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Rhode Island traffic stop statistics data collection study 2004-2005: final report

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Recommended Citation

Farrell, Amy and McDevitt, Jack, "Rhode Island traffic stop statistics data collection study 2004-2005: final report" (2006). *Institute on Race and Justice Publications.* Paper 11.

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RHODE ISLAND TRAFFIC STOP STATISTICS DATA COLLECTION STUDY 2004-2005

FINAL REPORT

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April, 2006

Northeastern
UNIVERSITY

INSTITUTE ON RACE AND JUSTICE

FORWARD

The Institute on Race and Justice brings together academics from the College of Criminal Justice, School of Law, Department of Sociology and Anthropology, Education and African American Studies Program to examine questions on race and justice facing urban communities. Our primary goal is to conduct policy relevant research in race and justice and provide leadership on issues of racial injustice. The mission of the Institute is founded on the premise that academic institutions can provide rigorous and objective analysis that can be used by members of the community and policy makers to make policy changes that advance the cause of social justice. This research model attempts to enhance scientific inquiries with the input and experiences of community stakeholders who struggle with issues of racial injustice. Combining traditional empirical questions with a community-based problem-solving model of research serves as a national model for action-based research in the field of race and justice.

Over the past eight years we have had the opportunity to examine the problem of racial profiling in both national and local contexts. Throughout this period it has become increasingly clear that the perception of biased policing is one of the most challenging problems facing law enforcement today. While dedicated police officers and professional police practices have greatly contributed to making our communities safer the perception that some police officers are engaging in racial profiling has created and reinforced resentment and distrust of the police in many communities, particularly communities of color. These communities applaud the benefits of community policing in terms of reduced crime, but they also believe that truly effective policing will only be achieved when police both protect their neighborhoods from crime and respect the civil liberties of all residents. We at the Institute on Race and Justice believe that the most effective way to address significant issues in the area of race and social justice, such as racial profiling, is to bring together the community, researchers and policy makers to work as partners in an effort to more fully understand the issue and to jointly develop solutions that reflect these deeper understandings. Following the first study of traffic stop statistics in Rhode Island which was released in 2003 a number of important conversations occurred throughout the state about how to address and combat racial profiling as well as the perception of racial profiling. The collection of additional data on traffic stops was believed to be essential in evaluating whether or not such efforts helped reduce racial disparities in stops or stop outcomes. It is our hope that this report provides the tools necessary to continue these important conversations.

Jack McDevitt
Director, Institute on Race and Justice

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Associate Director, Institute on Race and Justice

ACKNOWLEDGEMENTS

This report is the result of the dedication of a large number of individuals who have worked hard to produce the most comprehensive statewide study of racial disparities in traffic enforcement to date. We would like to begin by thanking Thomas Mongeau, Executive Director of the Rhode Island Justice Commission and Gina Carulo, former head of the Rhode Island Statistical Analysis Center who led this effort and have maintained a commitment to producing the most fair and comprehensive study possible.

Also we would like to acknowledge the support of many police and governmental officials who have worked with us over this period. During the course of the study, a number of law enforcement executives reached out to provide feedback on the data collection process and answer questions from the research team. In particular, the assistance we received from North Smithfield, Narragansett, South Kingstown, and Westerly in the design and implementation of road survey observations was critical to the successful development of the driving population estimate used in this report.

The report would not have been possible without the support of staff at the Institute of Race and Justice and the College of Criminal Justice at Northeastern University. The authors would like to thank Dean Jack Greene for his continuing support of the Institute. We are particularly greatful to those individuals who spent endless hours processing traffic stop cards, participating in road surveys and conducting various analyses. This report would not have been possible without the dedication and hard work by the entire team of researchers and staff at the Institute on Race and Justice. We are grateful to the work of Dr. Carsten Andresen, Josh Brownstein, Chris Eggiman, Stephanie Fahy, Jared Garland, Brenden Hart, Robert Hoyt, Jabob Hulseberg, Danielle Rousseau Jason Rydberg, Deborah Vegh, Matt White, and Russell Wolff for their time and dedication to road surveys, scanning data cards, cleaning data and assisting with analysis.

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Chapter 1
Introduction and Methods

Community concerns about police stopping, citing and searching motorists differently based on the race of the motorist is one of the most troublesome issues facing contemporary law enforcement today. Racial profiling is generally understood as the practice of targeting or stopping a pedestrian or motor vehicle based primarily on the person's race, rather than any individualized suspicion. According to the principles of community policing, truly effective policing can only be achieved when police both protect the members of their communities from crime and simultaneously respect the civil liberties of all persons they encounter. As the most frequent form of contact that law enforcement has with the citizenry, traffic stops have the potential to dramatically shape how individuals perceive the police. Clearly, perceptions of disparate treatment threaten to undermine effective police-community partnerships.

Throughout the last ten years law enforcement agencies across the county have begun to measure the demographics of their traffic stops in order to assess whether or not racial profiling or disparate treatment of motorists on the basis of race is occurring. This task has not been easy. Law enforcement professionals, academics and community advocates often disagree about the best strategies for measuring disparate treatment and identifying when patterns of traffic stops are indicative of biased treatment. Despite these challenges, statistical information about the demographics of individuals stopped by the police and the results of those stops is a critical first step to addressing community concerns about racial profiling.

The State of Rhode Island has been struggling to understand and measure the extent of any biased based policing since June 2000, at which time the state legislature first required all law enforcement agencies to collect data on the demographics of individuals who are stopped during routine traffic stops. An analysis of traffic stop data from January 2001 through December 2002 was presented to the state in the spring of 2003 indicating that non-white motorists in many communities were stopped at a higher rate than expected based on the non-white driving population. The 2003 statewide report also highlighted some racial disparities in search practices. In response to the report, agencies across the state initiated conversations with their

local communities about how to best understand the findings of the report and work to reduce any racially disparate traffic stop patterns that were identified.

Since the release of the original Rhode Island Traffic Stop Study, the Rhode Island Police Chief's Association (RIPCA) has focused substantial attention on strategies to increase communication with the Rhode Island Civil Rights Roundtable and other community organizations willing to work with law enforcement on the issue of racial profiling. As a result, RIPCA strongly supported a second statutorily mandated traffic study and has held monthly meetings with interested community and advocacy groups to understand the issues surrounding traffic enforcement as it relates to the urban, suburban, and rural community settings. The group has actively monitored traffic stop data that has been released throughout the 2004-2005 study period. As a result of the first study and subsequent community-police conversations about racial profiling issues, the RIPCA was charged to address the following key needs:

1. Continued dialogue with the minority community on issues involving biased based policing.
2. Implementation of community policing initiatives and problem oriented policing techniques into Rhode Island law enforcement operational practices.
3. Continued monitoring of traffic stops and the collection of data electronically in the future.
4. Identification of funding sources that will establish an ongoing electronic traffic data analysis programs in view of a difficult budget environment.
5. Identification of best practices and training that will help eliminate racial bias in all aspects of police work.

During the course of the 2004-2005 study, the Rhode Island Chief's Association made great strides. The group adopted nine substantive recommendations about how law enforcement executives within the State of Rhode Island can tackle the challenge of racial profiling. The nine recommendations, described below, are currently being addressed by subcommittees comprised of representatives from law enforcement, the community and police unions. To date substantial progress has been made toward meeting many of the recommendations.

Rhode Island Police Chief's Association Recommendations, 2005

1. The Rhode Island Chief's Association (RIPCA) endorse the recommendation that all Rhode Island police departments participate in a survey on racially biased policing issues that is being sponsored by the Rhode Island Justice Commission.

2. That RIPCA endorse the proposition that all Rhode Island Police departments continue to collect traffic stop data electronically as soon as technologically feasible and fiscally supportable.

3. That RIPCA continue to work with RI Justice Commission on setting up a cost effective, fiscally prudent traffic stop data analysis program for all police departments.

4. That RIPCA will strongly encourage Rhode Island police departments continue to examine internal operational traffic stop & search procedures & ensure that citizen complaint policies & procedures are closely monitored.

5. That RIPCA continue to work with Rhode Island Law Enforcement Trainers Association (RILETA) & Post Officers Standards and Training Committee (POST) to review existing police curriculums & identify best training practices to improve on the in-service training on racially biased based policing issues.

6. That RIPCA continue to work with the Rhode Island Civil Rights Roundtable on solutions that will assist both police & community in increasing rapport and support community policing initiatives.

7. That RIPCA work with the office of U.S. Attorney & RI Attorney General on developing the concept of a civil rights officer for police departments.

8. That RIPCA reach out to Rhode Island police union leadership to assist in facilitating the dialogue on police-community relations.

9. That RIPCA continue the implementation & development of a community based liaison committee to be a standing advisory sub-committee of the RIPCA Executive Board.

In addition to the work of the RIPCA and individual responses by law enforcement agencies and their communities, in 2004 the Rhode Island legislature determined that additional data were necessary to evaluate the success of law enforcement agencies in addressing concerns about racial profiling. The Act Relating to Motor and Other Vehicles – Racial Profiling (also see the Racial Profiling Prevention Act of 2004, 31-21.2 of the General Laws of Rhode Island as amended) required police to prohibit the practice of racial profiling and ordered all local law enforcement agencies and the State Police to create a new traffic stop data collection card to gather demographic data on all routine traffic stops from October 1, 2004 through September 30,

2005. The data collected during this year were to be transmitted to the Rhode Island Justice Commission for the purposes of an external study of all traffic stop statistics.

CHANGES IN DATA COLLECTION PROCEDURE IN 2004-2005

Numerous lessons were learned from the original Rhode Island data collection study which helped improve the quality of data collected in 2004-2005. Some of the improvements are discussed in detail below.

Changes to the Data Collection Form

As in the first study, Scantron Corporation was hired to design machine-readable data collection forms which included all elements mandated by statute. Although officers would continue to fill out information about the nature of the traffic stop on machine-readable cards similar to those used in the first study, a few important changes were made to the card in response to questions raised by both law enforcement and community members following the first study. In making changes to the card the research team worked with the Rhode Island Justice Commission to balance the need for more precise information with a desire to be able to compare the findings from the 2004-2005 study to the original study.

The following data elements were collected in both the original and the 2004-2005 study:

- The date, time and general location of the stop;
- The agency making the stop
- The race or ethnicity, gender and approximate age of the driver;
- The reason for the stop
- Whether a search was instituted as a result of the stop;
- The basis for any search;
- Whether any contraband, including money, was seized in the course of the search, and if so, the nature of the contraband;
- Whether any warning or citation was issued as a result of the stop;
- Whether an arrest was made as a result of the stop or the search;
- The duration of the stop; and

- Whether the vehicle was registered in Rhode Island or out of the state.[1]

The following changes were made to the data collection card in 2004-2005:

- A municipal resident variable was added. While the previous study identified whether or not the driver was a resident of the state or from out-of-state, the new study added a second variable to help determine whether or not the driver actually lived in the city where they were stopped.

- The basis for stop variable was expanded to include suspicious persons, and separate the categories of APB (all-points bulletin) and call for service. Additionally, search and frisk were separated into two variables.

- The reason for the search variable was expanded to include incident to arrest, odor of drugs/alcohol, and plain view as well as to divide the categories of reasonable suspicion and terry/frisk into two separate variables.

- A separate question was added to determine whether or not consent for a search was requested.

To help law enforcement officials prepare for a second round of data collection and to ensure that officers correctly filled out data collection cards with new elements, the Rhode Island Justice Commission and Northeastern University sponsored a day-long train-the-trainer session on September 4th, in Warwick, Rhode Island.

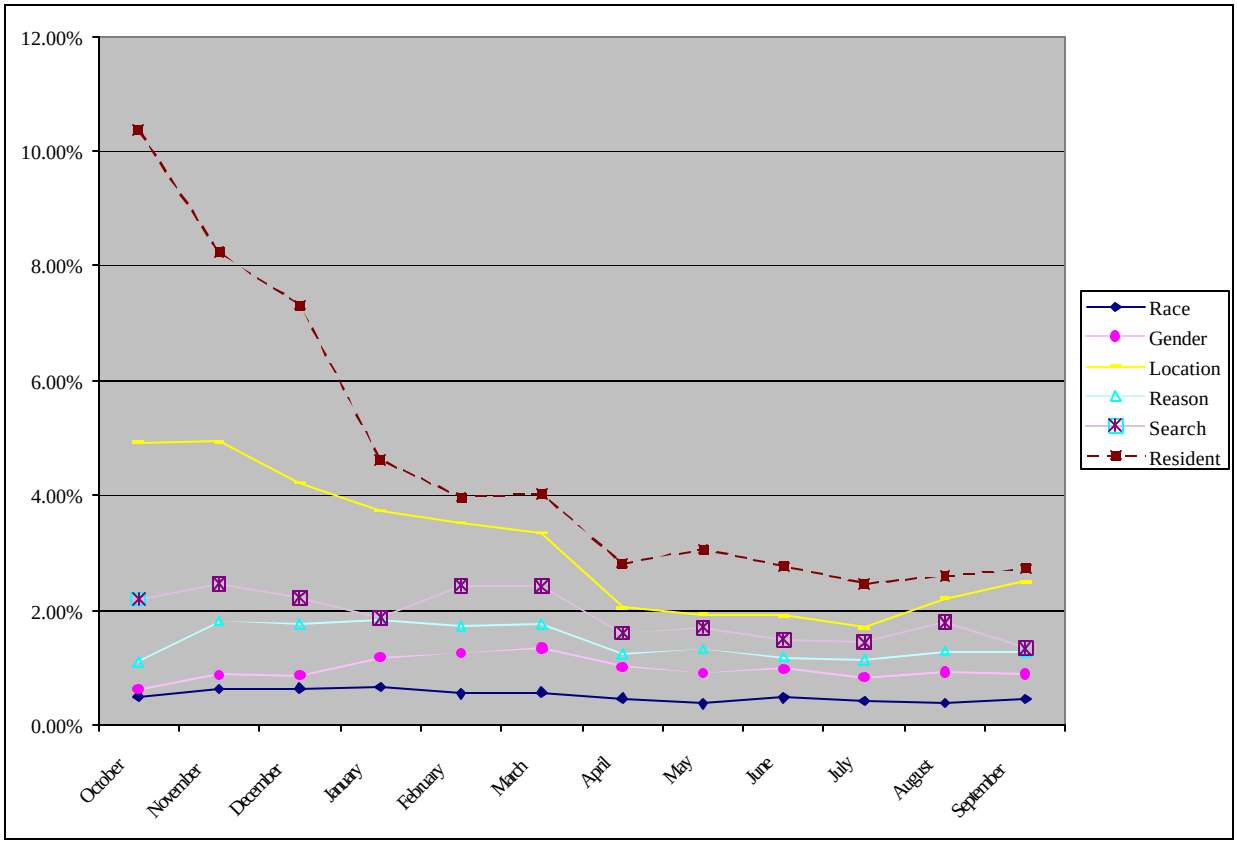
Improved Data Quality

As with most racial profiling studies, the Rhode Island traffic stop study relied on law enforcement officers to self-report all information about traffic stops. This process required officers to take a little extra time during the course of a traffic stop (approximately one minute) to carefully complete a Scantron data collection card. These cards were produced in booklet form similar to the traffic citations that officers had been using for years. We applaud the dedication of the many law enforcement officers who faithfully completed the traffic stop data collection cards. While we believe that the majority of officers completely and accurately recorded information about traffic stop activity, it is important to note that the percentage of automobile stops for which officers did not accurately fill out a data collection form is unknown.

[1] 1999 Rhode Island HB 7164, Section 31-21.1-4.

Monthly missing data reports were conducted to determine whether or not all data forms were being completed properly. Concerns were raised in the first study that officers in some agencies were not accurately or completely filling out the traffic stop data collection cards. To address these concerns in 2004-2005, the Northeastern University research staff worked with the Rhode Island Justice Commission to develop a detailed monthly missing data report which was provided to each agency throughout the course of the study. Each month agencies were notified if they had unacceptable levels of missing data and were provided with numerous suggestions for improving the quality and accuracy of the data submitted to the Justice Commission. The staff of IRJ had agreed with the Justice Commission that any field with more than 3% missing data would be highlighted and the results from the missing data analysis would be regularly communicated to all agencies. As a result of the monthly data reports, agencies were able to successfully reduce missing data throughout the course of the study. Chart 1.1 illustrates the decreasing rates of missing data throughout the study period for six key variables.

Chart 1.1 Missing Data for Rhode Island by Month



Improved Data Monitoring

In order to help agencies monitor and identify problems throughout the course of the study, Northeastern University prepared quarterly reports of the aggregate data on stops and searches for each agency. These reports were released ninety days following the end of each quarter. During the course of the study new elements were added to the quarterly reports to address specific questions raised by members of law enforcement or the community. For example, a number of law enforcement agencies were concerned about the best way to measure racial disparities in discretionary searches. The original study defined a discretionary search as all searches except searches incident to a lawful arrest. Some agencies in Rhode Island suggested that inventory searches used when a vehicle is towed should also be considered non-discretionary. To address this concern we added information to the quarterly reports about the racial breakdown of searches by type of search to help agencies identify whether or not racial disparities in searches could be explained by inventory search practices.

In addition to the quarterly reports, the Northeastern University research team met individually with jurisdictions who requested assistance or clarification interpreting the results from the quarterly reports.

DEFINING AND MEASURING RACIAL PROFILING IN RHODE ISLAND

In Rhode Island racial profiling has been defined as "The detention, interdiction or other disparate treatment of an individual on the basis, in whole or in part, of the racial or ethnic status of such individual, except when such status is used in combination with other identifying factors seeking to apprehend a specific suspect whose racial or ethnic status is part of the description of the suspect, which discretion is timely and reliable."[2] As with other common definitions of racial profiling, the 2004 Rhode Island definition focuses on individual instances where a person is stopped in whole or in part because of their race or ethnicity. Unfortunately, this definition of racial profiling cannot be adequately tested by the data that were statutorily mandated to be collected.

[2] *The Act Relating to Motor and Other Vehicles – Racial Profiling*, 2004 R.I. Pub. Laws 256.

Determining whether or not a particular traffic stop was based on bias is very challenging using statistical evidence alone. Identifying patterns of disparate traffic stops across multiple instances necessitates identifying patterns of stops for each officer. In Rhode Island *no data were collected on the identity of the officer carrying out a traffic stop*, making it impossible to conduct an analysis that would test the existence of disparate stop practices by any individual officer. Instead, the statute mandates the collection of data that can only be analyzed in the aggregate or at the community level. Aggregate data can indicate patterns of disparate traffic stop activity in a department, but cannot tease out the motives of individual officers or the existence of racial bias in enforcement decisions.

Using aggregate traffic stop data to identify patterns indicative of racial profiling is a relatively new area of inquiry. Although numerous studies have begun to address questions of differential treatment in traffic stops, no absolute consensus exists regarding the best way to determine racial disparities.[3] Racial disparities in traffic stops can result from a number of factors that social scientists are just beginning to understand. Bias on the part of an individual officer is one of several possible explanations for disparities in citations.

For these reasons, we are reluctant to use the present traffic stop data to draw conclusions about the existence of racial profiling. Despite this limitation, identifying meaningful racial disparities at a community wide level is and of itself is an important endeavor. For example, certain department enforcement strategies or allocation of patrol resources – while perhaps race neutral on their face – may result in the disparate treatment of racial groups. Regardless of why they occur, racial disparities may impose serious costs on minority citizens as well as influence how community members perceive the police in their community. It is for this reason that local law enforcement officials and community stakeholders should closely examine conclusions about existence of racial disparities.

Although there are limits to the types of questions that traffic stop data can answer, this study addresses three important questions that commonly arise in public concern over racial profiling:

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[3] *For an overview of the most common racial profiling analysis methods and benchmarks see: Lorie Fridell (2003)* By the Numbers: A Guide for Analyzing Race Data From Vehicle Stops, *Police Executive Research Forum.*

1. What is the general pattern of traffic stop activity in Rhode Island?
2. Are non-white drivers stopped more often than their representation in the driving population would predict?
3. Once stopped are non-white drivers more likely to receive a citation than white drivers?
4. Once stopped are non-white drivers more likely to be subject to a search than white drivers?

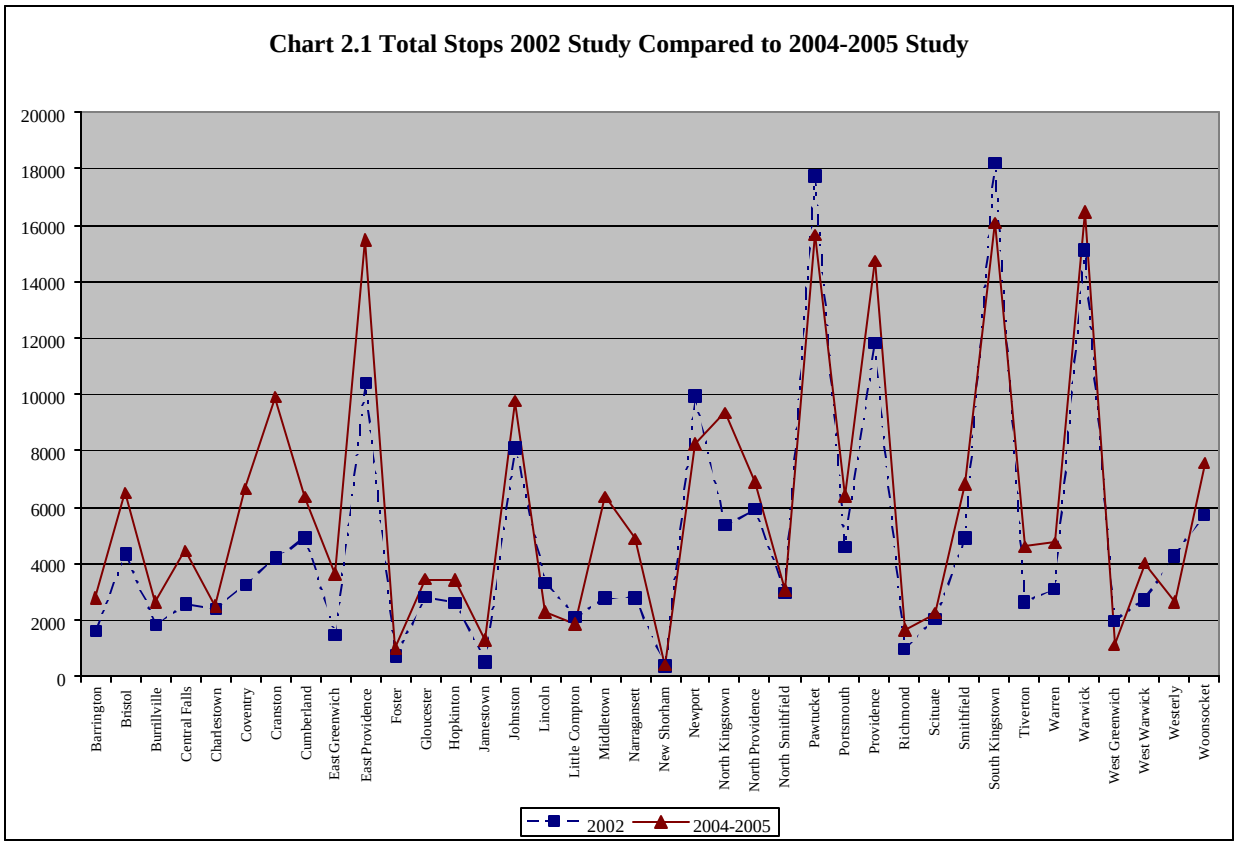
Overall, the collection of aggregate statistics and information regarding law enforcement activities can provide information about the nature, character, demographics and results of police enforcement action. The State of Rhode Island provided national leadership, requiring the collection of traffic stop data and struggling with the challenging task of using this information to address community concerns and make lasting change. Since the original study, agencies throughout the state have worked hard to collect accurate and reliable information about the characteristics of traffic stops and post-stop activity. While this report will not answer all questions about the existence of racial profiling, it provides a starting point for conversations between law enforcement and their respective communities about the true impact of traffic enforcement on individuals living, working and driving in the state of Rhode Island.

Chapter 2
Using Traffic Stop Data Strategically

Before delving into the question of racial disparity in traffic stops, it is important to understand the general pattern of traffic enforcement activities in Rhode Island for the study period of October 1, 2004 through September 30, 2005. This chapter provides statewide information on the characteristics of traffic stops and post-stop activity and identifies variations in traffic stop patterns among law enforcement agencies in different communities. Information on general patterns of traffic stops can help law enforcement agencies and their respective communities understand more about local traffic enforcement activity. The general pattern of activity for one agency can also be compared with other comparable or neighboring agencies.

Statewide, 288,483 traffic stops were analyzed during the study period.[4] Despite initial concern that some officers might disengage from vigorous traffic enforcement in response to the re-instatement of a traffic stop data collection program, Chart 2.1 indicates that in many jurisdictions officers made more stops in the second study (between October 1, 2004 and September 30, 2005) than they did in the previous study (between January 1, 2002 and December 31, 2002). The high number of traffic stops observed in the present study reflects the commitment of law enforcement officials to take the study seriously and helps provide confidence that the results described in the present study are reflective of routine traffic enforcement patterns.

[4] Missing data on certain variables on the traffic stop statistics cards would exclude the cases from analysis. Therefore, the total number of traffic stop statistics cards turned in to the Justice Commission may be higher than the actual number of traffic stop statistics cards that could be used in any particular analysis.



