Northeastern University

Institute on Race and Justice

New Challenges in Confronting Racial Profiling in the 21st Century:

Learning from Research & Practice

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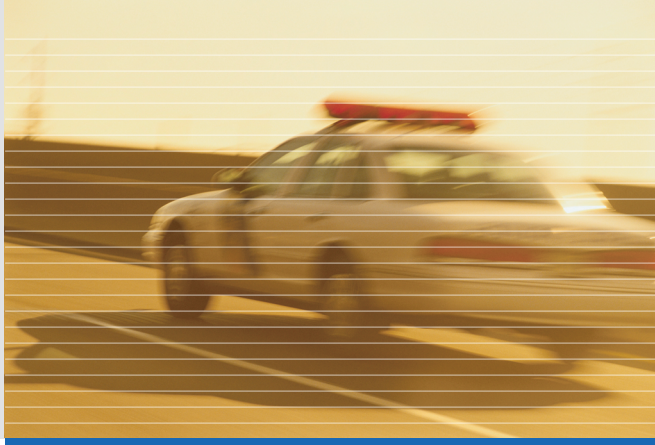

Learning from Research & Practice

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The materials in this manuscript emerged out of a research and practitioner conference entitled *New Challenges in Confronting Racial Profiling in the 21st Century: Learning from Research and Practice,* which was held at Northeastern University in March 2003. The two-day conference involved discussions from researchers and practitioners about the best practices for addressing the challenges of racial profiling, including development of police-community partnerships, traffic-stop data collection, benchmarking methods, internal analysis and post-stop analysis. Taken together, the materials in this manuscript provide researchers and practitioners with a comprehensive overview of the most successful methods for addressing issues of racial profiling.

Numerous partners were involved in the conference planning and manuscript development. Dean Jack McDevitt, Dr. Amy Farrell and Jana Rumminger led the team from Northeastern University's Institute on Race and Justice. Tremendous assistance was provided from Professor Deborah Ramirez from Northeastern University School of Law; Dr. John Lamberth from Lamberth Consulting; King Downing, National Coordinator of Campaign Against Racial Profiling from the American Civil Liberties Union; and Bob Stewart from the National Organization of Black Law Enforcement (NOBLE). Special thanks go to Lisa Bailey and Sasha O'Connell for their hard work coordinating the conference workshops. Additional thanks go to Erica Pierce, Mary Yee, Jennifer Panniello and Shea Cronin for assisting in workshop sessions. Numerous conference participants graciously provided their time, expertise and information about strategies to address racial profiling. A complete list of the conference participants appears in the appended material.

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Introduction

INTRODUCTION

Over the past decade, concerns about racial profiling and the disparate treatment of drivers during routine traffic stops has become a critical issue in the field of law enforcement. In recent years, the United States Department of Justice issued a policy regarding the use of race by federal law enforcement agencies (Department of Justice Press Release, 2003), dozens of states have enacted legislation banning racial profiling and/or requiring mandatory data collection,[1] hundreds of individual jurisdictions have voluntarily begun collecting traffic stop data,[2] community groups and police departments are working together on racial profiling task forces, and social scientists and lawyers have contributed research and litigation on the issue of racial profiling. Indeed, addressing community perceptions about racial bias in traffic stops has become a top priority for law enforcement professionals across the county.

Despite the proliferation of voices working on the issue, a number of key matters remain unresolved for social scientists and practitioners. How have the issues changed since research in this area began, and what kinds of research are necessary at this juncture? Should the question of benchmarking, which has dominated social science research on racial profiling since the beginning of the movement to collect data, continue to drive social science discussions? If so, what are the ways in which benchmarks can be constructed, and how can various jurisdictions use those benchmarks? What other methods are available to monitor police departments for racially-biased policing? How do task forces contribute to discussions concerning the issue of racial profiling and the data collection process? What issues are overlooked in the racial profiling debate, and how can they be better articulated and addressed?

These were some of the questions raised at "Confronting Racial Profiling in the 21st Century: Implications for Racial Justice," a two-day workshop held March 8-9, 2003, by the Institute on Race and Justice (IRJ), in collaboration with the American Civil Liberties Union (ACLU), Lamberth Consulting, and the National Organization of Black Law Enforcement Executives (NOBLE), and generously funded

[1] State legislative efforts are documented at the Institute on Race and Justice's online Racial Profiling Data Collection Resource Center, http://www.racialprofilinganalysis.neu.edu/legislation/index.php.

by the Gideon Project of the Open Society Institute. This conference brought together individuals experienced in handling racial profiling issues from advocacy and analysis to police management and community perspectives in an effort to develop useful analytic strategies for traffic-stop data (above and beyond the benchmarking question) and discuss alternative methods of addressing racial profiling concerns. While the conference did not generate a "gold standard" for responding to racial profiling at the local, state or national level, it did help to articulate and clarify possible options for addressing racial profiling.

Looking to the Past: History of the Racial Profiling Controversy

Although there have long been allegations of police targeting people of color, aggressive crime control strategies utilized by police in an effort to reduce crime rates throughout the 1980s and 1990s heightened the perception that police may use traffic offenses as a pretext to conduct disproportionate numbers of roadside investigations of Black or Hispanic drivers and their vehicles. The term "racial profiling" is derived from the "profile" of drug couriers developed by the Drug Enforcement Agency during the mid-1980s to interdict interstate drug trafficking. Promoted to law enforcement agencies throughout the country as part of Operation Pipeline, the DEA's profile included clues of drug trafficking such as signs of concealment in the vehicle, indications of fast, point-to-point driving, and certain behavioral cues. Descriptions of Operation Pipeline training from investigators and participants suggest that the profile also included indications of race, age and gender characteristics of potential traffickers (Webb 1999). The DEA's drug courier profile was promoted as a coherent package of individual factors that, taken as a whole, would prompt an officer to do more investigation. Use of this profile was suggested to state and local police agencies in training sessions as a method of improving their drug interdiction efforts.

Today, racial profiling is generally understood as the practice of targeting or stopping a pedestrian or driver of a motor vehicle based primarily on the person's race, rather than any

[2] Such data collection efforts are documented at the Institute on Race and Justice's online Racial Profiling Data Collection Resource Center, http://www.racialprofilinganalysis.neu.edu/bg_jurisdictions.php.

individualized suspicion. Specific definitions of racial profiling vary from using race alone as the reason for the stop to using race as any factor in the reason for the stop. For example, the General Accounting Office defines racial profiling simply as "Using race as a key factor in deciding whether to make a traffic stop" (GAO, 2000: 1). Conversely, the most recently proposed federal legislation sponsored by Senator Russ Feingold states that racial profiling means "the practice of a law enforcement agent relying, to any degree, on race, ethnicity, religion, or national origin in selecting which individuals to subject to routine or spontaneous investigatory activities, . . . , except when there is trustworthy information, . . ., that links persons of a particular race, ethnicity, religion, or national origin to an identified criminal incident or scheme" (S.2132, "End Racial Profiling Act of 2004", 108th Congress, Title V, Section 501(5)). Advocates on both sides of the debate agree that police should not use racial or ethnic stereotypes to select which individuals to stop and search, but questions remain about the extent to which race can legitimately be used in descriptions of particular suspects who may be subject to a stop (Ramirez, McDevitt, Farrell 2000).

National surveys indicate that a majority of Americans, regardless of race, believe that racial bias in police stops is a significant social problem. In Gallup Polls from 1999, 2001 and 2003, almost 60 percent of Americans surveyed believe that the practice of racial profiling is widespread. For African-American respondents, however, the perception that racial profiling is widespread actually increased from 77 percent in 1999 to 85 percent in 2003. Twenty-two percent of Blacks reported that they had been unfairly treated by the police in the 30 days prior to the poll; the percentage reporting such unfair treatment increased from 15 percent to 22 percent between 1997 and 2003 (Ludwig 2003).

Since the racial profiling controversy reached the national spotlight in the late 1990s, law enforcement agencies, legislatures, towns and communities have advanced a number of possible responses ranging from bans and policies to task forces and data collection. Although the national conversation began with this broad range of ideas and discussion points, the debate about racially biased policing narrowed relatively quickly into a debate about data collection and the best methods for collecting and analyzing data.

While few people advocate the targeting of motorists on the basis of their race/ethnicity (for exceptions, see McDonald 2001; Knowles, Perisco & Todd 2001), disagreement still remains about whether the practice exists. To address this question and try to assuage the potential damage done by community perceptions of racial profiling, a number of state and local agencies instituted new programs in the late 1990s to track the race, ethnicity and gender of those who are stopped and/or searched by police officers. Following this trend, in 1999, President Clinton directed federal agencies to begin gathering data for future analysis on the race and ethnicity of persons stopped. In addition to the federal data collection efforts, at least 17 states have required state and/or local police agencies to record and make public the racial and ethnic pattern of their traffic stops, and law enforcement agencies nationwide have begun to implement data-collection systems for a number of other reasons such as preventing lawsuits and responding to community concerns about biased law enforcement practices.[3] To date, there are approximately 4000 law enforcement agencies nationwide collecting traffic-stop data voluntarily or based on court orders, consent decrees, settlement agreements or statutory mandates.[4]

The collection of statistics documenting racial disparities in traffic or pedestrian stops has the potential to profoundly alter the stage upon which current and future police contacts with minority citizens are conducted. Well-planned and empirically based discussions between the police and community about racial profiling have become critical components of any effort to utilize data from traffic stops to monitor and/or alter current police practices. Unfortunately, most jurisdictions have implemented data-collection systems with little thought about which analytic strategies will be used to interpret the data, how information will be disseminated to the public or, more importantly, how such data can be used to create an effective police-community dialogue about police operations. Furthermore, since racial profiling data collection is a relatively new phenomenon, no "industry standard" for data analysis

[3] State legislation requiring data collection has been enacted in: North Carolina (1999), Connecticut (1999), Massachusetts (2000), Rhode Island (2000), Tennessee (2000), Kansas (2000), Washington (2000), Missouri (2000), Colorado (2001), Maryland (2001), Louisiana (2001), Nebraska (2001), Texas (2001), Minnesota (2001), Nevada (2001), Utah (2002), and Illinois (2003).

[4] For a complete list, see: http://www.racialprofilinganalysis.neu.edu/bg_jurisdictions.php.

has yet been developed, and thus there is no authoritative methodology to recommend to jurisdictions attempting data analysis.

One of the most important resolutions to come out of the workshop, however, was that law enforcement professionals and community members must think beyond the technical aspects of data collection and analysis, and concentrate on the entire process through which the racial profiling controversy is addressed in a given community. This process may include bans on racial profiling and a data collection requirement, but more importantly, includes the relationships and trust developed between law enforcement and the community. It also includes consideration of the broader patterns and implications of policing – how the standards of policing affect perceptions of racial profiling and data analysis; what the costs of racial profiling are, both to the community and to the effectiveness of the agency; who should collect and analyze the data; and how the character and demographics of that "who" can subtly or directly influence the results.

Looking to the Future: Often-Unaddressed Issues

These how, what, where and who questions are too often left unaddressed in the discussion of how to confront racial profiling. During the conference, the participants highlighted a number of issues that might influence attempts to resolve the controversy.

Although traffic stops are the most frequent form of law enforcement contact with the citizenry, they are one area of policing where law enforcement has historically kept little systematic information. This is true in spite of the fact that patrol officers usually operate under a condition of "low visibility" that limits controls on their discretion. Patrol officers are responsible for deciding whom to stop or sanction and whom to ignore, thereby defining the parameters of who enters the criminal justice system (Goldstein 1960). A recent study by the Bureau of Justice Statistics indicates that traffic stops are the most common cause of police citizen interaction, reported three times more often than any other type of contact (Langan, et al. 2001). As a result, traffic stops have the potential to dramatically shape how individuals perceive the police, becoming the national focus of much of the debate around racial profiling. Despite the symbolic

importance of traffic stops and the vast amount of resources spent on traffic enforcement, little information is routinely collected about the effectiveness of such activity.

Despite the limited information on traffic stops, police agencies have taken a leadership role among many public sector organizations when it comes to using data to organize and manage day-to-day operations of their organizations in many other areas. For example, police routinely analyze information on calls for service, incidents reported and arrests to determine where problems exist. Following a national model of statistics-based, strategic decision-making pioneered by the New York Police Department through their Compstat management program, police managers across the country have begun using crime data to identify the characteristics of problems and as a tool for developing unique and focused strategies to address the problems (Dewan 2004). While data has been routinely used for strategic planning, officer deployment and departmental management for police agencies to deal with crime, few agencies have conducted similar analyses of traffic enforcement information. A future trend is for agencies to record and utilize data from traffic stops – the most common venue through which police encounter citizens – so they can take advantage of the insights into policing techniques that the data could provide.

Although departments have historically collected little systematic information on traffic stops, that particular enforcement activity has had significant consequences for community members. Regardless of why they occur, racial disparities in traffic stops, citations and searches can impose serious costs on minority citizens, as well as create societal costs on race relations, which may influence how community members perceive the police. As indicated in a news story and analysis by *The Boston Globe*, disproportionate traffic citations may result in increased insurance premiums for those targeted by the police (Dedman and Latour 2003). In addition to the individual financial costs, these kinds of disparities may erode the trust between the police and members of their community. If members of certain communities perceive that they are targeted by the police, they may be reluctant to report crimes and, equally important, to work with police to solve the crimes that have been reported. This situation can have serious implications for the overall public safety of a community. In the future, by recognizing racial

profiling as a potential police-community relations problem and taking steps to deal with it, agencies can implicitly acknowledge and account for the costs of racial profiling in their communities.

Outline of Workshop and Report

Over the past five years, many racial profiling discussions have focused on the issue of data collection and developing a proper benchmark with which to analyze the data. One of the main conclusions from this workshop, however, is that there is no simple, single solution to an issue as complex as racial profiling; data collection or policies that ban profiling alone will not solve the problem. Current efforts to utilize traffic-stop data to address the issues of racial profiling indicate that the collection and analysis of such data by itself, even with a valid benchmark, may not prove to be an adequate solution to the complex problem of measuring racially biased policing. Rather, the issue of racial profiling must be addressed with a multi-faceted approach, combining data collection and sound analysis, police-community partnerships to build trust and cooperation, and tools that can help with data integrity and management of officer units and individual officers.

The participants in the two-day workshop represented a broad range of constituencies, including social science experts currently working with jurisdictions on racial profiling analysis; researchers, community groups and civil rights organizations with a vested interest in the topic; police officers and executives involved in local data collection efforts; and teams of community members, police personnel and analysts working together in partnership to solve the issue of racial profiling data collection.

