and in a more detailed manner than the individual town data. Even though police jurisdiction data are presented, it is beyond the scope of this study to discuss these in detail.

This report is based upon data provided by the municipal law enforcement agencies and the Division of State Police. In reviewing these data, there are issues that need to be taken into consideration when interpreting the statewide summary, and particularly, the individual town summaries.

Collection of Traffic Stops Data

The first issue pertains to the collection of traffic stops data. The value of this research is in exploring the presence of, extent of, and circumstances surrounding any disproportionate treatment of minority motorists by law enforcement officers. One of the major strengths of this study is the large number of individual traffic stops for which data has been collected. In addition, this information has been collected for every municipal law enforcement agency in Connecticut as well as the Division of State Police. The large number of traffic stops allows for comparisons across jurisdictions and within jurisdictions regarding number of traffic stops, the nature of the traffic stops, the disposition of the traffic stops, and the number of motor vehicle searches.

Analysis of Traffic Stops Data

The second issue pertains to the analysis of the data. One analysis in this study compares the racial and ethnic percentages of drivers stopped to the racial and ethnic percentages of the jurisdictions. These types of comparisons are common in racial profiling studies, but it is not clear that they are the most appropriate. Some studies have tried to determine the racial and ethnic percentages of all drivers on a particular stretch of road, whereas, other studies have chosen the racial and ethnic composition of a particular state, city, or district within a city as an appropriate benchmark, and some studies have tried to use racial and ethnic composition of the driving age population in a given area (Ramirez, McDevitt, and Farrell, 2000). Other methods of determining if police officers treat minority drivers differently than non-minority drivers is to know the race and ethnicity of everyone driving through the town or the race and ethnicity of everyone driving past each police officer. For instance, if minority drivers drive 20% of the vehicles that Police Officer Jones observes, we would expect that 20% of Police Officer Jones' traffic stops be with minority drivers, not the 10% found in the town's population. Unfortunately, this information would require a more complex and cost prohibitive study measuring the race and ethnicity of all drivers at several locations in each town.

Explaining Disparities in Traffic Stops

Additionally, prior racial profiling research has failed to explain why disparities exist other than to suggest that police departments are systematically targeting racial and ethnic

minorities when making traffic stops. These conclusions have been largely based upon questionable baseline comparisons. For example, the baseline comparison of the traffic stops analyses is the percentage (or proportion) of minorities stopped compared to the percentage of minorities that live in the town. This comparison is based on the assumption that the percentage of minorities residing in a town is representative of the percentage of minority driving the roadways within the town. While we believe that in many cases, the percentage of minorities living in a town should be similar to the percentage of minorities driving within the town, there may be instances when these percentages are significantly different. Such instances can be the geographic location of the town and attractions in the town.

Geographic location can affect the percentage of nonresidents driving through the town, in that, the racial and ethnic composition of neighboring towns would likely alter the racial and ethnic composition of drivers. For example, towns that are suburbs of Hartford, Bridgeport, and New Haven feasibly have a higher percentage of minority drivers as a result of large minority populations living in these cities. Also, the presence of a highway or major thoroughfare in close proximity to a town may also alter the racial and ethnic ratio of drivers. The presence of a highway brings nonresidents into the town more often than in towns without a highway. As people travel, they may need to exit the highway for purposes of meals, lodging, and/or sightseeing, increasing the number of nonresidents driving through town.

Characteristics of a municipality other than geographic location may also affect the racial and ethnic composition of the driving population. Municipalities with entertainment/tourism attractions or retail districts generally attract high numbers of drivers who are nonresidents. Examples of these attractions are shopping malls, antique shop villages, amusement parks, casinos, beaches, and state parks. In addition, municipalities that are largely nonresidential may also attract a high percentage of nonresidents. These municipalities typically consist of a high number of corporate offices, factories, retail distribution centers, and tourist attractions that employ many nonresidents of the town. Colleges and universities can also be included in this grouping due to the high percentage of students that attend the school but do not live in the city or town.

We address this issue by providing additional pieces of information to the comparison of racial and ethnic percentages of drivers stopped to the racial and ethnic percentages of the municipalities. We created a *measure of disproportionality* to compare the proportion of nature, dispositions, and searches of black and Hispanic drivers to non-black and non-Hispanic drivers and employ a statistical procedure for ascertaining possible outside influences (e.g., city/town characteristics) on disproportionality. We also included state, county, and municipal racial and ethnic percentages in the individual municipality summaries of traffic stops. While these are not necessarily better baseline comparisons, they provide the reader with more information to better interpret the traffic stops statistics.

Reliability and Validity Issues

Another issue pertains to the reliability and validity of the data. One limitation is our inability to assess the consistency and accuracy of the information collected from the traffic stop forms. With 92 law enforcement agencies and an unknown number of law enforcement officers

completing these forms, it was necessary to take measures to reduce the possibility of human error.

The Chief State's Attorney, the law enforcement subcommittee, and the Office of Policy and Management attempted to address this concern two separate ways. First, the creation of a common data collection format containing a limited number of narrowly defined items along with pre-specified responses allowed for some degree of consistency across the numerous law enforcement agencies. Second, each jurisdiction's traffic stops statistics were reviewed in an effort to increase accuracy in the collection and reporting of these data. All police agencies were asked to review traffic stop reports when there were inconsistencies from previous reports. In no case was a department expected or asked to change their original statistics, but they were requested to verify the accuracy of the collected data on an ongoing basis throughout the study.

Interpretation of Traffic Stops Statistics

The fourth issue is in the interpretation of the traffic stops statistics. It is important to note that the purpose of this report is to provide straightforward summaries of the traffic stops statistics. Since there are no measurable and objective specifications for determining what constitutes the practice of racial profiling by a police agency, we cannot arrive at an absolute conclusion of the existence or nonexistence of racial profiling. This report presents the traffic stops data in a variety of formats to provide the reader with sufficient information for identifying issues related to traffic stops.

When interpreting percentages, it is extremely important to also note the actual numbers from which the percentages are based. Small numbers can produce percentages that overstate the issue. For example, some police agencies may appear to have large disproportions between minorities and non-minorities in regards to traffic stop dispositions. These disproportions may seem exaggerated due to a low number of traffic stops of minority drivers.

Furthermore, when interpreting the traffic stop dispositions, it is not possible to correlate the nature of the traffic stop to the disposition. A police officer may conduct a traffic stop for an equipment violation and arrest the driver for a criminal offense. It is also possible for a police officer to stop a motor vehicle for a criminal investigation and issue a misdemeanor summons or infraction ticket for an equipment violation the police officers notices after making the traffic stop.

It is also important to carefully interpret data pertaining to motor vehicle searches. The traffic stops data collection form only required police officers to report whether searches were conducted. It was not possible to ascertain when these searches occurred. That is, in cases of arrests, we do not know if the search occurred as a result of the arrest (inventory search) or an arrest occurred as a result of a search (probable cause or consent search).

SUMMARY AND ANALYSIS OF STATEWIDE TRAFFIC STOPS DATA

The following section presents a statewide summary of the traffic stops statistics from July 1, 2000 through June 30, 2001. This section begins with a presentation of the statewide data followed by an analysis of disproportionality across all the law enforcement jurisdictions in Connecticut.

Presentation of Statewide Data

This presentation has been divided into several tables and figures that show the actual numbers and/or percentages of traffic stops, nature of the traffic stops, disposition of the traffic stops, and searches of motor vehicles distributed across racial and ethnic categories. The tables and figures used in this section are similar to the format of the individual municipal summaries. A narrative description of each table and figure has been provided to aid in the interpretation.

Number of Traffic Stops

Tables 2 and 3 present the racial and ethnic population distribution in Connecticut along with the racial and ethnic composition of the traffic stops for all of the police agencies. The state population information is based upon the 2000 U.S. Census. The pattern of traffic stops across racial and ethnic categories were comparable to the racial and ethnic composition of the state population. A total of 612,077 traffic stops were reported from July 1, 2000 to June 30, 2001. The majority of the traffic stops consisted of white motorists (84.2%) with 12.3% of the traffic stops being black motorists, 1.7% were Asian, 0.2% were American Indian, and 1.6% were of unknown race. The most notable difference was that a higher percentage of white and black drivers were stopped than their representation in the state population.