The overall characteristics and demographics of traffic stops made in 2004-2005 are described in Table 2.1. Statewide, 80.8% of the individuals stopped were White, 8.0% were Black, 8.8% were Hispanic, 2.0% were Asian, 0.1% were Native American and 0.4% were from other racial groups.[5] Males made up the greatest proportion of motorist stopped: 66.2% of the drivers stopped were male compared to only 33.8% who were female. Drivers between the ages of 22 and 30 made up the largest number of stops statewide (26.3%) followed by the motorists under 21 (22.9%). A substantial number of the motorists stopped in Rhode Island were driving alone. During the study, 64.6% of the vehicles stopped were occupied by the driver only, 23.3% had one additional passenger and 12.1% had more than one additional passenger.

In Rhode Island traffic stops were fairly evenly distributed during the daytime hours. 38.6% of stops occurred between 8:00 a.m. and 4:00 p.m. and 39.1% of stops occurred between 4:00 p.m.

[5] Although the category of Hispanic is often considered an ethnic category rather than a racial group, the label Hispanic was included as one of many racial categories on the traffic stop statistics data card following particular concerns that were raised by the Advisory Board.

and midnight. Slightly fewer stops, 22.3% occurred between midnight and 8:00 a.m., a time in most communities when many fewer drivers are on the roadways. These time categories roughly correspond to shift schedules for most police departments. Likewise, traffic stops occurred at fairly consistent rates throughout the year, with 23.1% of traffic stops occurring during the winter, 27.6% in the spring, 26.3% in the summer and 23.0% in the fall. Statewide 76.1% of traffic stops occurred on a weekday and 23.9% occurred on weekend.

Statewide 56.1% of traffic stops were non-residents of the municipality where they were stopped, 32.7% were residents, and 11.3% occurred on an interstate highway where residency was not applicable. Officers also identified the state residency of the driver, 81.1% of all drivers stopped were from Rhode Island and 18.9% were from out-of-state.

Table 2.1: General Information about Traffic Stops Statewide (N=288,483)

Driver Characteristics					
Driver Race		**Driver Gender**		**Driver Age**	
White	80.8%	Male	66.2%	21 & Under	22.9%
African American	8.0%	Female	33.8%	22 thru 30	26.3%
Native American	0.1%			31 thru 40	20.5%
Asian	2.0%	**Number of Passengers**		41 thru 50	16.3%
Hispanic	8.8%	Just Driver	64.6%	51 & Over	13.9%
Other	0.4%	1 Passenger	23.3%		
		2+ Passengers	12.1%		
Characteristics of the Stop					
Time of Day		**Season**		**Day of Week**	
1st Shift (8a to 4p)	38.6%	Winter	23.1%	Weekday	76.1%
2nd Shift (4p to 12a)	39.1%	Spring	27.6%	Weekend	23.9%
3rd Shift (12a to 8a)	22.3%	Summer	26.3%		
		Fall	23.0%		
Reason for Stop		**Basis for Stop**		**Outcome of Stop**	
Investigatory	4.8%	Speeding	42.9%	Citation	48.0%
Motor Vehicle Viol.	90.0%	Other Traffic Viol.	20.4%	Notice of Demand	4.4%
Assist	4.9%	Equipment Viol.	17.1%	Warning	33.7%
		Registration Viol.	4.6%	Arrest Driver	1.6%
Resident		City Ordinance Viol.	0.7%	Arrest Passenger	0.2%
Non-Resident	56.1%	Special Detail/Dir. Patrol	0.5%	No Action	8.6%
Municipal Resident	32.7%	Call for Service	0.9%	More than 1	3.6%
N/A Interstate	11.3%	APB	0.3%		
		Suspicious Person	1.9%		
State		Assist	4.5%		
Rhode Island	80.1%	Warrant	0.2%	**Stops with Search**	6.7%
Out of State	18.9%	More than 1 Reason	5.9%		

When completing the traffic stop data collection cards, officers were instructed to indicate the reason for the stop. Three possible reasons for the stops were included on the data card: motor vehicle violations, investigation and to assist motorists. This variable measured the intention of the officer when making a traffic stop. For example, if an officer had reason to believe that a vehicle's operator was engaged in criminal activity they may use a traffic stop as a pre-text to investigate the individual. Statewide in Rhode Island during the study period the vast majority of traffic stops (90.0%) were conducted for a motor vehicle violation. About an equal proportion of stops were made for investigatory reasons (4.8%) as for motorist assists (4.9%).

Officers were required to check not only their reason for the traffic stop, as explained above, but to provide the legal authority for the stop. It is important to note that officers could check more than one legal basis for traffic stops if applicable. Statewide, the most commonly cited legal basis for traffic stops was speeding (42.9%) followed by other traffic violations (20.4%) and equipment violations (17.1%). A very small proportion of traffic stops statewide were made based on calls for service (0.9%), "all points bulletins" or APBs (0.3%) or suspicious persons (1.9%) and almost no stops were made for outstanding warrants (0.2%). This is very important since in conversations with police officers during the course of this study, many officers suggested that stops resulting from suspicious drivers or individuals with outstanding warrants may explain any disparities that are identified from the data. Unfortunately, such traffic stops are so rare that they cannot explain the racial disparities that are documented in this report.

Variation in Traffic Stop Activity

Understandably, there is much variation in the type of traffic stop enforcement activities that are conducted by law enforcement agencies throughout the state. Some jurisdictions conduct targeted traffic stops to prevent accidents at dangerous intersections while others have more widespread traffic enforcement, in part as a source of revenue for their city. Conversely, some jurisdictions use vehicle stops as an investigatory tool to help reduce crime, and many communities conduct traffic stops for all these reasons combined. There are a number of reasons why enforcement patterns may differ among jurisdictions including the organizational goals of

the department, community demands, and the characteristics of the roadways in their community.

One of the most notable differences among jurisdictions is the frequency of traffic stops. Some agencies have active traffic units that produce a high volume of traffic stops while other agencies have lower levels of traffic stop activity. Table 2.2 lists the distribution of stops for each jurisdiction. To standardize across jurisdictions, a rate of traffic stops per 1,000 persons in the population is created to help facilitate comparison of stop activity between agencies. In table 2.2a the agencies are listed in descending order by the rate of traffic stops per 1,000 in the population.

Table 2.2 Total Number of Municipal Traffic Stops and Stops by Population

	Total Number of Stops 2004-2005	2000, 18+ Census Population	Stops Per resident	Stops per 1,000 resident
Barrington	2,773	12,074	0.23	230
Bristol	6,524	18,070	0.36	361
Burrillville	2,656	11,753	0.23	226
Central Falls	4,462	13,397	0.33	333
Charlestown	2,497	6,147	0.41	406
Coventry	6,657	33,668	0.20	198
Cranston	9,906	62,171	0.16	159
Cumberland	6,355	24,150	0.26	263
East Greenwich	3,620	9,384	0.39	386
East Providence	15,470	38,142	0.41	406
Foster	1,027	3,169	0.32	324
Glocester	3,449	7,284	0.47	474
Hopkinton	3,419	5,825	0.59	587
Jamestown	1,294	4,384	0.30	295
Johnston	9,753	22,298	0.44	437
Lincoln	2,284	15,741	0.15	145
Little Compton	1,847	2,813	0.66	657
Middletown	6,373	13,006	0.49	490
Narragansett	4,883	13,528	0.36	361
New Shoreham	394	4,384	0.09	90
Newport	8,250	21,276	0.39	388
North Kingstown	9,348	19,478	0.48	480
North Providence	6,906	26,475	0.26	261
North Smithfield	3,081	8,239	0.37	374
Pawtucket	15,669	54,807	0.29	286
Portsmouth	6,407	12,820	0.50	500
Providence	14,736	128,341	0.11	115
Richmond	1,646	5,208	0.32	316
Scituate	2,255	7,689	0.29	293
Smithfield	6,826	16,594	0.41	411
South Kingstown	16,084	21,637	0.74	743
Tiverton	4,597	11,893	0.39	387
Warren	4,749	8,906	0.53	533
Warwick	16,465	67,028	0.25	246
West Greenwich	1,131	3,641	0.31	311
West Warwick	4,020	22,949	0.18	175
Westerly	2,631	17,560	0.15	150
Woonsocket	7,556	32,069	0.24	236

Table 2.2a: Total Number of Municipal Traffic Stops – Ordered by Rate Per 1,000

	Total Number of Stops 2004-2005	2000, 18+ Census Population	Stops per resident	Stops per 1,000 residents
South Kingstown	16,084	21,637	0.74	743
Little Compton	1,847	2,813	0.66	657
Hopkinton	3,419	5,825	0.59	587
Warren	4,749	8,906	0.53	533
Portsmouth	6,407	12,820	0.50	500
Middletown	6,373	13,006	0.49	490
North Kingstown	9,348	19,478	0.48	480
Glocester	3,449	7,284	0.47	474
Johnston	9,753	22,298	0.44	437
Smithfield	6,826	16,594	0.41	411
Charlestown	2,497	6,147	0.41	406
East Providence	15,470	38,142	0.41	406
Newport	8,250	21,276	0.39	388
Tiverton	4,597	11,893	0.39	387
East Greenwich	3,620	9,384	0.39	386
North Smithfield	3,081	8,239	0.37	374
Bristol	6,524	18,070	0.36	361
Narragansett	4,883	13,528	0.36	361
Central Falls	4,462	13,397	0.33	333
Foster	1,027	3,169	0.32	324
Richmond	1,646	5,208	0.32	316
West Greenwich	1,131	3,641	0.31	311
Jamestown	1,294	4,384	0.30	295
Scituate	2,255	7,689	0.29	293
Pawtucket	15,669	54,807	0.29	286
Cumberland	6,355	24,150	0.26	263
North Providence	6,906	26,475	0.26	261
Warwick	16,465	67,028	0.25	246
Woonsocket	7,556	32,069	0.24	236
Barrington	2,773	12,074	0.23	230
Burrillville	2,656	11,753	0.23	226
Coventry	6,657	33,668	0.20	198
West Warwick	4,020	22,949	0.18	175
Cranston	9,906	62,171	0.16	159
Westerly	2,631	17,560	0.15	150
Lincoln	2,284	15,741	0.15	145
Providence	14,736	128,341	0.11	115
New Shoreham	394	4,384	0.09	90

While Warwick (16,465), Providence (14,736), Pawtucket (15,669), South Kingstown (16,084) and East Providence (15,470) make the largest number of traffic stops, representing 34% of all

stops made in municipal jurisdictions, only South Kingstown remains high when we examine stops per population size. In fact, Cranston, Westerly, Lincoln, Providence and New Shoreham have the lowest rate of traffic stops per capita.

In addition to differences in sheer numbers of traffic stops, agencies decide to make traffic stops for a number of different reasons. Table 2.3 provides a breakdown for the legal basis for stops in each jurisdiction. Speeding is the most common basis for a stop statewide, but individual jurisdictions differ in their likelihood of making stops due to speeding. Table 2.3a sorts jurisdictions by the proportion of their stops based on speeding. In Foster and Glocester over 80% of all stops are based on speeding. Conversely, in West Warick, Warwick, Johnston, Central Falls and Providence less than 20% of stops are based on speeding. Vehicle stops were rarely made on the basis of a call for service or an "all points bulletin" (APB). Statewide, only 0.9% of traffic stops involved a call for service and only 0.3% were made because of an APB. Similarly traffic stops based on known warrants were very infrequent. Statewide, only 0.2% of traffic stops were made because the motorist was known to have a warrant and 1.9% of stops were based on an identified "suspicious person." Even cities that were more likely to engage in traffic stops as a function of crime control, such as Providence, stopped few cars based on suspicion of a crime. In Providence, only 1.03% of stops involved a call for service, 1.27% an APB, 7.09% a suspicious person, and 0.25% of stops were due to outstanding warrants.

Across the country, community groups have expressed concern about stops made for "equipment" and "other traffic" violations suggesting that such stops may be more discretionary and therefore more likely to reflect stops based on an individual officers bias. In communities with larger proportions of "other traffic" and "equipment" stops, the department may want to discuss the reasons for these stops with members of their communities and closely examine whether or not such stops produce disparate enforcement patterns.

Table 2.3: Reason for the Stop

	Speeding	Other Traffic	Equipment Violation	Registration Violation	City/Town Ordinance	Special	Call for Service	APB	Susp. Person	Assist	Warrant	Multiple
Statewide	48.0%	20.4%	17.1%	4.6%	0.7%	0.5%	0.9%	0.3%	1.9%	4.5%	0.2%	5.9%
Barrington	63.16	12.52	13.17	5.36	0.58	0.00	0.65	0.22	1.30	2.90	0.00	0.14
Bristol	31.46	36.67	21.82	3.55	0.97	0.06	1.30	0.17	1.85	0.93	0.28	0.94
Burrillville	40.30	23.52	9.87	7.51	0.04	0.08	1.30	0.91	2.74	2.90	0.42	10.41
Central Falls	12.87	43.48	19.76	6.62	12.00	0.11	0.63	0.14	2.57	0.95	0.14	0.74
Charlestown	55.44	13.18	22.28	0.73	0.20	0.24	1.70	0.89	1.94	1.09	0.28	2.02
Coventry	51.59	14.87	20.40	2.45	0.27	0.02	1.52	0.29	2.59	1.35	0.14	4.52
Cranston	24.13	33.36	22.51	4.82	0.17	3.68	1.04	0.48	2.57	2.96	0.06	4.23
Cumberland	28.63	17.44	21.95	3.33	0.52	1.29	1.51	0.58	4.13	6.50	0.09	14.02
East Greenwich	48.13	16.08	16.83	3.82	0.17	0.17	0.95	0.20	1.48	5.04	0.36	6.77
East Providence	21.88	17.90	30.53	13.54	0.40	0.36	0.90	0.53	3.72	2.99	0.69	6.56
Foster	82.61	5.40	5.99	0.20	0.00	0.10	0.88	0.10	1.38	2.65	0.10	0.59
Glocester	81.83	7.45	6.96	0.20	0.06	0.06	0.41	0.00	0.17	0.23	0.00	2.62
Hopkinton	56.65	10.09	21.44	3.27	0.06	0.00	0.50	0.12	0.91	0.91	0.12	5.93
Jamestown	60.22	18.27	10.22	2.17	0.39	0.08	2.01	0.70	1.78	3.17	0.15	0.85
Johnston	15.34	9.79	11.59	0.91	0.12	2.93	0.27	0.08	0.95	1.09	0.04	56.89
Lincoln	26.48	30.70	23.30	4.54	1.23	1.06	4.76	0.18	3.08	1.15	0.00	3.52
Little Compton	58.59	14.57	21.03	3.64	0.05	0.00	0.16	0.11	0.65	0.60	0.11	0.49
Middletown	56.16	13.38	17.10	7.38	0.05	0.11	0.35	0.13	0.32	0.33	0.08	4.61
Narragansett	41.85	20.54	24.23	2.80	0.74	0.41	0.72	0.47	2.51	2.43	0.14	3.13
New Shoreham	34.87	37.18	14.10	2.05	6.92	0.77	0.26	0.26	0.26	0.00	0.26	3.08
Newport	29.99	41.59	23.55	0.81	0.12	0.02	0.11	0.09	0.27	1.51	0.05	1.88
North Kingstown	68.21	16.29	4.74	1.19	0.07	0.58	1.16	0.48	1.38	4.15	0.04	1.71
North Providence	22.76	22.66	38.66	5.86	0.15	1.57	0.97	0.16	2.33	1.26	0.25	3.37
North Smithfield	36.25	11.11	31.28	5.26	0.03	0.45	0.91	0.29	2.21	6.89	0.06	5.26
Pawtucket	51.52	19.92	20.51	1.80	0.97	0.06	0.27	0.07	0.82	0.99	0.05	3.02
Portsmouth	53.00	18.39	11.94	2.00	0.09	0.20	0.80	0.55	2.43	8.04	0.06	2.50
Providence	10.91	52.56	10.24	7.75	4.11	1.02	1.03	1.27	7.09	1.40	0.25	2.36
Richmond	55.20	11.26	22.28	8.16	0.00	0.00	0.06	0.00	0.24	0.06	0.00	2.74
Scituate	61.15	9.67	15.11	1.48	0.13	0.04	0.94	0.45	2.11	3.96	0.04	4.90
Smithfield	47.36	13.10	20.53	8.81	0.13	0.09	0.88	0.09	0.88	1.85	0.19	6.11
South Kingstown	65.93	15.88	11.02	3.01	0.08	0.06	0.25	0.25	0.70	0.23	0.26	2.32
SP – Chepachet	74.83	8.15	3.47	1.41	0.00	0.01	0.51	0.03	0.10	9.82	0.01	1.66

	Speeding	Other Traffic	Equipment Violation	Registration Violation	City/Town Ordinance	Special Detail	Call for Service	APB	Susp. Person	Assist	Warrant	Multiple
SP – Hope Valley	68.54	6.81	8.28	1.94	0.04	0.16	0.72	0.15	0.39	7.83	0.02	5.12
SP- Lin. Woods	41.75	12.60	13.84	5.82	0.03	0.54	1.08	0.09	0.25	19.87	0.06	4.08
SP - Portsmouth	68.62	8.99	11.17	1.18	0.00	0.05	0.38	0.13	0.13	6.77	0.02	2.58
SP – Wickford	55.91	11.11	12.50	2.61	0.01	0.03	0.36	0.14	0.27	11.70	0.09	5.27
Tiverton	35.63	24.62	22.50	2.27	0.83	0.24	2.88	0.50	4.12	4.54	0.17	1.70
Total	42.90	20.41	17.07	4.57	0.68	0.55	0.92	0.35	1.93	4.48	0.18	5.98
Warren	40.86	24.97	15.07	8.86	0.23	0.32	0.98	1.00	3.46	2.25	0.81	1.19
Warwick	18.07	30.78	23.32	8.85	0.37	0.63	2.21	0.52	3.46	6.33	0.32	5.14
West Greenwich	61.44	19.68	9.88	4.99	0.45	0.00	0.45	0.36	0.45	0.53	0.09	1.69
West Warwick	19.15	27.62	25.58	7.24	0.28	0.83	0.88	0.45	2.87	1.81	0.20	13.09
Westerly	41.99	20.75	20.86	3.61	0.15	0.19	0.88	0.69	2.54	0.23	0.19	7.91
Woonsocket	36.86	23.45	13.66	5.44	1.87	0.69	1.41	0.81	3.68	1.91	0.31	9.93

Table 2.3a: Reason for the Stop Ordered by % Speeding

	Speeding	Other Traffic Violation	Equipment Violation	Reg. Violation	City/Town Ordinance	Special Detail	Call for Service	APB	Susp. Person	Assist	Warrant	Multiple
Foster	82.61	5.40	5.99	0.20	0.00	0.10	0.88	0.10	1.38	2.65	0.10	0.59
Glocester	81.83	7.45	6.96	0.20	0.06	0.06	0.41	0.00	0.17	0.23	0.00	2.62
SP – Chepachet	74.83	8.15	3.47	1.41	0.00	0.01	0.51	0.03	0.10	9.82	0.01	1.66
SP - Portsmouth	68.62	8.99	11.17	1.18	0.00	0.05	0.38	0.13	0.13	6.77	0.02	2.58
SP – Hope Valley	68.54	6.81	8.28	1.94	0.04	0.16	0.72	0.15	0.39	7.83	0.02	5.12
North Kingstown	68.21	16.29	4.74	1.19	0.07	0.58	1.16	0.48	1.38	4.15	0.04	1.71
South Kingstown	65.93	15.88	11.02	3.01	0.08	0.06	0.25	0.25	0.70	0.23	0.26	2.32
Barrington	63.16	12.52	13.17	5.36	0.58	0.00	0.65	0.22	1.30	2.90	0.00	0.14
West Greenwich	61.44	19.68	9.88	4.99	0.45	0.00	0.45	0.36	0.45	0.53	0.09	1.69
Scituate	61.15	9.67	15.11	1.48	0.13	0.04	0.94	0.45	2.11	3.96	0.04	4.90
Jamestown	60.22	18.27	10.22	2.17	0.39	0.08	2.01	0.70	1.78	3.17	0.15	0.85
Little Compton	58.59	14.57	21.03	3.64	0.05	0.00	0.16	0.11	0.65	0.60	0.11	0.49
Hopkinton	56.65	10.09	21.44	3.27	0.06	0.00	0.50	0.12	0.91	0.91	0.12	5.93
Middletown	56.16	13.38	17.10	7.38	0.05	0.11	0.35	0.13	0.32	0.33	0.08	4.61
SP – Wickford	55.91	11.11	12.50	2.61	0.01	0.03	0.36	0.14	0.27	11.70	0.09	5.27
Charlestown	55.44	13.18	22.28	0.73	0.20	0.24	1.70	0.89	1.94	1.09	0.28	2.02
Richmond	55.20	11.26	22.28	8.16	0.00	0.00	0.06	0.00	0.24	0.06	0.00	2.74
Portsmouth	53.00	18.39	11.94	2.00	0.09	0.20	0.80	0.55	2.43	8.04	0.06	2.50
Coventry	51.59	14.87	20.40	2.45	0.27	0.02	1.52	0.29	2.59	1.35	0.14	4.52
Pawtucket	51.52	19.92	20.51	1.80	0.97	0.06	0.27	0.07	0.82	0.99	0.05	3.02
East Greenwich	48.13	16.08	16.83	3.82	0.17	0.17	0.95	0.20	1.48	5.04	0.36	6.77
Smithfield	47.36	13.10	20.53	8.81	0.13	0.09	0.88	0.09	0.88	1.85	0.19	6.11
Total	42.90	20.41	17.07	4.57	0.68	0.55	0.92	0.35	1.93	4.48	0.18	5.98
Westerly	41.99	20.75	20.86	3.61	0.15	0.19	0.88	0.69	2.54	0.23	0.19	7.91
Narragansett	41.85	20.54	24.23	2.80	0.74	0.41	0.72	0.47	2.51	2.43	0.14	3.13
SP – Lin. Woods	41.75	12.60	13.84	5.82	0.03	0.54	1.08	0.09	0.25	19.87	0.06	4.08
Warren	40.86	24.97	15.07	8.86	0.23	0.32	0.98	1.00	3.46	2.25	0.81	1.19
Burrillville	40.30	23.52	9.87	7.51	0.04	0.08	1.30	0.91	2.74	2.90	0.42	10.41
Woonsocket	36.86	23.45	13.66	5.44	1.87	0.69	1.41	0.81	3.68	1.91	0.31	9.93
North Smithfield	36.25	11.11	31.28	5.26	0.03	0.45	0.91	0.29	2.21	6.89	0.06	5.26
Tiverton	35.63	24.62	22.50	2.27	0.83	0.24	2.88	0.50	4.12	4.54	0.17	1.70
New Shoreham	34.87	37.18	14.10	2.05	6.92	0.77	0.26	0.26	0.26	0.00	0.26	3.08

	Speeding	Other Traffic Violation	Equipment Violation	Reg. Violation	City/Town Ordinance	Special Detail	Call for Service	APB	Susp. Person	Assist	Warrant	Multiple
Bristol	31.46	36.67	21.82	3.55	0.97	0.06	1.30	0.17	1.85	0.93	0.28	0.94
Newport	29.99	41.59	23.55	0.81	0.12	0.02	0.11	0.09	0.27	1.51	0.05	1.88
Cumberland	28.63	17.44	21.95	3.33	0.52	1.29	1.51	0.58	4.13	6.50	0.09	14.02
Lincoln	26.48	30.70	23.30	4.54	1.23	1.06	4.76	0.18	3.08	1.15	0.00	3.52
Cranston	24.13	33.36	22.51	4.82	0.17	3.68	1.04	0.48	2.57	2.96	0.06	4.23
North Providence	22.76	22.66	38.66	5.86	0.15	1.57	0.97	0.16	2.33	1.26	0.25	3.37
East Providence	21.88	17.90	30.53	13.54	0.40	0.36	0.90	0.53	3.72	2.99	0.69	6.56
West Warwick	19.15	27.62	25.58	7.24	0.28	0.83	0.88	0.45	2.87	1.81	0.20	13.09
Warwick	18.07	30.78	23.32	8.85	0.37	0.63	2.21	0.52	3.46	6.33	0.32	5.14
Johnston	15.34	9.79	11.59	0.91	0.12	2.93	0.27	0.08	0.95	1.09	0.04	56.89
Central Falls	12.87	43.48	19.76	6.62	12.00	0.11	0.63	0.14	2.57	0.95	0.14	0.74
Providence	10.91	52.56	10.24	7.75	4.11	1.02	1.03	1.27	7.09	1.40	0.25	2.36

Much can be learned about the characteristics of traffic enforcement by looking at the outcomes of traffic stops. Statewide, just about one-half (48%) of the stops resulted in a citation being issued and 34% resulted in a warning. As with basis for the stop, there is much variation among jurisdictions in the proportion of drivers who were cited or warned. For example, in Pawtucket, citations were issued in 93.4% of the traffic stops (the highest percentage in the state). Conversely, in Newport and Little Compton when drivers were stopped they were rarely cited (7.3% and 7.9% of stops respectively resulted in a citation). These variations reflect the influence of local community decisions and priorities in the enforcement of state traffic laws. While some communities believe in the use of citations as a way of increasing traffic safety, others may see warnings as a more effective way to achieve the same goal without presenting undue burdens on residents or visitors. Analysis of citation and warning rates provides law enforcement officials and community members in Rhode Island information on how their level and type of traffic enforcement activities compare to other Rhode Island communities. Differences in citation patterns represent variation in local cultures about the best ways to address the specific traffic concerns facing their communities. Such differing norms about the purpose and expected results of traffic stops may help provide a context for understanding why groups may be treated differently during and after traffic stops.

The extreme range in the proportion of drivers stopped who receive a citation - 7% to 93% - is somewhat remarkable. It suggests additional analysis and discussion may be necessary within individual agencies to help departments decide which enforcement strategies are best suited to helping them achieve their respective traffic enforcement goals.