The workshop agenda included four main sessions, two lunchtime talks and an evening event, featuring Angela Davis as the keynote speaker. The first session was a series of technical presentations focused on the issue of benchmarking. Analysts from four jurisdictions currently utilizing different comparative benchmarks explained how they constructed the benchmark, presented preliminary findings and addressed challenges in the analysis process. Session Two focused on analytic strategies that bypass the obstacles posed by external benchmarking, such as internal monitoring and analysis of post-stop data. The third session, in which three teams of police-community partners (police representative, community representative and analytic expert) outlined their experiences working together on data collection,

highlighted the benefits and challenges of police-community partnerships. Finally, the last session included a variety of auditing methods a jurisdiction might undertake to assess the accuracy of traffic-stop data for both the numerator and the denominator.

This report is an attempt to capture the workshop proceedings and ongoing conversations following the event. The first chapter suggests models of community-police relationships that can be formed as jurisdictions work to address racial-profiling concerns and, in many cases, as they collect, analyze and communicate findings from local racial-profiling studies. Through presentations of four case studies representing different approaches to police-community relationships, the chapter identifies important considerations for jurisdictions to consider in developing such partnerships.

The second chapter moves back to the data collection benchmarking debate, focusing on a series of presentations by four research teams that use four different benchmarking methods. The chapter is a compilation of these presentations, written by the research teams for inclusion in this publication, explaining their different methodologies. As mentioned previously, this publication does not promote one benchmarking method or another as the "gold standard" for racial-profiling research, but posits that the choice of benchmarking depends on the individual circumstances of the jurisdiction that is collecting the data.

The third and fourth chapters move beyond the benchmarking debate to focus on other types of data analysis that might aid the data-collection process and address racial-profiling concerns. Chapter Three, on post-stop analysis, provides outlines of methodology for analysis of search and disposition data. Chapter Four presents several methods of analysis that might help police departments manage the data-collection process and enhance accountability, including analysis of post-stop data, methods of auditing the data, and how to use data to monitor individuals and units within the departments.

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Learning from Research & Practice

Chapter One:

Community – Police Partnerships

Introduction
Case Studies
- Washtenaw County, Michigan
- Detroit Metropolitan Area, Michigan
- Wichita, Kansas
- Rhode Island

Conclusion: Comparing the Experience

CHAPTER ONE: COMMUNITY AND POLICE PARTNERSHIPS

A central tenet of law enforcement is that police must receive support and information from the community they serve in order to effectively carry out their mission (Skogan and Antunes 1979). One of the major obstacles that arises from a perception of racially biased policing is a breakdown in those police-community relations, leading to a disconnect between the police and their constituent communities.

Historically, this disconnect has been based on the image of police officers as agents of a social system that imposes oppressive operations, such as a system based on racially biased techniques and policing practices. At times, this imagery has caused segments of society and law enforcement to adopt an adversarial affiliation. Survey data on public attitudes towards the police have consistently shown that racial minorities have the strongest negative perceptions of the police (Scaglion and Condon 1980; Dunham and Alpert 1988; Webb and Marshall, 1995; Weitzer, 1999a). Such negative attitudes threaten to add to the breakdown of police-community trust.

Since the 1960s, law enforcement agencies in the United States have placed significant emphasis on bridging the gap between agencies and their constituents in order to increase communication and exchange of information, and improve police efficacy. One method for accomplishing this is the community-oriented policing model of law enforcement, which is based upon the philosophy that law enforcement, government agencies and community constituents can, by working together, promote public safety and enhance the quality of life for everyone involved. Community policing is clearly making its mark across the United States; from its founding in 1994 through 2002, the Department of Justice's Community Oriented Policing Services Office had "built partnerships with more than 12,500 local law enforcement agencies, representing 650,000 law enforcement professionals" (COPS Office 2002).

Traditional community policing strategies adopt the image of the "on beat" officer as part of the regular police culture, the logic being that a strong, consistent police presence will ultimately decrease crime in high crime areas. An on-beat officer becomes a part of the local community, knows almost everyone on a first-name basis and is embraced as an ally in addressing signs of trouble.

In recent years, community policing advocates have placed additional emphasis on strategic coalition building. Criminal justice literature defines coalition building between community and police as developing an "organization of individuals representing diverse organizations, factions or constituencies who agree to work together in order to achieve a common goal" (Feighery and Rogers 1992). Police and community task forces that have been formed in several states throughout the country over the course of the past 15 years exemplify this definition. For instance, the Fighting Back Project, funded by the Robert Wood Johnson Foundation, has successfully brought together a number of citizens' task forces comprised of community leaders, health professionals, clergy, school officials, parents and law enforcement professionals to develop strategies to reduce the demand for alcohol, tobacco and illicit drugs.

While some task forces are formed to tackle a specific issue or problem, contemporary police and community task forces are being established with the goal of proactively engaging in a long-term process to create sustained partnerships in order to maintain a socially organized and safe environment. As Butterfoos et. al, have noted, "contemporary community and police coalitions are formal, multi-purpose, and long term alliances" (1993). These task forces are not defined by a specific issue or crime trend, but work to prioritize public safety to improve the social climate of the community. Research shows that control of neighborhood problems is stronger when there is strong social cohesion. The same 'sense of community' that bonds community members together can provide the foundation for collective action. The Safe Neighborhood Initiative in Boston, a coalition of community residents, state and local government offices, local police and human services organizations, has helped significantly reduce crimes at SNI locations and has maintained effective community partnerships over a sustained period of time.

Experts in the field agree that community-policing task forces can be beneficial for all parties involved. First, task forces incorporate the perspective of the community in setting standards of acceptable social behavior and law enforcement practices, while bridging the constituencies of community practitioners with law enforcement to form and develop solid relationships. Second, re-establishing the responsibility for public safety and social order as a community-policing process creates an environment of shared accountability. These efforts also allow community members to become active,

visible stakeholders in civic decisions, while at the same time fostering a pro-active law enforcement stance.

Tremendous resources have been allocated towards cultivating and sustaining these relationships as a standard model for addressing law enforcement topics throughout the United States. Public officials have recognized the value of this exchange as an integral component of effective policing and crime reduction strategies. In recent years, task forces, coupled with other methods such as data collection, internal monitoring methods and proactive policies against racial profiling, have emerged as a leading approach to addressing the national controversy concerning racial profiling.

The community practitioners, law enforcement professionals and social scientists at the Northeastern conference collectively agreed that forging these relationships to address racial profiling improves officer accountability and professional standards; educates law enforcement and community constituents on police and community perspectives with regard to law enforcement encounters; and enhances community and police trust in devising collaborative strategies to address racial profiling.

CASE STUDIES

One of the central ideas resulting from the Northeastern conference was that more emphasis must be placed on the entire process of addressing racial profiling in a jurisdiction, rather than just on data analysis. Community-police partnerships play a major role in this process by increasing trust between the community and the police, maintaining police accountability, and allowing police departments to work with and rely on the community in their policing efforts. During the conference, teams representing task forces from Michigan, Kansas and Rhode Island presented case studies describing task force initiatives within their communities that promote effective policing and collaborative strategies towards addressing racial profiling. The following four case studies represent various approaches jurisdictions might take in assembling and maintaining strong police-community partnerships. Each case study focuses on the background and composition of the area and task force, the process used to form the task force or work together, and the benefits and challenges of the model of police-community partnership that was adopted.

Washtenaw County, Michigan – Using Community Forums to Develop Task Forces[5]

Background and Composition

The Washtenaw County Sheriff's Department held a series of police-community forums to develop or solidify task forces in three areas of Michigan. These forums built on earlier initiatives implemented by the Washtenaw County Sheriff's Department.

In response to community concerns about racial profiling, the Sheriff's Department decided to address the issue using a range of initiatives, including the creation of a non-biased policing policy; hiring external statistical experts to begin a data collection process; increasing internal and external education and training; and a commitment to improve interaction between law enforcement and community stakeholders. As part of the community initiative, the Department developed a coalition of police and community members, established a telephone hotline for anonymous incident reporting purposes and held several community meetings to encourage transparent dialogue.

When unfavorable statistical findings in Washtenaw County's racial-profiling data collection efforts were released the year after these initiatives began, the community response to this data was not as adversarial as it might have been. Through the relationships that had already been established, the community believed that the Washtenaw County Sheriff's Department had demonstrated its commitment to addressing practices of racial profiling.

In addition, the Sheriff's Department began to strengthen its collaborative efforts with partners such as Lamberth Consulting, the Detroit chapter of the ACLU and the Michigan chapter of the NAACP. During this time, the Department received funding from the Michigan Chapter of the NAACP to organize community and law enforcement forums in three locations: Washtenaw County, where previous work had already been done; western Wayne County; and the Flint area. The purpose of these forums, entitled "Enhancing Community and Police Trust," was to engage law enforcement and community members in a constructive dialogue about racial profiling, focusing on getting beyond the blame and creating potential

[5] Jerry Clayton, an officer from the Washtenaw County Sheriff's Office and a board member of the Michigan chapter of the ACLU, presented the case study on Washtenaw County.

positive solutions to address the issue within particular communities. The anticipated result of these forums was for each site to develop their own successful law enforcement community task force to address these issues at the local level.

Process

In preparation for these forums, the Sheriff's Department spent time explaining to both law enforcement and community members the importance of their participation. The Department prepared its executive staff and officers for the forums by advising the law enforcement representatives of their role in the process, soliciting agency support for meetings and identifying law enforcement issues of concern. Additionally, the Sheriff's Department identified issues of concern, as expressed by both local police and community members, relevant to specified geographic locations.

Based upon this feedback, the Sheriff's Department designed a racial profiling training curriculum that focuses on two main objectives. First, the curriculum was designed to provide a comprehensive and applicable definition of racial profiling which would promote objective, anchored decision-making with regard to local and national issues, and would allow the Department and community to respond to racial profiling as a social problem. Second, the curriculum included plans for an impact-assessment tool that would identify internal and external stakeholders, assess the perspectives of law enforcement, community members and the courts, and evaluate the local impact of racial profiling issues on law enforcement services.

The Sheriff's Department next organized one executive forum for each location. Since a task force had already been established in Washtenaw County, the Department decided to hold the first forum there. The forums were scheduled as two full-day sessions. The first day consisted of two concurrent sessions – one comprised of law enforcement and one of community members – separately engaging in facilitated discussions about their beliefs, perceptions and concerns about racial profiling. Facilitators solicited honest feedback from each group about such topics as the existence of racial profiling, perceptions about whether police engage in racial profiling, and expectations for the forum and task force process.

After lunch, the facilitators brought the two groups together to share and discuss responses from the previous sessions. The participants broke into smaller working groups comprised of both police and community members where facilitators first shared the expectations, perceptions and beliefs about racial profiling that had been generated in the morning discussions. Next, the combined police-community groups were assigned specific tasks: answering questions, identifying issues and beginning to brainstorm possible solutions. Finally, the groups reported back to the larger group, and individuals volunteered to be part of the task force forming in that area. As a group, using the insight they had gained in separate community or police sessions and the small group working sessions, the participants then developed very specific tasks for the newly formed task forces as they began their work.

Detroit Metro Area: Using Preexisting Coalitions to Address New Community Concerns[6]

Background and Composition

More than 350,000 people of Arab heritage populate the Detroit metropolitan area. Shortly after September 11, 2001, members of this community began to express concerns about incidents of perceived profiling and negative encounters with law enforcement. Three main topics dominated the community concerns during the first year after the tragedy. First, there was a significant increase in the number of reported complaints related to Arab profiling at airports. Second, the Department of Justice (DOJ) began an initiative intended to interview all Middle Eastern men, ages 18-30, who traveled into the United States from countries with Al Qaeda presence. This initiative increased the feelings of fear and isolation within the Arab community. Eventually, the community expressed opposition to the new INS special registration requirements under which people from certain countries were assigned dates to be fingerprinted and photographed prior to their anticipated date of arrival in the United States. Special registration was also required of non-citizens who were already in the United States.

Fortunately for the Arab community, their interests were already represented by a local law enforcement-community coalition that was able to respond quickly to community concerns. ALPACT

[6] Mo Abdrabbaoh, an attorney and board member of the Michigan chapter of the ACLU and ALPACT, presented on the role ALPACT has played in confronting issues of racial profiling since September 11, 2001.

(Advocates and Leaders for Police and Community Trust) is a coalition of community and law enforcement leaders from across the state of Michigan that works to collectively address social issues and strengthen police and community trust. ALPACT was established to engage in ongoing dialogue about issues of biased-based policing (racial, religious, culture and gender) in counties throughout the state of Michigan. Representation on ALPACT includes local, state and federal law enforcement, civil rights agencies and community members, including the Detroit Police Department, Michigan State Police, FBI, Department of Homeland Security, Michigan Chapter of the NAACP, National Council on Crime and Justice, the American-Arab Anti-Discrimination Committee and members of the Latino community.

Process and Action

ALPACT's existing relationship with law enforcement empowered the organization to serve as a mediator in addressing these issues. In several instances, ALPACT played a vital role in bridging the gap in communication between law enforcement and members of the Arab American community which otherwise may have resulted in adversarial anarchy.

For example, after September 11, members of the Arab and Muslim communities began to feel harassed or under scrutiny, especially in neighborhoods with high Muslim or Arab populations, because of an increased police presence for routine incidents, such as car accidents or verbal disputes. ALPACT provided forums for these issues to be discussed, which allowed community members to understand the police activity and gave law enforcement an opportunity to respond to community concerns. Police had been receiving a succession of calls from purported Arab American community members reporting incidents of suspicious and/or criminal activity. In response to these fictitious rumors, patrol efforts were increased as an operation of security. ALPACT's initiative to create dialogue between law enforcement and Arab community members revealed that several of these calls were false alarms, and thus ensured that efforts would be placed on evaluating credibility prior to responding to future calls of this nature.

Another example of how ALPACT's meetings initiated positive change between law enforcement and Arab American community members is the forum where community members express concerns about the state's hate-crime prosecution process. Community members believed that the state's inability

to prosecute hate crimes in a timely manner communicated a lack of concern for the security of its Arab American residents. In response, local police and FBI agents combined efforts to implement a local hate crime hotline and task force. The Hate Crime Task Force was successful in advocating for a swifter prosecutorial hate-crime process. Finally, ALPACT was successful in providing a forum for community members to express anxieties regarding the enforcement of the Patriot Act and local law enforcement agencies functioning as the INS. These forums and dialogue allowed for law enforcement and community members to identify with the concerns of others and develop collective strategies for addressing these issues.