Table 2. Summary of the State Population and the Statewide Traffic Stops by Racial Category*

	2000 State Population (Number and Percentage)		Traffic Stops (Number and Percentage)	
White	2,780,355	81.6%	515,053	84.2%
Black	309,843	9.1%	75,474	12.3%
American Indian	9,639	0.3%	1,226	0.2%
Asian/Pacific Islander	83,679	2.4%	10,274	1.7%
Other/Unknown	222,049	6.6%	10,050	1.6%
Totals	3,405,565	100.0%	612,077	100.0%

(*Note: All percentages are column percentages.)

Similar patterns were observed for ethnicity. Of all statewide traffic stops, 8.7% involved Hispanic motorists, 64.4% involved non-Hispanic white motorists, 11.7% involved non-Hispanic nonwhites, and 15.2% of the drivers were of unknown ethnicity. Overall, the percentages of traffic stops were lower than the percentages in the state population due to 15.2% of traffic stops reported as unknown. However, none of the percentages for traffic stops exceeded the population percentages.

Table 3. Summary of the State Population and the Statewide Traffic Stops by Ethnic Category*

	2000 State Population (Number and Percentage)		Traffic Stops (Number and Percentage)	
Hispanic	320,323	9.4%	53,241	8.7%
Not Hispanic – Other	446,397	13.1%	71,721	11.7%
Not Hispanic - White	2,638,845	77.5%	394,209	64.4%
Other/Unknown	0	0	92,906	15.2%
Totals	3,405,565	100.0%	612,077	100.0%

(*Note: All percentages are column percentages.)

Comparison of Traffic Stops from the Interim Report. Tables 4 and 5 provide the distribution of traffic stops by race and ethnicity from the *Interim Report*. In comparing the distribution of traffic stops from the *Interim Report* to this report, only slight changes were observed. The number of traffic stops increased 0.5% for white drivers and 0.2% for black drivers. The same percentage of Hispanic drivers were stopped during each time period.

Table 4. Comparison of Interim Report to the 2000-2001 Report by Racial Categories*

	Interim Report Traffic Stops (Number and Percentage)		Traffic Stops from the Second Year (Number and Percentage)	
White	264,747	83.7%	515,053	84.2%
Black	38,272	12.1%	75,474	12.3%
American Indian	665	0.2%	1,226	0.2%
Asian/Pacific Islander	5,421	1.8%	10,274	1.7%
Other/Unknown	7,053	2.2%	10,050	1.6%
Totals	316,158	100.0%	612,077	100.0%

(*Note: All percentages are column percentages)

Table 5. Comparison of Interim Report to the 2000-2001 Report by Ethnic Categories*

	Interim Report Traffic Stops (Number and Percentage)		Traffic Stops from the Second Year (Number and Percentage)	
Hispanic	27,352	8.7%	53,241	8.7%
Not Hispanic	230,486	72.9%	465,930	76.1%
Unknown	58,320	18.4%	92,906	15.2%
Totals	316,158	100.0%	612,077	100.0%

(*Note: All percentages are column percentages)

Nature of Traffic Stops

Tables 6 and 7 present the three possible reasons officers reported for making traffic stops. The majority of traffic stops (89%) were for motor vehicle violations regardless of race or ethnicity. The majority of all types of traffic stops involved white and non-Hispanic white

drivers. For blacks and Hispanics, a larger percentage of stops were classified as criminal investigation than motor vehicle or equipment violations.

Table 6. Summary of the Nature of the Traffic Stops by Racial Categories*

	Nature of the Traffic Stops (Number and Percentage)					
	Criminal Investigations		Motor Vehicle Violations		Equipment Violations	
White	6,144	76.4%	457,916	84.4%	50,993	83.0%
Black	1,556	19.4%	65,313	12.0%	8,605	14.0%
American Indian	19	0.2%	1,086	0.2%	121	0.2%
Asian/Pacific Islander	78	1.0%	9,429	1.7%	767	1.2%
Unknown	240	3.0%	8,866	1.6%	944	1.5%
Totals	8,037	100.0%	542,610	100.0%	61,430	100.0%

(*Note: All percentages are column percentages of the Total.)

Table 7. Summary of the Nature of the Traffic Stops by Ethnic Categories*

	Nature of the Traffic Stops (Number and Percentage)					
	Criminal Investigations		Motor Vehicle Violations		Equipment Violations	
Hispanic	1,229	15.3%	45,658	8.4%	6,354	10.3%
Not Hispanic – Other	1,309	16.3%	61,970	11.4%	8,442	13.7%
Not Hispanic – White	4,402	54.8%	349,938	64.5%	39,869	65.0%
Unknown	1,097	13.6%	85,044	15.7%	6,765	11.0%
Totals	8,037	100.0%	542,610	100.0%	61,430	100.0%

(*Note: All percentages are column percentages of the Total.)

Although these percentages show a higher percentage of criminal investigation among black and Hispanic drivers, these numbers do not indicate the level of disparity in these stops. Figure 2 presents an alternative view of these data. Figure 2 graphically displays the probabilities of the types of traffic stops within each racial category. The greater difference across the bars indicates the greater disparity as a function of race or ethnicity. For instance, of all traffic stops of white motorists, 1.2% was for criminal investigations, 89% were for motor vehicle violations, and 10% were for equipment violations. Of all traffic stops involving black motorists, 2% were for criminal investigations, 87% were for motor vehicle violations, and 11% were for equipment violations. A similar interpretation should be used for American Indians, Asians, and unidentified motorists. Figure 2 shows little differences within each race for the nature of the traffic stops. For example, if a black motorist gets stopped, there was 1% higher likelihood that it was for a criminal investigation than a white motorist being stopped.