Although few drivers are arrested following a routine traffic stop, there are some important differences among the jurisdictions that may represent differing goals of traffic enforcement. In Providence, Woonsocket and West Warwick, approximately 4% of all stops resulted in the arrest of the driver compared to the statewide average of 1.6%.

Table 2.4 Outcome of Stops

	N	Citation	N/D	Warning	Arrest Driver	Arrest Passenger	No Action	Multiple
Total Statewide	284,295	47.96	4.41	33.67	1.58	0.18	8.55	3.65
Barrington	2,748	38.72	1.20	53.35	1.09	0.11	5.06	0.47
Bristol	6,421	30.77	10.59	50.55	1.98	0.17	4.28	1.65
Burrillville	2,615	23.44	1.91	58.01	1.95	0.27	11.59	2.83
Central Falls	4,404	45.78	3.77	35.49	2.48	0.30	4.75	7.45
Charlestown	2,465	32.41	6.04	50.67	3.69	0.20	4.58	2.39
Coventry	6,619	29.96	11.44	43.92	1.44	0.08	7.07	6.10
Cranston	9,725	43.81	3.61	33.16	2.13	0.19	12.92	4.19
Cumberland	6,322	19.01	2.69	55.06	0.59	0.19	18.81	3.65
East Greenwich	3,564	18.97	7.94	52.24	2.36	0.20	12.93	5.36
E. Providence	15,344	30.16	12.86	39.34	2.36	0.31	8.09	6.88
Foster	1,020	66.47	0.49	26.47	0.20	0.20	4.31	1.86
Glocester	3,390	62.77	2.71	29.12	0.71	0.00	1.62	3.07
Hopkinton	3,364	37.10	11.21	43.37	1.16	0.03	2.17	4.96
Jamestown	1,291	37.03	2.01	49.50	3.95	0.08	6.20	1.24
Johnston	9,581	78.58	0.31	15.68	1.02	0.09	2.24	2.07
Lincoln	2,245	29.13	4.63	51.40	2.76	0.22	9.76	2.09
Little Compton	1,845	7.97	0.65	86.56	0.27	0.05	1.52	2.98
Middletown	6,261	49.56	12.59	29.90	1.95	0.11	2.46	3.43
Narragansett	4,822	25.28	1.93	61.24	2.78	0.33	5.68	2.76
New Shoreham	379	32.19	3.69	54.62	1.06	0.00	3.17	5.28
Newport	8,182	7.35	5.85	82.40	1.16	0.11	1.67	1.45
North Kingstown	9,063	66.13	0.47	22.76	1.06	0.11	7.98	1.49
North Providence	6,867	43.21	4.18	37.32	2.43	0.54	4.41	7.91
North Smithfield	3,071	24.81	13.32	43.54	0.55	0.16	10.29	7.33
Pawtucket	15,550	93.45	0.07	3.32	0.48	0.06	1.79	0.81
Portsmouth	6,365	36.36	4.93	41.27	1.23	0.13	11.91	4.18
Providence	14,481	41.00	1.20	33.86	4.29	0.66	14.05	4.95
Richmond	1,632	57.54	15.01	17.89	1.72	0.00	0.43	7.41
Scituate	2,215	46.86	2.26	40.18	0.45	0.00	7.40	2.84
Smithfield	6,815	58.62	0.13	30.84	0.79	0.03	3.90	5.68
South Kingstown	15,933	36.08	0.36	59.46	0.89	0.10	2.17	0.94
SP - Chepachet	9,597	80.45	0.25	6.55	0.35	0.09	10.13	2.17
SP - Hope Valley	14,234	74.69	1.19	11.31	0.61	0.04	9.00	3.15
SP – Lin. Woods	15,159	57.46	3.13	12.78	0.57	0.05	20.83	5.17
SP - Portsmouth	6,314	67.14	2.25	19.96	0.19	0.08	7.27	3.12
SP - Wickford	11,099	63.76	3.27	16.58	0.32	0.05	12.57	3.45
Tiverton	4,562	17.93	3.84	52.89	2.35	0.33	21.22	1.45
Warren	4,680	35.38	5.06	48.93	0.83	0.15	7.88	1.75
Warwick	16,311	40.44	14.77	25.42	2.12	0.21	12.33	4.71
West Greenwich	1,086	42.17	3.96	46.96	2.30	0.09	1.75	2.76
West Warwick	3,931	33.71	2.54	48.10	4.40	0.38	6.77	4.10
Westerly	2,596	36.67	2.43	47.92	3.31	0.23	5.47	3.97
Woonsocket	7,434	40.56	0.94	38.30	4.48	0.61	10.47	4.65

Table 2.4a: Outcome of Stop Sorted by % of Stops Resulting in a Citation

	N	Citation	N/D	Warning	Arrest Driver	Arrest Passenger	No Action	Multiple
Total Statewide	284,295	47.96	4.41	33.67	1.58	0.18	8.55	3.65
Pawtucket	15,550	93.45	0.07	3.32	0.48	0.06	1.79	0.81
SP – Chepachet	9,597	80.45	0.25	6.55	0.35	0.09	10.13	2.17
Johnston	9,581	78.58	0.31	15.68	1.02	0.09	2.24	2.07
SP - Hope Valley	14,234	74.69	1.19	11.31	0.61	0.04	9.00	3.15
SP - Portsmouth	6,314	67.14	2.25	19.96	0.19	0.08	7.27	3.12
Foster	1,020	66.47	0.49	26.47	0.20	0.20	4.31	1.86
North Kingstown	9,063	66.13	0.47	22.76	1.06	0.11	7.98	1.49
SP – Wickford	11,099	63.76	3.27	16.58	0.32	0.05	12.57	3.45
Glocester	3,390	62.77	2.71	29.12	0.71	0.00	1.62	3.07
Smithfield	6,815	58.62	0.13	30.84	0.79	0.03	3.90	5.68
Richmond	1,632	57.54	15.01	17.89	1.72	0.00	0.43	7.41
SP – Lin. Woods	15,159	57.46	3.13	12.78	0.57	0.05	20.83	5.17
Middletown	6,261	49.56	12.59	29.90	1.95	0.11	2.46	3.43
Scituate	2,215	46.86	2.26	40.18	0.45	0.00	7.40	2.84
Central Falls	4,404	45.78	3.77	35.49	2.48	0.30	4.75	7.45
Cranston	9,725	43.81	3.61	33.16	2.13	0.19	12.92	4.19
North Providence	6,867	43.21	4.18	37.32	2.43	0.54	4.41	7.91
West Greenwich	1,086	42.17	3.96	46.96	2.30	0.09	1.75	2.76
Providence	14,481	41.00	1.20	33.86	4.29	0.66	14.05	4.95
Woonsocket	7,434	40.56	0.94	38.30	4.48	0.61	10.47	4.65
Warwick	16,311	40.44	14.77	25.42	2.12	0.21	12.33	4.71
Barrington	2,748	38.72	1.20	53.35	1.09	0.11	5.06	0.47
Hopkinton	3,364	37.10	11.21	43.37	1.16	0.03	2.17	4.96
Jamestown	1,291	37.03	2.01	49.50	3.95	0.08	6.20	1.24
Westerly	2,596	36.67	2.43	47.92	3.31	0.23	5.47	3.97
Portsmouth	6,365	36.36	4.93	41.27	1.23	0.13	11.91	4.18
South Kingstown	15,933	36.08	0.36	59.46	0.89	0.10	2.17	0.94
Warren	4,680	35.38	5.06	48.93	0.83	0.15	7.88	1.75
West Warwick	3,931	33.71	2.54	48.10	4.40	0.38	6.77	4.10
Charlestown	2,465	32.41	6.04	50.67	3.69	0.20	4.58	2.39
New Shoreham	379	32.19	3.69	54.62	1.06	0.00	3.17	5.28
Bristol	6,421	30.77	10.59	50.55	1.98	0.17	4.28	1.65
East Providence	15,344	30.16	12.86	39.34	2.36	0.31	8.09	6.88
Coventry	6,619	29.96	11.44	43.92	1.44	0.08	7.07	6.10
Lincoln	2,245	29.13	4.63	51.40	2.76	0.22	9.76	2.09
Narragansett	4,822	25.28	1.93	61.24	2.78	0.33	5.68	2.76
North Smithfield	3,071	24.81	13.32	43.54	0.55	0.16	10.29	7.33
Burrillville	2,615	23.44	1.91	58.01	1.95	0.27	11.59	2.83
Cumberland	6,322	19.01	2.69	55.06	0.59	0.19	18.81	3.65
East Greenwich	3,564	18.97	7.94	52.24	2.36	0.20	12.93	5.36
Tiverton	4,562	17.93	3.84	52.89	2.35	0.33	21.22	1.45
Little Compton	1,845	7.97	0.65	86.56	0.27	0.05	1.52	2.98
Newport	8,182	7.35	5.85	82.40	1.16	0.11	1.67	1.45

As in most other communities across the United States, searches are relatively rare events during routine traffic stops in Rhode Island. In 2004 and 2005, statewide 6.7% of all traffic stops resulted in a search or frisk of a motorist. Regardless of questions about racial disparities in searching practices, much can be learned about the goals of traffic enforcement by examining the variations in search rates that exist throughout the state.

Following the release of the first study, representatives from law enforcement raised some concern about whether or not one should expect contraband to be found in all types of searches. The data collection card allows officers to indicate the legal basis for their search, choosing between incident to arrest, probable cause, terry frisk, odor of drugs/alcohol, inventory/tow and reasonable articulable suspicion.[6] Although members of law enforcement agreed that searches incident to a lawful arrest should be considered non-discretionary, not all agencies within the state have consistent policies on inventory searches. To account for these differences searches and frisks were separated into three categories which will allow agencies to assess the search patterns that most appropriately represent discretionary searches within their agency: 1) **all** searches and frisks, 2) **discretionary** searches and frisks, excluding those made incident to a lawful arrest, and 3) **extra discretionary** searches and frisks, excluding those made either incident to a lawful arrest or for inventory purposes.

Agencies throughout Rhode Island search or frisk drivers following routine traffic stops at vastly different rates. Table 2.5 and 2.5a illustrate that in urban, higher crime areas such as Providence, one-fifth of all traffic stops result in a search or frisk (21.6%). Twenty-five percent of all agencies search or frisk motorists in over 10% of the traffic stops. Other high search or frisk jurisdictions include Woonsocket (14.9%) and Central Falls (13.9%) For these agencies, traffic enforcement may be used as a strategy to reduce crime or apprehend suspicious individuals. For most agencies, searching or frisking a motorist following a traffic stop is much less common. The largest proportion of agencies (54%) search or frisk motorists between 5% and 10% of the time they make traffic stops. Finally, 30% of the agencies search or frisk motorists less than 5% of the time when they make traffic stops.

[6] For a complete discussion of the analysis of data related to legal basis for a search see Chapter Three.

Table 2.5: Stops Resulting in a Search by Agency

	Search and Frisk		Search and Frisk (excluding incident to arrest)		Search and Frisk (excluding incident to arrest & inventory)	
Jurisdiction	N	%	N	%	N	%
All State Police	3,340	5.8%	1,380	2.3%	1,110	1.8%
SP – Lincoln Woods	921	6.2%	246	1.6%	183	1.2%
SP – Chepachet	316	3.3%	114	1.2%	86	0.9%
SP – Wickford	643	6.0%	311	2.8%	260	2.3%
SP – Portsmouth	340	5.6%	199	3.1%	189	3.0%
SP - Hope Valley	954	6.8%	437	3.0%	333	2.3%
Barrington	39	1.5%	22	0.8%	22	0.8%
Bristol	486	7.7%	351	5.4%	143	2.2%
Burrillville	219	8.8%	108	4.1%	57	2.1%
Central Falls	607	13.9%	228	5.1%	114	2.6%
Charlestown	153	6.7%	42	1.7%	37	1.5%
Coventry	391	5.9%	176	2.6%	68	1.0%
Cranston	746	7.9%	364	3.7%	329	3.3%
Cumberland	267	4.3%	133	2.1%	41	0.6%
East Greenwich	419	12.3%	243	6.7%	79	2.2%
East Providence	1,883	12.5%	989	6.4%	537	3.5%
Foster	36	3.6%	12	1.2%	11	1.1%
Glocester	168	4.9%	51	1.5%	48	1.4%
Hopkinton	274	8.4%	78	2.3%	48	1.4%
Jamestown	68	5.3%	23	1.8%	16	1.2%
Johnston	428	4.5%	177	1.8%	96	1.0%
Lincoln	138	6.2%	55	2.4%	41	1.8%
Little Compton	95	5.2%	55	3.0%	47	2.5%
Middletown	375	6.1%	115	1.8%	48	0.8%
Narragansett	336	7.0%	93	1.9%	91	1.9%
New Shoreham	15	4.2%	7	1.8%	7	1.8%
Newport	368	4.6%	165	2.0%	151	1.8%
North Kingstown	440	4.9%	185	2.0%	104	1.1%
North Providence	521	7.8%	182	2.6%	107	1.5%
North Smithfield	356	11.6%	193	6.3%	38	1.2%
Pawtucket	332	2.1%	110	0.7%	74	0.5%
Portsmouth	499	7.9%	185	2.9%	64	1.0%
Providence	2,962	21.6%	1,671	11.3%	1,498	10.2%
Richmond	172	11.3%	51	3.1%	21	1.3%
Scituate	109	5.1%	46	2.0%	14	0.6%
Smithfield	301	4.4%	76	1.1%	66	1.0%
South Kingstown	304	2.0%	109	0.7%	105	0.7%
Tiverton	369	8.2%	207	4.5%	170	3.7%
Warren	315	6.8%	189	4.0%	56	1.2%
Warwick	1974	12.3%	1053	6.4%	416	2.5%
West Greenwich	107	11.0%	50	4.4%	47	4.2%
West Warwick	387	10.3%	182	4.5%	120	3.0%
Westerly	248	10.9%	72	2.7%	64	2.4%
Woonsocket	1091	14.9%	459	6.1%	300	4.0%

Table 2.5a: Stops Resulting in a Search by Agency, Sorted by % Searched Descending

	Search and Frisk		Search and Frisk (excluding incident to arrest)		Search and Frisk (excluding incident to arrest & inventory)	
Jurisdiction	N	%	N	%	N	%
Providence	2,962	21.60%	1,671	11.30%	1,498	10.20%
Woonsocket	1091	14.90%	459	6.10%	300	4.00%
Central Falls	607	13.90%	228	5.10%	114	2.60%
East Providence	1,883	12.50%	989	6.40%	537	3.50%
East Greenwich	419	12.30%	243	6.70%	79	2.20%
Warwick	1974	12.30%	1053	6.40%	416	2.50%
North Smithfield	356	11.60%	193	6.30%	38	1.20%
Richmond	172	11.30%	51	3.10%	21	1.30%
West Greenwich	107	11.00%	50	4.40%	47	4.20%
Westerly	248	10.90%	72	2.70%	64	2.40%
West Warwick	387	10.30%	182	4.50%	120	3.00%
Burrillville	219	8.80%	108	4.10%	57	2.10%
Hopkinton	274	8.40%	78	2.30%	48	1.40%
Tiverton	369	8.20%	207	4.50%	170	3.70%
Cranston	746	7.90%	364	3.70%	329	3.30%
Portsmouth	499	7.90%	185	2.90%	64	1.00%
North Providence	521	7.80%	182	2.60%	107	1.50%
Bristol	486	7.70%	351	5.40%	143	2.20%
Narragansett	336	7.00%	93	1.90%	91	1.90%
SP - Hope Valley	954	6.80%	437	3.00%	333	2.30%
Warren	315	6.80%	189	4.00%	56	1.20%
Charlestown	153	6.70%	42	1.70%	37	1.50%
SP - Lincoln Woods	921	6.20%	246	1.60%	183	1.20%
Lincoln	138	6.20%	55	2.40%	41	1.80%
Middletown	375	6.10%	115	1.80%	48	0.80%
SP - Wickford	643	6.00%	311	2.80%	260	2.30%
Coventry	391	5.90%	176	2.60%	68	1.00%
All State Police	3,340	5.80%	1,380	2.30%	1,110	1.80%
SP - Portsmouth	340	5.60%	199	3.10%	189	3.00%
Jamestown	68	5.30%	23	1.80%	16	1.20%
Little Compton	95	5.20%	55	3.00%	47	2.50%
Scituate	109	5.10%	46	2.00%	14	0.60%
Glocester	168	4.90%	51	1.50%	48	1.40%
North Kingstown	440	4.90%	185	2.00%	104	1.10%
Newport	368	4.60%	165	2.00%	151	1.80%
Johnston	428	4.50%	177	1.80%	96	1.00%
Smithfield	301	4.40%	76	1.10%	66	1.00%
Cumberland	267	4.30%	133	2.10%	41	0.60%
New Shoreham	15	4.20%	7	1.80%	7	1.80%
Foster	36	3.60%	12	1.20%	11	1.10%
SP - Chepachet	316	3.30%	114	1.20%	86	0.90%
Pawtucket	332	2.10%	110	0.70%	74	0.50%
South Kingstown	304	2.00%	109	0.70%	105	0.70%
Barrington	39	1.50%	22	0.80%	22	0.80%

Tables 2.6 and 2.6a provide information about the proportion of searches which result in some form of contraband being found. The data collection card allows officers to choose whether or not a search resulted in nothing being found or whether weapons, money, drugs or drug paraphernalia, alcohol or other contraband were found. A "hit rate" represents the proportion of searches or frisks that result in one or more types of contraband being found. Analysis of hit rates allows departments to assess the productivity of their search and frisk practices.

As with the search analysis above, searches were separated into three categories 1) **all** searches and frisks, 2) **discretionary** searches and frisks, excluding those made incident to a lawful arrest, and 3**) extra discretionary** searches and frisks, excluding those made either incident to a lawful arrest or for inventory purposes. Table 2.6 and 2.6a provide information about the hit rates for agencies across all three search categories. Statewide, 22% of all searches and frisks resulted in contraband being found, 25.1% of discretionary searches (excluding incident to arrest searches and frisks) resulted in contraband being found and 34.2% of discretionary searches (excluding both incident to arrest and inventory searches and frisks) resulted in contraband being found.

Not surprisingly, the productivity of search practices varied greatly across communities in Rhode Island. Productivity for all searches and frisks ranged from 58% to 3%. Interestingly, the patterns of productivity are not consistent. Some agencies who conducted a large number of searches were very productive, other agencies for which searching is common were much less productive. There were also agencies that rarely searched motorists and were highly productive and other agencies that rarely search motorists that were much less productive. Variation in productivity indicates that despite important questions about racial disparities in search practices, there is still much to be learned about the general effectiveness of search and frisk strategies utilized by agencies across Rhode Island.

Table 2.6: Proportion of Searches Resulting in Contraband Found

Jurisdiction	Search and Frisk			Search and Frisk (excluding incident to arrest)			Search and Frisk (excluding incident to arrest & inventory)		
	Total Searches	% yes contraband	% no contraband	Total Searches	% yes contraband	% no contraband	Total Searches	% yes contraband	% no contraband
Total Statewide	19,998	22.0%	78.0%	9,350	25.1%	74.9%	6,134	34.2%	65.8%
All State Police	3,003	22.1	89.9	1,242	27.1	72.9	1,005	29.8	70.2
State Police – Linc. Woods	844	14.2	85.8	226	20.4	79.6	168	26.2	73.8
State Police – Chepachet	287	18.1	81.9	107	25.2	74.8	82	26.8	73.2
State Police – Wickford	568	15.8	84.2	278	17.6	82.4	234	20.1	79.9
State Police – Portsmouth	302	34.4	65.6	178	40.4	59.6	169	40.8	59.2
State Police - Hope Valley	863	29.7	70.3	390	31.0	69.0	301	33.9	66.1
Barrington	36	38.9	61.1	20	50.0	50.0	20	50.0	50.0
Bristol	465	14.2	85.8	333	14.1	85.9	143	28.0	72.0
Burrillville	202	29.7	70.3	101	30.7	69.3	54	42.6	57.4
Central Falls	555	10.3	89.7	209	16.3	83.7	110	28.2	71.8
Charlestown	142	28.2	71.8	40	42.5	57.5	36	44.4	55.6
Coventry	386	18.7	81.3	173	16.8	83.2	67	34.3	65.7
Cranston	709	18.2	81.8	348	22.4	77.6	315	23.5	76.5
Cumberland	267	26.2	73.8	133	21.1	78.9	41	48.8	51.2
East Greenwich	400	15.0	85.0	229	8.7	91.3	78	23.1	76.9
East Providence	1,809	31.6	68.4	949	38.0	62.0	519	61.7	38.3
Foster	35	40.0	60.0	11	72.7	27.3	11	72.7	27.3
Glocester	157	29.3	70.7	48	56.3	43.8	45	57.8	42.2
Hopkinton	260	23.5	76.5	73	26.0	74.0	45	33.3	66.7
Jamestown	66	28.8	71.2	21	52.4	47.6	15	60.0	40.0
Johnston	409	10.0	90.0	170	12.4	87.6	93	16.1	83.9
Lincoln	133	18.8	81.2	54	20.4	79.6	40	22.5	77.5
Little Compton	95	57.9	42.1	55	80.0	20.0	47	87.2	12.8
Middletown	329	20.7	79.3	92	27.2	72.8	48	43.8	56.3
Narragansett	322	27.6	72.4	92	50.0	50.0	90	51.1	48.9
New Shoreham	15	26.7	73.3	7	42.9	57.1	7	42.9	57.1
Newport	334	17.4	82.6	151	20.5	79.5	137	21.9	78.1
North Kingstown	410	17.6	82.4	175	17.1	82.9	101	25.7	74.3
North Providence	470	22.8	77.2	173	30.1	69.9	102	45.1	54.9
North Smithfield	348	8.3	91.7	191	4.2	95.8	38	7.9	92.1

	Search and Frisk			Search and Frisk (excluding incident to arrest)			Search and Frisk (excluding incident to arrest & inventory)		
	Total Searches	% yes contraband	% no contraband	Total Searches	% yes contraband	% no contraband	Total Searches	% yes contraband	% no contraband
Pawtucket	306	25.2	74.8	104	26.9	73.1	72	31.9	68.1
Portsmouth	479	17.5	82.5	175	18.3	81.7	63	33.3	66.7
Providence	2,814	26.3	73.7	1,611	28.0	72.0	1,452	29.0	71.0
Richmond	166	33.1	66.9	51	37.3	62.7	21	61.9	38.1
Scituate	101	3.0	97.0	43	0.0	100.0	14	0.0	100.0
Smithfield	298	14.1	85.9	76	26.3	73.7	66	30.3	69.7
South Kingstown	269	32.7	67.3	102	49.0	51.0	99	50.5	49.5
Tiverton	352	31.0	69.0	203	35.0	65.0	166	39.8	60.2
Warren	306	16.7	83.3	185	15.1	84.9	56	42.9	57.1
Warwick	1,884	16.8	83.2	1,007	14.3	85.7	404	30.7	69.3
West Greenwich	100	31.0	69.0	49	51.0	49.0	47	53.2	46.8
West Warwick	354	17.8	82.2	172	19.8	80.2	118	23.7	76.3
Westerly	233	28.3	71.7	72	40.3	59.7	64	45.3	54.7
Woonsocket	979	18.5	81.5	410	21.5	78.5	285	27.7	72.3

Table 2.6a: Searches Resulting in Contraband Found – Sorted by % of "Hits"

Jurisdiction	Search and Frisk Total Searches	Search and Frisk % yes contraband	Search and Frisk % no contraband	Search and Frisk (excluding incident to arrest) Total Searches	Search and Frisk (excluding incident to arrest) % yes contraband	Search and Frisk (excluding incident to arrest) % no contraband	Search and Frisk (excluding incident to arrest and inventory) Total Searches	Search and Frisk (excluding incident to arrest and inventory) % yes contraband	Search and Frisk (excluding incident to arrest and inventory) % no contraband
Total Statewide	19,998	22.0%	78.0%	9,350	25.1%	74.9%	6,134	34.2%	65.8%
Little Compton	95	57.9	42.1	55	80.0	20.0	47	87.2	12.8
Foster	35	40.0	60.0	11	72.7	27.3	11	72.7	27.3
Barrington	36	38.9	61.1	20	50.0	50.0	20	50.0	50.0
State Police - Portsmouth	302	34.4	65.6	178	40.4	59.6	169	40.8	59.2
Richmond	166	33.1	66.9	51	37.3	62.7	21	61.9	38.1
South Kingstown	269	32.7	67.3	102	49.0	51.0	99	50.5	49.5
East Providence	1,809	31.6	68.4	949	38.0	62.0	519	61.7	38.3
West Greenwich	100	31.0	69.0	49	51.0	49.0	47	53.2	46.8
Tiverton	352	31.0	69.0	203	35.0	65.0	166	39.8	60.2
Burrillville	202	29.7	70.3	101	30.7	69.3	54	42.6	57.4
State Police - Hope Valley	863	29.7	70.3	390	31.0	69.0	301	33.9	66.1
Glocester	157	29.3	70.7	48	56.3	43.8	45	57.8	42.2
Jamestown	66	28.8	71.2	21	52.4	47.6	15	60.0	40.0
Westerly	233	28.3	71.7	72	40.3	59.7	64	45.3	54.7
Charlestown	142	28.2	71.8	40	42.5	57.5	36	44.4	55.6
Narragansett	322	27.6	72.4	92	50.0	50.0	90	51.1	48.9
New Shoreham	15	26.7	73.3	7	42.9	57.1	7	42.9	57.1
Providence	2,814	26.3	73.7	1,611	28.0	72.0	1,452	29.0	71.0
Cumberland	267	26.2	73.8	133	21.1	78.9	41	48.8	51.2
Pawtucket	306	25.2	74.8	104	26.9	73.1	72	31.9	68.1
Hopkinton	260	23.5	76.5	73	26.0	74.0	45	33.3	66.7
North Providence	470	22.8	77.2	173	30.1	69.9	102	45.1	54.9
All State Police	3,003	22.1	89.9	1,242	27.1	72.9	1,005	29.8	70.2
Middletown	329	20.7	79.3	92	27.2	72.8	48	43.8	56.3
Lincoln	133	18.8	81.2	54	20.4	79.6	40	22.5	77.5
Coventry	386	18.7	81.3	173	16.8	83.2	67	34.3	65.7
Woonsocket	979	18.5	81.5	410	21.5	78.5	285	27.7	72.3
Cranston	709	18.2	81.8	348	22.4	77.6	315	23.5	76.5
State Police - Chepachet	287	18.1	81.9	107	25.2	74.8	82	26.8	73.2
West Warwick	354	17.8	82.2	172	19.8	80.2	118	23.7	76.3

	Search and Frisk			Search and Frisk (excluding incident to arrest)			Search and Frisk (excluding incident to arrest & inventory)		
	Total Searches	% yes contraband	% no contraband	Total Searches	% yes contraband	% no contraband	Total Searches	% yes contraband	% no contraband
North Kingstown	410	17.6	82.4	175	17.1	82.9	101	25.7	74.3
Portsmouth	479	17.5	82.5	175	18.3	81.7	63	33.3	66.7
Newport	334	17.4	82.6	151	20.5	79.5	137	21.9	78.1
Warwick	1,884	16.8	83.2	1,007	14.3	85.7	404	30.7	69.3
Warren	306	16.7	83.3	185	15.1	84.9	56	42.9	57.1
State Police - Wickford	568	15.8	84.2	278	17.6	82.4	234	20.1	79.9
East Greenwich	400	15.0	85.0	229	8.7	91.3	78	23.1	76.9
State Police – Lin. Woods	844	14.2	85.8	226	20.4	79.6	168	26.2	73.8
Bristol	465	14.2	85.8	333	14.1	85.9	143	28.0	72.0
Smithfield	298	14.1	85.9	76	26.3	73.7	66	30.3	69.7
Central Falls	555	10.3	89.7	209	16.3	83.7	110	28.2	71.8
Johnston	409	10.0	90.0	170	12.4	87.6	93	16.1	83.9
North Smithfield	348	8.3	91.7	191	4.2	95.8	38	7.9	92.1
Scituate	101	3.0	97.0	43	0.0	100.0	14	0.0	100.0

Chapter 3:
Measuring Racial Disparities in Traffic Stops

To determine if racial disparities exist in traffic enforcement, it is necessary to first develop a benchmark against which the demographics of traffic stops will be compared. By themselves, the demographics of traffic stops are difficult to interpret. For example, if after collecting data, a particular city discovers that 65% of its traffic stops are of Black drivers, that number by itself does not reveal very much. Instead, agencies would want to know the proportion of traffic stops compared to an appropriate benchmark or base rate of those eligible to be stopped in that community. There are several alternatives for benchmarks that researchers have employed to determine racial disparities in traffic stops, but no consensus exists about the most effective and valid benchmark for every type of community. The demographics of traffic stops have been compared to the percentage of individuals living in a jurisdiction, the percentage of individuals driving on the roadway, or some other indicator of illegal or dangerous behavior such as the percentage of persons speeding which would subject an individual to a traffic stop. Despite the existence of many methodologies, the creation of an accurate benchmark is at best a very challenging endeavor.[7] For local communities in Rhode Island we have constructed a refined estimate of the driving population that may better represent the demographic makeup of the roadways for a number of jurisdictions in Rhode Island.