Per ALPACT's recommendation, the Arab American Anti-Discrimination Committee organized and offered sensitivity training for FBI and other federal agents. In addition, discussions through ALPACT about the community's sense of alienation from law enforcement agencies has led to increased law enforcement presence and participation at Arab and Muslim community events and initiatives. In certain instances, law enforcement representatives would attend events and set up booths, which allowed for interaction with the community and recruitment of Arab and Muslim individuals to work for various law enforcement agencies.

During United States Attorney General John Ashcroft's post-9/11 initiative to interview Arab and Muslim men who fit a certain profile, ALPACT played a significant role in reducing community tensions and stress. This initiative, consisting of federal agents knocking on doors to conduct spontaneous interviews, was implemented throughout most of the U.S.. The initiative targeted 5,000 people to be interviewed across the country, of which a significant number resided in Michigan. Through ALPACT's efforts, these people received advance notice by mail of the interviews, which helped to clarify the interview process. The letters explained that the interviews were voluntary, provided contact information for inquiries or concerns, described the interviews as cordial and accommodating, and, in some instances, provided for an attorney to be present during the interview process. For people in the metropolitan area who did not want to be interviewed, ALPACT took measures to ensure their decision was respected.

Additionally, all interviews were audio-taped by attorneys to ensure thorough protection of clients. ALPACT's efforts in these matters significantly strengthened the community's trust.

Another high-profile incident occurred at a college in Dearborn, Michigan, on September 13, 2001. During class, a professor began making derogatory statements against Muslims, and concluded by picking up a copy of the Koran and throwing it on the floor. In response to one of the student's objections to his behavior, the professor told the student to "shut up," physically grabbed him by the neck and threw him out of the classroom. The report that the student filed with the local police department produced only a minimal reaction. Through existing relationships with the county prosecutor and officials, ALPACT encouraged the county prosecutor to issue a warrant for the professor's arrest. The professor was charged with assault and battery, and pled guilty. This case was extremely visible, and provided the Arab and Muslim communities with reassurance that law enforcement would take their concerns seriously and act quickly against those threatening the communities with retaliation in response to the events of September 11.

Another local incident involved a Detroit resident whose home was searched pursuant to a Secret Service search warrant. During the search, an agent wrote on the man's refrigerator door, "Islam sucks, Christ is king." The U.S. Attorney's Office discovered which agent wrote the offensive language and called in two members of ALPACT to discuss an appropriate response. The Office agreed on a reasonable punishment, held a joint press conference and came together to take swift action against this man, who had been in the Secret Service for 10 years.

Benefits and Challenges

As shown in the above-mentioned examples of ALPACT's progress in bridging relationships between law enforcement and members of the Arab American community in Michigan, the organization's structure and consistency allowed it to successfully negotiate a number of initiatives and interventions. Because the group was organized before September 11, it and its member organizations were able to mobilize quickly in support of the Arab American community and others who were being targeted by discriminatory practices.

ALPACT's work eliminated obstacles on both the law enforcement and community sides of the relationship. Law enforcement officers were more willing to talk through issues with community members and disclose miscommunication or mistakes because of the mutual trust and open communication that had been forged by ALPACT. Community members were able to move past their initial fear and suspicion and engage in regular communication through town hall meetings and community–law enforcement dialogues

At the same time, the existence of the group sometimes created awkward situations for law enforcement and community members who were not connected with the coalition. For instance, when ALPACT stepped in to help the student who was verbally and physically assaulted by his professor, the coalition's involvement caused some tension between local and county law enforcement. ALPACT's intervention encouraged county officials to get involved in an incident that should have been purely under the local jurisdiction.

The examples of ALPACT's success in bridging the divide between the community and local, county and federal law enforcement demonstrate the extent to which task forces can help increase the effectiveness of law enforcement and allay community concerns. If the coalition had not been in place before September 11, it would have been much more difficult to respond to resulting incidents as they arose.

Wichita, Kansas – Creating a Committee to Assist the Data Collection Process[7]

Background and Composition

Wichita is the largest city in Kansas, with an estimated population of 357,000 in the city and 450,000 throughout the metropolitan area. In 2000, the Wichita Police Department voluntarily began a racial-profiling data-collection initiative in order to increase trust and collaboration between the citizens of Wichita and the Wichita Police Department. A committee was established and charged with the task of

[7] The case study on collective racial profiling efforts implemented in Wichita, Kansas, was presented by Terry Moses, Deputy Police Chief of the Wichita Police Department; Susan Castille, the director of the National Conference for Community and Justice, (NCCJ); and Brian Winthrow, a professor at Wichita State University.

creating an effective data-collection process. The committee consisted of approximately 10 members chosen from the working structure of the Wichita Police Department and the local community.

Process

The Wichita Police Department's racial-profiling data-collection initiative was implemented around the SARA model, which had been previously used in other areas of the department. The SARA Model for Police Training is built upon a four-pronged strategy: 1) Scanning, 2) Analysis, 3) Response and 4) Assessment. SARA is normally conducted as a step-by-step model, but for the purposes of this initiative, several steps were performed simultaneously.

1) Scanning / Analysis: Members of the Wichita Police Department initially organized town hall meetings to increase public education about the issues and conducted an extensive literature review on racial-profiling data-collection processes in other states throughout the country. The Department then used this information toward developing a racial-profiling data-collection process that would effectively measure the extent of the problem within the city of Wichita. Wichita State University was contracted as the academic institution to conduct data analysis for the city of Wichita and the entire state of Kansas.

The Wichita Police Department immediately began increasing its efforts to recruit community participation in the racial-profiling initiative. In collaboration with NCCJ, which is represented on the task force, the group organized and convened two town hall meetings. These meetings were purposely held in two different areas of town to ensure a diverse demographic representation. During the town hall meetings, the group successfully enlisted community members to join the newly formed racial-profiling data-collection committee.

2) Response: At the beginning of the "response" phase of the process, the Department created a new professional conduct regulation and a revised vehicle stop policy. The text of the regulation read:

> The initiation of traffic/pedestrian(s) stops must be based on reasonable and articulable suspicion or actual violation of the law committed by the occupant(s) of the vehicle or pedestrian(s). Safety reasons alone may justify the stop if the safety reasons are based

> upon specific and articulable facts. Members of the Department may not rely to any degree on the race, color, gender, disability or religion of the occupant(s) of a vehicle or pedestrian(s) as the sole deciding factor of whether to stop the vehicle/pedestrian(s), in taking enforcement action or conducting a search.

The revised vehicle stop policy included a definition of racial profiling, a definition of reasonable articulable suspicion for a vehicle stop, a requirement for data collection, general stop guidelines for traffic stops, a proactive complaint policy and a focus on proactive supervisor involvement.

In collaboration with NCCJ, the group developed and offered various training sessions in preparation for and throughout the data-collection process. The training was sponsored by the Wichita Police Department and was required for all Department employees. The curriculum for one training session, which focused on customer service for diverse populations, consisted of eight hours of training and a course evaluation. The curriculum design included a two-hour session on Racial Profiling, a two-hour session on Customer Service, a four-hour session on Cultural Diversity and a Course Evaluation.

In addition, the Department began to strengthen its Internal Affairs section and implement new professional standards that would apply throughout the Department. First, the Department revised its complaint procedures, making it easier for community members to voice complaints, and instituted a new proactive complaint policy. As part of the new policy, if citizen says to an officer, “The only reason you stopped me is because … ,” the officer is required to report that complaint to his or her supervisor. The Department also began maintaining a statistical database of complaints. Finally, the Department changed the name of the section from “Internal Affairs” to “Professional Standards” to reflect the change in policy, and hired additional personnel and clerical staff to manage the increased workload.

The Department also began to hold regularly scheduled community meetings. Because the task force was in place before September 11, and because one of the members of the task force is part of the Muslim community of Wichita, the Department was able to conduct in-service training immediately after September 11 to help increase cultural understanding and institute appropriate law enforcement responses to any anti-Muslim or anti-Arab backlash.

3) Assessment: Brian Winthrow, a professor at Wichita State University, was hired by the department to create an assessment tool that would be used in analyzing the data collected during the racial-profiling process. Professor Winthrow's initial presentations to the members of the task force were designed to explain the analytic process and set expectations about what could and could not be achieved. During these presentations, he emphasized the importance of objectivity in the analytic process so the city could produce an accurate, legitimate report. He also explained the limitations of what the descriptive data in the analysis is able to prove or disprove, as well as the limited extent to which a report could lead to definitive conclusions.

The final analysis focused on four dimensions of the data: the decision to stop, the stop itself, the decision to search and the results of the search. Overall, the researchers reported that the findings were consistent throughout the Department, regardless of the officer's age, gender, race, experience or assignment. Regarding deployment, officers tended to be sent to high crime areas, regardless of the racial or ethnic composition of the targeted neighborhood. Ultimately, the analysis did indicate disparities with respect to race and ethnicity throughout some of the routine practices of the Department; however, the researchers suggested that these findings alone did not provide conclusive proof of racially biased policing.

Benefits and Challenges

Some of the main challenges faced by the Wichita committee arose around the design of the study. The committee had difficulties deciding on the amount and type of data they could collect. Because they utilized a Scantron bubble form, they felt that they were limited in the amount of data they could collect. In addition, one of the biggest controversies stemmed from the location field on the data-collection form, and whether the officers should record their location in terms of the city's 36 beats or the 400 smaller units of 10 square blocks. In the end, based on a concern for officer safety, the committee decided to use the beats as the basis for location. There were a lot of questions from the community members, however, about why officers could not record the smaller units in order to provide more accountability.

Another troubling aspect of the data-collection process was that the researchers chosen to do the data analysis were not involved in designing the study. Rather, the committee made decisions without the researchers' input, and the researchers were required to utilize those decisions in conducting the analysis. This meant the researchers, the experts in data analysis, had no role in deciding how the data should be collected and what data should be collected, meaning that the study was not necessarily based on sound social science methodology. In order for the committee and the researchers to work together and the researchers to best serve the committee, the researchers should have been involved in the work from the beginning. In addition, the short timeframe of the process and the study meant that the data could not necessarily reveal longer-term trends in policing.

As a result of the task force's efforts, however, a number of positive changes have occurred in Wichita. Members of the task force agree that without the dedication and commitment of the Wichita Police and the community, the proactive changes towards addressing racial-profiling issues would not have been possible. Because of the police-community model, the Wichita Police Department revised its mission and value statement to include a section on the significance and value of diversity. The Department also increased its commitment to enforcing professional standards, providing education opportunities and initiatives concerning the issue of racial profiling, improving professionalism and officer accountability, and continuing to emphasize community involvement and partnerships. In addition, the Department is working to increase the recruitment, hiring and retention of officers of color and has agreed to continue data collection and analysis.

One of the most poignant parts of the data-collection process was when Mayor Bob Knight, a great supporter of the program, sat down with the Chief of Police, the head researcher and members of the minority community to talk about issues. When the community members and the police chief voiced mutual respect for one another during this meeting, the participants realized that they had come a long way in the process, from being adversaries to being collaborators.

Rhode Island – Legislative-mandated Task Force Focused on Data Collection[8]

Background and Composition

In July 2000, the Rhode Island Traffic Stop Statistics Act was enacted, requiring all state and municipal police departments to collect data on all traffic stops from January 2001 through December 2002. Additionally, it required the formulation of an Advisory Commission, consisting of legislators, community members, statisticians and law enforcement personnel, to provide advisory input throughout the analysis process.

Researchers from Northeastern University were contracted by the Rhode Island Office of the Attorney General to conduct the analysis and to issue a report covering data collection for the entire state. The Advisory Commission, including these researchers, convened regularly throughout the data-collection and analysis process. The final report was issued in June 2003.

Process

Because Rhode Island is the smallest state in the country, the statewide study was a bit more manageable than it might be in other states. The researchers and the Advisory Commission hoped that the efforts initiated in Rhode Island might later serve as a pilot example for other states.

Rhode Island's data-collection initiative originated from an outcry by the community that law enforcement was improperly using race in their policing work, and communities of color began pushing for legislation to address the issue. The first bill to come before the legislature required data collection only by state officers. While this legislation was initially going through the legislature, however, the state Chiefs' Association began to identify the perception of racial profiling as an important issue that must be addressed statewide. In addition, community members expressed a need for a stronger focus on local communities. Ultimately, the legislation was revised to require data collection by the state and municipal police in all traffic stops for a two-year time period. The Attorney General's Office was appointed to oversee the study, and the statute also established an advisory board to participate in the project.

[8] The Rhode Island case study was presented by Onna Moniz-John, community representative on the Rhode Island Traffic Stop Statistics Advisory Board; Gary Dias, Police Chief from the City of East Providence; and Gerald

The legislation dictated the composition of this advisory board. Under the statute, the committee was made up of 13 members: six state legislators (three representatives and three senators), the Executive Director of Urban League, the Executive Director of NCCJ and the Executive Director of the Rhode Island Committee for Human Rights, two community members appointed by governor, one representative of law enforcement and one local university researcher.

The composition of the Advisory Board was, in many ways, its greatest limitation. Several of the members did not attend the meetings regularly. While community members were included through the organizational representation and gubernatorial appointees, none of the Rhode Island communities of color were able to select their representatives. Law enforcement was in support of legislation, but expressed concerns over who was sitting at the table, specifically because only one law enforcement official was included in the commission, and no rank-and-file line officers were represented. Many officers were apprehensive about being involved in a process that they believed might target them as being heavily involved with racial-profiling practices. The commission meetings were open to the public throughout the process, which did allow for broader representation and involvement.

The Advisory Commission met regularly during the initial phase of the analysis, then met on a quarterly basis as the process evolved. During the initial phase, a main concern was deciding who should be contracted as the academic institution to conduct the study. The administration decided it would be in the best interests of the study to hire external experts who have no stake in the process, as opposed to a local university. This decision added tremendous credibility to the study and demonstrated the state's commitment to addressing the issue in a fair and independent manner.

The initial meetings of the Advisory Commission also focused on how to translate the requirements of the Act into a viable method of collecting data. At the time Rhode Island was planning its study, there were only a few data-collection models to which they could refer. After contracting with Scantron, the Commission worked with this company and the independent researchers to develop a data-collection card. This card was the product of eight meetings, and although it was framed by the

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Coyne, Deputy Attorney General in Rhode Island.

legislation, everyone on the Commission had a voice in what should and shouldn't be in the card, which gave the study a better card and made people feel involved in the process.