Figure 2. Probabilities of the Nature of Traffic Stops Within Race

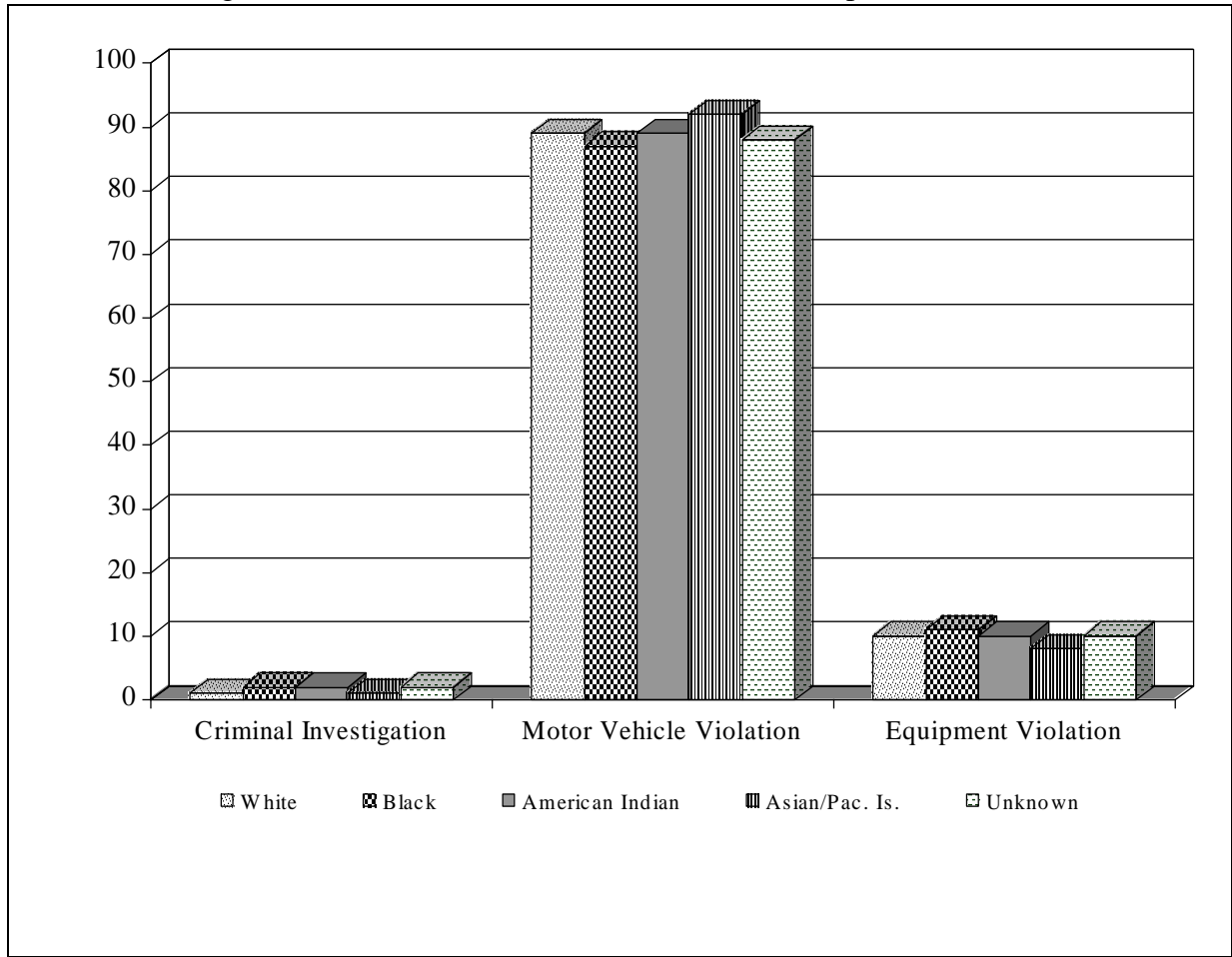
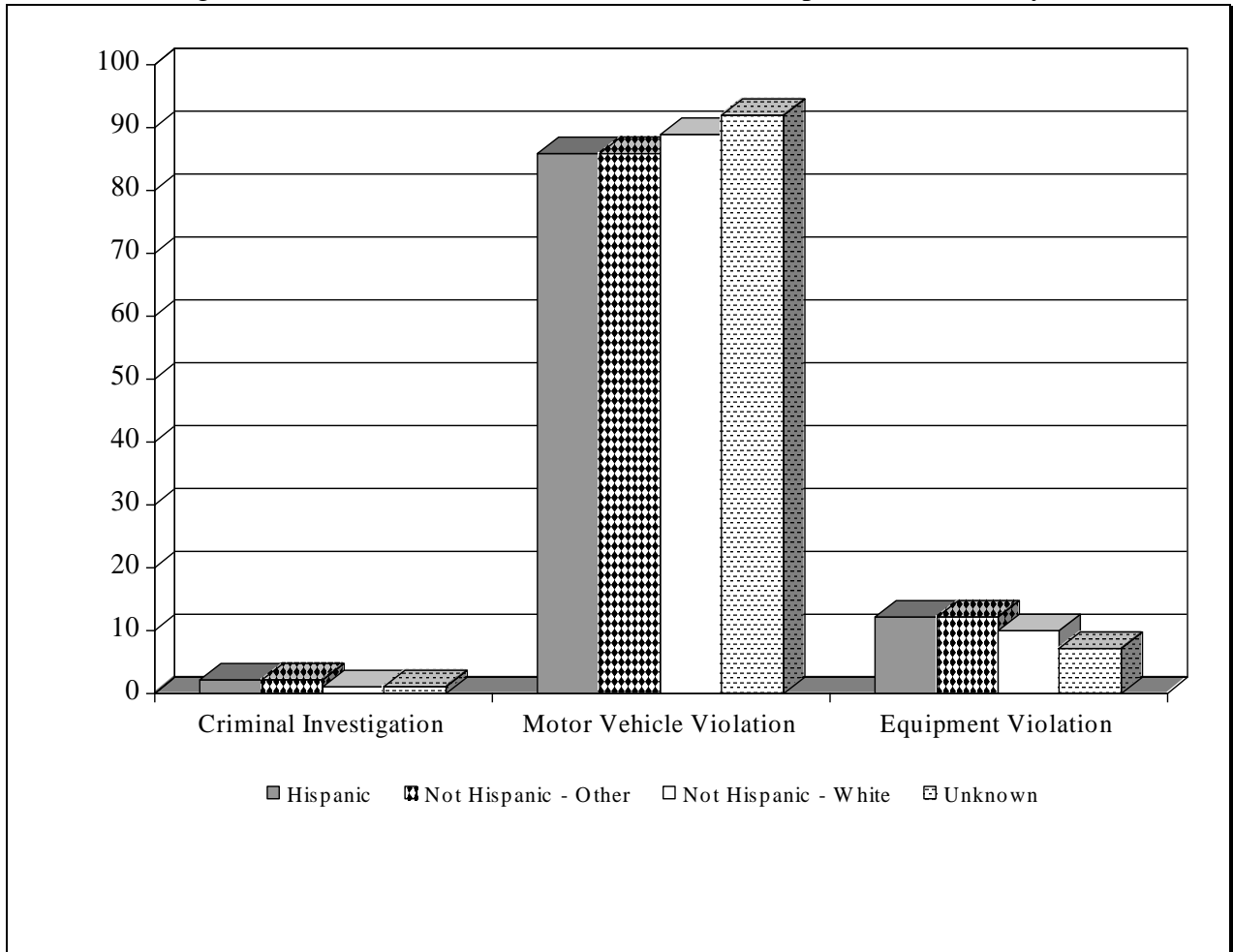


Figure 3 compares the probabilities for the type of traffic stops by ethnicity. Of all traffic stops involving Hispanic motorists, 2% were for criminal investigations, 86% were for motor vehicle violations, and 12% were for equipment violations. For non-Hispanic white motorists, 1% were stopped for a criminal investigation, 89% for a motor vehicle violation, and 10% for an equipment violation. Drivers of unknown ethnicity were stopped 1% of the time for criminal investigations, 92% for motor vehicle violations, and 7% equipment violations. These results are comparable to the distributions for the nature of traffic stops by race. The likelihood that the traffic stop of a Hispanic motorist will be for a criminal investigation is 1% higher than a non-Hispanic white motorist.

Figure 3. Probabilities of the Nature of Traffic Stops Within Ethnicity



Dispositions and Searches of the Traffic Stops

Tables 8 and 9 provide the numbers and percentages of the six traffic stop dispositions by race and ethnicity. Overall, the most common disposition of traffic stops for all drivers was infraction tickets (46%) followed by written warnings (13%), verbal warnings (9%), misdemeanor summonses (6%), and arrests or no dispositions (1%). Sixty-three percent of the arrests were white drivers, 30% were black drivers, 6% were of unknown race, and less than 1% was American Indian and Asian drivers.

Table 8. Summary of Traffic Stops Dispositions by Racial Categories*

	Dispositions of Traffic Stops (Number and Percentage)					
	Uniform Arrest Reports		Misdemeanor Summons		Infraction Tickets	
White	4,019	63.4%	30,182	76.6%	238,216	84.6%
Black	1,900	30.0%	7,935	20.2%	31,920	11.3%
American Indian	15	0.2%	72	0.2%	519	0.2%
Asian/Pacific Islander	34	0.5%	339	0.9%	5,970	2.1%
Unknown	371	5.9%	815	2.1%	5,085	1.8%
Totals	6,339	100.0%	39,343	100.0%	281,710	100.0%

(*Note: All percentages are column percentages of the Total.)

Table 8 Continued*

	Dispositions of Traffic Stops (Number and Percentage)					
	Written Warning		Verbal Warning		No Disposition	
White	138,026	87.9%	94,489	82.1%	10,121	80.2%
Black	14,675	9.3%	16,996	14.8%	2,048	16.2%
American Indian	289	0.2%	297	0.3%	34	0.3%
Asian/Pacific Islander	1,994	1.3%	1,752	1.5%	185	1.5%
Unknown	2,112	1.3%	1,440	1.3%	227	1.8%
Totals	157,096	100.0%	114,974	100.0%	12,615	100.0%

(*Note: All percentages are column percentages of the Total.)

Table 9 shows a similar pattern for Hispanic motorists. The percentage of traffic stops involving Hispanic drivers is 8.7%. The percentage of arrests and misdemeanor summonses involving Hispanic drivers is 25.7% and 19% respectively.