Traditional Comparative Benchmark Models

Some studies of racial profiling have sought to use residential population data, broken down by race, to estimate the racial percentages of persons using the jurisdiction's roads.[8] Census data alone is a limited measurement tool for some agencies because they experience some volume of traffic from drivers who do not reside in the local jurisdiction. Researchers have found that the demographics of individuals who are observed driving in specific locations often differed from

[7] Lorie Fridell, Robert Lunney, Drew Diamond and Bruce Kubu (2001). *Racially Biased Policing: A Principled Response*. Washington D.C.: Police Executive Research Forum.

[8] Vikas Kumar Gumbhir (2004), *Oregon: Final Report on the Eugene Police Department's Vehicle Stop Data;* William Landsdowne (2000). *San Jose Vehicle Stop Demographic Study*; Gary Cordner, Brian Williams, and Maria Zuniga (20001); *Vehicle Stop Study: Final Report*. San Diego, CA: San Diego Police Department; Stephen Cox, Susan Pease, Daniel Miller, and C. Benjamin Tyson (2001) *Interim Report of Traffic Stops Statistics for the State of Connecticut*. Rocky Hill, CT: Division of Criminal Justice.

the census population of the areas where the observed intersections were located.[9] Other analysts have compared traffic stop demographics to the existing demographic information from traffic accident data.[10] Unfortunately, accurate race information from traffic accident reports is rare in most jurisdictions, and was not available for all jurisdictions in Rhode Island. Even when available, however, citywide traffic accident demographics still may not be an accurate estimation of who is actually driving on the roadways. Individuals may disproportionately drive in ways that puts them in danger of accidents or travel in areas where traffic accidents are more frequent.

To address the limitations of existing benchmark data sources, some analysts have constructed rolling or stationary road observations[11] and video observations of drivers[12] to determine the racial makeup of individuals and in some instances violators, on interstate roadways. These techniques involve the placement of trained observers on the roadways or at intersections to systematically assess the racial demographics of drivers on the roadways at particular times. While observational methodologies are becoming a more acceptable method of assessing driving populations, they are both costly and time consuming, particularly for studies involving multiple agencies such as the current study in Rhode Island. Observational surveys of roadways were conducted in Rhode Island in both the original and current study to test the accuracy of an estimated driving population, but were not used as the benchmark against which stops would be compared in all jurisdictions. Noting both the limitations of existing residential population data and the challenges of constructing accurate road survey data across Rhode Island we constructed

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[9] Howard Greenwald (2001). *Vehicle Stop Data Collection Report: Sacramento California 2000-2001*; John Lamberth, presentation at Northeastern University 2003.

[10] Geoff Alpert, Michael Smith and Robert Dunham (2004) *Towards a Better Benchmark: Assessing the Utility of Not-at-Fault Traffic Crash Data in Racial Profiling Resea*rch. Justice Research and Policy 6: 44 – 69; Washington State Patrol and Criminal Justice Training Commission (2001) *Report to the Legislature on Routine Traffic Stop Data*, January; Cordner, Gary, Brian Williams, and Maria Zuniga (20001). *Vehicle Stop Study: Final Report. San Diego, CA*: San Diego Police Department.

[11] Robin Engel, Jennifer Calnon, Lin Liu, Richard Jones (2004*). Project on Police-Citizen Contacts, Year 1*, prepared for the Pennsylvania State Police. John Lamberth (1996). *Revised Statistical Analysis of the Incidence of Police Stops and Arrests of Black Drivers/Travelers on the New Jersey Turnpike Between Exits or Interchanges 1 and 3 From Years 1988 Through 1991* Plaintiff's expert's report in State of New Jersey v. Pedro Soto (734 A. 2d 350) (NJ Super. Ct. Law Div.); Matthew Zingraff, Matthew, William Smith, and Donald Tomaskovic-Devey. *North Carolina Highway Traffic and Patrol Study: "Driving While Black."* The Criminologist, 25: 1-3; John Lamberth (2003) *Racial Profiling Study and Services: A Multijurisdictional Assessment of Traffic Enforcement and Data Collection in Kansas.* Police Foundation, Washington D.C.

a refined estimate of the driving population that may better represent the demographic makeup of the roadways for each Rhode Island jurisdiction.

The Rhode Island Driving Population Estimate – Measuring Municipal Driving Populations

Research in the field of transportation planning provides rich information about the influence of city characteristics on driving behavior. Transportation planners have created models to better estimate traffic flow in and out of communities in order to forecast the effect of traffic on road construction, maintenance and safety. Although transportation studies have not traditionally focused on the racial demographics of traffic patterns, we have used this literature as a starting point for understanding how populations of surrounding communities may influence the driving demographics in Rhode Island cities and towns.

The driving population estimate (DPE) begins with the assumption that cities and towns close to a particular city contribute more people to the driving population of the target city.[13] Other factors besides distance, however, influence travel. Research on transportation has long shown that the economic draw of a city can mediate the effect of spatial separation. People will drive further if attractive features such as shopping, employment or entertainment exist in the target city. For example, the DPE model assumes that if distances were equal a driver is more likely to go to a city with some economic draw (e.g. shopping, employment, entertainment) than a city without such draws. Fundamentally, the DPE seeks to measure the factors that both push drivers out of surrounding communities and draw drivers into target cities from surrounding communities. A more in-depth description of the DPE calculation can be found in the box on the following page. The DPE as it has been developed for Rhode Island has been cited by the *Police Executive Research Form* (PERF) as a promising practice for benchmarking traffic stops in statewide studies.[14]

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[12] James Lange, Kenneth Blackman, and Mark Johnson (2002) *Speed Violation Survey of the New Jersey Turnpike: Final Report*, Submitted to the Office of the Attorney General, New Jersey, December 13, 2001.

[13] J.D. Carroll (1955). *Spatial Interactions and the Urban-Metropolitan Description*, Traffic Quarterly, April, 149-161.

[14] See Fridell, *supra* note 3.

THE RHODE ISLAND DRIVING POPULATION ESTIMATE (DPE)
UNDERSTANDING "PUSH" AND "DRAW"

Push

The first step in creating the DPE is estimating the degree to which surrounding cities contribute to the driving population of the target city. To create the pool of contributing cities for each target city in Rhode Island we began with the assumption that the driving population of a jurisdiction is primarily influenced by communities that fall within a 30 minute drive time perimeter.[15] Once we calculated the total population and demographic breakdown of each potential contributing city we determined how many people were eligible to be "pushed" from the cities.

The factors that we used to measure "push" were 1) The percentage of people within the community who own cars, making them eligible to drive out of the city; 2) The percentage of people who drive more than 10 miles to commute to work based on the 2000 *Journey To Work* data provided by the 2000 United States Census Data; and 3) The travel time (in minutes) between the contributing city and the target city. These three factors were used in the following formula to determine how many people were "pushed" out of each contributing community toward our target city:

Draw

The second step in calculating the DPE was determining the level at which each city in Rhode Island draws in drivers from surrounding communities. People travel to or pass through cities to shop, to go out to dinner or see entertainment, to go to work, or to take care of other business. While there are certainly reasons to travel to or through every city in Rhode Island certain cities exhibit relatively high degrees of draw compared to others. There can be innumerable factors that influence travel, but there are certain major economic and social indicators that can be measured using the same standard for every city. To determine the degree to which each city in Rhode Island "draws" in drivers from surrounding communities we created a measure of the relative economic and social attraction of each city. Four indicators were used to construct measures of draw in each target city: 1) percent of State employment, 2) percent of State retail trade, 3) percent of State food and accommodation sales, and 4) percent of State average daily road volume. The average of these four measures was taken for each city to create a final ranking of the relative draw power for each city.

Based on these estimates each city was given a draw ranking between 1 and 4. Cities that fell into the first category were high draw cities, meaning that the driving population was heavily influenced by transient populations from the contributing cities. Cities that fell into the fourth category were low draw cities where the residential population made up the majority of drivers in that community. The following four ratios were designed to measure the relative influence of residential versus contributing population.

Table 3.1: Draw Ratios

Draw Type	Ratio Calculation	% Contributing	Example Cities
High	60%	40%	Providence, Warwick
Moderate High	70%	30%	Pawtucket, Newport
Moderate Low	80%	20%	Westerly, Johnston
Low	90%	10%	Glocester, Foster

[15] Anderson, James E., (1979). A *Theoretical Foundation for the Gravity Equation*, American Economic Review, 69:106-116; Mikkonen-K.; Luoma-M. (1999) *The Parameters of the Gravity Model are Changing - How and Why?* Journal of Transport Geography, 7(4): 277-283.

Once we determined the degree of draw for each target city we adjusted the population totals from the residential and the contributing city distributions to represent the appropriate ratio of residential to contributing city drivers in each racial category.

A DPE was calculated for all jurisdictions in Rhode Island using the methodology described above. For many jurisdictions the racial demographics of the DPE were quite different than the racial demographics of the resident population according to the 2000 United States Census Population figures.[16] The results of the DPE calculations and their comparisons to census population figures can be seen in Table 3.2 below.

To test the accuracy of the DPE model in the first study, we conducted stationary road survey samples in Warwick and East Providence. Following the 2003 release of the Final Report for the Traffic Stop Statistics Act, 2000, some concerns were raised by members of the law enforcement community about the use of a driving population estimate as a benchmark against which to compare traffic stops. In response to these concerns, researchers at Northeastern University determined that it would be helpful to conduct supplemental road surveys in locations where questions about the estimated driving population calculation were raised following the first study. Through discussion with the Rhode Island Justice Commission it was determined the most productive use of limited resources and time would be to conduct road surveys in locations with road conditions and commuting patterns that differed from the surveys conducted in East Providence and Warwick during the original study. North Smithfield and four communities in South County, Narragansett, Westerly, South Kingstown and North Kingstown were selected for road surveys. North Smithfield represents a jurisdiction North of Providence that experiences heavy commuting between Massachusetts and Rhode Island. The agencies in South County represent jurisdictions that experiences high volumes of non-resident driving, many of whom use local roads to access vacation or tourist destinations. For a full description of the road survey observations and associated diagnostic tests see Section 2 of the Technical Report.

[16] 2000 census population figures were used in 2004-2005 report since the United States Census Bureau does not release annual race specific estimates for all Rhode Island communities.

Table 3.2: Comparison of Driving Population Estimate to Census Population (2000)

	Census Population 18+	% Non-White Census	% Non-White Driving Population Estimate	% Non-White Road Survey (where applicable)
Barrington	12,074	4.0%	5.2%	-
Bristol	18,070	3.5%	6.0%	-
Burrillville	11,753	1.6%	2.8%	-
Central Falls	13,397	55.2%	51.4%	-
Charlestown	6,147	3.5%	3.7%	-
Coventry	33,668	2.5%	3.6%	-
Cranston	62,171	11.4%	14.0%	-
Cumberland	24,150	3.9%	5.9%	-
East Greenwich	9,384	4.2%	6.3%	-
East Providence	38,142	12.8%	14.9%	13.2%
Foster	3,169	2.7%	3.8%	-
Glocester	7,284	1.5%	2.6%	-
Hopkinton	5,825	3.1%	3.7%	-
Jamestown	4,384	2.6%	3.1%	-
Johnston	22,298	3.6%	6.4%	-
Lincoln	15,741	4.5%	7.0%	-
Little Compton	2,813	1.7%	2.3%	-
Middletown	13,006	10.6%	10.1%	-
Narragansett	13,528	4.0%	4.3%	4.9%
New Shoreham	4,384	2.6%	2.6%	-
Newport	21,276	14.7%	12.0%	-
North Kingstown	19,478	4.2%	7.7%	6.5%
North Providence	26,475	9.1%	10.8%	-
North Smithfield	8,239	1.7%	6.6%	9.6%
Pawtucket	54,807	26.4%	24.4%	-
Portsmouth	12,820	4.4%	6.2%	-
Providence	128,341	46.5%	32.2%	-
Richmond	5,208	3.5%	4.0%	-
Scituate	7,689	1.9%	3.1%	-
Smithfield	16,594	3.2%	5.2%	-
South Kingstown	21,637	9.2%	8.7%	6.6%
Tiverton	11,893	1.9%	3.2%	-
Warren	8,906	3.0%	4.1%	-
Warwick	67,028	5.0%	9.5%	6.6%
West Greenwich	3,641	2.6%	10.5%	-
West Warwick	22,949	6.2%	7.9%	-
Westerly	17,560	4.7%	5.5%	6.0%
Woonsocket	32,069	15.1%	14.6%	-

Observational surveys in six separate communities give us confidence that the Driving Population Estimate provides a more accurate estimate of the drivers using roadways in Rhode Island than more traditional census estimates. The results of the observation surveys indicate that in 5 of the 7 communities, the observation demographics were closer to the DPE than to the

census estimates. In one community the observation data were closer to the census data and in one community the observation data were different than both the census and the DPE. All of these measures are by definition estimates and thus each contains some degree of measurement error. Estimates are rarely perfect, however, we are confident from the observation data that our DPE offers a superior measure of driving population than census data alone.

Highway Road Survey Observations as a Benchmark for State Police Activity

The comparative population for traffic stops made by the Rhode Island State Police, particularly for patrol activity on interstate highways, is quite different than the type of population estimated for local municipalities. Unlike local jurisdictions, the driving population on interstate highways in Rhode Island was expected to differ dramatically from the residential population of the state. Both in-state and out-of-state drivers populate the interstate highway system in Rhode Island. Therefore, any effort to estimate the driving population of the interstate highways based on population demographics within Rhode Island would be problematic. To create a more accurate estimate of the driving population on the interstate highways in Rhode Island, the Northeastern University research team utilized data from a rolling observation study that was originally conducted for the first study.

Rolling road survey observations were conducted on the interstate highway system in Rhode Island across an eighteen-month period in 2001-2003. Approximately three surveys were taken each month. The observations were spaced out across weekday and weekend dates.[17] A total of 9,584 observations were taken across the eighteen-month period. While it is impossible to accurately capture the demographics of roadways at all times of day in all different possible locations, a staggered start and stop methodology was used to vary the possible times of day in which we surveyed particular locations.

Road surveys were conducted on both the North and South routes of I-95 in the state of Rhode Island. The team began survey work at the Massachusetts-Rhode Island border and continued

[17] During the project there are selected times where road surveys were only conducted once or twice a month due to heavy holiday travel or other extenuating circumstances that might change the demographics of the roadways.

surveying traffic until they reached the Rhode Island-Connecticut border. The survey vehicle traveled at roughly 60-65 miles per hour through most of the observation period.[18]
In the piloting phase of the survey two observers took independent observations of the license, race, gender and occupants in order to test inter-rater reliability. The reliability of the independent observations was nearly identical for license information, gender and occupants, and about 95% for race.

Table 3.3: Demographics of State Police Road Survey Areas

	% of Observations White	% of Observations Non-White
I-95 Providence Metro Area	78.7%	21.3%
I-95/I-295 Split Area	87.8%	12.2%
Southern I-95	88.2%	11.8%

The racial demographics of highway drivers ascertained from the eighteen-month rolling road survey were used as a comparison population against which State Police stop demographics matching each survey area would be compared.

Determining Racial Disparities in Traffic Stops

There are a number of challenges to evaluating the existence or prevalence of racial profiling. To date, no accepted "industry standard" exists for measuring racial profiling.[19] Uncertainty exists about the meaning of any disparities found. Most studies of racial profiling must rely on fairly simplistic comparisons between the percentage of drivers stopped who are non-white and the percentage of drivers in the benchmark population who are non-white. It is often not possible to use more sophisticated statistical methodologies, such as those that predict probabilities of being stopped or multivariate methodologies, because traffic stop studies traditionally do not include information about both the individuals who could have been stopped but were not and those who were stopped.[20] Because the Rhode Island Traffic Stop Statistics Act mandated only collection

[18] The posted speed limit on I-95 varies from 55 mph to 65 mph depending on location.
[19] For an expanded discussion of the current racial profiling analysis techniques see: Lorie Fridell (2004) *supra* note 3; McMahon, Garner, Davis and Kraus. (2003). *How to Correctly Collect and Analyze Racial Profiling Data: Your Reputation Depends on It!* Washington DC: Office of Community Oriented Police Services.
[20] It is possible to calculate a one-sided chi-square measure of the relationship between observed non-white stops and expected non-white stops. This measure was calculated for every jurisdiction however it is not reported in this report because such measurement techniques may be skewed by both the large traffic stop and driving population estimate sample sizes. Most importantly however, since we cannot predict the level of error in our stop population

of information on people who were stopped, similar to the vast majority of other traffic stop studies, the demographics of those stops can only be compared to the most appropriate comparative population.

In studies of disparity, regardless of topic area (education, policing, housing), it is generally inappropriate to conclude that any difference between the studied population and the comparative population automatically constitutes a meaningful disparity. For example, any difference between the percentage non-white in the study population and the percentage non-white in the comparative population does not automatically constitute a meaningful disparity. Such differences may be the result of real differences or may be a product of sampling or measurement error. Because of the indirect nature of measurement in the social sciences, errors that tend to occur when social variables are measured that are often greater than those observed when variables are measured in the physical sciences. Different studies rely on various thresholds above which they determine that observed differences are not solely attributable to error or chance. These thresholds differ dramatically depending on the type of sample used and the analytic methodology employed.

Studies of racial profiling nationwide have not established an acceptable threshold for differences between the demographics of drivers stopped and the demographics of the comparison population. Although some studies have used differences in percent of 3% or 5% and others have relied on ratios of varying amounts to determine disparity, these levels were often arrived at haphazardly and as a result the conclusions of such studies have largely been overlooked.[21]

Understanding the limitations of establishing definitive measure of racial profiling, we instead seek to simply identify disparities between the racial demographics of stops and racial demographics of the driving population estimate for each jurisdiction. It is not possible to explain fully whether or not such disparities are justified or legitimate with the information that

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or our driving population estimate measure finding significant differences between observed and expected non-white populations may still be erroneous.

[21] McMahon, Garner, Davis and Kraus. *How to Correctly Collect and Analyze Racial Profiling Data: Your Reputation Depends on It!* Office of Community Oriented Policing, 2003.

was made available through the traffic stop statistics data. It is important to remember that the existence of disparities may be attributable to officer bias, institutional bias, or differential law enforcement action in particular neighborhoods in response to crime control problems. How much disparity is acceptable to a community is fundamentally a question that should be addressed by stakeholders and policy makers in each jurisdiction. Our goal in this report is to identify jurisdictions with disparities and provide some information that can help stakeholders in such communities identify the potential sources and explanations for disparities.

In all our analyses of disparity we utilize a comparison between white and non-white populations. While the non-white population group is comprised of multiple racial and ethnic groups (Black, Hispanic, Asian and Native American) the non-white measure was chosen to help clarify instances of disparity. Table 3.4 below provides information on traffic stops by race, although all measures of disparity. Although there a number of interesting individual race differences that would be useful in identifying specific areas of disparity, from this point forward the report focuses on white vs. non-white disparities. A breakdown of the disparity between the estimated driving population of Black and Hispanic drivers and the traffic stops of Black and Hispanic Drivers is included in Section 3 of the Technical Report.

Table 3.4: Traffic Stops by Race

	White	Black	Hispanic	Asian/Pacific Islander	Native American	Other
State Police All	76.6%	10.6%	9.2%	3.2%	0.1%	0.3%
SP Lincoln Woods	67.0%	15.5%	14.6%	2.5%	0.0%	0.3%
SP Chepachet	86.6%	5.7%	5.2%	2.1%	0.0%	0.4%
SP Wickford	79.7%	9.4%	7.6%	2.8%	0.1%	0.3%
SP Portsmouth	87.7%	6.3%	3.9%	1.9%	0.1%	0.1%
SP Hope Valley	73.2%	11.4%	9.5%	5.4%	0.2%	0.3%
Barrington	94.5%	2.3%	1.7%	1.3%	0.0%	0.1%
Bristol	95.7%	1.8%	1.4%	0.9%	0.0%	0.2%
Burrillville	96.4%	1.5%	1.2%	0.7%	0.0%	0.2%
Central Falls	39.4%	10.4%	49.6%	0.5%	0.0%	0.1%
Charlestown	93.0%	2.8%	1.3%	1.1%	1.4%	0.4%
Coventry	95.5%	1.7%	1.6%	0.8%	0.0%	0.3%
Cranston	69.4%	10.4%	15.3%	4.5%	0.1%	0.2%
Cumberland	87.4%	3.2%	8.0%	1.2%	0.0%	0.3%
East Greenwich	90.8%	2.9%	3.7%	2.3%	0.1%	0.2%
East Providence	75.2%	14.5%	8.7%	1.3%	0.0%	0.2%
Foster	89.5%	3.7%	4.7%	2.1%	0.0%	0.0%
Glocester	97.3%	1.0%	1.1%	0.6%	0.0%	0.0%
Hopkinton	91.6%	4.3%	2.6%	0.8%	0.4%	0.2%
Jamestown	91.3%	5.2%	1.9%	1.2%	0.2%	0.2%
Johnston	82.1%	5.3%	10.3%	2.1%	0.0%	0.2%
Lincoln	79.6%	6.4%	11.8%	1.8%	0.0%	0.4%
Little Compton	96.9%	0.7%	1.7%	0.5%	0.0%	0.2%
Middletown	94.1%	4.9%	2.0%	1.3%	0.0%	0.4%
Narragansett	93.1%	3.3%	2.2%	1.1%	0.2%	0.1%
New Shoreham	95.4%	0.5%	3.3%	0.3%	0.0%	0.5%
Newport	86.3%	8.0%	3.8%	1.7%	0.1%	0.1%
North Kingstown	91.4%	3.4%	3.1%	1.6%	0.1%	0.4%
North Providence	76.0%	11.7%	11.0%	1.0%	0.0%	0.2%
North Smithfield	77.6%	8.6%	10.9%	2.3%	0.1%	0.4%
Pawtucket	69.3%	9.8%	19.3%	1.4%	0.0%	0.2%
Portsmouth	90.7%	5.1%	2.3%	1.6%	0.1%	0.2%
Providence	44.9%	24.2%	27.7%	2.8%	0.1%	0.4%
Richmond	93.9%	2.3%	1.8%	0.6%	1.2%	0.1%
Scituate	94.9%	2.0%	2.1%	0.9%	0.0%	0.1%
Smithfield	91.2%	3.3%	3.8%	1.5%	0.0%	0.2%
South Kingstown	89.1%	4.4%	1.7%	1.4%	0.4%	3.0%
Tiverton	94.1%	2.7%	1.8%	1.2%	0.1%	0.2%
Warren	93.6%	2.8%	2.4%	0.9%	0.0%	0.2%
Warwick	86.8%	5.3%	5.8%	1.8%	0.0%	0.3%
West Greenwich	93.8%	2.4%	2.3%	1.3%	0.1%	0.1%
West Warwick	90.2%	3.8%	5.0%	0.9%	0.1%	0.0%
Westerly	91.6%	3.9%	2.3%	1.3%	0.5%	0.4%
Woonsocket	74.9%	9.8%	11.7%	3.3%	0.0%	0.2%

Where Disparities Exist in Rhode Island

To determine disparities between the non-white traffic stop populations and the non-white estimated driving population in Rhode Island we used two measures – the absolute differences in percent between stop and driving population and the ratio of the stop population to the estimated driving population.[22] Absolute differences in percent simply describe the disparity between the percent non-white in the modified census estimate and the percent non-white in the population of drivers who are stopped. For example, if 7.4% of the traffic stops in a particular jurisdiction were non-white and that same jurisdiction had a 3.1% non-white driving population estimate, the difference in percent would be 4.3% (7.4% minus 3.1%). A ratio describes the degree of disparity between the percent non-white stop population and the percent non-white driving population estimate. Using the above example, a 7.4% non-white stop population is 2.39 times the jurisdiction's 3.1% non-white driving population estimate.