During the first year of the study, the researchers found wide variations in the data collected which confirmed the necessity of a second year of data collection. Having two years of data gave the researchers the ability to make comparative conclusions and track trends in the data collection over a period of time. It also gave the Commission a broader perspective as to the range of policing activities over the course of the year.

During the second year of analysis, the Commission provided advisory input for expanding the quarterly report format to produce a more contextual and applicable report. The group offered recommendations for revising various fields on the traffic stop cards that officers are required to fill out during a stop. The Commission's input on these types of decisions was extremely significant in the analysis process and, in the end, helped produce a comprehensive and objective report.

At the time of the Northeastern conference, the Advisory Commission was entering the final phase of the analysis process, which seemed to be the true test of the success of its efforts. As the group entered this final phase, the community was concerned with what would happen after report results were released. Decisions resulting from the final report will be vitally important for the community, and the community believed it was extremely important that its input was valued and respected in the final analysis. Law enforcement was concerned with developing a final report that was acceptable for both state and municipal police departments. It was especially concerned that information about departmental problems did not include disclosures of officer identity. In addition, the group was faced with the challenge of collectively supporting the results of the study so the study would not be undermined by internal bickering. In this process, the group had to be honest with each other and collectively strategize about steps to take after the report was released.

Benefits and Challenges

All in all, the Advisory Commission functioned extremely well, despite its limitations. Two of the main concerns with the Advisory Commission were that the group's composition only included one law

enforcement representative and that the attendance of some of the members was inconsistent. The fact that there was only one law enforcement representative was a problem, because he was unable to express the diverse points of view of the law enforcement community and did not have support or weight on many of the issues. Because the community was formed both to act as a watchdog and to serve an advisory role, a larger number of law enforcement representatives would have better served the advisory function after the watchdog role was finished. The statutory composition of the group was further burdened by the fact that many of the legislative representatives attended Commission meetings rarely, if at all. Because a large block of the committee was tied up with people who did not attend regularly, when they did come, they tended to ask questions that had been discussed previously, which took up valuable time.

During the final months of the Commission's work, it was obvious that members were frustrated by the demands of other contingents represented on the Commission. The work was rarely smooth, and the Commission almost fell apart at several stages in the process. At the same time, however, the members learned to respect one another and understand each other's diverse points of view.

In the end, forging these relationships throughout the analysis created an inclusive, transparent process for all of the parties involved. Law enforcement professionals in Rhode Island were optimistic about the collaborative effort, and felt confident that the Advisory Commission and Northeastern University would provide a responsive report. The community members felt like they had a voice in the process and were heard around the table. Overall, the Commission has fostered a new rapport between the community and law enforcement in Rhode Island that will hopefully continue to develop beyond this initiative.

CONCLUSION: COMPARING THE EXPERIENCES

Washtenaw County, the Detroit metropolitan area, Wichita and the state of Rhode Island each took a different approach to improving police-community relationships, and each encountered different benefits and challenges. Taken together, these lessons provide a general outline of elements police departments and community members should consider in forging their partnerships.

As shown by the Rhode Island case study, one of the most important aspects of a police-community partnership is that the task force must represent a broad coalition of members, rather than simply figureheads from the agency and the community. A task force should include members of the law enforcement department, from both the administrative and management sides, as well as officers who are out on the streets. Members from the community should include vocal community leaders, as well as other community members outside traditional leadership roles. The task force should also include other leaders in the area, such as politicians, civic leaders and other representatives of the community. Having too few or token representatives from any of these contingents might mean the voices of those actually on the committee will become overpowered.

In addition, communities that include data collection and analysis as part of their response to the issue of racial profiling should include professional researchers to conduct the study on the task force or committee as soon as they are named. The researchers should be able to help design the study to ensure that the collection methodology, data collected and analytic process will produce sound results. Task forces can also learn a great deal from the involvement of the researchers, as the researchers can explain both the basic aspects and the subtleties of the analysis throughout the process.

The coalitions should be conceived as long-term projects, rather than groups of people who are thrown together for a limited project. In order to develop trust and openness among committee members of such different factions, the members must feel they have a long-term stake in the process. The experience of ALPACT in the Detroit area demonstrated that long-term coalitions allow law enforcement officials and community members to quickly respond with a collective voice. In the Washtenaw County example, laying the most basic groundwork for a task force was a two-day event, and was necessary even before the task forces began to work together. Rhode Island's multi-year experience shows that contentions might arise even after two years of consistently working together and making decisions. The two years of developing trust and understanding was necessary to get through those contentious meetings and not fall apart before the final report was released.

This leads to the idea that members of task forces must make a commitment to support one another, stand up for the task force and work through the difficult issues. Rhode Island's experience demonstrated how hard it is for task forces to work when attendance is inconsistent and demands from different contingents of the task force are high. On the other hand, ALPACT shows how important it is for a task force to offer a unified front in the face of controversy. Without the strength and commitment that the ALPACT members presented to the community and to law enforcement, ALPACT might not have had such success responding to the tragedy of September 11.

The image of a perfect task force, with a balanced membership that effortlessly works together in harmony to solve every problem or concern, is a false ideal. The best and most productive police-community partnerships, where every member and contingent is willing to honestly grapple with the issues that arise, may face conflict at every turn. In fact, task forces that have no animated discussions may not be addressing the real conflicts in the community. There is no easy way to resolve issues that have plagued police and community relations for decades. Task forces that are in the early development stages should expect, and not back away from, contention in the process.

In short, to successfully address the historic police-community disconnect and truly have an impact on issues like the community perceptions of racial profiling, police and community members must build real, lasting partnerships, rather than symbolic associations. Relationships formed through the police-community partnership model can ultimately be mutually advantageous for all parties involved. In all four of the situations, the police came away from the task force better able to do their jobs, community members came away feeling better served by a more accountable law enforcement agency, and civil society was strengthened by the communication, exchange of information and increase in trust between the parties.

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Chapter Two:

Aggregate Measures of Disparity - Benchmarking

Introduction to Benchmarking
- Traffic Observations
- A City Level Analysis
- Driving Population Estimate
- Not-At-Fault Traffic Crash Data

Conclusion: Drawing Comparisons between Benchmarks

CHAPTER TWO: AGGREGATE MEASURES OF DISPARITY – BENCHMARKING

INTRODUCTION

Construction of an appropriate benchmark against which to compare traffic stops is quite challenging. Because research on racial disparities in traffic stops is relatively new, little consensus exists about the most statistically sound population against which to compare traffic stops. By themselves, the demographics of traffic stops are difficult to interpret. For example, if after collecting data, a particular city discovers that 35% of its traffic stops are of Black drivers, that number by itself does not reveal much. Instead, law enforcement 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.

To determine if racial disparities exist in traffic stops, it is critical to first develop an estimate of the demographics of populations who are at risk for being stopped on roads that are patrolled by the law enforcement agency in question. Researchers have employed several alternatives for developing benchmarks to determine racial disparities in traffic stops. Stop demographics 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. Unfortunately, there is no clear standard about what comparative population is most appropriate for this type of analysis. As the Police Executive Research Forum has noted, the creation of an accurate benchmark is, at best, a "very challenging endeavor" (Fridell, et al. 2001).

Traditional Comparative Benchmark Models

Some studies of racial profiling sought to use residential population data, broken down by race, to estimate the racial percentages of persons using the jurisdiction's roads (Landsdowne 2000; Cordner, Williams, & Zuniga 2001; Coz, et al. 2001; Texas Department of Public Safety 2000). Census data alone is an inappropriate or, at best, 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 the census

population of the areas where the observed intersections were located (Greenwald 2001; Lamberth 2003b). In response to this challenge, some analysts have utilized demographic information from licensed drivers living in an area; however, this data may still be an inaccurate measure of who is driving on the roadway, because individuals with driver's licenses may not drive at equal rates.

To address the limitations of existing benchmark data sources, some analysts have constructed rolling and/or stationary road observations (Lamberth 1996; Zingraff, Smith, & Tomaskovic-Devey 2000; Lamberth 2003a) and video observations of drivers (Lange, Blackman, & Johnson 2002) 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. Roadway observations have been used most successfully to compare the demographics of drivers on specific roadways during specific periods of time with the stop demographics from the same places at the same times.

In addition to census data and roadway observations (by far the two most common traditional benchmarks), analysts have begun to develop new strategies to estimate the demographics of drivers, including modified census calculations, stop-light violation video information, traffic crash data and demographic information from random enforcement activities such as DUI enforcement or seat-belt enforcement initiatives. Instead of describing each benchmarking possibility,[9] we have compiled a set of case studies that outlines the strategies, applications and results of four different benchmarking methods.

[9] For a comprehensive descriptions of various benchmarking methodologies, see Lorie Fridell (2005) *By the Numbers: A Guide to Analyzing Race Data from Vehicle Stops*, Police Executive Research Forum, Washington , D.C..

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TRAFFIC OBSERVATIONS: THE HOW, WHAT AND WHY

John Lamberth

The benchmark data collection reported in this paper involves five jurisdictions: two in Kansas (Lamberth 2003), one in Michigan (Lamberth 2001), one in California and one in Texas. The jurisdictions in Kansas and Texas were collecting data under a legislative mandate, although one jurisdiction in Kansas had already voluntarily collected stop data. Both of the jurisdictions in Michigan and California were collecting data voluntarily. The stop data collected in these jurisdictions varied somewhat, but data elements common to all of these jurisdictions included: date, time, exact location of the stops (street and cross-street or mile marker on highways), race/ethnicity of the driver, reason for the stop and outcome of the stop. The time period of stop data collection ranged from a few months for Kansas to 12 months for the city in California. Stops numbered from 3,715 to 200,000. These jurisdictions represent a sample of the work done since 2000 using the methodology described in this paper to benchmark urban and suburban areas.

Traffic Observations as a Benchmark

In trying to determine whether racial profiling is occurring, an appropriate benchmark or measure must first be determined against which to compare stop data. The data being collected in these benchmarking endeavors represent what we consider the most appropriate data set for observational benchmarks. Since 1993, when this work began, our benchmarking has attempted to estimate the traffic stream from which an officer selects a motorist to stop. The issue is whether the traffic or the violators is the appropriate benchmark.

This particular issue was first raised in a New Jersey state court case, *State v. Kennedy,* 588 A.2d 834 (N.J. Super. Ct. 1991). In the early 1990s, the Court opined that the appropriate benchmark was traffic violators, because they were the only ones who were legally subject to being stopped by police. Several courts agreed with this notion, including the New Jersey Superior Court in *State v. Pedro Soto,* 734 A.2d 350 (N.J.Super.Ct. Law Div. 1996), and other courts in New Jersey, Maryland and Arizona.

From these conclusions, it would seem obvious that we should be attempting to estimate the violator population, not the traffic population.

Traffic Stream from Which Motorists are Stopped

However, as is often the case, the situation is not quite that simple. According to the data we have gathered, even though speeding is actually the number-one reason that motorists are stopped, there are hundreds of traffic violations for which a motorist can be stopped. This could lead to the conclusion that all or virtually all motorists are violating some traffic law. To determine if this might be the case, we considered two issues. First, there is evidence from highway studies that violators and traffic are essentially the same. In one study in New Jersey, for instance, more than 98% of cars were speeding (Lamberth 1994). In another study in Maryland, 93.3% of the drivers were speeding (Lamberth 1996).

Second, most police officers who spend time on traffic patrol will tell you that they can make a "righteous" stop in a block or two. To determine whether officers can, in fact, stop any car within a block or two, we designed an experiment. An officer in plain clothes drove a private vehicle with the researcher in the front passenger seat. The officer was instructed to look for a traffic violation as soon as a car was identified, and was also asked to note the race/ethnicity of the driver. The officer was allowed to pull in behind the car, if desired. The researcher selected the first, second or third car that passed them or that they passed, on the basis of randomly selected numbers noted on the data sheets. As soon as the car was selected, the researcher identified it for the officer and noted the time. Once the officer identified a traffic violation, the researcher noted the time, the violation and race/ethnicity of the driver, and then selected the next car based on the next random number on the data sheet. If the officer could not determine a violation in five minutes, the car was classified as a non-violator.

The results were as follows:

- While most of the experimental sessions were run during daylight hours, 34% of the motorists were observed at night.
- Officers noted violations of the traffic law for 93.8% of cars.

- On average, it took 28 seconds for the officer to determine a violation.
- The officer estimated he knew the race of the motorist 88% of the time.

These results strongly suggest that traffic and violators are essentially the same. This experiment holds the officers to a relatively high standard in assessing the vast majority of traffic violations that call for a subjective assessment. For example, when is a motorist following too closely or making an unsafe lane change? In this study, the officer had to justify the call not only to himself, but also to the researcher.

Officers Primarily Stop Egregious Violators

Another issue that must be addressed is the claim that officers primarily stop those who are egregiously violating traffic laws. This claim first appeared in the testimony of the State's expert witness in the 1995 New Jersey state case, *New Jersey v. Soto*. When asked for an explanation of why minorities are stopped more frequently than would be expected from their presence in the motoring public, the expert witness opined that officers primarily stop egregious violators. The implication in this assertion was that African-Americans are more numerous in the egregious violator category; however, the expert witness put forth no empirical evidence to support his hypothesis and made the claims in the face of testimony from New Jersey State Troopers who said that there is no discernable difference in the way that African-Americans and other races drive. The expert witness's implication was also disputed in the U.S. Government Accounting Office report of 2000, which indicated that there was no evidence that minorities are more likely to egregiously violate traffic laws than non-minorities.

The evidence must be examined to best evaluate these claims. The first claim is that officers are primarily stopping those motorists who egregiously violate traffic laws. Evidence for this claim is limited and relatively new, since most police forces have not kept records of all stops of motorists until recently. The evidence that we do have from highway studies, however, shows rather convincingly that troopers are not primarily stopping motorists who are egregiously violating traffic laws. For instance, most stops are not cited. In New Jersey, about 60% of the stops made did not result in a citation; in Arizona, it was estimated that about 75% of those drivers stopped were not cited. Working from the assumption that

officers will cite the drivers they stop who were egregiously violating the law and will not apply discretion erroneously, these numbers suggest that a majority of those stopped are not egregious violators.