Table 9. Summary of Traffic Stops Dispositions by Ethnic Categories*

	Dispositions of Traffic Stops (Number and Percentage)					
	Uniform Arrest Reports		Misdemeanor Summons		Infraction Tickets	
Hispanic	1,627	25.7%	7,476	19.0%	23,641	8.4%
Not Hispanic – Other	1,476	23.3%	7,035	17.9%	28,942	10.3%
Not Hispanic – White	2,352	37.1%	20,619	52.4%	168,863	59.9%
Unknown	884	13.9%	4,213	10.7%	60,264	21.4%
Totals	6,339	100.0%	39,343	100.0%	281,710	100.0%

(*Note: All percentages are column percentages of the Total.)

Table 9 Continued*

	Dispositions of Traffic Stops (Number and Percentage)					
	Written Warning		Verbal Warning		No Disposition	
Hispanic	8,854	5.6%	10,240	8.9%	1,403	11.1%
Not Hispanic – Other	15,021	9.6%	17,322	15.1%	1,925	15.3%
Not Hispanic - White	115,158	73.3%	79,151	68.8%	8,066	63.9%
Unknown	18,063	11.5%	8,261	7.2%	1,221	9.7%
Totals	157,096	100.0%	114,974	100.0%	12,615	100.0%

(*Note: All percentages are column percentages)

Tables 10 and 11 display the numbers and percentages of motor vehicle searches by race and ethnicity. The majority of motor vehicle searches were conducted with white (73.2%) and non-Hispanic white motorists (47.2%). The percentage of searches involving black drivers (23.2%) and Hispanic drivers (23.2%) were greater than the percentage of those groups who were stopped.

Table 10. Summary of Motor Vehicle Searches by Racial Categories

	Vehicle Searches (Number and Percentage)	
	White	15,416
Black	4,874	23.2%
American Indian	37	0.2%
Asian/Pacific Islander	125	0.6%
Unknown	594	2.8%
Totals	21,046	100.0%

Table 11. Summary of Motor Vehicle Searches by Ethnic Categories

	Vehicle Searches (Number and Percentage)	
	Hispanic	4,736
Not Hispanic – Other	4,120	19.6%
Not Hispanic – White	9,930	47.2%
Unknown	2,260	10.7%
Totals	21,046	100.0%

Though Tables 8 through 11 indicate that black and Hispanic drivers were over-represented in arrests, misdemeanor summonses, and motor vehicle searches, these numbers do not necessarily indicate the extent of possible disparities as a function of race and ethnicity. A more appropriate method for testing disparities is to calculate the probabilities of receiving each disposition and being searched and to compare these probabilities across racial and ethnic categories.

Figure 4 graphically displays the probabilities of the traffic stop dispositions and searches within each of the racial categories. This figure should be interpreted in the same manner as Figure 2. That is, white motorists who were stopped had a 1% chance of being arrested, a 6% chance of receiving a misdemeanor summons, a 46% chance of being issued an infraction ticket, a 27% chance being given a written warning, a 18% likelihood of being warned verbally, and a 2% chance of not receiving a disposition. Stopped black motorists had a 2.5% chance of being arrested, 10.5% chance of receiving a misdemeanor summons, 42% chance of an infraction ticket, 19% chance of a written warning, 23% chance of being warned verbally, and 3% chance of not getting a disposition. The patterns were very similar across all racial groups. Most motorists received infraction tickets followed by written warnings, verbal warnings, misdemeanor summons, no dispositions, and arrests. The one exception was that black and American Indian motorists were more likely to receive verbal warnings than written warnings.

Figure 4 also includes the probabilities of being searched within race. Black motorists (6.5%) and motorists of unknown race (5.9%) were more likely to have their vehicles searched than whites (3%), American Indians (3%), or Asians (1.2%).

Figure 4. Probabilities of Traffic Stops Dispositions and Motor Vehicle Searches Within Race

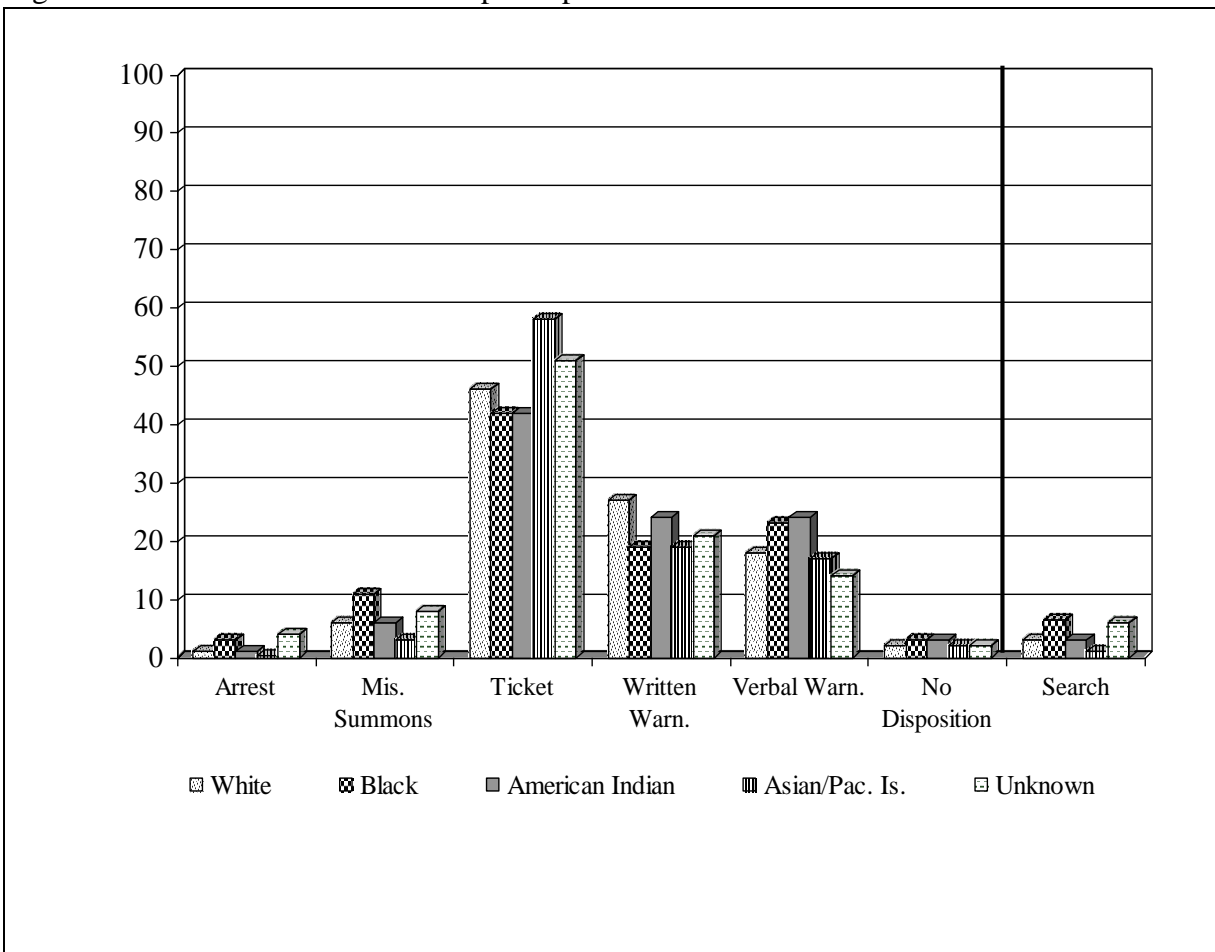


Figure 5 presents the disposition and search probabilities within ethnicity. The trends in the frequency of dispositions within ethnicity were similar to the dispositional trends within race. The most frequent disposition was infraction tickets followed by written warnings, verbal warnings, misdemeanor summons, no dispositions, and arrests. The exception to these trends was that Hispanic and non-Hispanic other motorists had a higher likelihood of receiving verbal warnings than written warnings. In addition, Hispanic and non-Hispanic non-white drivers had a higher probability of being arrested and receiving misdemeanor summons than other motorists. Of Hispanic drivers, 3% were arrested, 14% received a misdemeanor summons, 44% were issued infraction tickets, 16% were given written warnings, 19% were warned verbally, and 3% did not receive a disposition. Of non-Hispanic white drivers, 1% were arrested, 5% received a misdemeanor summons, 43% were issued infraction tickets, 29% were given written warnings, 20% were warned verbally, and 2% did not receive a disposition. Of drivers with no ethnicity reported, 1% were arrested, 5% received a misdemeanor summons, 65% were issued infraction tickets, 19% were given written warnings, 9% were warned verbally, and 1% received no disposition.