Ratios and differences in percent both attempt to quantify the extent of racial disparity. The problem with choosing one measure for all jurisdictions is that even if we could establish a statistical threshold for disparity, the jurisdictions that fell above that threshold would change depending on which measure we choose. Since our analysis of disparity in Rhode Island includes many different jurisdictions we are particularly sensitive to the differences that each measure might create. As a result we have chosen to report both absolute differences in percent and ratios for all jurisdictions.

Table 3.4 provides information on the difference between the estimated percent non-white in the driving population estimate and the percent non-white in the stopped population in 2004-2005. Table 3.4a lists differences between the non-white stopped population and the non-white DPE ranked in order of disparity by difference in percent (next to last column). Jurisdictions with the greatest different in percent are listed at the top of the table and jurisdictions with the smallest difference in percent are listed at the bottom. The corresponding ratios are reported in the final column for each jurisdiction. It is important to note that those communities with the highest

[22] For purposes of this analysis we have grouped drivers into white and non-white populations. For a more detailed discussion of race specific disparity analysis see technical appendix.

absolute difference between stops and driving population demographics may not have the highest ratios. For example, Providence has the greatest absolute difference between the percent of non-whites in the estimated driving population (32.2%) and the percentage of non-whites in the stop population (56.3%). In Providence the ratio of non-white stops to the non-white driving population is 1.75. As a result, readers should interpret both absolute differences and ratios cautiously. Although Providence has the highest difference in percent, they have only the sixteenth highest ratio.

Though some communities stop more non-white drivers than the estimated driving population would predict, in ten communities (25% of all the communities in the state) the difference in percent between non-white drivers stopped and the estimated non-white driving population is less than 1%.

Table 3.5: Percent Non-White Driving Population Estimate Compared to Percent Non-White Stops 2004 - 2005

	% Non-White Driving Population Estimate (DPE)	Number of Valid Stops 2004-2005	Non-White Stops, 2004-2005	Absolute Difference	Ratio
Barrington	5.2%	2760	5.5%	0.3%	1.06
Bristol	6.0%	6481	4.3%	-1.7%	0.72
Burrillville	2.8%	2638	3.6%	0.8%	1.29
Central Falls	51.4%	4451	60.6%	9.2%	1.18
Charlestown	3.7%	2488	7.0%	3.3%	1.89
Coventry	3.6%	6645	4.5%	0.9%	1.25
Cranston	14.0%	9859	30.6%	16.6%	2.19
Cumberland	5.9%	6335	12.6%	6.7%	2.14
East Greenwich	6.3%	3601	9.2%	2.9%	1.46
East Providence	14.9%	15417	24.8%	9.9%	1.66
Foster	3.8%	1023	10.5%	6.7%	2.76
Glocester	2.6%	3442	2.7%	0.1%	1.04
Hopkinton	3.7%	3378	8.4%	4.7%	2.27
Jamestown	3.1%	1294	8.7%	5.6%	2.81
Johnston	6.4%	9686	17.9%	11.5%	2.80
Lincoln	7.0%	2260	20.4%	13.4%	2.91
Little Compton	2.3%	1845	3.1%	0.8%	1.35
Middletown	10.1%	6323	8.6%	-1.5%	0.85
Narragansett	4.3%	4868	6.9%	2.6%	1.60
New Shoreham	2.6%	390	4.6%	2.0%	1.77
Newport	12.0%	8211	13.7%	1.7%	1.14
North Kingstown	7.7%	9260	8.6%	0.9%	1.12
North Providence	10.8%	6876	24.0%	13.2%	2.22
North Smithfield[23]	6.6%	3080	22.4%	15.8%	3.39
Pawtucket	24.4%	15626	30.7%	6.3%	1.26
Portsmouth	6.2%	6400	9.3%	3.1%	1.50
Providence*	32.2%	14636	55.1%	22.9%	1.71
Richmond	4.0%	1636	6.1%	2.1%	1.53
Scituate	3.1%	2224	5.1%	2.0%	1.65
Smithfield	5.2%	6826	8.8%	3.6%	1.69
South Kingstown	8.7%	15964	10.9%	2.2%	1.25
State Police – All	15.1%	60,483	23.4%	8.1%	1.54
Tiverton	3.2%	4579	5.9%	2.7%	1.84
Warren	4.1%	4739	6.4%	2.3%	1.56
Warwick	9.5%	16415	13.2%	3.7%	1.39
West Greenwich	3.4%	1126	6.2%	2.8%	1.82
West Warwick	7.9%	3985	9.8%	1.9%	1.24
Westerly	5.5%	2621	8.4%	2.9%	1.53
Woonsocket	14.6%	7527	25.1%	10.5%	1.72

[23] North Smithfield's DPE changes slightly in 2004-2005 following road survey observations conducted to test DPE accuracy in 2005.

Table 3.5a: Percent Non-White Driving Population Estimate Compared to Percent Non-White Stops 2004 – 2005, Sorted by Disparity

	% Non-White Driving Population Estimate (DPE)	Number of Valid Stops 2004-2005	Non-White Stops, 2004-2005	Absolute Difference	Ratio
Providence	32.2%	14636	55.1%	22.9%	1.71
Cranston	14.0%	9859	30.6%	16.6%	2.19
North Smithfield	6.6%	3080	22.4%	15.8%	3.39
Lincoln	7.0%	2260	20.4%	13.4%	2.91
North Providence	10.8%	6876	24.0%	13.2%	2.22
Johnston	6.4%	9686	17.9%	11.5%	2.80
Woonsocket	14.6%	7527	25.1%	10.5%	1.72
East Providence	14.9%	15417	24.8%	9.9%	1.66
Central Falls	51.4%	4451	60.6%	9.2%	1.18
State Police	15.1%	60,483	23.2%	8.1%	1.54
Cumberland	5.9%	6335	12.6%	6.7%	2.14
Foster	3.8%	1023	10.5%	6.7%	2.76
Pawtucket	24.4%	15626	30.7%	6.3%	1.26
Jamestown	3.1%	1294	8.7%	5.6%	2.81
Hopkinton	3.7%	3378	8.4%	4.7%	2.27
Warwick	9.5%	16415	13.2%	3.7%	1.39
Smithfield	5.2%	6826	8.8%	3.6%	1.69
Charlestown	3.7%	2488	7.0%	3.3%	1.89
Portsmouth	6.2%	6400	9.3%	3.1%	1.50
Westerly	5.5%	2621	8.4%	2.9%	1.53
East Greenwich	6.3%	3601	9.2%	2.9%	1.46
West Greenwich	3.4%	1126	6.2%	2.8%	1.82
Tiverton	3.2%	4579	5.9%	2.7%	1.84
Narragansett	4.3%	4868	6.9%	2.6%	1.60
Warren	4.1%	4739	6.4%	2.3%	1.56
South Kingstown	8.7%	15964	10.9%	2.2%	1.25
Richmond	4.0%	1636	6.1%	2.1%	1.53
New Shoreham	2.6%	390	4.6%	2.0%	1.77
Scituate	3.1%	2224	5.1%	2.0%	1.65
West Warwick	7.9%	3985	9.8%	1.9%	1.24
Newport	12.0%	8211	13.7%	1.7%	1.14
Coventry	3.6%	6645	4.5%	0.9%	1.25
North Kingstown	7.7%	9260	8.6%	0.9%	1.12
Little Compton	2.3%	1845	3.1%	0.8%	1.35
Burrillville	2.8%	2638	3.6%	0.8%	1.29
Barrington	5.2%	2760	5.5%	0.3%	1.06
Glocester	2.6%	3442	2.7%	0.1%	1.04
Middletown	10.1%	6323	8.6%	-1.5%	0.85
Bristol	6.0%	6481	4.3%	-1.7%	0.72

In the above tables, disparities in State Police traffic enforcement were calculated by comparing the proportion of non-white stops made by the entire State Police with the non-white driving population observed in the rolling road survey. While the observation data provides a useful benchmark for all State Police stops, it is most appropriate to compare the proportion of non-white stops made by the State Police that occur in the specific areas of the road survey observations with the demographics of observations in each of those particular areas. The communities that lie along I-95 have different characteristics depending on which part of the state in which they exist. Communities in the northeast of Rhode Island comprise the Providence metropolitan area and are characteristically more urban and racially more nonwhite. These are communities such as Providence, Central Falls, Pawtucket and Cranston. As one travels south from the Providence area you begin to encounter the bulk of the southern suburban areas of Warwick, West Warwick, Coventry and East Greenwich. These communities likely have a high degree of commuter traffic, characteristically consist of large residential populations and are racially more white than those communities in the Providence area. The southern portion of Rhode Island is comparatively more rural, comprised of communities like Exeter, Richmond, Hopkinton and Westerly. Table 3.5 presents the non-white stop population in each area compared to the non-white road survey observations in three specific areas: 1) Providence Metro area, 2) I-95/I-295 split area and 3) southern I-95 area.[24] These locations were constructed based on the characteristics of the communities in these areas and the traffic volume patters, as discussed above.

Table 3.6: State Police Stops Compared to State Police Observation Study

	% of Observations Non-White	% of Stops Non-White[25]	Difference in %	Ratio Difference
Any I-95 Stop	15.1%	29.8%	14.7%	2.0
I-95 Providence Metro Area	21.3%	36.5%	15.2%	1.7
I-95/I-295 Split Area	12.2%	26.4%	14.2%	2.1
Southern I-95	11.8%	29.9%	18.1%	2.5

[24] Traveling south on I-95 the Providence Metro area is approximately the first 11 miles of highway, the I-95/I-295 area consists of miles 11.1 through 25.9 and southern I-95 area is miles 26 through 44. Miles may not be exact because of lane in which they were measured.

[25] Includes only stops made by the State Police on I-95 during the time periods most closely matching the observation time periods

The southern I-95 area has the greatest disparity between the observed percentage of nonwhite drivers in the road survey and the percentage of nonwhite drivers stopped by state police (a difference of 18.1%). Stops made in the Providence Metro area of I-95 had an absolute disparity of 15.2%and the stops made in the I-95/I-295 split area were less disparate (14.2%).

Comparison of Results from 2001-2003 Study with Current Study

Over the past two years many law enforcement officials and communities have worked diligently to understand and attempt to reduce the racial disparities in traffic stop enforcement that were identified in the original study. There are numerous reasons why disparities between stops and estimates of driving demographics may change between the two studies including both residential and driving population changes, operational adjustments, training and changing personnel. Ultimately, changes in the level of disparity between the two studies should not be interpreted as a definitive test of any of these efforts, rather these results provide more information upon which agencies and their communities can continue discussion.

Understanding the need to interpret these results cautiously, Table 3.6 compares the levels of disparity between the driving population estimate and stops found in the original statewide study with the levels of disparity observed in the present study. In fourteen communities (36% of the communities in the state) the absolute differences in non-white stops compared to the driving population estimate was reduced more than 1%. In thirteen communities the disparities increased, some quite substantially, and in twelve communities the absolute difference in non-white stops to driving population estimate disparity is negligible (1% or less).

Table 3.7: Comparison of Disparity Between Original Study and New Study

	% Non-White Driving Pop. Estimate (DPE)	# of Valid Stops 2001-2003	% Non-White Stops	Absolute Difference	Ratio	Number of Valid Stops 2004-2005	Non-White Stops, 2004-2005	Absolute Difference	Ratio	Difference between Study 1 and 2
Barrington	5.2%	2,941	4.9%	-0.3%	0.94	2,760	5.5%	0.3%	1.06	0.6%
Bristol	6.0%	9,146	4.5%	-1.5%	0.75	6,481	4.3%	-1.7%	0.72	-0.2%
Burrillville	2.8%	3,628	2.1%	-0.7%	0.75	2,638	3.6%	0.8%	1.29	1.5%
Central Falls	51.4%	5,070	57.6%	6.2%	1.12	4,451	60.6%	9.2%	1.18	3.0%
Charlestown	3.7%	3,830	5.9%	2.2%	1.59	2,488	7.0%	3.3%	1.89	1.1%
Coventry	3.6%	6,488	3.6%	0.0%	1.00	6,645	4.5%	0.9%	1.25	0.9%
Cranston	14.0%	8,906	29.3%	15.3%	2.09	9,859	30.6%	16.6%	2.19	1.3%
Cumberland	5.9%	9,531	15.2%	9.3%	2.58	6,335	12.6%	6.7%	2.14	-2.6%
East Greenwich	6.3%	2,858	9.1%	2.8%	1.44	3,601	9.2%	2.9%	1.46	0.1%
East Providence	14.9%	21,866	21.6%	6.7%	1.45	15,417	24.8%	9.9%	1.66	3.2%
Foster	3.8%	1,362	15.8%	12.0%	4.16	1,023	10.5%	6.7%	2.76	-5.3%
Glocester	2.6%	5,942	4.0%	1.4%	1.54	3,442	2.7%	0.1%	1.04	-1.3%
Hopkinton	3.7%	4,540	6.6%	2.9%	1.78	3,378	8.4%	4.7%	2.27	1.8%
Jamestown	3.1%	733	6.4%	3.3%	2.06	1,294	8.7%	5.6%	2.81	2.3%
Johnston	6.4%	12,638	12.5%	6.1%	1.95	9,686	17.9%	11.5%	2.80	5.4%
Lincoln	7.0%	7,994	23.2%	16.2%	3.31	2,260	20.4%	13.4%	2.91	-2.8%
Little Compton	2.3%	3,814	3.1%	0.8%	1.35	1,845	3.1%	0.8%	1.35	0.0%
Middletown	10.1%	5,278	12.4%	2.3%	1.23	6,323	8.6%	-1.5%	0.85	-3.8%
Narragansett	4.3%	5,775	8.0%	3.7%	1.86	4,868	6.9%	2.6%	1.60	-1.1%
New Shoreham	2.6%	773	6.0%	3.4%	2.31	390	4.6%	2.0%	1.77	-1.4%
Newport	12.0%	21,917	12.8%	0.8%	1.07	8,211	13.7%	1.7%	1.14	0.9%
North Kingstown	7.7%	8,606	8.9%	1.2%	1.16	9,260	8.6%	0.9%	1.12	-0.3%
North Providence	10.8%	10,747	25.8%	15.0%	2.39	6,876	24.0%	13.2%	2.22	-1.8%
North Smithfield*	6.6%	6,379	14.7%	8.1%	2.23	3,080	22.4%	15.8%	3.39	7.7%
Pawtucket	24.4%	33,933	22.8%	-1.6%	0.93	15,626	30.7%	6.3%	1.26	7.9%
Portsmouth	6.2%	10,790	8.3%	2.1%	1.34	6,400	9.3%	3.1%	1.50	1.0%
Providence*	32.2%	16,375	56.3%	24.1%	1.75	14,636	55.1%	22.9%	1.71	-1.2%
Richmond	4.0%	2,002	7.4%	3.4%	1.85	1,636	6.1%	2.1%	1.53	-1.3%
Scituate	3.1%	3,322	7.4%	4.3%	2.39	2,224	5.1%	2.0%	1.65	-2.3%
Smithfield	5.2%	10,376	10.4%	5.2%	2.00	6,826	8.8%	3.6%	1.69	-1.6%
South Kingstown	8.7%	29,464	7.0%	-1.7%	0.80	15,964	10.9%	2.2%	1.25	3.9%
State Police	15.1%	94,508	20.3%	5.2%	1.34	60,483	23.2	8.1%	1.54	2.9%
Tiverton	3.2%	7,020	2.6%	-0.6%	0.81	4,579	5.9%	2.7%	1.84	3.3%
Warren	4.1%	6,310	6.5%	2.4%	1.59	4,739	6.4%	2.3%	1.56	-0.1%
Warwick	9.5%	29,784	11.4%	1.9%	1.20	16,415	13.2%	3.7%	1.39	1.8%
West Greenwich	3.4%	3,288	5.3%	1.9%	1.56	1,126	6.2%	2.8%	1.82	0.9%
West Warwick	7.9%	7,137	9.5%	1.6%	1.2	3,985	9.8%	1.9%	1.24	0.3%
Westerly	5.5%	8,158	7.5%	2.0%	1.36	2,621	8.4%	2.9%	1.53	0.9%
Woonsocket	14.6%	8,354	30.4%	15.8%	2.08	7,527	25.1%	10.5%	1.72	-5.3%

For the State Police disparities between non-white stops on I-95 and non-white observations on I-95 increased slightly during the 2004-2005 study period. While the I-95/295 split saw more non-white stops, decreases were seen in the disparity in the Providence Metro Area.

Table 3.8: State Police Stops Compared to State Police Observation Study, 2001-2003 Compared to 2004-2005

	% of Observations non-white	% of Stops non-white 2001-2003	Difference between stops and observations 2001-2003	% of stops non-white 2004-2005	Difference between stops and observations 2004 -2005
Any I-95 Stop	15.1	27.6	12.5	29.8	14.7
I-95 Providence Metro Area	21.3	37.2	15.9	36.5	15.2
I-95/I-295 Split Area	12.2	18.6	6.4	26.4	14.2
Southern I-95	11.8	29.4	17.6	29.9	18.1

Following the release of the first study, some stakeholders raised concerns that stops of non-municipal resident drivers may explain part of the observed racial disparity in stops. Others raised concerns that non-residents would be treated differently than residents in particular communities. Unfortunately, no information about municipal residency was collected in the first study to help address these concerns. In the present study data is collected on whether or not the driver is a resident of the municipality where they are stopped. Although the DPE is designed to take into account the population of all drivers on the roadway, both resident and non-resident, it is helpful to examine resident and non-resident stops by race. The data contained in Table 3.8 suggest that a motorist residency may be related to racial disparities in stops. In some communities, such as North Smithfield and North Providence, traffic enforcement practices aimed at non-resident drivers may result in a higher proportion of non-white drivers being stopped. In other communities, such as Providence, heavy traffic enforcement aimed at residents of the city or town results in a higher proportion of non-white drivers being stopped. Municipal residency does not explain fully the existence of racial disparities in stops, but provides useful contextual information about the underlying causes for citywide disparities.

Table 3.9: Resident and Non-Municipal Resident Stops by Race

	Non-Resident			Resident			Interstate Highway (N/A)		
	Stops	% White	% Non-White	Stops	% White	% Non-White	Stops	% White	% Non-White
Barrington	1,392	92.2	7.8	1,272	97	3.0	1	100	0.0
Bristol	3364	93.1	6.9	2935	98.6	1.4	0	0.0	0.0
Burrillville	946	91.5	8.5	1602	99.2	0.8	3	100	0.0
Central Falls	2473	50.2	49.8	1884	25.5	74.5	0	0.0	0.0
Charlestown	1745	92.7	7.3	534	94.0	6.0	24	95.8	4.2
Coventry	2853	93.3	6.7	3709	97.2	2.8	1	100	0.0
Cranston	5008	58.2	41.8	4006	82.9	17.1	18	55.6	44.4
Cumberland	3446	81.4	18.6	2768	95.0	5.0	10	70.0	30.0
East Greenwich	2569	89.8	10.2	814	94.2	5.8	6	5.0	1.0
East Providence	8563	70.8	29.2	6161	82.2	17.8	318	57.9	42.1
Foster	886	88.1	11.9	120	100	.00	2	50.0	50.0
Glocester	2061	95.7	4.3	1323	99.8	0.2	0	0.0	0.0
Hopkinton	2241	90.4	9.6	931	94.5	5.5	10	80.0	20.0
Jamestown	908	89.2	10.8	367	97.0	3.0	0	0 .0	0.0
Johnston	7188	78.7	21.1	2160	93.0	7.0	49	91.8	8.2
Lincoln	1510	73.7	26.3	627	94.6	5.4	15	66.7	33.3
Little Compton	1201	95.5	4.5	609	99.7	0.3	1	100	1.0
Middletown	4746	91.7	8.3	1260	90.6	9.4	0	0.0	0 .0
Narragansett	3181	92.0	8.0	1519	95.8	4.2	13	92.3	6.8
New Shoreham	278	95.3	4.7	80	95.0	5.0	0	0.0	0.0
Newport	4874	88.8	11.2	3024	82.4	17.6	5	100	0.0
North Kingstown	6105	89.4	10.6	2710	96.1	3.9	23	73.9	26.1
North Providence	4749	70.6	29.4	2017	89.2	10.8	1	0.0	100
North Smithfield	2612	75.0	25.0	405	96.5	3.5	22	63.6	36.4
Pawtucket	9470	73.3	26.7	5604	62.3	37.7	7	57.1	42.9
Portsmouth	4975	89.1	10.9	1355	96.4	3.6	1	100	0.0
Providence	5798	69.9	30.1	7607	25.7	74.3	143	77.6	22.4
Richmond	1119	93.	6.6	315	96.5	3.5	12	100	0.0
Scituate	1651	93.6	6.4	473	99.2	0.8	0	0.0	0.0
Smithfield	5197	89.2	10.8	1602	97.7	2.3	2	50.0	50.0
South Kingstown	10304	89.5	10.5	4574	89.6	10.4	14	89.5	10.5
Tiverton	2483	91.6	8.4	1794	98.0	2.0	63	85.7	14.3
Warren	3351	92.7	7.3	1187	96.4	3.6	0	0.0	0.0
Warwick	7902	79.4	20.6	8041	94.0	6.0	99	78.8	21.2
West Greenwich	772	93.1	6.9	204	99.5	0.5	21	76.2	23.8
West Warwick	1764	89.7	10.3	1909	90.7	9.3	1	100	0.0
Westerly	1133	91.1	8.9	1289	91.9	8.1	4	100	0.0
Woonsocket	2899	83.4	16.6	4130	69.2	30.8	4	100	0.0

Drawing Conclusions about Disparities

Finding disparities in traffic stops compared to any acceptable measure of the driving population may not be sufficient to determine that a jurisdiction is engaged in racial profiling. The decision to make a traffic stop is influenced by a wide range of factors

which may change depending on the particular crime control or traffic enforcement demands of the jurisdiction. There are a number of legitimate explanations for such disparities including targeted enforcement practices in high crime neighborhoods or increased enforcement activities at certain times of day or seasons of the year, and heightened enforcement in response to accidents or other hazards. In addition, some law enforcement agencies have suggested that the disparities identified are the result of the type of stop and that drivers of certain races are more likely to be stopped for particular violations, for example outstanding warrants.

To help agencies understand why racial disparities may exist in traffic stops within their jurisdictions we have provided detailed, multivariate breakdowns of race and traffic enforcement in Section 4 of the Technical Report.[26] We encourage law enforcement agencies and their respective communities to examine closely the detailed reports for their community. The information provided in Section 4 of the Technical Report examines racial differences in traffic stops by time of day, location, season, day of the week and multiple combinations of these categories. This information helps contextualize more fully the traffic enforcement decisions and patterns for each agency and may help agencies identify causes of observed citywide racial disparity in traffic stops.

[26] Some variables that may influence traffic stop patterns were not available for us to use. Information on officer deployment, calls for service, suspect descriptions and traffic accident patterns may have been useful to help identify why racial disparities in traffic enforcement emerge in each of the twenty jurisdictions. The individual breakdowns are not intended to provide an complete explanation for the existence of disparities, rather they are designed to provide agencies and their communities with more information about the characteristics and contexts of their traffic stops so that law enforcement and community members can develop and implement ways to reduce any disparities that raise concern.

Chapter 4
Examination of Racial Disparities in Post-Stop Activity

Understanding racial differences in post-stop activity such as issuing citations, searching and making arrests has become a central component of most studies of racial profiling. There are a number of reasons why the disposition of a traffic stop has received special attention in the racial profiling context. The decision to write a citation or issue a written warning is an area in which officers possess a great deal of discretion. Such discretionary power may become a cause for concern when racial differences in stop dispositions are identified. The officer's decision to write a written warning as opposed to a ticket has serious implications for the driver. Financially, a cited driver faces the immediate effects of the fine attached to the offense, which can be quite large in some cases. The driver may also have to deal increased insurance premium. Further, the penalties for a moving violation offense often follow a driver over state lines to affect his/her insurance premiums. Another troublesome aspect of racial disparities in traffic stop dispositions involves the concern that official records of police action might be interpreted as a reflection of trends in driving behavior. If non-white drivers receive more traffic citations because of their race or ethnicity rather than differences in driving behavior, these practices may create a record that could be used in subsequent decisions by other governmental units.