Evidence from urban/suburban data, while not as strong, indicates that some departments do not cite half or more of the motorists they stop. Further, departments that hand out the most citations still do not cite a quarter of the individuals who are stopped.

To view the issue of whether minorities egregiously violated the law more than non-minorities, it is important to look at the percentage of stops of minorities and non-minorities that result in a citation. If officers were primarily stopping people for egregious violations, and minorities were egregiously violating traffic laws more than non-minorities, the data should reflect a higher citation rate for minorities versus non-minorities. The assumption, again, is that an officer will not stop a motorist who is egregiously violating a traffic law, then fail to write a citation. Table 1 presents this comparison. As demonstrated in the Table, minorities are cited less often than non-minorities in most of the jurisdictions. Of the seven comparisons, six of them show that minorities are cited less often than non-minorities, and only one comparison shows a slightly higher rate for the citation of Hispanics.

Table 1 – Racial and Ethnic Citation Rates

Agency	**Percent Black Cited**	**Percent Hispanic Cited**	**Percent White Cited**
Washtenaw	26%	N/A*	39%
Midwest City	43%	46%	55%
Southwest City	64%	76%	75%
Nevada	62%	68%	70%

*There were very few stops of Hispanics in Washtenaw.

Finally, from some relatively new evidence, the stops from nine of the largest police agencies in Nevada was released in late January 2003 (McCorkle 2003). One of the measures taken in this study was speeding and the number of miles per hour the driver was traveling over the speed limit. Since speeding has been suggested as a possible area in which Blacks more egregiously violate the law, the Nevada data is intriguing, breaking speeding down into four categories: 1-5, 6-10, 11-15 and 16+ mph over the limit. Blacks are lower than the average in all four categories, and next-to-the-lowest group in the 16+ category.

However, when one looks at the Nevada Highway Patrol data, Blacks are slightly higher in the 16+ category than the average, but considerably below Asians in that category. Table 2 sets out the data. In the Nevada report, speeding 16+ miles an hour over the speed limit is categorized as a low-discretion stop, while all others are viewed as high-discretion.

Table 2 – Violation Types by Race

Violation	White	Black	Hispanic	Asian	Other	All
16+ mph over speed limit	40.0%	36.8%	34.5%	41.4%	44.4%	38.9%
High discretion stops[10]	60.0%	63.2%	65.5%	58.6%	55.6%	61.1%

The most illuminating data reveals which motorists officers stop and which violations come from stop data. Theoretically, officers should stop those who are most egregiously violating traffic laws. Whether they actually do, however, is an empirical question.

There has been one study indicating that Blacks were likely to violate speeding laws more egregiously than non-Blacks (Lange, Blackman, and Johnson 2001). This study found that Blacks were more likely to be speeding egregiously than Whites on the New Jersey Turnpike when the speed limit was 65, but not when it was 55. While there are other methodological weaknesses with this study, it is interesting to note that Blacks are slightly more numerous in the egregious violator category for the Nevada Highway Patrol data, but are less likely to be egregious violators in the Nevada urban/suburban areas. Researchers should carefully consider differences between highway and city driving.

Benchmark Collection Methodology

The logic of the methodology is to assess disparities between the racial /ethnic makeup of stops and the racial /ethnic makeup of the transient population in specific locations. By observing the motorists who pass through a number of high-traffic locations in a jurisdiction, we can estimate the driving population and use this number as a benchmark against which to compare the department's traffic stops.

[10] Traffic control device, speeding violations under 16 mph, lane violations, following too close, failure to signal.

The first step is the selection of the benchmark locations based on police activity, roadway conditions, departmental needs and surveyor safety. If there is little or no police activity in a location, it would not make sense to survey the area because the sample size for stops would be too small for accurate analysis. Thus a comparison of the traffic to the stops is made at specific points of high police activity throughout the jurisdiction. If there are more areas in the jurisdiction than survey resources, locations are chosen randomly. Occasionally, due to departmental need to cover all beats or community desire to have some areas included in the benchmark, areas of lower police activity are observed with the tacit understanding that it will take somewhat longer to accrue enough stops to analyze.

Analysis is conducted based on the stops that took place within a polygon surrounding the benchmarked intersection. The size of the polygon is dependent upon several variables, one being the geography of the roadways surrounding the location. Often there are natural barriers or main feeder roads that dilute traffic, potentially making traffic activity in the larger polygon inconsistent with activity in the intersection. The idea is to have the largest possible perimeter around the benchmark location while assuring that the traffic passing through represents the traffic in the perimeter. Often, perimeters are drawn two to three blocks out from the benchmark location, but they can be more or less than that.

After the locations are selected, a week is divided into 28 six-hour periods, with each day divided into four six-hour periods. Eight periods are randomly selected, with some limitations on the selection process. No more than two of the midnight-to-6:00 a.m. time periods may be selected, because of low traffic activity in most cities during this time period. Rush hours, weekdays and weekends must be covered in the selection; weekends are defined as Friday evening to Sunday evening.

Between four and six intersections will be surveyed in a six-hour period to develop enough of a sample size to allow for overall analysis with broad categories, such as daytime vs. nighttime and weekdays vs. weekends. If there is reason to think that stops vary within a specific day or time dimension, oversampling will be conducted to meet analytic needs.

Surveyors are given intensive training, including adequate field training to assure that the individual has both the hand-eye coordination to observe and record traffic, and the ability to concentrate

on the traffic for the appropriate time period without being distracted. During the training, inter-rater reliability tests are conducted between the surveyors. Surveyors who cannot achieve a high accuracy level as measured by agreement with other surveyors will not be allowed to continue. Inter-rater reliability tests are normally conducted later in the surveying process as well.

For night surveying, it is necessary to assure that there is adequate ambient lighting for a high degree of surveyor identification of race/ethnicity. If there is not sufficient light from preexisting sources, then the light must be supplemented. Law enforcement agencies have provided two sources of light in our observation periods. Initially, officers can provide the alley lights on patrol cars. In most instances, this provides an adequate amount of light to allow for identification of a high number of motorists. When this light source is inadequate for one reason or another, portable lights, which many departments have, are used to assure adequate racial/ethnic identification. Typically, stationary surveying in urban/suburban areas during dark conditions increases the "unknown" rate to no more than 5% overall. If possible, it is still better to do surveying during the summer months to capitalize on natural light.

Comparison with Population as a Benchmark

While many researchers eschew the use of census data as a benchmark, there are still many examples in which the data collected by departments is ultimately analyzed using unadjusted census data. Such analyses are done either by the media or those who do not understand the limitations of this benchmark.

The examples provided below are intended to show the real limitations of census data as an estimate of traffic. Each location in the following tables was surveyed using observational methods detailed in this paper. The benchmark constructed based on the observational data is compared to census tract data at that particular location. To assure the greatest comparability between the two estimates, census data was adjusted to include those individuals potentially in the driving population (age 16 and above). The tables explain the weaknesses of census data as a benchmark and the difficulty encountered in attempts to adjust census data to accurately estimate the transient population.

While data from many locations is available, the examples presented are two relatively small areas in Michigan and Kansas. The area in Michigan is 8.0 miles E-W and 14.3 miles N-S, for an area of 114.4 square miles. The range for Black traffic is 3.5% to 38.6%, while the range for Hispanic traffic is 0.4% to 1.6%. As an example of the dynamic nature of traffic, the intersection at Plymouth and Dixboro, with 4.4% Black traffic, is 4.4 miles from the Clark and Prospect intersection, which has 38.6% Black traffic. The results for nine locations are presented in Table 3.

Table 3 - Washtenaw County: Black and Latino Benchmark vs. Census Tract [11]

Location	Benchmark % Black Traffic	Black Census	Comp. Disparity[12]	Benchmark % Latino Traffic	Latino Census	Comp. Disparity
Clark / Prospect	38.6	23.7	-62.9	1.2	1.7	+29.4
Clark / Ridge	21.5	22.6	+4.9	1.2	1.7	+29.4
Congress / Hewitt	25.4	26.5	+4.2	0.6	2.5*	+76.0
Ford / Holmes	34.9	14.2	-146.0	0.5	1.8*	+72.2
Ford / Prospect	7.1	2.8	-154	0.8	1.8*	+55.6
Harris / Ecorse	33.9	7.6	-346.1	0.9	2.2*	+59.1
Jackson / Zeeb	3.5	6.9	+49.3	0.4	2.1*	+81.0
Michigan / Harris	20.9	8.5	-145.9	1.1	2.3*	+52.2
Plymouth / Dixboro	4.4	2.7*	- 63.0	0.7	2.0*	+65.0
Textile / Bridge	18.1	10.9	- 66.1	0.6	1.7*	+64.7
Whittaker / Huron	18.5	18.9	+ 2.1	0.7	2.5	+72.0

*Indicates adjustment to the total percentage on the basis of jurisdiction-wide proportion of minorities age 16 and up, as census tracts with less than 100 minorities are not reported by age and race/ethnicity. Each census total has one or more census tracts that are not reported by age and race/ethnicity.

[11] Note: We arrived at the comparative disparity by subtracting the traffic percentage from the census percentage and dividing by the census percentage.

[12] Comparative disparities have been used most often when there has been an alleged underrepresentation of minority groups, particularly in jury composition and employment discrimination cases. The ceiling of the comparative disparity is 100% when the census data overestimates the minority group being studied, but that limitation is not obtained when the data underestimates that group. The disparity is negative when the census data underestimates the minority population and positive when it overestimates that population. For example, if census data indicates that 20% of the target population is minority and that 10% are in the studied group, the comparative disparity is 50%, and the upper limit of the disparity is 100%. However, if census data indicates that 20% of the target population is minority and that 30% of them are in the studied group, the comparative disparity is 50%, and the upper limit of the disparity is -400%. This says that a group can only be underrepresented by its own absolute size, but can be overrepresented by a larger amount. Kairys, Kadane & Lahozsky (1977) have argued that a comparative disparity of 15% is the level of underrepresentation in jury selection cases that should trigger court action. Not surprisingly, courts, who are far more conservative and resistant to change, have been unwilling to adhere to that standard and have adopted a more stringent one of approximately 40 to 50% (Ramseur v. Beyer, 983 F.2d 1215, 1231-32 (3d Cir. 1992)).

The second area, in Kansas, includes data from Kansas City and Overland Park. This area is 4.4 miles E-W and 6.9 miles N-S, for an area of 30.4 square miles.

Table 4 - Kansas City: Black and Latino Benchmark vs. Census Tract [13]

Location	Benchmark % Black Traffic	Black Census	Comp. Disparity	Benchmark % Latino Traffic	Latino Census	Comp. Disparity
13th & Quindaro	87.6	91.1	+ 3.8%	2.3	6.2*	+62.9%
18th & Parallel	84.9	82.5	- 2.9%	2.5	6.0*	+58.3%
38th & State	51.6	39.8	-29.6%	9.2	19.8	+53.5%
59th & Leavenworth	38.7	27.7	-39.7%	3.0	4.0*	+25.0%
78th & State	30.2	37.0	+18.4%	5.4	7.0	+22.9%
Metropolitan & Woodland	11.2	13.1	+14.5%	29.6	38.0	+22.1%
10th & Kansas	9.0	1.8*	-400.0%	40.1	46.6	+13.9%
43rd & Rainbow	10.0	11.3	+11.5%	8.1	19.1	+57.6%

*Indicates adjustment to the total percentage on the basis of jurisdiction-wide proportion of minorities 16 and up, as census tracts with less than 100 minorities are not reported by age and race/ethnicity. Each census total has one or more census tracts that are not reported by age and race/ethnicity.

Table 5 - Overland Park: Black and Latino Benchmark vs. Census Tract [14]

Location	Benchmark % Black Traffic	Black Census	Comp. Disparity	Benchmark % Latino Traffic	Latino Census	Comp. Disparity
103 & Antioch	4.5	2.7	- 70.4%	3.0	6.2	+ 51.6%
119 & Blue Valley	5.8	2.5	-132.0%	2.5	2.3	- 8.7%
119 & Quivera	3.5	2.3	- 52.2%	1.5	2.4	+ 37.5%
75 & Metcalf	8.3	1.7	-388.2%	3.3	4.5	+ 26.7%
95 & Metcalf	6.8	2.0	-240.0%	2.4	4.8	+ 50.0%
Antioch & Santa Fe	3.1	4.1	+ 24.4%	3.0	6.0	+ 50.0%
College & Metcalf	7.0	2.0	-250.0%	1.9	2.4	+ 20.8%
SMP & Foster	5.1	3.5	- 45.7%	3.3	5.8	+43.1%
Highway 69	2.8	1.8	- 55.6%	1.4	2.5	+ 44.0%

[13] Note: The comparative disparity is arrived at by subtracting the traffic percentage from the census percentage and dividing by the census percentage.
[14] Note: The comparative disparity is arrived at by subtracting the traffic percentage from the census percentage and dividing by the census percentage.

Black traffic ranges from 2.8% to 87.6%, and Hispanic traffic is 1.4% to 40.1%. This data can be found in Tables 4 and 5 above.

From the data above, it appears on the surface that Hispanic motorists are overrepresented in census data compared to traffic; however, data from California suggests otherwise. The results from a city in California are presented in Table 6.

Table 6 - California City: % Black and Latino Benchmark vs. Census Tract

Location	Black Traffic	Black Census	Comp. Disparity	Latino Traffic	Latino Census	Comp. Disparity
Location 1	2.0%	2.6%	+23.3%	18.8%	10.5%	-79.1%
Location 2	7.0%	6.0%	-16.4%	26.8%	21.8%	-22.7%
Location 3	5.7%	7.5%	+24.3%	35.8%	42.8%	+16.4%
Location 4	9.3%	9.8%	+4.8%	40.1%	62.0%	+35.3%
Location 5	8.2%	7.4%	-10.8%	28.2%	17.5%	-61.1%
Location 6	10.8%	4.3%	-151.0%	24.0%	9.4%	-154.4%
Location 7	7.4%	9.8%	+24.25	35.8%	62.0%	+42.3%

As can be seen from Table 6, census data underestimates Hispanic traffic in four locations and overestimates it in three locations. It is not known if this is an anomaly of this specific city, a function of a larger Latino population or some other factor.