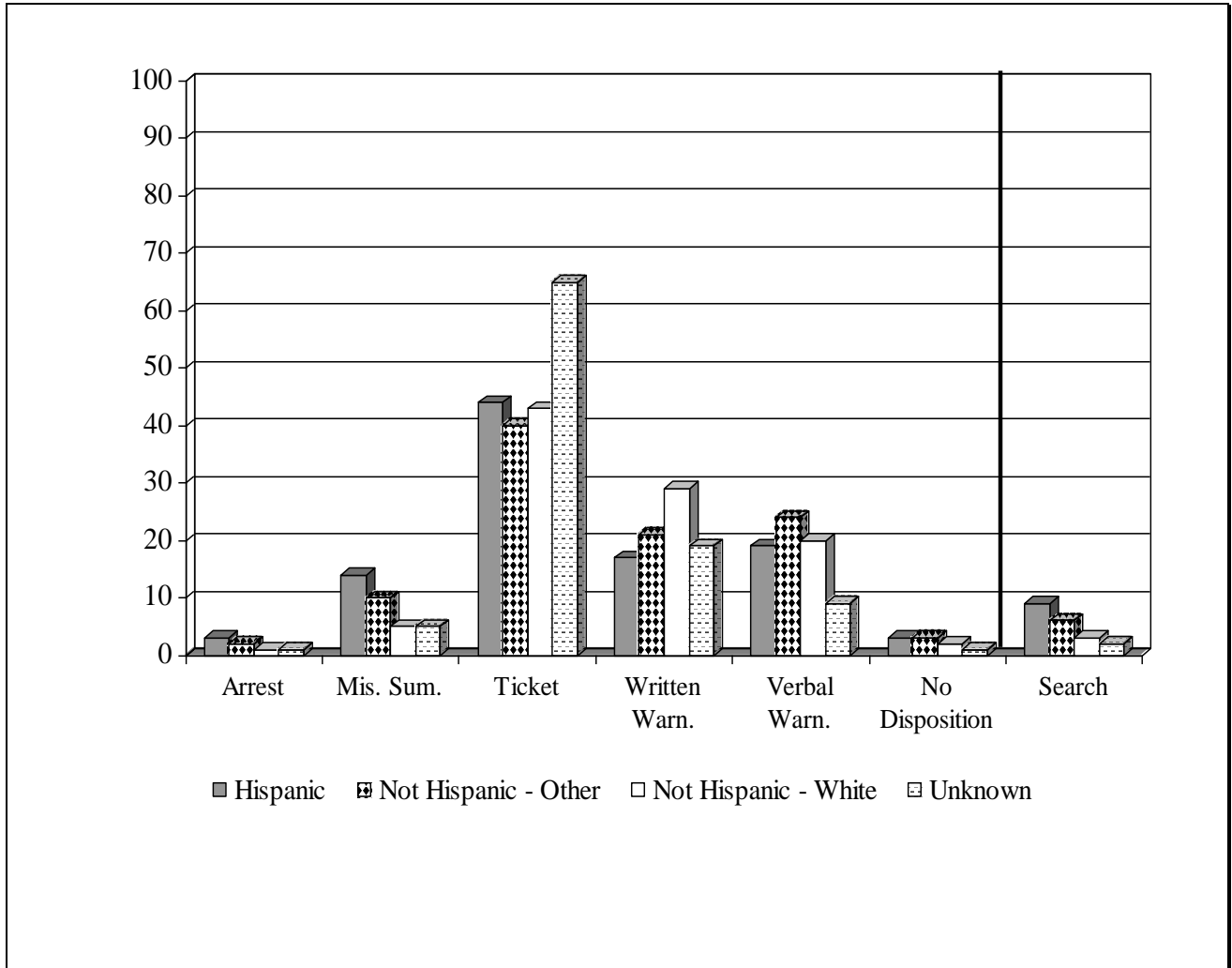
Figure 5 also presents the percentages of motor vehicle searches within ethnicity. Of all motor vehicle searches, 9% involved Hispanic motorists, 6% involved non-Hispanic others, 3% involved non-Hispanic whites, and 2% involved drivers whose ethnicity was unknown.

Summary

The analysis of statewide traffic stops and population data revealed some disparities regarding who is stopped and the nature of the traffic stops. White and black motorists were slightly over-represented in the percentage of traffic stops compared to the percentages from the 2000 U.S. Census for Connecticut. Hispanic motorists, however, were slightly under-represented compared to the census data. In terms of the reasons why people were stopped, black and Hispanic motorists were stopped more often for criminal investigation than other groups, but the differences were no greater than 1% when compared to the percentages of white and non-Hispanic white motorists respectively.

There were some disparities in arrests, misdemeanor summonses, and searches as a function of race and ethnicity. The probability of being arrested was 1.5% higher for black drivers stopped (compared to white drivers) and 2% higher for Hispanic drivers stopped (compared to non-Hispanic white drivers). These differences are more pronounced for the issuance of misdemeanor summonses. Black drivers stopped had a 10.5% probability of receiving a misdemeanor summons compared to a 6% probability for white drivers stopped. Hispanic drivers stopped had a 14% chance of receiving a misdemeanor summons compared to a 5% chance for non-Hispanic white drivers stopped. Moreover, the probability of being searched was higher for black motorists stopped than white motorists stopped (6.5% to 3%) as well as for Hispanic motorists stopped when compared to non-Hispanic white motorists stopped (3% to 9%).

Figure 5. Probabilities of Traffic Stops Dispositions and Motor Vehicle Searches Within Ethnicity



Analysis of Disproportionality of Traffic Stops

The frequencies and percentages previously discussed provide a descriptive summary of the traffic stops in Connecticut occurring between July 1, 2000 and June 30, 2001. While these descriptive statistics are helpful in developing a basic understanding of the number, nature, and dispositions of traffic stops, they do not fully address issues related to disparities in traffic stops as a function of race and ethnicity. It would be misleading to conclude from the above statistics that black or Hispanic motorists are more likely to be stopped, arrested, or searched than non-black or non-Hispanic drivers based upon the summary of statewide traffic stop statistics. In other words, these numbers merely reflect trends – they do not provide insight into individual police departments. The statewide statistics represent 92 law enforcement agencies. They do not indicate the extent of disparities in individual departments or acknowledge extenuating factors that may contribute to any disparities.

Additionally, statistics collected at separate decision points before and during traffic stops may provide different information regarding racial and ethnic disparities. These times are: (1) the decision to make the traffic stop, (2) the reason for making the traffic stop, (3) the disposition of the traffic stop, and (4) the decision to search the motor vehicle. Accusations of racial profiling have been made at each of these decision points and past research has suggested that disparities tend to occur most often in the decision to make the traffic stop and the decision to search the motor vehicle (Cordner et al., 2000; U.S. General Accounting Office, 2000; Harris, 1997).

We attempted to create a quantitative measure of disproportionality at each of the four traffic stop decision points and to explore the potential influence of extraneous conditions that may explain the presence of disparities. The *measures of disproportionality* were computed for each police department so that we could better comprehend the number of agencies with racial or ethnic disparities and the extent of any disparities. We then conducted a statistical regression analysis to identify the influence of extraneous factors on any disproportionality. (A regression analysis can assess the influence of one factor (e.g., race) after controlling for the effect of another (e.g., location of the police jurisdiction.)

We focused on the disparities of black and Hispanic motorists for these analyses. This decision was based upon prior research and our statewide summaries, which both suggest that blacks and Hispanics are most likely to suffer adverse effects of disparities during traffic stops. In each of these analyses, blacks were compared to non-blacks and Hispanics were compared to non-Hispanics.