Special attention has also been paid to racial disparities in searching practices once a vehicle is stopped due to the intrusive nature of searches. Numerous studies of police traffic stop activity nationwide suggest that non-white motorists are significantly more likely to be searched once they are stopped than white motorists. Although there are a number of important factors that may explain the existence of such racial differences, disparate search rates, more than any other post-stop activity, are consistently identified as among the most problematic issues by members of the community of color. In the next section of the report we examine racial differences in post-stop activity in detail.

At the outset it is useful to describe the general pattern of stop outcomes in the 2004-2005 stop data. Table 4.1 provides detailed information about all possible stop outcomes for both white and non-white drivers. Statewide white drivers receive citations following

70.1% of stops and non-white drivers receive citations in only 61.8% of the stops. Non-white drivers are slightly more likely to receive a notice of demand (2.3%) compared to white drivers (1.8%). Traffic stops statewide rarely result in arrest, but in those rare cases non-white drivers and/or passengers are slightly more likely to be arrested following traffic stop (0.8% non-white compared to 0.4% white). No action was taken statewide in 15.1% of non-white stops and 13.1% of white stops.

Table 4.1: Racial Differences in Outcome of the Stop

Jurisdiction	White							Non-White						
	Citation	N/D	Warning	Arrest driver	Arrest passg.	No action	More than 1	Citation	N/D	Warning	Arrest driver	Arrest passg.	No action	More than 1
Total Statewide	70.1	1.8	12.2	0.3	0.0	13.1	2.4	61.8	2.3	13.9	0.7	0.1	15.1	6.0
All State Police	69.8	1.9	12.6	0.4	0.0	12.7	2.7	62.0	2.7	14.4	0.7	0.1	13.6	6.5
SP – Lin. Woods	60.5	2.4	11.4	0.4	0.0	21.8	3.4	51.3	4.5	15.6	0.9	0.1	18.9	8.7
SP – Chepachet	81.0	0.2	6.6	0.3	0.1	10.3	1.4	76.6	0.3	6.0	0.9	0.2	8.8	7.2
SP – Wickford	65.4	3.1	15.6	0.3	0.0	12.8	2.8	57.2	4.0	20.4	0.4	0.0	11.8	6.1
SP – Portsmouth	69.5	2.2	18.5	0.2	0.1	6.5	3.0	50.5	2.5	30.2	0.3	0.0	12.9	3.7
SP - Hope Valley	74.1	1.4	12.3	0.6	0.0	8.9	2.6	76.2	0.5	8.9	0.7	0.1	9.1	4.4
Barrington	39.0	1.2	53.2	0.9	0.1	5.0	0.5	33.8	1.4	54.7	4.1	0.0	6.1	0.0
Bristol	30.9	10.5	50.8	1.9	0.2	4.2	1.6	29.3	12.7	44.9	4.0	0.4	6.2	2.5
Burrillville	23.2	1.9	58.6	1.8	0.2	11.4	2.9	30.9	1.1	42.6	6.4	1.1	17.0	1.1
Central Falls	43.9	2.9	39.8	1.7	0.3	5.7	5.7	47.0	4.3	32.7	3.0	0.3	4.1	8.6
Charlestown	32.9	6.1	50.6	3.6	0.2	4.4	2.2	26.2	5.8	51.7	5.2	0.0	7.6	3.5
Coventry	30.0	11.4	44.2	1.4	0.1	6.9	6.0	28.6	11.4	38.0	1.7	0.0	11.1	9.1
Cranston	45.8	2.9	33.6	1.6	0.2	12.8	3.1	39.1	5.2	32.3	3.4	0.2	13.2	6.6
Cumberland	19.6	2.6	55.4	0.5	0.2	18.4	3.3	15.1	3.3	53.0	0.9	0.3	21.5	5.9
East Greenwich	19.2	7.8	53.4	2.2	0.2	12.2	5.0	16.1	9.6	40.2	4.0	0.3	21.1	8.7
East Providence	34.1	12.7	37.2	2.1	0.3	8.1	5.5	18.2	13.4	45.7	3.2	0.4	7.9	11.1
Foster	66.8	0.4	26.3	0.2	0.2	4.4	1.6	65.4	0.9	26.2	0.0	0.0	3.7	3.7
Glocester	62.2	2.7	29.8	0.7	0.0	1.5	3.1	82.6	2.2	7.6	0.0	0.0	4.3	3.3
Hopkinton	37.3	11.9	42.7	1.1	0.0	2.0	4.9	35.0	4.3	48.6	1.8	0.0	4.3	6.1
Jamestown	36.7	2.1	49.9	4.0	0.1	6.0	1.2	40.5	0.9	45.0	3.6	0.0	8.1	1.8
Johnston	80.5	0.3	14.6	0.7	0.1	2.3	1.5	69.7	0.6	20.6	2.4	0.1	1.9	4.7
Lincoln	28.4	4.3	52.9	1.9	0.3	10.5	1.6	31.1	5.9	45.8	5.9	0.0	7.3	4.0
Little Compton	7.9	0.7	86.7	0.3	0.1	1.5	3.0	10.5	0.0	82.5	0.0	0.0	3.5	3.5
Middletown	50.2	12.4	30.0	1.7	0.1	2.4	3.2	42.7	14.1	29.0	4.3	0.4	3.4	6.0
Narragansett	25.9	1.9	61.1	2.7	0.4	5.3	2.7	17.1	2.1	62.2	3.9	0.0	10.8	3.9
New Shoreham	31.8	3.9	54.9	1.1	0.0	3.3	5.0	38.9	0.0	50.0	0.0	0.0	0.0	11.1
Newport	7.3	5.7	83.1	1.0	0.1	1.6	1.2	8.1	7.1	77.6	2.3	0.2	1.9	2.8
North Kingstown	66.5	0.5	23.0	1.0	0.1	7.5	1.4	62.4	0.5	20.1	1.5	0.6	12.6	2.2
North Providence	45.9	3.5	37.3	2.0	0.4	4.5	6.4	34.7	6.4	37.0	3.9	1.0	4.1	12.8
North Smithfield	25.3	13.4	44.9	0.4	0.2	9.6	6.1	23.1	13.0	38.7	1.0	0.0	12.5	11.6
Pawtucket	95.2	0.0	2.6	0.3	0.0	1.3	0.4	89.4	0.1	4.9	0.8	0.1	2.9	1.6
Portsmouth	36.8	4.8	41.1	1.2	0.1	11.8	4.1	32.4	5.9	42.8	1.2	0.0	13.0	4.7

Jurisdiction	White							Non-White						
	Citation	N/D	Warning	Arrest driver	Arrest passg.	No action	More than 1	Citation	N/D	Warning	Arrest driver	Arrest passg.	No action	More than 1
Providence	49.9	1.0	29.7	2.6	0.7	12.8	3.3	33.7	1.4	37.3	5.6	0.7	15.0	6.3
Richmond	57.9	15.1	18.2	1.6	0.0	0.3	6.9	50.5	13.4	14.4	4.1	0.0	2.1	15.5
Scituate	46.9	2.4	40.5	0.4	0.0	7.1	2.7	50.4	0.0	26.5	0.9	0.0	15.0	7.1
Smithfield	58.9	0.1	31.1	0.8	0.0	3.9	5.2	56.0	0.2	28.3	0.7	0.0	4.0	10.8
South Kingstown	37.3	0.3	59.0	0.8	0.1	1.8	0.8	26.4	0.9	63.0	1.8	0.2	5.6	2.1
Tiverton	18.2	3.9	52.7	2.3	0.3	21.2	1.4	14.2	2.6	56.9	2.2	0.4	22.1	1.5
Warren	35.2	5.0	49.4	0.7	0.1	8.0	1.6	38.8	5.8	40.8	3.1	0.3	6.8	4.4
Warwick	41.1	14.8	25.5	2.0	0.2	12.1	4.4	36.3	14.7	24.9	3.1	0.4	13.9	6.7
West Greenwich	41.6	3.9	48.1	2.1	0.0	1.5	2.8	52.2	4.5	28.4	6.0	1.5	6.0	1.5
West Warwick	34.8	2.6	46.9	4.3	0.4	6.9	4.1	23.8	2.4	58.6	5.5	0.0	5.8	3.9
Westerly	37.1	2.4	47.9	3.2	0.3	5.2	3.9	32.1	2.8	47.4	4.7	0.0	8.4	4.7
Woonsocket	43.2	0.9	37.5	4.1	0.7	9.8	3.7	32.7	1.0	40.5	5.6	0.4	12.4	7.4

As was noted in Chapter Two, great variation exists across the state in the distribution of different outcomes following a stop. Some jurisdictions issue citations to both white and non-white drivers at high rates, while racial disparities between stop outcomes persist in other jurisdictions. To understand more completely the existence of racial disparities in the outcomes of traffic stops it is important to examine two decisions in more detail, the decision to issue a citation and the decision to search a motorist or vehicle. The following section of the report examines these two issues closely.

Examining Racial Differences in Citations

Previous tables break down the outcome of stops into multiple categories, more than one of which might involve the decision to issue a citation. To specifically examine the question of racial disparities in citation rates must examine those cases where any type of citation was issued (citation, n/d or either one in combination with another stop outcome). Table 4.2 presents the proportion of white and non-white drivers who were issued any type of citation during the study period. Contrary to many assumptions about racially disparate citation practices, in over 70% of the jurisdictions studied, non-white drivers were <u>less</u> likely to receive a citation than white drivers. Although there are certain communities where non-white drivers are more likely to receive a citation than their white counterparts, in the vast majority of communities in Rhode Island, non-white drivers are cited less frequently than white drivers. Table 4.2 presents both absolute disparities between white and non-white drivers and ratios of disparity. As discussed in the previous chapter, absolute differences in percent simply measures the difference between the percent of non-white drivers who are cited compared to the percent of white drivers who are cited. For example, if 5.0% of non-white drivers are cited and 2.0% of white drivers are cited the absolute difference is 3.0% (5.0% minus 2.0%). A ratio describes the degree of disparity between the percent non-white stop population and the percent non-white driving population estimate. Using the above example, if 5.0% of non-white drivers are cited and 2.0% of white drivers are cited the ratio is 1.6, meaning the odds of a non-white driver being cited are 1.6 times the odds of a white driver being cited.

Table 4.2: Racial Differences in Being Cited

Jurisdiction	% White Cited	% Non-White Cited	Absolute Disparity	Ratio
Total Statewide	70.1	61.8	-8.3	0.88
All State Police	69.8	62	-7.8	0.89
SP – Lin. Woods	60.5	51.3	-9.2	0.85
SP – Chepachet	81	76.6	-4.4	0.95
SP – Wickford	65.4	57.2	-8.2	0.87
SP – Portsmouth	69.5	50.5	-19.0	0.73
SP - Hope Valley	74.1	76.2	2.1	1.03
Barrington	39	33.8	-5.2	0.87
Bristol	30.9	29.3	-1.6	0.95
Burrillville	23.2	30.9	7.7	1.33
Central Falls	43.9	47	3.1	1.07
Charlestown	32.9	26.2	-6.7	0.80
Coventry	30	28.6	-1.4	0.95
Cranston	45.8	39.1	-6.7	0.85
Cumberland	19.6	15.1	-4.5	0.77
East Greenwich	19.2	16.1	-3.1	0.84
East Providence	34.1	18.2	-15.9	0.53
Foster	66.8	65.4	-1.4	0.98
Glocester	62.2	82.6	20.4	1.33
Hopkinton	37.3	35	-2.3	0.94
Jamestown	36.7	40.5	3.8	1.10
Johnston	80.5	69.7	-10.8	0.87
Lincoln	28.4	31.1	2.7	1.10
Little Compton	7.9	10.5	2.6	1.33
Middletown	50.2	42.7	-7.5	0.85
Narragansett	25.9	17.1	-8.8	0.66
New Shoreham	31.8	38.9	7.1	1.22
Newport	7.3	8.1	0.8	1.11
North Kingstown	66.5	62.4	-4.1	0.94
North Providence	45.9	34.7	-11.2	0.76
North Smithfield	25.3	23.1	-2.2	0.91
Pawtucket	95.2	89.4	-5.8	0.94
Portsmouth	36.8	32.4	-4.4	0.88
Providence	49.9	33.7	-16.2	0.68
Richmond	57.9	50.5	-7.4	0.87
Scituate	46.9	50.4	3.5	1.07
Smithfield	58.9	56	-2.9	0.95
South Kingstown	37.3	26.4	-10.9	0.71
Tiverton	18.2	14.2	-4.0	0.78
Warren	35.2	38.8	3.6	1.10
Warwick	41.1	36.3	-4.8	0.88
West Greenwich	41.6	52.2	10.6	1.25
West Warwick	34.8	23.8	-11	0.68
Westerly	37.1	32.1	-5	0.87
Woonsocket	43.2	32.7	-10.5	0.76

Examining Racial Differences in Searches

There are two important reasons why racially disparate search rates have been viewed with such concern both in Rhode Island and nationally. First, being searched changes the character of a traffic stop. In the mind of many motorists searches transform the stop from a potentially benign civil enforcement action to a more serious suspicion of criminal activity. Motorists of color report that once a search is instigated the traffic stop itself is viewed as only a pre-text to justify searching and harassing motorists.[27] Many motorists perceive being searched as an implication of criminality. While being cited is certainly perceived as a hassle, it is an outcome of the traffic stop which people are often willing to accept because they recognize that they were in fact violating a traffic law. Although legitimate questions may exist about why officers choose to stop a particular individual who was violating a traffic laws among a group of many individuals violating similar traffic laws, the question of racial profiling comes down to the perception that individuals are treated suspiciously, and therefore differently, because of their membership in particular racial groups. Searches heighten the perception that law enforcement perceives particular motorists as potential criminals.

The second reason why racially disparate search rates receive so much attention is that searches are thought to be more discretionary than other post stop activity such as arrests. Officers need much less evidence of illegal behavior to conduct a search of a person or a vehicle than that necessary to justify an arrest. As a result, officer bias rather than individual motorist behavior has in the past been blamed for racial disparities in search patterns. Although there is a fairly large body of literature in criminal justice on police discretion in arrest decisions, very little systematic information exists about the discretionary decisions of officers to search a person or a vehicle. From the police perspective, the factors which prompt a legally justified searching of a vehicle or motorists are multiple and complex.

[27] For numerous examples of such perceptions see David Harris, 2002, Profiles in Injustice: Why Racial Profiling Can't Work, New York: New Press.

Establishing the Legal Basis for a Search

An officer's decision to conduct a search during a traffic stop is limited by a number of legal protections. Most importantly, police searches of vehicles are protected by the Fourth Amendment doctrine that citizens are secure in their "persons, houses, papers and effects, against unreasonable searches and seizures."[28] Throughout the years the courts have clarified exactly how this phrase applies to the searches of motor vehicles. In a landmark decision in 1925, the Supreme Court reasoned that drivers of vehicles have a lower expectation of privacy than residents in a home and therefore, police are not required to obtain a warrant prior to searching a vehicle.[29] While the court has clearly specified that in most instances the police are required to obtain a warrant prior to the search of a home, motor vehicle searches are subject to the "automobile exception" to the warrant requirement. Because automobiles are mobile, allowing for easier escape of valuable evidence or suspects, and because drivers expect regulations to govern their driving privileges, such as a driver's license, speed limits, and equipment regulations, vehicle searches are subject to a lower threshold of protection.

In the 2004-2005 study, Rhode Island officers were allowed to indicate seven different legal justifications for a search of a vehicle 1) searches incident to arrest, 2) probable cause, 3) terry frisk, 4) plain view contraband, 5) odor of drugs or alcohol, 6) inventory tow, and 7) reasonable articulable suspicion.[30] Understanding that there are many different routes by which officers may legally conduct a search following traffic stops, our analysis of racially disparate searches had to be sensitive to the effect of different legal motivations. Table 4.3 provides jurisdiction specific information on the distribution of searches in 2004-2005 by each legal basis for a search category for both white and non-white stops.

[28] Fourth Amendment, United States Constitution

[29] Carroll v. U.S., 267 U.S. 132 (1925).

[30] These categories changed slightly from the 2001-2003 study where officers indicated whether or not searches were conducted on the basis of consent, probable cause, reasonable suspicion, as an inventory for impounded vehicles, or incident to arrest.

Table 4.3: Legal Basis for Searches in Rhode Island by Race

	White								Non-White							
Name	Inc. to Arrest	PC	Terry Frisk	Plain View	Odor	Invent.	RAS	More than 1	Inc. to Arrest	PC	Terry Frisk	Plain View	Odor	Invent.	RAS	More than 1
Full State	35.3%	5.8%	6.2%	1.4%	5.3%	14.3%	6.3%	25.5%	38.1%	6.1%	6.8%	0.7%	4.4%	11.4%	7.0%	25.5%
State Police	35.1%	5.5%	16.0%	1.2%	4.5%	5.3%	3.8%	28.4%	45.1%	3.7%	12.1%	0.5%	2.9%	6.1%	3.7%	25.7%
SP Lin Woods	51.2%	3.5%	9.7%	0.9%	3.8%	5.0%	1.9%	24.1%	62.8%	2.6%	6.5%	0.2%	2.4%	5.2%	1.5%	18.7%
SP Chepachet	38.6%	3.4%	11.9%	1.7%	2.3%	4.5%	4.5%	33.0%	46.2%	5.3%	12.9%	1.5%	1.5%	8.3%	2.3%	22.0%
SP Wickford	36.4%	3.4%	20.7 %	0.6%	4.5%	5.4%	7.4%	21.6%	41.9%	2.6%	15.1%	0.4%	3.8%	4.9%	9.8%	21.5%
SP Portsmouth	22.2%	8.9%	26.3%	2.7%	6.5%	1.7%	2.4%	29.4%	28.9%	5.3%	15.8%	0.0%	5.3%	2.6%	5.3%	36.8%
SP Hope Valley	28.4%	7.6%	12.7%	0.9%	4.9%	7.6%	4.0%	34.0%	28.6%	4.5%	14.7%	0.8%	3.1%	8.1%	2.9%	37.3%
Barrington	37.1%	14.3%	2.9%	11.4%	11.4%	0.0%	8.6%	14.3%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bristol	17.9%	0.9%	7.0%	1.1%	7.9%	39.2%	6.8%	19.0%	22.0%	2.4%	7.3%	0.0%	9.8%	39.0%	4.9%	14.6%
Burrillville	34.0%	3.0%	5.1%	2.0%	8.6%	18.3%	1.5%	27.4%	33.3%	0.0%	27.8%	0.0%	0.0%	11.1%	11.1%	16.7%
Central Falls	50.8%	10.1%	0.6%	1.1%	3.4%	17.3%	8.9%	7.8%	54.0%	7.5%	05%	0.5%	3.6%	19.9%	5.1%	9.0%
Charlestown	70.3%	10.2%	0.8%	3.9%	3.1%	2.3%	3.9%	5.5%	52.9%	5.9%	23.5%	0.0%	5.9%	5.9%	5.9%	0.0%
Coventry	20.4%	2.5%	2.5%	1.1%	2.5%	17.6%	6.1%	47.4%	30.4%	8.7%	0.0%	0.0%	0.0%	26.1%	8.7%	26.1%
Cranston	38.5%	12.0%	7.0%	1.1%	7.9%	2.5%	7.0%	23.8%	46.4%	9.9%	6.5%	1.7%	2.7%	4.4%	8.2%	20.1%
Cumberland	21.7%	0.9%	3.8%	1.4%	1.4%	29.7%	1.9%	39.2%	23.6%	0.0%	5.5%	3.6%	0.0%	29.1%	0.0%	38.2%
E. Greenwich	14.1%	1.1%	5.6%	0.6%	2.8%	29.9%	4.0%	41.8%	13.6%	0.0%	6.8%	0.0%	1.7%	28.8%	0.0%	49.2%
E. Providence	24.6%	7.5%	3.2%	1.3%	6.6%	20.5%	5.9%	30.4%	27.9%	4.9%	2.9%	0.4%	5.2%	19.8%	5.5%	33.3%
Foster	45.5%	6.1%	3.0%	0.0%	15.2%	3.0%	0.0%	27.3%	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
Glocester	53.8%	5.7%	1.3%	1.3%	10.1%	1.3%	3.2%	23.4%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hopkinton	49.8%	1.7%	1.3%	04%	3.5%	5.2%	4.3%	33.8%	48.6%	2.7%	5.4%	2.7%	5.4%	8.1%	2.7%	24.3%
Jamestown	63.2%	1.8%	5.3%	5.3%	10.5%	7.0%	1.8%	5.3%	50.0%	10.0%	0.0%	0.0%	10.0%	20.0%	0.0%	10.0%
Johnston	33.6%	4.9%	3.0%	0.7%	5.2%	11.6%	6.7%	34.3%	38.2%	2.8%	2.1%	0.0%	1.4%	16.7%	3.5%	35.4%
Lincoln	47.1%	2.3%	16.1%	2.3%	5.7%	9.2%	5.7%	11.5%	62.2%	2.2%	11.1%	2.2%	2.2%	11.1%	0.0%	8.9%
L. Compton	33.3%	17.2%	3.2%	5.4%	16.1%	8.6%	4.3%	11.8%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Middletown	43.9%	2.6%	1.3%	2.0%	3.0%	17.8%	1.3%	28.1%	47.5%	1.6%	0.0%	0.0%	1.6%	9.8%	1.6%	37.7%
Narragansett	59.7%	5.9%	1.7%	2.8%	3.1%	0.3%	9.7%	16.7%	57.1%	2.9%	5.7%	2.9%	0.0%	0.0%	5.7%	25.7%
N. Shoreham	50.0%	0.0%	28.6%	7.1%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Newport	41.4%	7.0%	7.0%	0.8%	10.7%	3.7%	15.6%	13.9%	42.9%	4.8%	9.5%	0.0%	6.7%	2.9%	16.2%	17.1%
N. Kingstown	42.0%	2.5%	3.4%	1.4%	7.0%	14.9%	4.8%	23.9%	43.1%	2.8%	2.8%	1.4%	4.2%	8.3%	4.2%	33.3%
N. Providence	50.5%	6.5%	2.6%	0.3%	2.9%	10.1%	2.9%	24.1%	51.0%	5.0%	1.5%	0.0%	3.0%	16.0%	2.5%	21.0%
N. Smithfield	15.2%	0.0%	0.9%	0.0%	0.0%	28.3%	2.6%	53.0%	14.6%	0.0%	1.6%	0.0%	0.0%	28.5%	0.0%	55.3%

	White								Non-White							
Name	Inc. to Arrest	PC	Terry Frisk	Plain View	Odor	Invent	RAS	More than 1	Inc. to Arrest	PC	Terry Frisk	Plain View	Odor	Invent.	RAS	More than 1
Pawtucket	47.7%	4.6%	7.7%	2.3%	1.5%	6.9%	6.2%	23.1%	41.3%	2.2%	3.8%	1.6%	2.2%	10.3%	4.3%	34.2%
Portsmouth	25.2%	4.3%	1.1%	0.2%	2.1%	20.6%	2.1%	44.4%	26.3%	0.0%	5.3%	0.0%	1.8%	24.6%	0.0%	42.1%
Providence	25.8%	13.4%	8.3%	2.2%	7.3%	1.5%	16.0%	25.5%	31.7%	10.4%	8.7%	0.7%	7.2%	4.2%	12.0%	25.2%
Richmond	24.5%	0.0%	2.8%	0.0%	4.9%	11.9%	0.7%	55.2%	16.7%	4.2%	0.0%	0.0%	4.2%	4.2%	0.0%	70.8%
Scituate	25.5%	1.1%	7.4%	0.0%	0.0%	16.0%	1.1%	48.9%	0.0%	0.0%	0.0%	0.0%	0.0%	23.1%	0.0%	76.9%
Smithfield	73.6%	5.9%	9.1%	0.4%	3.5%	3.1%	3.9%	0.4%	76.2%	4.8%	9.5%	0.0%	2.4%	4.8%	2.4%	0.0%
S. Kingstown	50.0%	12.1%	1.9%	5.6%	8.9%	1.4%	5.6%	14.5%	52.9%	1.5%	4.4%	2.9%	7.4%	0.0%	8.8%	22.1%
Tiverton	38.8%	10.1%	7.8%	2.7%	13.4%	9.0%	10.1%	8.1%	40.0%	5.0%	15.0%	5.0%	20.0%	5.0%	5.0%	5.0%
Warren	30.5%	8.4%	0.8%	0.4%	4.0%	40.2%	3.6%	12.0%	29.3%	6.9%	1.7%	3.4%	0.0%	41.4%	1.7%	15.5%
Warwick	34.1%	3.9%	6.3%	1.1%	4.1%	27.7%	4.1%	18.7%	31.5%	5.6%	3.3%	0.5%	3.3%	31.5%	2.6%	21.5%
W. Greenwich	43.0%	15.1%	5.8%	1.2%	10.5%	3.5%	4.7%	16.3%	66.7%	0.0%	0.0%	0.0%	13.3%	0.0%	0.0%	20.0%
W. Warwick	33.8%	6.9%	2.8%	0.6%	3.8%	13.6%	12.9%	25.6%	36.5%	7.7%	3.8%	1.9%	3.8%	11.5%	19.2%	15.4%
Westerly	58.3%	4.7%	3.3%	2.4%	3.3%	2.8%	7.1%	18.0%	56.0%	16.0%	4.0%	0.0%	0.0%	4.0%	4.0%	16.0%
Woonsocket	41.2%	3.5%	5.6%	0.6%	4.1%	11.5%	12.6%	20.9%	40.8%	3.7%	6.8%	0.8%	2.9%	10.7%	12.0%	22.3%

One of the most controversial issues related to the legal justification for searching a vehicle or person following a traffic stop is the use of consent searches. Nationwide law enforcement agencies and state legislatures have taken steps to limit or prohibit the use of consent searches due to the perception that the use of consent searches may result in racially disparate search behavior by law enforcement officers. The Rhode Island Racial Profiling Prevention Act of 2004 limited consent searches with the following language "no operator or owner-passenger of a motor vehicle shall be requested to consent to a search by a law enforcement officer of his or her motor vehicle which is stopped solely for a traffic violation, unless there exists reasonable suspicion or probable cause of criminal activity"[31] Table 4.4 provides information about the proportion of stops for both white and non-white drivers when the officer requested consent to search the vehicle, person or passenger.