The purpose of showing this data is to demonstrate that using census data to estimate traffic flow requires a number of adjustments to ensure accuracy. Even if an algorithm is developed from a preexisting database to accurately estimate traffic, it must determine traffic in the micro as well as the macro world of the jurisdiction. That is, specific areas of a jurisdiction must be considered as well as the jurisdiction as a whole. If this is not possible, then stops in heavily minority-populated areas will be lumped with stops in non-minority areas and possibly confound the whole analysis. Officers who work in heavily minority-populated areas understand that if their stop data is compared to the jurisdiction overall, they will appear to be stopping an excess of minority motorists.

Finally, departments also face the issue of risk management. One of the reasons for a department to undertake a racial profiling assessment is to determine proactively if the department is involved in the practice. Another factor, however, is a desire to correct the problem prior to any formal accusations by those outside the department. While it is better for a department to be actively engaged in addressing the issue prior to any litigation, it is important both for them and for the consultant to be cognizant of litigation and of the benchmarking methodologies that have been accepted by courts.

Benefits and Limitations

Presently, a benchmark derived from observational data is the best estimate of the traffic population at specific locations. This benchmark allows the researcher more precision in analyzing the data than any other. Because observations are excellent estimates of traffic, they allow analysis that can reach specific conclusions about disparities and the meaning of those disparities.

There are two challenges of observation benchmarking. The first is cost. While many agencies claim that observations are more expensive than other forms of benchmarking, we attempted to reduce the price by carefully managing our projects. In the process, we succeeded in providing observational benchmarks at or below the cost of other forms of benchmarking.

The second limitation of observation methodology is that, except in special circumstances, the methodology does not cover an entire jurisdiction. Rather, it emphasizes specific locations of high police activity. While it is true that the methodology proposed here does limit itself to specific locations in the jurisdiction where there is high police activity, this generally works out to reflect the patterns of deployment in the police department. Though it may not reach all of the geographic areas of the jurisdiction, it adequately covers the areas in which the police are heavily deployed.

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A CITY LEVEL ANALYSIS FROM ST. LOUIS

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Background on Data Collection

Data for this project was collected in the city of St. Louis, a single jurisdiction and a city of approximately 348,000 residents, with African-Americans accounting for 51% of the population, Whites accounting for 48% of the population and Hispanics accounting for the majority of the balance of the population. The city has recorded high levels of crime in the past, typically ranking among the top ten cities in the country for rates of violent crime. In addition, St. Louis has experienced residential hyper-segregation, with Blacks historically concentrated on the north side of the city, a patchwork of integrated neighborhoods in the central corridor, and Whites dominating the south side.

The current study was motivated by a request from the St. Louis Metropolitan Police Department to conduct an analysis of traffic stop data. This issue gained momentum in Missouri as a consequence of the requirements of Senate Bill No. 1053, passed in the Missouri General Assembly in 2000. The provisions of that legislation required that all law enforcement agencies in the state collect broad information on traffic stops that was to include individual information (race, gender, age), traffic violations alleged, search information, contraband discovered, arrest, location and issuance of a warning or citation. The data was to be reported to the Attorney General by March 1 each year, and the Attorney General was then required to prepare a report for the Governor and the General Assembly no later than June of that year. In addition, law enforcement agencies were required to adopt a policy on race-based traffic stops that met a number of requirements. Agencies that did not comply with the data-collection requirements or the policy development were subject to sanction by the Governor.

The St. Louis Metropolitan Police Department complied fully with the requirements of SB 1053, and has been among the more proactive departments in the state in addressing the findings of the data as well as the issue of racial profiling. The Department, in cooperation with St. Louis County, co-sponsored a conference to work with area police departments in understanding their data and to provide more

effective traffic enforcement that would be free of racial bias. The present study follows two studies conducted in 2002. Based on the 2001 data, the first of the studies examined patterns of traffic stops primarily by district and assignment of officer. The second study examined patterns of stops by individual officers within each assignment and district in order to determine whether "outliers" existed to craft interventions for these officers. In each case, these studies were motivated by a concern within the Department to better understand their data and formulate appropriate responses to the current pattern of traffic enforcement.

The data used for this analysis includes the following:

1. All traffic-stop data for the period January 1, 2002, through December 31, 2002.[15]
2. DSN data for officers identifying officer race, gender, age, assignment code, commissioned date, highest school degree and DSN.[16]
3. Officer assignments by district and special unit.[17]
4. The square-mile size, population and racial composition of each police district.
5. Census data for the 16-and-over population in the city of St. Louis.

In sum, a total of 37,902 stops were included in this analysis, representing the universe of stops made by the Department in 2002.

Benchmark

The specific benchmark that was used was drawn from the statewide Missouri racial profiling study (http://www.ago.state.mo.us/racialprofiling/2002/racialprofiling.htm). The data used the "disparity index" to assess the extent of disproportionality of traffic stops by race. This formula uses the population by race in the denominator and the number of stops by race in the numerator. For example, a disparity index of 1.0 would mean that the percent of stops by race is equal to the percent of that group in the population. Thus, if a city has a 50 percent African-American population and 50 percent of the traffic

[15] The St. Louis Metropolitan Police department provided the data.
[16] The St. Louis Metropolitan Police department provided the data. The researchers are "blinded" to actual DSNs, using random numbers to replace the actual DSNs once race, gender, rank and assignment categories were established.

stops in that city were of African-Americans, the disparity index for that city would be 1.0. A disparity index of 1.0 would indicate that that there was no racial disparity, at least as indicated by the ratio of the stops by race divided by the population of the jurisdiction. The lower the level of aggregation, the more accurate such measures become; if such reports were available at the neighborhood or police district level, they would be much more useful for both policy and theory. It must be emphasized that this measure is wholly dependent on population measures and does not include measures of driving or traffic violations by race. As such, this denominator is not the most desirable; however, it is widely available, does not cost a lot of money to collect, and has been demonstrated to be a reliable indicator of many more desirable measures of the race of drivers.

In the statewide Missouri report, the disparity score was aggregated at the city level for all agencies that contributed data. The command staff of the St. Louis Metropolitan Police Department desired additional analysis of their traffic-stop patterns in order to assess the extent that disparities by race existed within the city, as well as to offer policy recommendations. To address these concerns, we continued to use a disparity index based on the driving age census population, but disaggregated the data to a lower level of analysis. We refer to this as "localizing benchmarking," since it is an attempt to connect disparity analysis to a more meaningful local population of where a stop occurs. The Department added several variables to those that were mandated by the requirements of SB 1053, including district of the stop, officer identification information (including assignment, race, sex, years of service on the force and education of the officers) and nature of the stop. In addition to the stop patterns reported in this chapter, the Department -also requested an analysis of search-and-arrest patterns.

For the individual level analysis of officer stops, we followed an internal benchmarking approach similar to that advocated by Walker (2001). This model calls for comparing the stop patterns of officers who work in similar conditions, such as the same district, shift or assignment. The underlying assumption of this model is that disparate stop practices among officers are likely to follow the observed patterns of officer use of force or citizen complaints in that they are often concentrated in a small percentage of

[17] The data was provided by the St. Louis Metropolitan Police Department.

officers (e.g., Christopher Commission 1991; Lersch and Mieczkowski 1996). Walker notes that this consideration of identifying outlier officers is viable as long as there are not more systemic patterns of discriminatory stops in the Department, which highlights the need to conduct the disaggregated analysis planned above.

Other benchmarks for analysis could have included measures of: 1) official crime data, 2) observation of driving population, 3) observation of traffic violations, and 4) patterns of traffic accidents. This data was not collected, probably because of the expediency of other data sources combined with concerns about the costs of data collection. The additional data provided by the Police Department, however, led to a richer analysis than commonly found in local traffic-stop evaluations.

Constructing the Benchmark

The first order of business was to disaggregate the city level disparity score to a more meaningful level of analysis. The disparity index score for Black drivers in the city of St. Louis as a whole was 1.05. The difficulty of relying on this measure is that there is considerable variation across neighborhoods and police districts in St. Louis with regard to the racial composition of the residents. Klinger (1997) suggests that the police district represents a level of analysis where patterns of officer behavior can vary, given the norms of activity within the district. In order to identify any potential divergent patterns under the overall city measure, we used the data provided by the Police Department and the U.S. Census to construct disparity index scores for each district.

To create the denominator for this analysis, we fit the block level data from the 2000 U.S. Census to each of the nine districts in the Department. The data for the 16-and-over population (driving age population) was separated to obtain percent population for each racial (black, white, other) group in the district. As noted, the racial composition of the police districts was quite disparate, ranging from 96% White in District 2 to 98% Black in District 8. The Department provided information about the district where each stop occurred. This was used to create the numerator by breaking down the racial percentages (black, white, other) for drivers stopped in each district. As with the disparity index created for the city,

the disparity index for each district was then constructed by dividing the percent stopped for each racial group by the corresponding population of that racial group residing in the district.

An additional consideration that requires disaggregating is the assignment of the officer making the stop. Walker (2001) notes that a good portion of the early racial profiling work focused on state law enforcement agencies making traffic stops on interstate highways. He notes that the problem with generalizing from the findings is that the majority of officers in the United States work in municipal departments where officers work in a different context (namely not on interstates), and where traffic enforcement is not a primary task. This raises a parallel consideration for examining a large Department like St. Louis. Officers in this agency are assigned to different tasks, such as district patrol, traffic and various other specialized enforcement efforts. It is reasonable to question whether different patterns of traffic stops exist within the agency based on these assignments.

Our analysis also separated traffic stops by officer assignment. To identify variations in the disparity index among these assignments, we connected the assignment to the location of the stop. As a result, isolating assignment patterns occurred after the above district analysis was conducted. Once stops were disaggregated by district, they were again separated by officer assignment. The calculation of the disparity index was then realized by dividing the race of drivers stopped within each assignment by the corresponding residential population of these racial groups in the district.

The breakdown of stops by district and officer assignment offers the creation of comparable groups called for by Walker (2001) to conduct an individual level analysis for identifying outlying officers. To be included in this analysis, the officers within each group had to conduct more than 10 stops. This eliminated questionable empirical patterns that could emerge from officers who conducted only a handful of stops. The standard deviation was calculated for each group, then z-scores were assigned to each officer to identify outliers. One important consideration raised by Walker was that this analysis

would only be a useful technique for identifying individual officers who might have a problem.[18] Determining more macro-level patterns of disparity requires other techniques. The two techniques for disaggregating by district and assignment can aid in this analysis. We also explored the interaction between driver and officer race.

Walker (1985) notes that a long-held assumption in policing was that discriminatory behavior in this line of work could be attributed to the ranks of White officers in departments. The research, however, has consistently shown that there is little difference in behavior between Black and White officers when making arrests (Black, 1980) or using force (Reiss, 1968). Fyfe (1978) found that after accounting for whether the suspect was armed and/or attacked the officers, White officers were no more likely to shoot a Black citizen than a Black officer. The interaction between officer and citizen race is an important consideration in the study of traffic-stop patterns given that the underlying assumption of racial profiling is that it is a product of racist White officers acting on their beliefs, whether responding more punitively or selecting stops on pretext (*Whren v. U.S.*, 1996).

To evaluate the potential for a broader source of disparate officer behavior, we examined the interaction between driver and officer race. This analysis was conducted only for officers making stops in a patrol assignment (n=620), since this was the only assignment that had enough officers to conduct this analysis. Like the analysis outlined above, this disparity score between White and Black officers was conducted at the district level.

Results

This analysis highlights the importance of localized benchmarking since the patterns that emerged were notably different from that provided by the city level of analysis. The analysis of each district revealed less stability in the disparity indices than was indicated by the city score. That is, there was substantial variation at the district level that was masked by the summary measure for the city. Across the districts, the disparity index for Black drivers ranged from .77 to 6.33, and for White drivers from .34 to

[18] It is important that Walker (2001) correctly notes that identifying officers who have a much higher rate of stops of a racial group compared to other officers does not indicate discriminatory behavior. Rather, it is only a starting point

3.13. The high-end scores were in the districts with the lowest level of diversity in the population; the high Black score was in the district that was 96% White, and the high White score was in the district that was 98% Black.

What is difficult to estimate is whether these different district scores are related to discrimination or some other pattern in the drivers at risk of being stopped in each district. The data does not reveal the extent to which driving patterns in each district are influenced by drivers from surrounding communities. The only potential consideration of these disparities came from the interaction effect of officer and driver race. The disparity index for White and Black patrol officers was nearly identical when analyzed at the city level, with a score of approximately 1.50 for Black drivers. At the more localized benchmarking level of the district, the patterns were also nearly identical between Black and White officers. These findings suggest that officers' race is not a significant contributor to variation stop patterns, and that there may be other contextual factors that relate to the differences in the districts.

One of the key findings was that officer assignment was an important determinant of the race of the citizen stopped. The analysis primarily focused on traffic and district patrol officer, since they accounted for approximately 78% of all stops conducted.[19] The traffic officers predominantly stopped White drivers (57%), while district patrol officers overwhelmingly stopped Black drivers (71%). These differences evened out at the city level, though, since the 37 officers assigned to the traffic division accounted for 18,955 stops, compared to the 10,674 traffic stops conducted by the 620 district patrol officers. It is difficult to specifically determine the nature of the difference from the data, but it appears to be related to the context of the stop location. It seems that traffic officers predominantly make stops on the interstate and major thoroughfares. For example, of the 11,222 stops conducted on the interstate during the data-collection period, traffic officers conducted 75%, and a specialized commercial enforcement unit accounted for a large portion of the remaining percentage.

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for finding officers whose behavior might require closer examination.

[19] The remaining traffic stops were divided among a number of other assignments, but the accumulation in any one assignment was not enough for comparison with the patrol and district officers.

Overall, the localized benchmarking illustrated the importance of looking at internal patterns of stop activity, particularly for identifying possible outlier officers that may need further attention or correction. To identify these officers based on the city level disparity index would surely have been faulty. Officers would be compared to individuals who were working in appreciably different contexts, whether because of the racial composition of the district they worked in or their assignments. Based on this reasoning, we used the assignment of the officer by district of stop to conduct our individual officer analysis. Without elaborating on these individual level findings, we can say that assignment and location make a substantial difference in the nature of potential police-citizen interactions, and that those context variables (assignment and location) are more important in understanding outcomes (stops, searches) than are the race of citizens or officers, or the interaction of those two variables.