Analysis #1: Disproportion in the Percentages of Traffic Stops

The first step was to create a measure of disproportionality for each town based on differences between the percentages of racial or ethnic group stopped to the racial or ethnic composition of the town in which the stop was made. The measure for this analysis was computed for blacks by subtracting the percentage of blacks in the town population from the percentage of all traffic stops of black motorists. A similar measure of disproportionality was created for Hispanics. For example, if 20% of the traffic stops in Town A were of black motorists and 15% of the population of Town A were black, Town A would have a measure of disproportionality of 5% for traffic stops of black motorists. Another way to interpret this measure is to state “there is a difference of 5% between blacks stopped and blacks living in Town A.” The higher the percentage, the more disparity is present.

Table 12 presents a categorical summary of the measure of disproportionality for the total percentages of traffic stops. These categories were arbitrarily created for display purposes to more clearly present disproportionality (disproportionality scores were rounded to the nearest percentage). The majority of police departments had disproportionality scores less than 5%. In particular, 62.9% of police departments exhibited less than a 5% disparity involving black motorists and 76.4% of police departments exhibited less than 5% disparity for Hispanic motorists. No police department had a disproportionality score greater than 20%. The average disproportionality score across all departments was 5% for blacks and 4% for Hispanics.

It is difficult to assess whether minority drivers are being stopped disproportionately than white drivers from this measure. Using the population of the municipality only tells us who lives there, not who is driving through it or who is violating traffic laws. Traffic stops studies have struggled over the issue of what to use as a baseline comparison. Some baseline comparisons used in other studies have included the percentage of licensed drivers, percentage of population over 18 years old, and counting cars driven by minority drivers at specific locations. Each measure has its limitations. We used municipality population because it is the most readily available and consistent estimate of a city/town's racial and ethnic composition.

Table 12. Jurisdiction Summary of the Disproportionality Measure for Traffic Stops

	Blacks		Hispanics	
	Number of Police Departments*	Percentage	Number of Police Departments*	Percentage
0 or less	6	6.7%	20	22.5%
1% to 4%	50	56.2%	48	53.9%
5% to 9%	21	23.6%	13	14.6%
10% to 20%	12	13.5%	8	9.0%
Over 20%	0	0	0	0
Totals	89	100.0%	89	100.0%
Average	5%		3%	
Median	4%		2%	
Standard Error	.4%		.5%	

(*Note: Specific population data were not available for the Connecticut State Police, the City of Groton, or Groton Long Point. These departments were not included in this analysis.)

Analysis #2: Disproportion in the Nature of Traffic Stops

This analysis investigated the nature and extent of differences in the reasons for stopping black and Hispanic motorists as compared to white and non-Hispanic white motorists. Measures of disproportionality were computed for each traffic stop type (criminal investigation, motor vehicle violation, and equipment violation) using the following formulas (analogous formulas were used to calculate the disproportion of motor vehicle stops and equipment violations):

Disproportion of blacks stopped for criminal investigations =

$$\frac{\text{Number of blacks stopped for criminal investigations}}{\text{Number of blacks stopped}} \quad \text{---} \quad \frac{\text{Number of non-blacks stopped for criminal investigations}}{\text{Number of non-blacks stopped}}$$

Disproportion of Hispanics stopped for criminal investigations =

$$\frac{\text{Number of Hispanics stopped for criminal investigations}}{\text{Number of Hispanics stopped}} \quad \text{---} \quad \frac{\text{Number of non-Hispanics stopped for criminal investigations}}{\text{Number of non-Hispanics stopped}}$$

Table 13 displays disproportionality for nature of the traffic stops involving black motorists. The average disparity was greatest for equipment violations (3%) and smallest for motor vehicle violations (-4%, a negative disproportionality score signifies the proportion of non-blacks stopped for motor vehicle violations was higher than the proportion of blacks stopped for motor vehicle violations). For criminal investigation and motor vehicle stops, over 50% of the police agencies showed “no” disproportionality. For all three types of traffic stops, the majority of police departments had less than 5% disparity. The average disproportionality across the three types of traffic stops was 1% or less. Two police departments had more than 20% disparity for equipment violation stops (Shelton, 24%, and Guilford, 21%). Of the 71 traffic stops involving black drivers, 28 made by the Shelton Police Department were classified as equipment violations. Of the 28 black motorists stopped by the Guilford Police Department, 18 were for equipment violations.

Table 13. Jurisdiction Summary of Black Disproportionality for Nature of the Traffic Stops

	Criminal Investigations		Motor Vehicle Violations		Equipment Violations	
	Number	Percentage	Number	Percentage	Number	Percentage
0 or less	48	52.1%	78	84.7%	35	38.0%
1% to 4%	40	43.5%	11	12.0%	29	31.6%
5 %to 9%	3	3.3%	3	3.3%	21	22.8%
10% to 20%	1	1.1%	0	0	5	5.4%
Over 20%	0	0	0	0	2	2.2%
Totals	92	100.0%	92	100.0%	92	100.0%
Average	.8%		-4%		3%	
Median	.3%		-3%		2%	
Standard Error	.3%		.5%		.5%	

Similar disproportionality numbers were observed when examining Hispanic drivers (Table 14). The average disproportionality score was greatest for equipment violations (2%) and smallest for motor vehicle violations (-3%). Nearly all of the police departments (over 95%) had less than a 5% disparity for criminal investigation and motor vehicle violation stops. For equipment violations, 79% had less than a 5% disparity. No department had more than a 20% disparity in any of the three types of traffic stops.

Table 14. Jurisdiction Summary of Hispanic Disproportionality for Nature of the Traffic Stops

	Criminal Investigations		Motor Vehicle Violations		Equipment Violations	
	Number	Percentage	Number	Percentage	Number	Percentage
0 or less	47	51.1%	76	82.6%	33	35.9%
1% to 4%	41	44.5%	13	14.1%	40	43.5%
5% to 9%	3	3.3%	3	3.3%	14	15.2%
10% to 20%	1	1.1%	0	0	5	5.4%
Over 20%	0	0	0	0	0	0
Totals	92	100.0%	92	100.0%	92	100.0%
Average	.8%		-3%		2%	
Median	.4%		-3%		2%	
Standard Error	.3%		.4%		.4%	

Analysis #3: Disproportion in the Dispositions of Traffic Stops

The third analysis explored disproportionality across the six different traffic stop dispositions (uniform arrest reports, misdemeanor summons, infraction tickets, written warnings, verbal warnings, and no dispositions). A measure of disproportionality was computed for each disposition using the following formulas (analogous formulas were used to calculate disproportions for the other dispositions):

Disproportion of blacks arrested during traffic stops =

$$\frac{\text{Number of blacks arrested}}{\text{Number of blacks stopped}} \text{ --- } \frac{\text{Number of non-blacks arrested}}{\text{Number of non-blacks stopped}}$$

Disproportion of Hispanics arrested during traffic stops =

$$\frac{\text{Number of Hispanics arrested}}{\text{Number of Hispanics stopped}} \text{ --- } \frac{\text{Number of non-Hispanics arrested}}{\text{Number of non-Hispanics stopped}}$$

Table 15 displays the disproportionality of dispositions involving black motorists. There were low levels of disproportionality for uniform arrest reports, infraction tickets, written warnings, and no dispositions. For most dispositions more than 94% of the police agencies had less than a 5% disparity. The exceptions were misdemeanor summonses and verbal warnings. For misdemeanor summonses, the average disproportionality score was 5%, with 55% of the departments having a disproportionality score between 10% and 20%. No department had a score over 20%.