Although requesting consent to search a driver, passenger or vehicle is rare in Rhode Island, statewide non-white drivers are twice as likely to be asked for consent to search. A chi-square test of significance was employed to determine the extent to which differences between white and non-white requests for consent to search were result of chance or random error alone. In Table 4.4, the final column lists significance values. Those jurisdictions with a significance value below .050 (or a 5% chance they are due to error) have differences that are considered statistically significant.[32]

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[31] End Racial Profiling Act of 2004, Section 31-21, 2.5 (B)

[32] In order to interpret the results of the chi-square test of significance it is important to clarify the limitations of significance tests. In this study, and in many other studies of disparity, statistical tests are used to determine the likelihood that an observed result is not due to sampling error or random chance alone. Academics choose different levels of significance to indicate what possibility of error or chance is acceptable. For example, the commonly chosen .05 level of significance means literally that 5 times in 100 the finding of a racial difference may be due to error or chance. Just because a result is statistically significance does not mean that it is substantively important. A very small level of disparity may be statistically significant if it is based on a very high number of cases. A large sample is often overly sensitive, detecting artifactual relationships which appear due to bias in the sample. Additionally, our population of traffic stops is not a true sample; the data set contains all reported traffic stops. Conversely, a result that is not statistically significant may still have relevance for two main reasons. A reported significance level may be just barely higher than the arbitrary threshold of significance that the researcher established. For example, if we are 95% confident that observed differences are not due to sampling error or random chance alone should policy makers dismiss results that we are only 93% or 85% confident about? Secondly, since sample size affects measures of statistical significance it may be inappropriate to dismiss a higher level of disparity in a jurisdiction with fewer stops and accept a lower level of disparity in a jurisdiction with a large number of stops.

Table 4.4: Consent Searches Requested by Race

	% White Searches Where Consent Requested	% of Non-White Searches Where Consent Requested	Disparity	Ratio
Total Statewide	1.6	3.6	2.0*	2.3
All State Police	0.7	1.8	1.1*	2.6
SP - Lincoln Woods	0.9	1.4	0.5*	1.6
SP - Chepachet	0.5	2.6	2.1*	5.2
SP - Wickford	0.6	3.0	2.4*	5.0
SP - Portsmouth	0.6	0.8	0.2	1.3
SP - Hope Valley	0.9	1.9	1.0*	2.1
Barrington	12.1	14.3	2.2	1.2
Bristol	0.7	1.1	0.4	1.5
Burrillville	1.0	2.2	1.2	2.2
Central Falls	0.5	0.3	-0.2	0.6
Charlestown	0.8	2.9	2.1*	3.6
Coventry	1.4	2.4	1.0	1.7
Cranston	8.4	10.6	2.2*	1.2
Cumberland	5.1	2.6	-2.5	0.5
East Greenwich	3.7	5.6	1.9	1.5
East Providence	8.5	8.6	0.1	1.0
Foster	6.7	0.0	-6.7	0.0
Glocester	31.6	16.7	-14.9	0.5
Hopkinton	1.4	3.3	1.9*	2.3
Jamestown	1.5	2.7	1.2	1.8
Johnston	1.7	3.2	1.5*	1.9
Lincoln	12.2	13.6	1.4	1.1
Little Compton	15.5	0.0	-15.5	0.0
Middletown	0.9	1.9	1.0*	2.1
Narragansett	1.4	0.6	-0.8	0.4
New Shoreham	0.0	0.0	0.0*	0.0
Newport	0.6	1.1	0.5*	1.8
North Kingstown	1.2	2.6	1.4*	2.2
North Providence	1.2	1.5	0.3	1.2
North Smithfield	1.7	3.6	1.9*	2.1
Pawtucket	0.3	1.0	0.7*	3.3
Portsmouth	0.4	0.3	-0.1	0.8
Providence	18.4	19.5	1.1	1.1
Richmond	7.5	20.5	13.0*	2.7
Scituate	0.0	0.0	0.0	0.0
Smithfield	0.2	0.3	0.1	1.5
South Kingstown	9.2	5.6	-3.6*	0.6
Tiverton	3.3	2.6	-0.7	0.8
Warren	7.5	8.9	1.4	1.2
Warwick	1.2	1.1	-0.1	0.9
West Greenwich	30.2	18.8	-11.4	0.6
West Warwick	3.7	5.5	1.8	1.5
Westerly	2.4	0.0	-2.4	0.0
Woonsocket	2.2	3.1	0.9*	1.4

* = statistically significant at the .05 level

Racial Differences in Searches

As in most other communities across the United States, searches are relatively rare during routine traffic stops in Rhode Island. In the present study, statewide 6.7% of all traffic stops result in some type of search or frisk. To determine if racial disparities exist in search practices we can compare the proportion of white drivers subject to a search against the proportion of non-white drivers subject to a search. Unlike an analysis of racial disparities in traffic stops, examining racial disparities in search practices does not depend on establishing the correct "benchmark." Although there may be particular behavioral differences between motorists who are stopped which make one group more likely to be searched than another, we begin by examining any racial differences that exist for all white and non-white individuals who are stopped. To understand disparities in search behavior we must answer two basic questions:

1. Of the motorists who are stopped, are non-whites searched proportionately more often than whites?

2. If racial differences are identified, are there legitimate explanations for the existence of such disparities?

To answer these two questions we conduct a three staged analysis. First, we examine the relationship between the race of driver and whether or not the officer conducted a search during the traffic stops at the bivariate level. This basic analysis compares the proportion of white drivers searched to the proportion of non-white drivers searched. Second, we conduct a multivariate analysis to examine the association between the driver's race and officer search decisions, while controlling for other driver and situational characteristics. This more advanced analysis allows us to rule out some of the possible commonly asserted alternative explanations for simple racial disparities found in bivariate analysis. Finally, we examine the outcome of searches to determine whether searches are more productive for certain groups.

As was discussed earlier in this report, analysis of racial disparities in search practices is most appropriate when the analysis is limited to discretionary searches. In the original 2003 study, discretionary searches included all searches except those made incident to a

lawful arrest. Following that study, some members of law enforcement suggested the inventory/tow searches should also be considered non-discretionary. Not all agencies within the state have consistent policies on inventory searches. To account for these differences the analysis of searches and frisks in the present report is separated into three categories which will allow agencies to assess the search patterns that most appropriately represent discretionary searches within their agency: 1) **all** searches and frisks, 2) **discretionary** searches and frisks, excluding those made incident to a lawful arrest, and 3) **extra discretionary** searches and frisks, excluding those made either incident to a lawful arrest or for inventory purposes.

Bivariate Analysis

While searches are rare events, in many communities across the state non-white drivers are significantly more likely to be searched than white drivers. Table 4.5 presents a summary of the proportion of white and non-white motorists subject to any type of search. The table shows the total number of searches for white and non-white drivers, the proportion of white and non-white drivers searched, the racial disparity in searches (% non-white searched minus % white searched) and indications of whether or not the differences were statistically significant. Statewide police officers searched 13.6% of the nonwhite drivers they stopped, but only 6.3% of white drivers, making non-white drivers twice as likely as white drivers to be subject to any type of search. Thirty jurisdictions had statistically significant differences in the rate of searches for while and non-white drivers. Twenty one of those agencies had racial disparities in searches greater than 5.0% and five agencies (Burrillville, Providence, Richmond, Warren and West Greenwich) had racial disparities above 10%.

Table 4.5: Proportion of White and Non-White Motorists Subject to *Any Type of Search*

	White Searches	%	Non-White Searches	%	Disparity	Ratio
Total Statewide	14,013	6.3	7,231	13.6	7.3*	2.1
All State Police	1,922	4.4	1,385	10.3	5.9*	2.3
State Police – Linc. Woods	435	4.4	484	9.8	5.4*	2.2
State Police - Chepachet	182	2.2	134	10.4	8.2*	4.7
State Police - Wickford	368	4.3	272	12.4	8.1*	2.9
State Police - Portsmouth	302	5.6	38	5.1	-0.6	0.9
State Police - Hope Valley	548	5.4	392	10.5	5.1*	1.9
Barrington	35	1.4	3	2.1	0.7	1.5
Bristol	444	7.3	42	15.5	8.1*	2.1
Burrillville	201	8.4	18	19.6	11.2*	2.3
Central Falls	183	10.7	423	15.9	5.2*	1.5
Charlestown	132	6.2	19	11.9	5.6*	1.9
Coventry	367	5.8	23	7.7	1.9	1.3
Cranston	446	6.8	296	10.2	3.4*	1.5
Cumberland	212	3.9	55	7.0	3.1*	1.8
East Greenwich	358	11.6	59	18.8	7.2*	1.6
East Providence	1,185	10.5	694	18.5	8.0*	1.8
Foster	33	3.7	3	2.9	-0.8	0.8
Glocester	165	5.0	3	3.3	-1.7	0.7
Hopkinton	235	7.9	38	13.8	5.9*	1.7
Jamestown	58	5.0	10	8.9	4.0	1.8
Johnston	277	3.6	147	8.7	5.1*	2.4
Lincoln	90	5.1	46	10.1	5.0*	2.0
Little Compton	93	5.3	2	3.5	-1.8	0.7
Middletown	312	5.6	61	11.6	6.1*	2.1
Narragansett	299	6.7	37	11.3	4.7*	1.7
New Shoreham	14	4.1	1	5.9	1.8	1.4
Newport	258	3.8	108	10.0	6.2*	2.7
North Kingstown	368	4.5	72	9.4	4.9*	2.1
North Providence	318	6.3	203	12.7	6.5*	2.0
North Smithfield	233	9.8	123	17.9	8.1*	1.8
Pawtucket	141	1.3	189	4.0	2.7*	3.0
Portsmouth	441	7.7	58	9.8	2.1*	1.3
Providence	943	15.4	2,000	26.5	11.1*	1.7
Richmond	146	10.3	24	27.3	17.0*	2.7
Scituate	96	4.8	13	12.0	7.3*	2.5
Smithfield	258	4.1	43	7.2	3.0*	1.7
South Kingstown	232	1.7	72	4.5	2.8*	2.6
Tiverton	346	8.2	22	8.2	0.1	1.0
Warren	254	5.9	60	20.4	14.5*	3.5
Warwick	1,577	11.4	393	18.4	7.0*	1.6
West Greenwich	91	10.0	16	24.2	14.2*	2.4
West Warwick	332	9.8	54	14.9	5.1*	1.5
Westerly	222	10.6	26	13.5	2.8	1.3
Woonsocket	696	12.8	390	21.3	8.6*	1.7

* = statistically significant at .05 level

Though the results from Table 4.5 provide an interesting overview of all searches, it is important to note that some of the observed disparity may be due to non-discretionary search practices, such as searching an individual following a lawful arrest or the impounding of a vehicle. In light of such problems, any evaluation of true racial disparities in search practices should focus only on discretionary searches. Therefore, all analysis from this point forward is devoted to the examination of discretionary searches, excluding searches incident to a lawful arrest and/or excluding searches incident to an inventory/tow of a vehicle.

Table 4.6 provides a breakdown of discretionary searches, excluding those searches made incident to arrest for both white and non-white drivers. Since we have excluded searches incident to arrest, the total number of searches statewide decreases from 14,013 to 6,613 for white drivers and from 7,231 to 3,237 for non-white drivers. The disparity between white and non-white drivers also decreases from 7.3% to 3.0%. While racial differences in searches are reduced when we exclude searches incident to arrest from the analysis, the odds of a non-white driver being searched are still twice that of a white driver. Twenty two jurisdictions continue to see racial disparities in searches, even after we exclude searches incident to arrest.

Table 4.6: Proportion of White and Non-White Motorists Subject to *Discretionary Searches* (excluding incident to arrest) for All Jurisdictions

Jurisdiction	White Searches	% White	Non-White Searches	% Non-White	Disparity	Ratio
Full State	6,613	2.9	3,237	5.9	3.0*	2.0
SP – All Barracks	872	1.9	500	3.6	1.7*	1.8
SP – Chepachet	136	0.8	110	3.6	2.8*	4.5
SP - Hope Valley	67	2.5	47	4.5	2.0*	1.8
SP – Lin. Woods	183	1.3	128	2.2	0.9*	1.6
SP – Wickford	184	2.1	15	5.6	3.5*	2.6
SP- Portsmouth	262	3.3	172	1.9	-1.4*	0.6
Barrington	21	0.8	0	0.0	-0.8	0.0
Bristol	322	5.2	29	10.4	5.1*	2.0
Burrillville	98	3.9	10	10.5	6.6*	2.7
Central Falls	74	4.2	154	5.7	1.4*	1.3
Charlestown	33	1.4	8	4.6	3.1*	3.3
Coventry	164	2.6	12	4.0	1.4	1.5
Cranston	230	3.4	132	4.4	1.0*	1.3
Cumberland	105	1.9	28	3.5	1.6*	1.8
East Greenwich	210	6.4	32	9.7	3.2*	1.5
East Providence	653	5.6	334	8.7	3.0*	1.5
Foster	12	1.3	0	0.0	-1.3	0.0
Glocester	51	1.5	0	0.0	-1.5	0.0
Hopkinton	62	2.0	15	5.3	3.2*	2.6
Jamestown	19	1.6	4	3.6	1.9*	2.2
Johnston	124	1.6	53	3.0	1.4	1.9
Lincoln	41	2.3	14	3.0	0.7	1.3
Little Compton	55	3.1	0	0.0	-3.0	0.0
Middletown	103	1.8	12	2.2	0.4	1.2
Narragansett	86	1.9	7	2.1	0.2	1.1
New Shoreham	6	1.6	1	5.6	3.9	3.5
Newport	118	1.7	46	4.1	2.4*	2.4
North Kingstown	155	1.8	30	3.8	1.9*	2.1
North Providence	108	2.1	74	4.5	2.4*	2.1
North Smithfield	127	5.3	66	9.6	4.2*	1.8
Pawtucket	49	0.5	59	1.2	0.7*	2.4
Portsmouth	163	2.8	22	3.7	0.8	1.3
Providence	571	8.7	1,089	13.5	4.8*	1.5
Richmond	45	2.9	4	4.0	1.1	1.4
Scituate	41	1.9	5	4.4	2.4	2.3
Smithfield	66	1.1	10	1.7	0.6	1.5
South Kingstown	86	0.6	23	1.3	0.7*	2.2
Tiverton	196	4.5	11	4.1	-0.4	0.9
Warren	153	3.4	35	11.6	8.1*	3.4
Warwick	836	5.9	215	9.9	4.0*	1.7
West Greenwich	45	4.3	5	7.1	2.8	1.6
West Warwick	153	4.3	29	7.4	3.1*	1.7
Westerly	65	2.7	7	3.2	0.4	1.2
Woonsocket	295	5.2	162	8.6	3.3*	1.6

* = statistically significant at .05 level

Table 4.7 compares the racial differences in discretionary searches from the original study to the differences in discretionary searches from the present study. In the original study, only the stop and search data from 2002 was used in the final analysis because the 2001 data did not include information on whether or not the search was incident to arrest. Therefore, the information in Table 4.7 compares discretionary searches from January 1, 2002 to December 30, 2002 with discretionary searches, defined the same way, from October 1, 2004 to September 30, 2005.

In the original study, the statewide disparity between white and non-white searches was 5.3, in the present study the disparity has decreased to 3.0. Twenty nine municipal agencies and two State Police Barracks reduced their disparity between white and non-white discretionary searches between the two studies. This change represents a dramatic improvement in the discretionary search practices within the State of Rhode Island and reflects the commitment law enforcement officials have made to reducing disparities. Clearly racially disparate search practices still exist in some communities, but these results make clear the power that agencies have to make improvements once they become aware of potential problems.

Table 4.7: Difference in White and Non-White Discretionary Searches for All Jurisdictions 2001-2003 Compared to 2004-2005

Jurisdiction	% White 2001-2003	% Nonwhite 2001-2003	Disparity 2001-2003	% White 2004-2005	% Non-White 2004-2005	Disparity 2004-2005	Change in Disparity
Full State	3.6	8.9	5.3*	2.9	5.9	3.0*	-2.3
SP – All Barracks	2.1	3.6	1.5*	1.9	3.6	1.7*	0.2
SP – Chepachet	0.8	3.1	2.3*	0.8	3.6	2.8*	0.5
SP - Hope Valley	4.5	3.4	-1.1*	2.5	4.5	2.0*	3.1
SP – Lin. Woods	1.6	3.8	2.2*	1.3	2.2	0.9*	-1.3
SP – Wickford	1.1	2.5	1.4*	2.1	5.6	3.5*	2.1
SP- Portsmouth	2.0	5.2	3.2*	3.3	1.9	-1.4*	-4.6
Barrington	0.9	0.0	-0.9	0.8	0.0	-0.8	0.1
Bristol	9.3	19.2	9.9*	5.2	10.4	5.1*	-4.8
Burrillville	3.5	8.8	5.3	3.9	10.5	6.6*	1.3
Central Falls	11.4	11.7	0.3	4.2	5.7	1.4*	1.1
Charlestown	1.5	5.0	0.5	1.4	4.6	3.1*	2.6
Coventry	4.5	5.0	0.5	2.6	4.0	1.4	0.9
Cranston	7.7	10.3	2.6*	3.4	4.4	1.0*	-1.6
Cumberland	4.6	7.7	3.1*	1.9	3.5	1.6*	-1.5
East Greenwich	4.1	10.3	6.2*	6.4	9.7	3.2*	-3
East Providence	10.3	15.9	5.6*	5.6	8.7	3.0*	-2.6
Foster	3.3	4.1	0.8	1.3	0.0	-1.3	-2.1
Glocester	2.5	5.8	3.3*	1.5	0.0	-1.5	-4.8
Hopkinton	3.4	4.8	1.4	2.0	5.3	3.2*	1.8
Jamestown	1.5	8.0	6.5*	1.6	3.6	1.9*	-4.6
Johnston	1.1	4.2	3.1*	1.6	3.0	1.4	-1.7
Lincoln	3.1	5.1	2.0*	2.3	3.0	0.7	-1.3
Little Compton	2.5	3.2	0.7	3.1	0.0	-3.0	-3.7
Middletown	3.8	4.5	0.7	1.8	2.2	0.4	-0.3
Narragansett	2.0	5.9	3.9*	1.9	2.1	0.2	-3.7
New Shoreham	1.9	5.0	3.1	1.6	5.6	3.9	0.8
Newport	1.9	5.0	3.1	1.7	4.1	2.4*	-0.7
North Kingstown	2.5	5.3	2.8*	1.8	3.8	1.9*	-0.9
North Providence	5.3	10.4	5.1*	2.1	4.5	2.4*	-2.7
North Smithfield	3.9	12.2	8.3*	5.3	9.6	4.2*	-4.1
Pawtucket	0.8	2.9	2.1*	0.5	1.2	0.7*	-1.4
Portsmouth	5.0	8.5	3.5*	2.8	3.7	0.8	-2.7
Providence	14.8	20.8	6.0*	8.7	13.5	4.8*	-1.2
Richmond	2.1	3.8	1.7	2.9	4.0	1.1	-0.6
Scituate	3.7	11.4	7.7*	1.9	4.4	2.4	-5.3
Smithfield	2.9	6.2	3.3*	1.1	1.7	0.6	-2.7
South Kingstown	0.7	2.1	1.4*	0.6	1.3	0.7*	-0.7
Tiverton	2.1	13.3	11.2*	4.5	4.1	-0.4	-11.6
Warren	5.0	10.8	5.8*	3.4	11.6	8.1*	2.3
Warwick	4.8	9.9	5.1*	5.9	9.9	4.0*	-1.1
West Greenwich	2.9	2.4	-0.5	4.3	7.1	2.8	3.3
West Warwick	4.2	7.9	3.7*	4.3	7.4	3.1*	-0.6
Westerly	4.3	7.9	3.6*	2.7	3.2	0.4	-3.2
Woonsocket	9.3	18.7	9.4*	5.2	8.6	3.3*	-6.1

* = statistically significant at .05 level

An additional search analysis was conducted in the present study to examine the effect of inventory searches. A number of law enforcement agencies have policies which limit officer discretion in the decision to conduct an inventory search of a vehicle prior to it being impounded or towed. As a result, inventory searches also may not be considered purely discretionary. To allow agencies and their respective communities to identify whether or not the racial disparities in searches identified above are explained by the use of inventory searches we have conducted a separate **extra discretionary search** analysis.

Table 4.8 provides a breakdown of discretionary searches, excluding those searches made incident to arrest or due to the inventory/tow of a vehicle for both white and non-white drivers. Since we have excluded searches incident to arrest, the total number of searches statewide decreases to 4,198 for white drivers and to 2,185 for non-white drivers. The disparity between white and non-white drivers decreases from 7.3% for all searches and 3.0% for discretionary searches (only excluding incident to arrest) to 2.2% for the extra discretionary searches. So, while racial differences in searches are even further reduced when we exclude searches incident to arrest from the analysis, the odds of a non-white driver being searched are still twice that of a white driver. Twenty two jurisdictions continue to see racial disparities in searches, even after we exclude searches incident to arrest. The biggest change that emerges when we exclude both searches incident to arrest and inventory searches is that racial disparities in searches decrease or become non-existent for particular communities. For example, in North Smithfield the racial disparity is 4.2% (ratio 1.8) for discretionary searches, but is reduced to nearly 0% (ratio of 1.2) when we additionally remove inventory searches from the analysis. However, for agencies such as Providence racial disparities in searches persist (4.8 to 3.7) despite removing both incident to arrest and inventory searches from the analysis.

Table 4.8: Proportion of White and Non-White Motorists Subject to *Extra Discretionary* (excluding both incident to arrest and inventory) *Searches* for All Jurisdictions

	White Searched	% White	Non-White Searched	% Non-White	Disparity	Ratio
Total Statewide	4,198	1.8	2,185	4.0	2.2*	2.2
All State Police	719	1.6	386	2.8	1.2*	1.7
State Police - Lincoln Woods	111	1.1	72	1.4	0.3*	1.2
State Police - Chepachet	53	0.6	33	2.5	1.9*	4.0
State Police – Wickford	148	1.7	112	4.9	3.3*	2.9
State Police - Portsmouth	175	3.1	14	1.8	-1.3*	0.6
State Police - Hope Valley	201	1.9	130	3.4	1.5*	1.8
Barrington	21	0.8	0	0.0	-0.8	0.0
Bristol	132	2.1	11	3.9	1.8*	1.8
Burrillville	50	2.0	7	7.4	5.4*	3.7
Central Falls	43	2.5	71	2.6	0.2	1.1
Charlestown	29	1.3	7	4.0	2.8*	3.2
Coventry	64	1.0	4	1.3	0.3	1.3
Cranston	214	3.1	114	3.8	0.7	1.2
Cumberland	33	0.6	8	1.0	0.4	1.7
East Greenwich	73	2.2	6	1.8	-0.4	0.8
East Providence	375	3.2	162	4.2	1.0*	1.3
Foster	11	1.2	0	0.0	-1.2	0.0
Glocester	48	1.4	0	0.0	-1.4	0.0
Hopkinton	38	1.2	10	3.5	2.3*	2.7
Jamestown	14	1.2	2	1.8	0.6	1.5
Johnston	76	1.0	20	1.2	0.2	1.2
Lincoln	32	1.8	9	1.9	0.2	1.1
Little Compton	47	2.6	0	0.0	-2.6	0.0
Middletown	42	0.7	6	1.1	0.4	1.5
Narragansett	84	1.9	7	2.1	0.2	1.1
New Shoreham	6	1.6	1	5.6	3.9	3.4
Newport	107	1.5	43	3.8	2.3*	2.5
North Kingstown	89	1.1	15	1.9	0.8*	1.8
North Providence	70	1.3	37	2.2	0.9*	1.7
North Smithfield	28	1.2	10	1.5	0.3	1.2
Pawtucket	39	0.4	34	0.7	0.3*	1.9
Portsmouth	58	1.0	6	1.0	0.0	1.0
Providence	535	8.1	953	11.8	3.7*	1.4
Richmond	19	1.2	2	2.0	0.8	1.6
Scituate	14	0.7	0	0.0	-0.7	0.0
Smithfield	58	0.9	8	1.3	0.4	1.4
South Kingstown	82	0.6	23	1.3	0.8*	2.3
Tiverton	163	3.8	7	2.6	-1.2	0.7
Warren	48	1.1	8	2.6	1.6*	2.4
Warwick	345	2.4	70	3.2	0.8*	1.3
West Greenwich	42	4.0	5	7.1	3.2	1.8
West Warwick	98	2.7	22	5.6	2.9*	2.0
Westerly	58	2.4	6	2.7	0.3	1.1
Woonsocket	194	3.4	105	5.6	2.1*	1.6

* = statistically significant at .05 level

Multivariate Analysis

While bivariate racial disparities indicate that there is at least some relationship between race and the decision to search during a traffic stop, though the disparities decrease dramatically once we remove searches incident to arrest and/or inventory searches, the conclusions that can be drawn from this type of analysis are limited. Specifically, bivariate analyses do not take into account other characteristics that might contribute to an officer's decision to search. Completely understanding the decision to conduct a search during a traffic stop is extremely complex. While past research on policing has examined many decision points very little is known about the decision to search, particularly in the context of traffic stops. It is generally believed that a number of situational (time of day, location, context of the stop) as well as individual characteristics (age, gender, race) are associated with the decision to search. However, little consensus exists about the degree to which these factors relatively contribute to the decision to search.