Strengths and Limitations of the Benchmark

As the work by Lorie Fridell (2001) of the Police Executive Research Forum has so forcefully concluded, there is no substitute for having the "right" denominator in examinations of racial profiling. Actually knowing the racial composition of the pool of "drivers driving" as well as the distribution of law- and ordinance-violating behavior of those drivers is critical for a successful resolution of the issue of racial profiling. What we have presented is an analysis based upon residential population of driving age within jurisdictions. This measure falls short of reaching a "gold standard"; however, what the present research does document is the importance of understanding the broader context within which traffic stops occur. Our analysis clearly documents that officer assignment (particularly the distinction between traffic and patrol assignments) is a key to understanding citywide patterns of traffic stops. In addition, the underlying racial composition of an assignment area (beat, district, scout car area, etc.) has near equal importance in accounting for traffic stops and post-stop actions. We found little support in our analysis for the contention that officer race, gender or years of experience were related in meaningful ways to the pattern of stops and post-stop actions.

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THE DRIVING POPULATION ESTIMATE

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While observational methodologies are becoming a more acceptable method of assessing driving populations, they are both costly and time-consuming, particularly for studies such as the study in Rhode Island that involved multiple agencies. Noting both the limitations of existing residential population data and the challenges of obtaining accurate road survey data across Rhode Island, we constructed a refined estimate of the driving population that may better represent the demographic makeup of the roadways for each Rhode Island jurisdiction.

Background: the Rhode Island Traffic Stop Statistics Act

The Rhode Island Legislature passed the Traffic Stop Statistics Act on July 13, 2000. The Act mandated a "study of traffic stops by the police to determine whether racial profiling was occurring" and required police to prohibit the practice of racial profiling. In addition, the Act required the collection of data for all routine traffic stops made by the Rhode Island State Police and all municipal police departments. All traffic-stop data was to be forwarded to the Rhode Island Attorney General's Office, which would conduct a study of racial profiling and release information on traffic stops on a quarterly basis. The Attorney General contracted Northeastern University's Institute on Race and Justice to provide technical assistance with the data-collection design and implementation, and to conduct the final analysis of traffic-stop statistics in Rhode Island. Data collection was mandated to begin on January 15, 2001, and continued through December 31, 2002. Statewide, approximately 445,500 traffic stops were analyzed during the study period.

Rhode Island Driving Population Estimate – Measuring Municipal Driving Populations

Residential population data was an inappropriate measure of driving populations for many Rhode Island communities, because the driving population in areas throughout the state was believed to be

demographically different than the residential population, which might be explained by a number of factors. First, racial groups within a city may own vehicles and drive at different rates. Second, racial groups within a city may drive at different times of the day, which make them more likely to be stopped by the police. Finally, and potentially most important, people from surrounding cities with different demographic populations likely populate the roadways of a city. In light of these problems, we created a driving population estimate based on the idea that the demographics of a target city may be better understood by weighting the population of the target city by the drivers of surrounding cities who may drive in or through the city in question. The following section briefly discusses the assumptions of the driving population estimate and explains how the estimate was created.

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 the relative attraction of drivers to a city is inversely proportional to some function of spatial separation (Carroll, 1955). That is, cities that are further in both distance and travel time from a target city contribute fewer people to the driving population of the target city. 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 overcome the barrier of distance 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 would be more likely to go to a city with some economic draw (e.g., shopping, employment, entertainment) than a city without such draw. Conversely, people will choose to travel out of the community in which they live if it does not have economic draws such as employment or

entertainment. 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.

Determining 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 driving population of a jurisdiction is primarily influenced by communities that fall within a 30-mile perimeter (Anderson, 1979; Mikkonen and Luoma, 1999). People outside this perimeter likely have little effect on the driving population of the target city. For each of the 38 municipalities collecting traffic-stop data in Rhode Island, we identified all cities and towns that fell within 30 miles of each target city, including areas of Massachusetts and Connecticut, where appropriate.

Once we determined a pool of "contributing cities" for each Rhode Island jurisdiction, we calculated the total population of each contributing city and the racial breakdown of that population based on the 2000 census data.[20] Using these calculations for each 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; 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:

Table 1: Push Calculation

[20] It is important to note that for purposes of this analysis, we make the assumption that people from different racial groups travel to surrounding communities based on the same set of draws. There are many logical reasons to believe that groups may not be drawn into surrounding communities at equal rates; however, there is little solid existing data on racial differences in driving behavior upon which to base such calculations.

$$\frac{\text{(Contributing City Population) (Percent Vehicle Owners) (Percent Drive More Than 10 Miles to Work)}}{\text{Distance in Minutes from Target City}}$$

The above formula determined the number of people that would contribute to the driving population of the target city from each contributing city. The main point of this exercise was to determine the relative pulls from each contributing city. We were not as concerned with the actual number of people being drawn into the target city, but rather the relative relationship between different cities that contribute to the driving population in the target city.

Once we determined how many people each city was contributing to the driving population of our modified city, we then divided each contributing population by the original race breakdowns for the city according to the 2000 U.S. Census. For example, if City A was contributing 1000 people to the driving population of the target city, and City A's racial breakdown was 70% White, 20% Black, and 10% Hispanic, City A would contribute 700 White drivers, 200 Black drivers and 100 Hispanic drivers. For each racial group, we added together the contributing racial group populations.

For example:

CityA White + CityB White + CityC White…..= Total Contributing Whites

At the end of this exercise, we had a pool of drivers from each racial group for each target city that made up the transient driving population for that city. The next step was to determine what proportion of the target city's population was residential and what proportion was transient.

Determining Draw

People travel to or pass through cities to shop, to go out to dinner or entertainment venues, 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 by 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. Therefore, a city that was high for all four indicators would rank high as a draw city, and a city that was low for all four indicators would rank as a relatively low draw city. Because all four indicators are averaged equally, no single indicator would determine the overall draw. For example, a city might make up a relatively low proportion of the state employment but have a high daily road volume because a major thoroughfare passes through the city (e.g., Route 1 or Route 6).

Based on these four estimates, each city was given a draw ranking between 1 and 4. Cities that fell into the first category were high draw cities, meaning 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.

Ratios of residential to contributing population were then assigned to each of the four city types. The transportation planning literature was again relevant to our determination of ratios for each city. This literature indicated that even in cities with heavy transient populations, resident drivers make up a large proportion of the driving population (Creighton, 1970). That proportion may be increased as a function of the relative "draw" of the city. For example, if there is a grocery store in a driver's hometown, the driver will most likely choose to stay in that town to shop rather than drive to a neighboring community. Additionally, all drivers who live in a city must at some point populate the roadways of that city, even if their destination is outside of the original city. Therefore, we determined that even in our high draw cities, transient driving populations from contributing cities would not constitute more than 50% of the total driving population. Based on this logic, the following four ratios were designed to measure the relative influence of residential versus contributing population.

Table 2: Draw Ratios

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

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. These totals were combined, resulting in the final racial demographics of the driving population estimate.

A DPE was calculated for all jurisdictions in Rhode Island using the methodology described above. For many jurisdictions, the racial demographics of the driving population estimate were quite different than the racial demographics of the resident population according to the 2000 United States Census Population figures. The results of the DPE calculations and their comparisons to census population figures are illustrated in Table 3 below.

Table 3: Census to Modified Census Comparison (DPE)

	Census Population 18+	% Non-White Census	% Non-White DPE	% Difference
Warwick	67,028	5.0%	9.5%	-4.5%
North Kingstown	19,478	4.2%	7.7%	-3.5%
Johnston	22,298	3.6%	6.4%	-2.8%
Cranston	62,171	11.4%	14.0%	-2.6%
Lincoln	15,741	4.5%	7.0%	-2.5%
Bristol	18,070	3.5%	6.0%	-2.5%
East Greenwich	9,384	4.2%	6.3%	-2.1%
East Providence	38,142	12.8%	14.9%	-2.1%
Smithfield	16,594	3.2%	5.2%	-2.0%
Cumberland	24,150	3.9%	5.9%	-2.0%
Portsmouth	12,820	4.4%	6.2%	-1.8%
West Warwick	22,949	6.2%	7.9%	-1.7%
North Providence	26,475	9.1%	10.8%	-1.7%
Tiverton	11,893	1.9%	3.2%	-1.3%
Burrillville	11,753	1.6%	2.8%	-1.2%
Scituate	7,689	1.9%	3.1%	-1.2%
North Smithfield	8,239	1.7%	2.9%	-1.2%
Barrington	12,074	4.0%	5.2%	-1.2%
Warren	8,906	3.0%	4.1%	-1.1%
Glocester	7,284	1.5%	2.6%	-1.1%
Foster	3,169	2.7%	3.8%	-1.1%
Coventry	33,668	2.5%	3.6%	-1.1%
West Greenwich	3,641	2.6%	3.4%	-0.8%
Westerly	17,560	4.7%	5.5%	-0.8%
Little Compton	2,813	1.7%	2.3%	-0.6%
Hopkinton	5,825	3.1%	3.7%	-0.6%
Jamestown	4,384	2.6%	3.1%	-0.5%
Richmond	5,208	3.5%	4.0%	-0.5%
Narragansett	13,528	4.0%	4.3%	-0.3%
Charlestown	6,147	3.5%	3.7%	-0.2%
New Shoreham	4,384	2.6%	2.6%	0.0%
Middletown	13,006	10.6%	10.1%	0.5%
South Kingstown	21,637	9.2%	8.7%	0.5%
Woonsocket	32,069	15.1%	14.6%	0.5%
Pawtucket	54,807	26.4%	24.4%	2.0%
Newport	21,276	14.7%	12.0%	2.7%
Central Falls	13,397	55.2%	51.4%	3.8%
Providence	128,341	46.5%	32.2%	14.3%

To test the accuracy of the DPE model, we conducted stationary road survey samples in two Rhode Island communities to measure the actual racial demographics of the driving population. In both communities, our modified estimate of the racial breakdown of the driving population closely matched the road demographics we obtained from our road survey.

Table 4: Citywide Comparison of Census Demographics, Road Survey and Driving Population Estimate

Jurisdiction	**Race**	**2000 Census Population**	**18+ 2000 Census Population**	**Road Survey Demographics**	**Driving Population Estimate**	**Traffic Stops**
Warwick						
	White	94.3%	95%	93.4%	90.6%	89.2%
	Black	1.1%	1.1%	2.6%	2.1%	4.3%
	Amer. Indian	0.2%	0.2%	-	0.2%	0%
	Asian	1.5%	1.4%	1.1%	1.7%	1.7%
	Hispanic	1.6%	1.3%	2.9%	3.7%	4.4%
	Other	1.3%	1%	-	1.6%	0.3%
	Total	100%	100%	100%	100%	100%
E. Providence						
	White	85%	87.2%	86.8%	85.7%	80.2%
	Black	4.9%	4.5%	6.5%	4.5%	12.2%
	Amer. Indian	0.4%	0.4%	-	0.37%	0%
	Asian	1.1%	1.2%	1.3%	1.61%	1.2%
	Hispanic	1.9%	1.5%	5.3%	3.96%	5.90%
	Other	6.1%	5.2%	-	4.49%	0.50%
	Total	100%	100%	100%	100%	100%

The next table provides a breakdown of the citywide road survey observation results for each racial and ethnic group, and compares those results to the census population, our estimated driving population and the traffic-stop demographics reported by each agency.

Table 5: East Providence and Warwick Census to Road Survey Comparisons

	Location	Non-White Census	Non-White Road Survey	Non-White Driving Pop. Estimate	Non-White Stops
East Providence	Post 1	14.1%	9.3%	16.2%	25.0%
	Post 2	26.9%	16.8%	29.0%	28.0%
	Post 3	16.5%	13.7%	18.6%	24.7%
	Post 4	7.6%	6.1%	9.7%	9.7%
	Post 5	5.1%	11.7%	7.2%	17.9%
	Post 6	7.4%	6.1%	9.5%	13.1%
	Post 7	23.5%	10.8%	25.6%	25.4%
	Post 8	8.2%	11.3%	10.3%	19.7%
	Post 9	14.2%	13.0%	16.3%	20.0%
	Interstate -195	n/a	n/a	n/a	36.3%
	East Shore Expway	n/a	n/a	n/a	9.4%
	Henderson Bridge	n/a	n/a	n/a	14.7%
Warwick	Post 1	7.6%	5.8%	12.1%	9.5%
	Post 2	3.8%	4.3%	8.3%	6.1%
	Post 3	7.3%	5.0%	11.8%	8.8%
	Post 4	4.6%	5.5%	9.1%	5.7%
	Post 5	4.9%	5.8%	9.4%	11.5%
	Post 6	5.9%	5.0%	10.4%	8.8%
	Post 7	4.6%	5.0%	9.1%	6.8%
	Post 8	3.2%	7.5%	7.7%	14.4%
	Post 9	5.4%	8.0%	9.9%	18.2%
	Post 10	5.5%	7.2%	10.0%	12.8%
	Post 11	9.0%	6.8%	13.5%	11.4%
	Post 12	3.6%	3.9%	8.1%	6.1%
	Post 13	4.3%	8.8%	8.8%	13.6%
	Post 14	8.1%	8.8%	12.6%	19.0%
	Post 15	2.5%	6.4%	7.0%	16.7%
	Post 16	5.3%	8.8%	9.8%	10.9%

Strengths and Limitations

One of the primary concerns of many jurisdictions when implementing data-collection programs is the cost of the program and analysis. Although recent literature on data collection continually highlights the strengths of observational benchmarks as best addressing the limitations of using census data as a

benchmark, observational data can be expensive to obtain. One of the main strengths of the DPE is that it is a low-cost option that is better than census data alone. Thus, it can be implemented in many locations where road survey work would be more costly and time-consuming. In addition, DPE is one of the few methods that can be used to analyze data from multiple jurisdictions, because of its method of adjusting census data. DPE can also be considered reliable as a comparative benchmark, because it is based on the logic of transportation literature and tested for accuracy with observational road surveys.

Using DPE as a benchmark does pose some limitations. First, like most of the benchmarks currently used in racial profiling data analysis, DPE is not a measure of traffic violators, but simply a measure of who is driving on the roadways. This limitation is potentially tempered by the idea discussed in John Lamberth's paper that police can potentially find traffic or equipment violations for a vast majority of those in the driving population.

Second, certain measures we employed may not be relevant for all of the cities in the study, even if they were based on sound theoretical considerations. For instance, limiting the commuting populations to those within a 30-minute drive-time may be less helpful for high tourism destinations or areas where drivers are comfortable commuting for longer periods of time.