Table 15. Jurisdiction Summary of Black Disproportionality for Dispositions of Traffic Stops

	Uniform Arrest Reports		Misdemeanor Summons		Infraction Tickets	
	Number	Percentage	Number	Percentage	Number	Percentage
0 or less	45	48.9%	15	16.3%	76	82.6%
1% to 4%	47	51.1%	26	28.3%	11	11.9%
5% to 9%	0	0	39	42.4%	3	3.3%
10% to 20%	0	0	12	13.0%	2	2.2%
Over 20%	0	0	0	0	0	0
Totals	92	100.0%	92	100.0%	92	100.0%
Average	.7%		5%		-5%	
Median	.5%		5%		-5%	
Standard Error	.1%		.5%		.7%	

Table 15. Continued

	Written Warnings		Verbal Warnings		No Dispositions	
	Number	Percentage	Number	Percentage	Number	Percentage
0 or less	80	86.9%	26	28.3%	53	57.6%
1% to 4%	8	8.7%	31	33.6%	37	40.2%
5% to 9%	3	3.3%	28	30.4%	2	2.2%
10% to 20%	1	1.1%	6	6.5%	0	0
Over 20%	0	0	1	1.1%	0	0
Totals	92	100.0%	92	100.0%	92	100.0%
Average	-5%		3%		.7%	
Median	-4%		3%		.3%	
Standard Error	.6%		.6%		.2%	

Table 16 shows a similar trend in the dispositions of Hispanic drivers. Most police departments (81.5% to 97.8%) had less than 5% disproportionality score for uniform arrest reports, infraction tickets, written warnings, verbal warnings, and no dispositions. Similar to the findings for black motorists, the highest amount of disparity (8%) involved misdemeanor summonses. Only 6.5% of the police departments had “no” disproportionality, 28.3% had a score under 5%, and five departments had a score of over 20%. These departments were North Haven (26%), Orange (24%), Branford (22.5%), Shelton (21.9%), and Coventry (21.2%).

Table 16. Jurisdiction Summary of Hispanic Disproportionality for Dispositions of Traffic Stops

	Uniform Arrest Reports		Misdemeanor Summons		Infraction Tickets	
	Number	Percentage	Number	Percentage	Number	Percentage
0 or less	47	51.1%	6	6.5%	52	56.5%
1% to 4%	42	45.6%	26	28.3%	23	25.0%
5% to 9%	2	2.2%	27	29.4%	12	13.0%
10% to 20%	1	1.1%	28	30.4%	5	5.5%
Over 20%	0	0	5	5.4%	0	0
Totals	92	100.0%	92	100.0%	92	100.0%
Average	.9%		8%		-1%	
Median	.4%		7%		-.6%	
Standard Error	.2%		.7%		.7%	

Table 16. Continued

	Written Warnings		Verbal Warnings		No Dispositions	
	Number	Percentage	Number	Percentage	Number	Percentage
0 or less	84	91.3%	57	62.0%	50	54.3%
1% to 4%	6	6.5%	23	25.0%	40	43.5%
5% to 9%	2	2.2%	9	9.8%	1	1.1%
10% to 20%	0	0	3	3.3%	1	1.1%
Over 20%	0	0	0	0	0	0
Totals	92	100.0%	92	100.0%	92	100.0%
Average	-7%		-2%		.5%	
Median	-5%		-.2%		-.3%	
Standard Error	.7%		.6%		.2%	

It is important to point out in these tables the low disproportionality scores observed for the number of arrests. The earlier descriptive analysis suggested that black and Hispanic motorists had a higher probability of being arrested than white and non-Hispanic white motorists. These earlier findings should be evaluated relative to the findings here, in that, no department had more than a 5% disparity in arrests of black motorists and only three departments had disparities greater than 5% for Hispanics. Based on the disproportionality scores, it appears that the statewide differences in arrests are attributable to a few disparities in a small number of departments rather than large differences across the state.

Analysis #4: Disproportion in Motor Vehicle Searches

The final analysis consisted of determining the amount of disproportionality in motor vehicle searches for blacks and Hispanics. The measure of disproportionality was computed from these formulas:

Disproportion of blacks searched during traffic stops =

$$\frac{\text{Number of blacks searched}}{\text{Number of blacks stopped}} \quad \text{---} \quad \frac{\text{Number of non-blacks searched}}{\text{Number of non-blacks stopped}}$$

Disproportion of Hispanics searched during traffic stops =

$$\frac{\text{Number of Hispanics searched}}{\text{Number of Hispanics stopped}} \quad \text{---} \quad \frac{\text{Number of non-Hispanics searched}}{\text{Number of non-Hispanics stopped}}$$

Table 17 summarizes the disproportionality scores of motor vehicle searches for black and Hispanic motorists. The majority of police departments exhibited less than a 5% disparity between motor vehicle searches of blacks and non-blacks (80.4%) as well as for Hispanics and non-Hispanics (60.8%). Close to 20% of the departments, however, had disparities between 5% and 20% for blacks, while almost 40% exhibited disparity for Hispanics. No department had more than a 20% difference for either black or Hispanic motorists.

Table 17. Jurisdiction Summary of the Disproportionality for Motor Vehicle Searches

	Blacks		Hispanics	
	Number	Percentage	Number	Percentage
0 or less	26	28.3%	13	14.1%
1% to 4%	48	52.1%	43	46.7%
5% to 9%	16	17.4%	25	27.2%
10% to 20%	2	2.2%	11	12.0%
Over 20%	0	0	0	0
Totals	92	100.0%	92	100.0%
Average	2%		4%	
Median	2%		3%	
Standard Error	.3%		.4%	

Summary of Disproportionality Scores

Overall, disproportionality was found across the four traffic stop decision points but the extent of the disproportionality varied as a function of the nature of the stop and dispositions. In regards to traffic stops, the majority of police departments showed a difference of less than 5% between the percentage of blacks and Hispanics stopped relative to their representation in the town population. For the nature of traffic stops, the disproportionality was less than 5% in over 95% of the police departments when looking at criminal investigations and motor vehicle violations. For equipment violations, 70% of the police departments had a disproportionality of less than 5%. In terms of dispositions, there was a greater disproportionality among blacks and Hispanics for misdemeanor summons than for all other dispositions. In this case, the majority of departments had a disproportionality score between 10% and 20% for both black and Hispanic motorists. Finally, for motor vehicle searches, the disproportionality scores were higher for Hispanic drivers (the average disproportionality score was 4%) than for black drivers (the average disproportionality score was 2%).

Extraneous Influences of Disproportionality

The final aspect of the analysis of disproportionality scores entailed statistically testing for the influence of extraneous factors on the disproportionality observed. In particular, this analysis involved determining if specific city/town characteristics were associated with higher amounts of disproportionality. These extraneous influences were selected based on their theoretical relevance to a municipality's driving population.

Geographic location: The premise of geographic location is that a jurisdiction borders other towns with a high percentage of minority residents will have a higher percentage of minority drivers.

Entertainment/tourism or Retail Districts: Cities/Towns with entertainment/tourism attractions or retail districts will also attract high numbers of drivers who are nonresidents. This was measured using the per capita retail sales and the per capita lodging facilities for each municipality (taken from the Connecticut Department of Economic and Community Development report, Connecticut Town Profiles: 1998-1999 Economic and Demographic Outlines of Connecticut's Communities).

Cities/Towns Predominately Residential: Residentialness was measured using the percentage of single family housing for each city/town (taken from the Connecticut Department of Economic and Community Development report, Connecticut Town Profiles: 1998-1999 Economic and Demographic Outlines of Connecticut's Communities). It is believed that jurisdictions with a high percentage of single-family households are more residential and will have fewer nonresidents driving through them.

These analyses revealed that the above characteristics were associated with the disproportionality scores. For instance:

- Higher disproportionality scores in stopping black and Hispanic drivers were found in jurisdiction adjacent to cities/towns with high percentages of blacks and/or Hispanics.
- Jurisdictions with a high amount of lodging (hotels, motels, bed and breakfasts) tended to have higher amounts of disproportionality in stopping black drivers.
- Higher disproportionality scores for issuing Hispanic drivers misdemeanor summonses were found in jurisdictions bordering towns with high percentages of black and/or Hispanic residents.
- Jurisdictions with a high percentage of single-family households tended to have higher disproportionality scores in issuing misdemeanor summonses for black drivers and traffic stops involving Hispanic drivers. These municipalities, however, had lower disproportionality scores for arrests involving both black and Hispanic motorists.

Summary of the Analysis of Disproportionality Scores

The computation and analysis of disproportionality scores allowed us to assess disparities across the 92 police agencies in Connecticut. This analysis showed that the majority of departments exhibited minimal disparities in regards to stopping and/or arresting black and Hispanic drivers. While there were high disproportionality scores, these appeared to be jurisdictions adjacent to locations with high black and Hispanic populations.