Not only are social scientists unaware of all of all the potential factors officers use to decide to search a vehicle, officers themselves cannot fully articulate the full scope of cues that lead them to search a vehicle. Officers may develop suspicion based on the way a driver answers basic questions during the traffic stop encounter. In other cases an officer's judgment may be based on past experience in similar situations which lead him or her to ask additional questions that could justify a search. Overall, it is likely that decision to search a motorist or vehicle results from an array of consciously and unconsciously recognized cues.

The goal of this report is not to fully understand the all nuances that may influence an officer's decision to conduct a search. Instead, we are measuring the extent to which race is associated with being searched, holding constant all other relevant factors which can be measured with this data. These other factors, such as the driver's gender or age, may mediate the extent to which the race of the driver alone determines a search. For example, if officers are more likely to search males and males who are stopped are disproportionately nonwhite, a racial disparity would exist at the bivariate level, but the disparity would be the result of decisions based on gender not race. In order to isolate the

degree to which race alone is associated with search decisions we must control for other factors that could also be associated with the decision to search. We do this using a statistical analysis technique called logistic regression which uses binary outcome variables that are coded either 0 or 1. In this case, our outcome variable is whether or not a discretionary search was conducted, coded 1 for a discretionary search and 0 for no discretionary search conducted.

In our logistic regression model we examine the relationship between race and our outcome variable (being searched) while simultaneously holding constant other variables which may affect an officer's decision to conduct a search.[33] These variables which are held constant, sometimes called control variables, include both driver/car characteristics (gender, age, passengers and registration plate) and situational variables (time of day and weekend versus weekday).[34]

Table 4.9 presents summary information for the multivariate analysis from each jurisdiction.[35] Due to the problems with statistical significance that was described in earlier parts of this section, we recommend that policymakers examine the magnitude of the regression coefficient (odds ratio) as a more meaningful indicator of the effects of particular variables on search decisions than significance tests alone.

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[33] There are several variables that were explored for inclusion in the multivariate analysis but were ultimately excluded from the analysis for theoretical as well as practical reasons. The two most important variables that were excluded are reason for the stop and location. Reason for the stop was excluded because in the case of investigatory stops the intent of the stop itself was to investigate criminal activity. Ultimately since we could not disentangle whether or not race was used in part of the decision to search before or after the decision to make an investigatory stop it was not included in these analyses. Location was excluded as a control variable since being in high crime particular locations, often those predominately non-white neighborhoods, could motivate officers to search everyone, therefore location would be measuring the context not the individual decision of officers. Partitioned multivariate analyses of the search decision across different locations was included for select communities.

[34] The logistic regression model uses variables coded in the following fashion – Race (Nonwhite=1; White=0); Gender (Male=0; Female=1); Age (Under 30=0; Over 30=1); Passengers (Yes=1; No=0); Registration (Out of State=1; RI Registration=0); Morning (Yes=1; No=0); Afternoon (Yes=1; No=0); Night (Yes=1; No=0); Weekend (Yes=1; No=0).

[35] Nine jurisdictions were excluded from the multivariate analysis because they had less than 50 searches or fewer than 50 total non-white stops - too few to appropriately conduct the logistic regression analysis. The jurisdictions that were removed are: Barrington, Jamestown, Little Compton, Scituate, Foster, Glocester, Richmond, Charlestown, New Shoreham.

Table 4.9 Multivariate Logistic Regression of Race and Decision to Search (excluding incident to arrest searches)

Jurisdiction	Stops Included (N)	B	S.E.	Odds Ratio
Full State	262,517	.490	.024	1.62*
All State Police	60,483	.342	.062	1.40*
Bristol	5,961	.546	.205	1.72*
Burrillville	2,418	1.00	.362	2.74*
Central Falls	4,151	.207	.155	1.23
Coventry	6,329	.325	.323	1.38
Cranston	8,806	.071	.121	1.07
Cumberland	5,932	.470	.221	1.60*
East Greenwich	3,160	.241	.223	1.27
East Providence	14,404	.342	.073	1.40*
Hopkinton	2,995	.749	.332	2.11*
Johnston	8,723	.270	.186	1.31
Lincoln	2,047	.147	.181	1.15
Middletown	5,520	.092	.318	1.09
Narragansett	4,486	-.046	.406	0.95
Newport	7,512	.742	.194	2.10*
North Kingstown	8,386	.424	.225.	1.52
North Providence	6,496	.655	.160	1.92*
North Smithfield	3,023	.538	.164	1.71*
Pawtucket	14,504	.624	.215	1.86*
Portsmouth	6,206	.175	.239	1.19
Providence	13,071	.202	.062	1.22*
Smithfield	6,719	.218	.395	1.24
South Kingstown	14,619	.334	.259	1.39
Tiverton	4,206	-.544	.355	0.58
Warren	4,334	1.24	.215	3.46*
Warwick	15,350	.472	.084	1.60*
West Greenwich	1,032	.231	.617	1.25
West Warwick	3,533	.408	.227	1.50
Westerly	2,260	.221	.417	1.24
Woonsocket	6,891	.254	.113	1.28*

* = statistically significant at .05 level

Statewide we found that the odds of an officer searching a nonwhite driver after a traffic stop are 1.6 times greater than the odds of an officer searching a white driver, holding other characteristics constant (odd ratio = 1.62). Across Rhode Island 14 of the 30 jurisdictions that qualified for this analysis had statistically significant racial differences in the proportion of non-white drivers they searched. The top four search disparities were in Warren where the odds by being searched were 3.46 times greater for non-white drivers

compared to white drivers, Burrillville with a rate of 2.74, Hopkinton at 2.11 and Newport at 2.10. It is important to note that fewer jurisdictions had statistically significant racial differences in discretionary searches in the present study (46% of the agencies had statistically significant differences) compared to the previous study (61% of the agencies had statistically significant differences). The results of the multivariate analysis support the encouraging conclusions discussed earlier that racial disparities in searches have gone down between the two studies in a number of communities.

Productivity of Searches

Another way to evaluate the existence of racial disparities in searches is to examine the productivity of searches for whites versus non-white. If non-white drivers are disproportionately searched but found with contraband at a lower rate than whites, departments should closely evaluate their search strategies. Statewide 23.4% of **all searches** of white drivers resulted in the police finding contraband while only 19.3% of the searches of non-white motorists resulted in contraband being found (Table 4.10). Before drawing too many conclusions about these disparities it is important to examine the productivity for discretionary searches.

When we examine only discretionary searches (excluding incident to arrest searches) and extra discretionary searches (excluding incident to arrest and inventory searches) we find that overall the productivity of searches increases but the disparity between white contraband found (26.5%) and non-white contraband found (22.3%) is nearly the same as with all searches. Table 4.11 provides information on the rate of white and non-white contraband found for all agencies.

Table 4.10: Productivity of *All* Searches by Race

Jurisdiction	White Searches N	White Searches % Contraband Found	Non White Searches N	Non White Searches % Contraband Found	Disparity Between Non-white and White Contraband
Total Statewide	13,171	23.4	6,752	19.3	-4.1
All State Police	1,743	24.4	1234	18.6	-5.8
State Police - Lincoln Woods	410	14.4	433	14.1	-0.3
State Police – Chepachet	168	22.6	119	11.8	-10.8
State Police – Wickford	320	16.3	247	15.4	-0.9
State Police – Portsmouth	270	35.6	32	25.0	-10.6
State Police - Hope Valley	497	32.6	353	24.6	-8
Barrington	32	43.8	3	0.0	-43.8
Bristol	425	14.8	40	7.5	-7.3
Burrillville	187	30.5	15	20.0	-10.5
Central Falls	165	15.2	389	8.2	-7
Charlestown	124	29.0	16	18.8	-10.2
Coventry	362	18.8	23	17.4	-1.4
Cranston	418	20.1	287	15.3	-4.8
Cumberland	212	24.1	55	34.5	10.4
East Greenwich	339	17.4	59	1.7	-15.7
East Providence	1,146	33.4	661	28.3	-5.1
Foster	32	43.8	3	0.0	-43.8
Glocester	154	29.9	3	0.0	-29.9
Hopkinton	226	24.3	33	18.2	-6.1
Jamestown	57	31.6	9	11.1	-20.5
Johnston	263	12.2	143	6.3	-5.9
Lincoln	86	20.9	45	15.6	-5.3
Little Compton	93	59.1	2	0.0	-59.1
Middletown	273	21.6	54	14.8	-6.8
Narragansett	286	27.6	36	27.8	0.2
New Shoreham	14	21.4	1	100.0	78.6
Newport	233	18.9	100	14.0	-4.9
North Kingstown	341	18.8	69	11.6	-7.2
North Providence	288	25.7	182	18.1	-7.6
North Smithfield	226	10.6	122	4.1	-6.5
Pawtucket	133	25.6	171	24.6	-1
Portsmouth	424	19.3	55	3.6	-15.7
Providence	908	31.3	1891	24.1	-7.2
Richmond	140	33.6	24	33.3	-0.3
Scituate	88	3.4	13	0.0	-3.4
Smithfield	255	14.5	43	11.6	-2.9
South Kingstown	201	35.8	68	23.5	-12.3
Tiverton	331	31.7	20	20.0	-11.7
Warren	247	18.2	58	10.3	-7.9
Warwick	1,505	17.3	377	14.6	-2.7
West Greenwich	84	32.1	16	25.0	-7.1
West Warwick	303	16.2	51	27.5	11.3
Westerly	209	29.2	24	20.8	-8.4
Woonsocket	618	19.6	357	16.5	-3.1

Table 4.11: Productivity of *Discretionary* Searches (excluding incident to arrest) by Race

Jurisdiction	White Discretionary Searches N	White Discretionary Searches % Contraband Found	Non-White Discretionary Searches N	Non-White Discretionary Searches % Contraband Found	Disparity between Non-white and White Contraband
Total Statewide	6,264	26.5%	3,053	22.3%	-4.2
All State Police	789	29.7	446	22.0	-7.7
State Police - Lincoln Woods	127	22.0	99	18.2	-3.8
State Police – Chepachet	64	32.8	43	14.0	-18.8
State Police – Wickford	161	16.1	117	19.7	3.6
State Police – Portsmouth	165	43.0	13	7.7	-35.3
State Police - Hope Valley	237	33.3	151	26.5	-6.8
Barrington	19	52.6	0	0.0	0.0
Bristol	305	14.4	28	10.7	-3.7
Burrillville	92	32.6	9	11.1	-21.5
Central Falls	67	20.9	142	14.1	-6.8
Charlestown	31	51.6	8	12.5	-39.1
Coventry	161	16.1	12	25.0	8.9
Cranston	216	24.1	130	20.0	-4.1
Cumberland	105	16.2	28	39.3	23.1
East Greenwich	196	10.2	32	0.0	-10.2
East Providence	630	39.5	318	35.2	-4.3
Foster	11	72.7	0	0.0	0.0
Glocester	48	56.3	0	0.0	0.0
Hopkinton	59	27.1	13	23.1	-4
Jamestown	18	55.6	3	33.3	-22.3
Johnston	117	13.7	53	9.4	-4.3
Lincoln	40	22.5	14	14.3	-8.2
Little Compton	55	80.0	0	0.0	0.0
Middletown	82	29.3	10	10.0	-19.3
Narragansett	85	51.8	7	28.6	-23.2
New Shoreham	6	33.3	1	100.0	66.7
Newport	109	20.2	41	22.0	1.8
North Kingstown	146	17.1	29	17.2	0.1
North Providence	104	37.5	69	18.8	-18.7
North Smithfield	125	4.0	66	4.5	0.5
Pawtucket	49	22.4	53	30.2	7.8
Portsmouth	155	20.6	20	0.0	0.0
Providence	562	34.5	1039	24.7	-9.8
Richmond	45	35.6	4	75.0	39.4
Scituate	38	0.0	5	0.0	0.0
Smithfield	66	27.3	10	20.0	-7.3
South Kingstown	79	51.9	23	39.1	-12.8
Tiverton	192	35.4	11	27.3	-8.1
Warren	150	16.7	34	8.8	-7.9
Warwick	799	14.6	206	12.6	-2.0
West Greenwich	44	50.0	5	60.0	10.0
West Warwick	144	18.1	28	28.6	10.5
Westerly	65	41.5	7	28.6	-12.9
Woonsocket	260	22.7	149	19.5	-3.2

Since the original 2001-2003 study, discretionary searches of both white and non-white drivers have generally become more productive. In the original study, 23.5% of whites and 17.8% of non-whites were found with contraband. In the present study, white contraband hit rates went up to 26.5% and non-whites rates improved to 22.3%. As searches overall became more productive, the disparity between white and non-white productivity has also narrowed. In the original study the disparity between non-white and white contraband found statewide was 5.7%. In the present study the disparity has been reduced to 4.2%. Though these changes may seem like small steps, they reinforce the idea that as agencies make their searches more efficient (e.g. increase their overall hit rate) they likely will decrease racial disparities in search outcomes (Table 4.12).

Like many other areas of inquiry, there are significant variations in racial disparities in contraband among the agencies both in the past and present study. While each agency will be concerned about their rates of productivity, specific attention should be paid to those agencies that conduct a large number of searches, have particularly low non-white contraband found rates, and have seen little positive change in productivity since the first study.

Table 4.12: Comparing Productivity for White and Non-White Discretionary Searches, 2001-2003 to 2004-2005

Jurisdiction	White Discretionary Searches		Non-White Discretionary Searches			
	Contraband Found 2001-2003	% Contraband Found 2004-2005	Contraband Found 2001-2003	% Contraband Found 2004-2005	Non-White *minus* White Contraband 2001-2003	Non-white *minus* White Contraband 2004-2005
Total Statewide	23.5	26.50	17.8	22.3	-5.7	-4.2
All State Police	14.8	29.7	13.9	22.0	-0.9	-7.7
Barrington	30.0	52.6	0.0	0.0	-30.0	N/A
Bristol	22.0	14.4	33.3	10.7	11.3	-3.7
Burrillville	8.2	32.6	33.3	11.1	25.1	-21.5
Central Falls	5.0	20.9	7.8	14.1	2.8	-6.8
Charlestown	37.0	51.6	25.0	12.5	-12.0	-39.1
Coventry	16.4	16.1	16.7	25.0	0.3	8.9
Cranston	12.3	24.1	22.0	20.0	9.7	-4.1
Cumberland	42.2	16.2	30.2	39.3	-12.0	23.1
East Greenwich	28.6	10.2	34.4	0.0	5.8	-10.2
East Providence	34.4	39.5	26.1	35.2	-8.3	-4.3
Foster	44.4	72.7	0.0	0.0	-44.4	N/A
Glocester	21.2	56.3	0.0	0.0	-21.2	N/A
Hopkinton	36.7	27.1	20.0	23.1	-16.7	-4.0
Jamestown	33.3	55.6	0.0	33.3	-33.3	-22.3
Johnston	13.8	13.7	7.7	9.4	-6.1	-4.3
Lincoln	29.3	22.5	12.1	14.3	-17.2	-8.2
Little Compton	39.1	80	50.0	0.0	10.9	N/A
Middletown	31.2	29.3	9.1	10.0	-22.1	-19.3
Narragansett	48.5	51.8	20.0	28.6	-28.5	-23.2
New Shoreham	33.3	33.3	100.0	100.0	66.7	66.7
Newport	26.2	20.2	16.7	22.0	-9.5	1.8
North Kingstown	19.6	17.1	27.8	17.2	8.2	0.1
North Providence	23.8	37.5	9.2	18.8	-14.6	-18.7
North Smithfield	19.3	4.0	4.7	4.5	-14.6	0.5
Pawtucket	36.1	22.4	23.8	30.2	-12.3	7.8
Portsmouth	18.8	20.6	22.2	0.0	3.4	-20.6
Providence	23.1	34.5	18.6	24.7	-4.5	-9.8
Richmond	31.2	35.6	0.0	75.0	-31.2	39.4
Scituate	16.1	0.0	9.1	0.0	-7.0	0.0
Smithfield	20.2	27.3	11.1	20.0	-9.1	-7.3
South Kingstown	56.0	51.9	46.7	39.1	-9.3	-12.8
Tiverton	20.0	35.4	37.5	27.3	17.5	-8.1
Warren	19.1	16.7	6.2	8.8	-12.9	-7.9
Warwick	16.4	14.6	10.4	12.6	-6.0	-2.0
West Greenwich	36.1	50	50.0	60.0	13.9	10.0
West Warwick	32.9	18.1	27.8	28.6	-5.1	10.5
Westerly	38.4	41.5	30.0	28.6	-8.4	-12.9
Woonsocket	16.6	22.7	15.3	19.5	-1.3	-3.2

N/A = No non-white searches conducted from which to find contraband

To address concerns that extra discretionary searches, those searches that do not include either incident to arrest or inventory as a reason for the search, may result in very different search outcomes than other less discretionary searches we conducted an additional race and productivity analysis. Interestingly, the productivity of extra discretionary searches (excluding both incident to arrest and inventory searches) are greatly improved over either all searches or discretionary searches only excluding incident to arrest, but the racial disparities between productivity of white and non-white searches is worsened. As illustrated in Table 4.13, when officers conduct searches for reasons other than incident to arrest or an inventory, whites are found with contraband 36.9% of the time and non-whites are found with contraband only 29.1% of the time.

Table 4.13: Productivity of *Extra Discretionary Searches* (excluding both incident to arrest and inventory searches) by Race

Jurisdiction	White Extra Discretionary Searches N	White Extra Discretionary Searches % Contraband Fond	Non-White Extra Discretionary Searches N	Non-White Extra Discretionary Searches % Contraband Found	Disparity between Non-White and White Contraband
Total Statewide	4,035	36.9	2,078	29.1	-7.8
All State Police	652	31.7	348	25.6	-6.1
State Police - Lincoln Woods	105	26.7	63	25.4	-1.3
State Police – Chepachet	51	31.4	31	19.4	-12
State Police – Wickford	129	18.6	105	21.9	3.3
State Police – Portsmouth	156	43.6	13	7.7	-35.9
State Police - Hope Valley	183	35.5	116	30.2	-5.3
Barrington	19	52.6	0	0.0	0.0
Bristol	132	28.0	11	27.3	-0.7
Burrillville	48	47.9	6	0.0	0.0
Central Falls	42	28.6	68	27.9	-0.7
Charlestown	28	53.6	7	14.3	-39.3
Coventry	63	33.3	4	50.0	16.7
Cranston	202	24.8	112	21.4	-3.4
Cumberland	33	39.4	8	87.5	48.1
East Greenwich	72	25.0	6	0.0	-25
East Providence	363	61.4	156	62.2	0.8
Foster	11	72.7	0	0.0	0.0
Glocester	45	57.8	0	0.0	0.0
Hopkinton	36	36.1	9	22.2	-13.9
Jamestown	14	57.1	1	100.0	42.9
Johnston	73	15.1	20	20.0	4.9
Lincoln	31	22.6	9	22.2	-0.4
Little Compton	47	87.2	0	0.0	0.0
Middletown	42	47.6	6	16.7	-30.9
Narragansett	83	53.0	7	28.6	-24.4
New Shoreham	6	33.3	1	100.0	66.7
Newport	98	21.4	38	23.7	2.3
North Kingstown	86	24.4	15	33.3	8.9
North Providence	68	52.9	34	29.4	-23.5
North Smithfield	28	10.7	10	0.0	-10.7
Pawtucket	39	28.2	32	37.5	9.3
Portsmouth	57	36.8	6	0.0	-36.8
Providence	528	35.0	915	25.8	-9.2
Richmond	19	63.2	2	50.0	-13.2
Scituate	14	0.0	0	0.0	0
Smithfield	58	31.0	8	25.0	-6
South Kingstown	76	53.9	23	39.1	-14.8
Tiverton	159	40.3	7	28.6	-11.7
Warren	48	45.8	8	25.0	-20.8
Warwick	336	30.4	67	31.3	0.9
West Greenwich	42	52.4	5	60.0	7.6
West Warwick	96	20.8	22	36.4	15.6
Westerly	58	46.6	6	33.3	-13.3
Woonsocket	183	28.4	101	26.7	-1.7

To better understand the relationship of race on being searched in each jurisdiction, readers should consult the detailed search analyses provided in Section 5 of the Technical Report.

Chapter 5
Conclusion and Recommendation

Racial disparities in traffic stops can be produced by a number of factors that we are just beginning to understand, only one of which is racial bias on the part of individual officers. Regardless of why they occur, racial disparities may impose costs on minority citizens and may negatively influence how community members perceive the police in their community. Law enforcement agencies and communities in the State of Rhode Island now have two comprehensive studies of traffic stop activity upon which to evaluate the existence of racial disparities in traffic enforcement.

Major Findings

The findings from the 2004-2005 analysis suggest that while some jurisdictions have reduced racial disparities in stops, many jurisdictions continue to stop non-white drivers at a rate higher than would be expected in the driving population.

- Compared to the original study, 14 communities in Rhode Island (36% of the communities in the state) reduced the absolute differences in non-white stops compared to the driving population estimate more than 1%.
- In 13 communities the disparities increased - some quite substantially.
- In 12 communities the absolute difference in non-white stops to DPE disparity is negligible (1% or less).

When examining the distribution of disparities it is important to remember that such differences may be attributable to officer bias, institutional bias, or differential law enforcement action in particular neighborhoods in response to crime control problems or traffic safety issues. It is not possible to explain the degree to which such disparities are justified or legitimate with the information that was made available through the traffic stop statistics data. The goal of this study was to identify jurisdictions with disparities, note changes in disparity rates between the original and present study and provide contextual information about stops that might shed some light on where, when and how disparities emerge. As has been mentioned previously, Section 4 of the Technical Report provides a detailed description of stop patterns by race for each agency studied including information

on race of stops by neighborhood within the city, by time of day, by time of day within each neighborhood, by season and by the basis for the stop.

Nationwide, racial disparities in the likelihood of being searched once a vehicle is stopped have become one of the most persistent concerns in assessments of racial profiling. Studies to date have shown that non-white drivers are subjected to searches at a much higher rate than white drivers. Although there are a number of important factors that may partially explain the existence of such racial differences, disparate search rates, more than any other post-stop activity, are consistently identified in the literature as problematic.

In Rhode Island racial disparities in search rates have been an area of concern in both studies. Although once stopped motorists receive traffic citations fairly evenly across all racial groups, non-white drivers in Rhode Island remain twice as likely as white drivers to be subjected to a discretionary search. Some of the major findings about searches are detailed below.

- After being stopped, statewide 2.9% of white drivers and 5.9% of non-white drivers were subject to a discretionary search, defined as all searches except searches incident to a lawful arrest.

- In 22 of the 39 agencies studied, non-whites are significantly more likely than whites to be subjected to a discretionary search. Statewide the odds of a non-white motorists being searched are roughly twice that of a white driver being searched.

- Twenty nine municipal agencies and two Barracks of the State Police reduced their disparity between white and non-white discretionary searches between the first and second study. This change represents a dramatic improvement in the discretionary search practices within the State of Rhode Island and reflects the commitment law enforcement officials made to reducing disparities. Racially disparate search practices still exist in some communities and more work may need to be done to address these problems, but the changes described in this report make clear the power that agencies have to make improvements once they are provided with detailed information about potential problems.

- To address concerns about whether or not inventory searches should be considered a discretionary search, a second discretionary search category was created to include all searches except those searches incident to a lawful arrest *or* the inventory of a vehicle. Using this broader definition, statewide 1.8% of white drivers were subject to an extra discretionary search compared to 4.0% of non-white drivers.

Another way to evaluate disparities in search practices is to examine the level of productivity of searching different groups. That is, to raise the question: are some groups more likely to be found with contraband and does this account for the disparities in searches?

- Since the original 2001-2003 study, discretionary searches of both white and non-white drivers have generally become more productive. In the original study, 23.5% of whites and 17.8% of non-whites were found with contraband. In the present study, white contraband hit rates went up to 26.5% and non-whites rates improved to 22.3%.

- As searches overall became more productive, the disparity between white and non-white productivity has also narrowed. In the original study the disparity between non-white and white contraband found statewide was 5.7%. In the present study the disparity has been reduced to 4.2%. Though these changes may seem like small steps, they reinforce the idea that as agencies make their searches more efficient (e.g. increase their overall hit rate) they likely will decrease racial disparities in search outcomes.

Recommendations

The information contained in this report should be use by law enforcement officials and community stakeholders to closely examine areas where disparities persist, recognize the areas of positive change, and continue to develop and refine strategies to reduce disparities in the future. The following recommendations may help guide communities in effectively addressing concerns about racial disparities in traffic stop practices.

- Law enforcement should closely examine and address any internal practices or actions of individual officers that may cause the types of disparate stop patterns observed in this study. In departments that were identified as having racial disparities in either stop or search practices, supervision and monitoring programs should be established to help determine whether such disparities are the result of wide-spread institutional practices or the actions of a smaller number of individual officers.

- In each jurisdiction law enforcement officials should continue to meet with members of their community to review and discuss the information from this report so they can begin a process of enhancing trust.

- The original and present study provided useful data on how frequently traffic stops occur, for what reason they occur, where they occur, who they affect and the outcomes of the stops. This type of data should be integrated into other operational procedures to

help make monitoring of traffic stops a routine practice within agencies in Rhode Island.

- In order to monitor the changes made to reduce disparities in departments of high concern and prevent future disparities in all departments, monitoring systems should be established. Building on the work of the Rhode Island Police Chief's Association, each police department should develop a traffic stop information system to help monitor traffic stop enforcement prospectively.