The largest disparities were found in the issuance of misdemeanor summonses and searches of motor vehicles. The average disproportionality scores for misdemeanor summonses were 8% and 5% for Hispanics and blacks respectively. Higher disproportionality scores were associated with jurisdictions bordering high minority populations and cities/towns that are mostly residential. The average disparities for motor vehicle searches were 2% for black drivers and 4% for Hispanic drivers respectively. There were no scores over 20% for black or Hispanic drivers. None of the extraneous influences, however, explained the high disproportionality scores for searches.

An Analysis of the Influence of Age and Gender on Traffic Stops

The goal of the *Interim Report* was to provide a fundamental assessment of traffic stops in Connecticut and focused solely on race and ethnicity differences in the traffic stops statistics without regard to the age or gender of the driver. Since the release of the *Interim Report*, studies of racial profiling and traffic stops have found evidence of racial and ethnic disparities by looking at the age and gender of the driver. We felt it was important to address these issues in this report. We examined each issue relative to the occurrence of a stop, if the stop ended with an arrest or a misdemeanor summons, and whether a search was conducted.

Age of the Motorists

Tables 18 and 19 summarize the average age of drivers in the different race and ethnic groups who were stopped, arrested, given a misdemeanor summons, and/or searched. Black drivers were slightly younger than white drivers (34 years old versus 35 years old) but there were little differences in age across the dispositions and searches.

Table 18. Average Age by Race

Average Age:	Black Drivers	White Drivers
Stopped	33.83	35.14
Arrested	29.29	29.76
Misdemeanor Summons	31.38	31.24
Searched	29.06	29.34

Hispanic drivers who were stopped were younger than non-Hispanic white drivers (31 years old versus 36 years old). This age difference also existed for those who were arrested, given a misdemeanor summons, and searched. On average, of those individuals arrested, given a misdemeanor summons, and searched, Hispanic drivers were 3 to 3.5 years younger than non-Hispanic white drivers.

Table 19. Average Age by Ethnicity

Average Age:	Hispanic Drivers	Non-Hispanic White Drivers
Stopped	30.68	35.82
Arrested	27.41	31.04
Misdemeanor Summons	28.91	32.02
Searched	27.43	30.11

Gender of the Motorists

Tables 20 and 21 present the gender comparisons for traffic stops. Of all traffic stops, 57.1% of the drivers were white males, 27% were white females, 8.7% were black males, and 3.6% were black females. The probability of getting arrested during the traffic stop was highest for black males (3%) and lowest for white females (0.3%). These same patterns existed for misdemeanor summonses and searches, with the exception that white males had a higher likelihood to be searched than black females.

Table 20. Traffic Stops by Race and Gender*

	Black Drivers		White Drivers	
	Male	Female	Male	Female
Total Percent of All Stops	8.7%	3.6%	57.1%	27.0%
Probability of:				
Arrest	3.0%	1.2%	1.0%	0.3%
Misdemeanor Summons	11.5%	8.2%	6.7%	3.4%
Search	8.0%	2.7%	3.8%	1.2%

*Percentages should not be totaled across and will not equal 100%.

Both male and female non-Hispanic white drivers were stopped more often than male and female Hispanic drivers (Table 21). However, the probabilities for getting arrested, being given a misdemeanor summons, and searched were highest for Hispanic males, followed by Hispanic females, non-Hispanic males, and lowest for non-Hispanic females.

Table 21. Traffic Stops by Ethnicity and Gender*

	Hispanic Drivers		Non-Hispanic White Drivers	
	Male	Female	Male	Female
Total Percent of All Stops	6.8%	1.9%	42.8%	21.6%
Probability of:				
Arrest	3.5%	1.4%	0.8%	0.3%
Misdemeanor Summons	15.0%	10.6%	6.0%	3.7%
Search	10.2%	4.0%	3.2%	1.2%

*Percentages should not be totaled across and will not equal 100%.

Summary of Age and Gender

The results of these analyses generally paralleled the findings from the statewide summary and disproportionality analysis. The average ages of the drivers who were stopped, arrested, given misdemeanor summonses, and searched were similar for black and white motorists. Hispanic motorists tended to be younger than non-Hispanic white motorists for these areas.

Male drivers were stopped, arrested, given misdemeanor summonses, and searched more often than female drivers, regardless of race (with the exception that Hispanic females had a higher probability of being searched than non-Hispanic white males). The gender differences across race and ethnicity were consistent with the earlier statewide analysis.

Conclusions

The findings of traffic stops statistics from July 1, 2000 to June 30, 2001 were consistent with the findings from the *Interim Report*. There were no widespread disparities as a function of race or ethnicity. Based on these traffic stops statistics, minimal differences were observed in the stopping of minority drivers, the nature of the traffic stops, and dispositions with the exception of misdemeanor summonses. Racial and ethnic differences were observed for motor vehicle searches.

Summary and Interpretation of the Findings

Fourteen percent of Hispanic motorists stopped received a misdemeanor summons compared to 5% for non-Hispanic white motorists stopped. For race, the difference was 10.5% for black drivers stopped and 6% for white drivers stopped. These disparities were found statewide and among individual departments. A common assumption is that police officers issue more misdemeanor summonses to black and Hispanic motorists than white motorists but another explanation is that police officers are stopping motor vehicles for equipment violations and issuing misdemeanor summonses for these equipment failures, which are disproportionately being driven by Hispanic and black motorists. In other words, police officers may be stopping motor vehicles with equipment violations driven by minorities and, subsequently, writing misdemeanor summonses for violations such as failure to maintain motor vehicle insurance or operating a motor vehicle under a suspended driver's license. This explanation is supported by the disproportionality analysis, which found that disparities in misdemeanor summonses were more common in jurisdictions bordering high Hispanic and black populations and in jurisdictions with a high percentage of single-family housing.

It also appears motor vehicles stopped that were driven by blacks and Hispanics were searched more often as compared to those driven by whites and non-Hispanic whites respectively. The probability of being searched was consistently higher for Hispanic drivers (9%) and black drivers (6.5%) than non-Hispanic drivers (3%) and white drivers (3%) respectively. In looking at the overall disparities across police departments, 80% of police departments had little or no disparities in searching black motorists. Whereas 60% of police departments had little or no disparity in searching Hispanic motorists with the remaining 40% having disproportionality scores between 5% and 20%.

Differences in the search data should be interpreted with caution. The data collection form for traffic stops does not include a place to record the type of search, whether the search was made incident to an arrest, or if criminal evidence was recovered as a result of the search. In addition, there were statistical anomalies in the reported search data. Some departments reported few or no searches in comparison with their number of traffic stops. We were unable to determine whether police officers in these departments did not complete the traffic stops form correctly, made few or no searches, or made searches without recording them. These factors combined make it difficult to draw any conclusions beyond the statistical disparities. However, these findings were consistent with other studies, which have found that black and Hispanic motorists are more likely to be searched than whites.

Conclusions and Recommendations

The numbers presented in this report do not definitively confirm or disprove the existence of racial profiling among individual departments or individual police officers. The decision to stop a motor vehicle and how to dispose of this traffic stop is ultimately made on an individual basis. We can only urge police departments to be proactive in examining their traffic stops data to insure that motorists are being treated fairly and explaining any differences in the stopping, disposing, and searching of minority motorists.

We recommend that a more focused examination of misdemeanor summonses and searches be undertaken on a local level. The limited data collected from the traffic stops forms do not allow for in-depth analysis of these. Of particular interest would be the types of misdemeanor summons and searches. Specific to searches, it would be helpful to look at the time of day of the search, the time needed to conduct the search, if the search was incident to arrest, and whether the search yielded criminal evidence. Other research has consistently found that searches of minorities do not uncover more criminal evidence than searches of whites.

A major limitation of traffic stops research has been the inability to conclusively explain differences in traffic stops, dispositions, or searches. The presence of any differences cannot solely be explained by police decisions, without knowing the proportion of minority drivers or the proportion of drivers violating traffic laws. Our analysis of extraneous influences has aided in the understanding of why some disparities were present. One important finding was that police departments stopping a higher percentage of minority drivers bordered towns or cities having a high percentage of minority residents. This finding suggests that outside factors may explain disparities in the traffic stops statistics rather than systematic differences across law enforcement agencies.

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