Finally, the economic indicators that we used for all locations in Rhode Island may differ in strength for different jurisdictions. In some cities, more weight perhaps should be given to employment measures while in other cities, tourism may be a primary draw. In addition, there may be a seasonal or daytime/nighttime variation in draw or push for some cities. The DPE, as currently formulated, creates an average measure that may not be accurate for a particular time or location; however, adding greater complexities for each of these factors will only complicate the model, making it less useful for other jurisdictions to adopt.

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The Utility of Not-At-Fault Traffic Crash Data in Racial Profiling Research

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Social science research on police traffic and pedestrian stops has increased exponentially over the last several years. Along with the proliferation of racial profiling studies, a lively debate has arisen over the most appropriate methods for gathering, analyzing and interpreting stop-related data. Among the topics of debate is the crucial question of benchmarking. Clearly, gathering race and ethnicity data on persons stopped by the police is of little value unless that data can be measured against some meaningful comparison population.

In the past, racial profiling researchers have used a variety of populations as benchmarks against which they have compared police traffic-stop data. One purpose of such comparisons is to ascertain whether minority drivers were stopped disproportionately to their representation in the chosen benchmark population. Comparison populations used in previous studies include adjusted and unadjusted census figures, licensed drivers, reported crime suspects, persons arrested, and observed drivers and traffic violators. Although some of these benchmarks are clearly better than others, each of them suffers from weaknesses that limit, or in some cases obviate, their usefulness as comparison populations in racial profiling research.

Our paper proposes an innovative, alternative benchmark for police traffic stops that promises significant advantages over some of the comparison population benchmarks currently in use by researchers. We are calling this approach the Driving Population Estimation Measure (DPEM).

Background on Data Collection

This research takes place as part of a larger racial profiling study in unincorporated Miami-Dade County, Florida. The Miami-Dade Police Department voluntarily sponsored a research project that would help them determine if officers were engaged in the practice of racial profiling, or more specifically, stopping and searching Black citizens disproportionately to their percentage of the driving population.

The methodology for the original study was designed to observe a sample of police-citizen

interactions and to collect information on traffic stops made by officers. The observational component of the study included structured ride-alongs with the police. The information generated from these observations showed what the police could detect before making a stop, how they interacted with citizens during the stops and what investigative techniques or strategies they employed. The data collected from the stops included the reason for the stop, demographic and other information about the person stopped, where the stop occurred, and whether or not a search was conducted and whether or not contraband was found. Further, officers' characteristics and their history with use of force, citizen complaints and other activities were linked to the stops. The stops were geo-coded to determine the crime rate and other demographic characteristics of the areas in which the stops and searches took place. In order to understand their meaning, the data needed to be compared to a proper baseline. Because census data reflects who lives in the area but not who drives in the area, another approach was needed to make a proper comparison.

Choice of Benchmark and Methodology

Our proposed methodology is built upon the quasi-induced exposure method and is designed to develop a Driving Population Estimation Measure (DPEM). This measure uses not-at-fault traffic crash victims to estimate the racial and ethnic composition of the driving population. The theory is that not-responsible drivers in two-vehicle crashes represent a reasonably accurate estimate of the racial composition of drivers on the road at a sample of high-traffic intersections in unincorporated Miami-Dade County. Aggregating intersection-level traffic crash and observation data according to the racial composition of the areas in which intersections are located can serve to mitigate some of the error associated with measurement at individual intersections. This type of aggregation is preferred, because traffic crashes may disproportionately occur in areas comprised predominantly of a single racial group. If, for example, a large number of accidents occur in predominantly Black neighborhoods (perhaps because of poor roadway conditions), then a jurisdiction-wide estimate of the driving population based on the proportion of a group's involvement in crashes could be skewed and could possibly show a greater proportion of Black drivers than actually exists. Aggregating traffic crash data according to the racial

composition of neighborhoods (e.g. Black, White, mixed) helps mitigate this problem. To be even more precise, researchers in a racial-profiling study could compare the proportion of minorities stopped by the police to the proportion of minority traffic-crash victims by individual neighborhood.

Theoretical Background

Actuarial statisticians and safety engineers have utilized automobile crash data to establish the relative risks of causing a crash or being a crash victim that are associated with driver characteristics, types of vehicles and roadway conditions, among other factors. Thus, research on the demography of drivers and the violation of traffic laws has been a topic of interest for almost 70 years (Allport, as cited in Ross 1961). Early research by Feest (1968) in a study conducted in Berkeley, California, suggested the importance of studying traffic behavior, and identified differences in the driving behavior of Black and White drivers. These research efforts, however, did not address the relative risk or crash exposure of driving subpopulations.

About the same time Feest was reporting his results, Thorpe (1967) moved beyond the observation of driving violations and developed likelihood estimates of driver involvement in crashes. Although his model made some unsupported assumptions about exposure, his insights and ideas set the foundation on which others could build. Carr (1969), for example, introduced the idea of identifying the at-fault driver in a multiple vehicle crash by using police accident investigation reports, which was later labeled quasi-induced exposure by Haight (1970). Carr's (1969) exposure model compares the proportion of the responsible population (at-fault drivers) to the proportion of the non-responsible population (not-at-fault drivers) within categories of drivers. This methodology has been used in the traffic safety literature to estimate the crash risk of drivers grouped by age (McKelvey and Stamatiadis 1988), the impact of age on specific traffic maneuvers (Staplin and Lyles 1991), and the causes of crashes (Stamatiadis and Deacon 1997), among others things.

Underlying the quasi-induced exposure method is the theoretical assumption that not-at-fault drivers in two vehicle crashes represent a random sample of the driving population (Kirk & Stamatiadis 2001; Koornstra 1973; Stamatiadis & Deacon 1997). As Stamatiadis (2002) later asserted, " If you are

hitting another vehicle, you do not select the driver based on age, gender, race, etc. but you hit whomever happens to be there." If Stamatiadis and the other safety engineers are correct in assuming that not-at-fault drivers in two-car crashes represent the driving population, then the racial composition of not-at-fault crash victims should approximate the racial composition of observed drivers, and could create a relatively inexpensive and readily available denominator for research on topics where a baseline of drivers is needed, including research on racial profiling.

Although the quasi-induced exposure method has never been tested or applied in the context of racial-profiling research, it has been subjected to limited empirical testing in other contexts. The few studies that have attempted to validate the method have shown that it holds promise as a potentially useful metric for approximating relevant characteristics of the driving population within a geographic area of interest. If this method can be further validated as a reliable estimation of the racial composition of drivers, then not-at-fault crash data can serve as an alternative and potentially superior benchmark against which to compare police traffic stop data.

Methodology

As part of the study, traffic-pattern data was collected from 16 selected intersections in unincorporated Miami-Dade County during fall and winter 2002. Observation data from the 11 high-volume crash-site intersections were later compared to not-at-fault traffic crash data from the same intersections. Five intersections were eliminated from this part of the study because they were low crash volume sites.

Intersections were selected specifically for their high traffic and crash volumes, and the racial make-up of the area. As the determination of driver ethnicity is problematic, recorded categories of drivers were limited to Black and non-Black. Observers were trained to look for skin color and to code drivers accordingly, rather than attempting to discern finer racial characteristics (e.g. Asian). Thus, persons with light skin who did not appear Black were coded as non-Black. Consistent with the goals of the larger study and this categorization scheme, a list of intersections in predominantly non-Black, substantially Black and racially mixed areas of unincorporated Miami-Dade County was compiled.

Traffic counts were made at these intersections to determine if racial groups drove through them at differential rates. Each intersection was manned by teams of three observers during the morning and evening for four hours each, for a total of eight hours. The days of the observations varied throughout the week, except for Sundays. The morning observations were conducted from 9 a.m. to 1 p.m. and included some rush-hour traffic. The evening observations took place between 4 p.m. and 8 p.m. and included both rush-hour and non-rush-hour traffic. Traffic observations at the intersections began in mid-August 2001 and concluded in mid-February 2002. Night observations were not conducted because of the difficulty in determining the race of drivers after dark. When the observers could not determine the race or gender of the driver, the category of Unknown was used. In only 1.7 percent or 1,585 of the observations could the race or gender of the driver not be determined. The combined total was 65,025 successful observations at the 11 intersections, with 16,937 (26.04%) observations of Black drivers and 48,088 (73.95%) observations of non-Black drivers. These observations were distributed across the 11 intersections, which again were located within predominantly non-Black, substantially Black and racially mixed areas. The observation data from these sites was used to test the DPEM method.

Because the race of the drivers involved in traffic crashes is not computerized in Miami-Dade County, data on driver race was manually extracted from the original Florida Traffic Crash Reports maintained by the police department, which included the race of the drivers as well as the responsible party as determined by the investigating police officer. Available race categories on the crash reports included Black, White, Hispanic and Other. For consistency with the observational strategy, driver race was coded as Black or non-Black; therefore, the non-Black category combined the White, Hispanic and Other categories from the crash reports. Crash data was collected for crashes that occurred at the11 high-volume intersections during the first six months of 2002. To conduct empirical analyses and to be consistent with the theoretical foundation of the quasi-induced exposure method, the race of the not-at-fault driver in two-car crashes must be recorded and utilized.

Three Levels of Analysis

Traffic observation and crash data were compared at three different levels of aggregation. The first level of analysis disaggregated the data by each of the intersections so that similarities and differences could be noted among the different sites. In addition, this disaggregation of data allows identification of differences between observations and the not-at-fault crash data.

The second level of aggregation was the combination of data from all the intersections into one analysis. Previous researchers have advocated aggregating crash data in various ways: by geography (urban vs. rural), roadway type, time of day and day of the week, among others (Lyles, Stamatiadis, & Lighthizer 1991; Stamatiadis & Deacon 1997). The crash and observation data in this study is from high-traffic, high-crash-volume intersections. Although the intersections were not selected randomly from all available intersections of this type, they share the common characteristic of being heavily traveled locations with a relatively large number of motor vehicle crashes. Thus, the data incorporates an aggregate analysis that is naturally grouped according to this type of intersection.

Finally, the data was aggregated according to the racial composition of the areas in which the intersections are located. The purpose of this area-level focus in the larger racial-profiling study was to determine if traffic patterns and police traffic-stop behavior differed according to the racial composition of the areas where traffic stops occurred. Thus, intersections (and their associated observation and crash data) were categorized according to the racial composition of the areas surrounding them as being located in predominantly non-Black, substantially Black or racially mixed areas. Aggregation by the racial composition of the area surrounding the intersections allowed for a more meaningful contextual analysis while still retaining sufficient analytical power for statistical purposes. Moreover, grouping intersections by racial composition mitigates the possibility that traffic crashes are not uniformly dispersed across neighborhoods.

For this third level of analysis, four separate criteria were considered to determine the racial composition of the areas where the intersections are located. The first criterion was the characterization of the neighborhood by police officials working on the study, which captured how police think about the areas in which they operate. The second and third criteria were the racial composition of census blocks

and census tracts where the intersections are located, reflecting the composition of the immediate and general areas surrounding each intersection. The fourth criterion was our own data on the race of drivers observed at the intersections, which captures the racial makeup of the drivers, rather than the residents, in the area.

Based on the assumption that citizens are likely to drive through high-volume intersections located in close proximity to their residences, we chose to categorize an intersection primarily according to the racial composition of the census tract where the intersections are located. Unlike census blocks, census tracts are large enough to capture the character of the area surrounding the intersections, which might (and often did) include neighborhoods whose racial composition was substantially different from that of the intersection itself. Our goal was to capture not just those who lived immediately adjacent to the intersections, but also persons who lived close by and who might possibly travel through them as part of their daily routine.

Findings

A brief overview of the relevant findings reflects the potential for this new benchmark. When two-vehicle traffic-crash data from 403 crashes at 11 high-crash intersections in unincorporated Miami-Dade County were aggregated to area type (Black, non-Black, racially-mixed) and compared against more than 65,000 traffic observations, the percentage point difference across drivers and crash victims in predominantly non-Black areas was only 1.6 percent, while the comparable estimates in mixed and substantially Black areas were 1.2 percent and .69 percent, respectively. When data from all of the intersections were aggregated, the overall difference between the percentage of drivers observed (Black and non-Black) and those involved in traffic crashes (as victims) was also small and statistically insignificant. This demonstrates that the population of not-at-fault drivers in vehicle crash data is potentially a reliable estimate of the driving population, and thus can be used to construct a benchmark against which to compare traffic-stop data.

Strengths and Weaknesses

For traffic studies generally and racial-profiling research specifically, the implications of our findings are significant. In the normal course of investigating traffic crashes, law enforcement agencies that are not already doing so could easily record the race and ethnicity of the drivers involved in the crashes. If our findings in Miami-Dade County can be replicated, then the data will serve as a less costly and more comprehensive estimate of the driving population than traffic observation methods currently provide. Moreover, the data will not be susceptible to the daytime bias inherent in observational data (which is usually gathered only during the day) and unlike observation data, can be aggregated or disaggregated in a variety of ways to help facilitate comparisons to police traffic stops. Just as importantly, officers investigating traffic crashes and capturing driver demographic data can provide more detailed and accurate information on race and ethnicity than currently can be gathered by traffic observers. Such data could be useful for assessing bias against minority groups for which observation data is highly suspect: Hispanics, Native Americans or Arabs.

At the same time, further research is needed, and it will be necessary to replicate DPEM as a reliable estimate of the driving population in different cities and under different conditions, especially since our findings were based on a small number of high-crash intersections that did not represent the driving population of Miami-Dade County as a whole. In addition, further evidence is clearly needed to either validate or invalidate the assumption that drivers violate the plethora of traffic regulations proportionately to their racial group's representation in the driving population.

There are a number of other ways that future research could expand on the strength of DPEM as a potential benchmark for racial-profiling data-collection studies. Traffic radar cameras and stoplight cameras, which are being used in an increasing number of cities, might serve as an independent indicator of violation rates among racial and ethnic groups. DPEM could also be extended through explorations of whether at-fault drivers in two-vehicle crashes could be used as a proxy for the violating population. If at-fault drivers can be established as a reasonable proxy for violators, then traffic observation methods can be eliminated entirely, saving considerable time and expense.

Conclusion

Until recently, there has only been limited interest in estimates of the driving population based on demographic characteristics. Actuarial statisticians working with insurance companies have shown the most interest in the data. Today, however, concerns over racially based policing and police misconduct concerning discretionary traffic stops have created a need to determine who drives on the roads in our cities. DPEM is the first empirically based measure designed to be an efficient and effective tool that, if replicated, could satisfy the needs of traffic safety engineers, actuarial statisticians and researchers who require a valid benchmark of the driving public.

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CONCLUSION: DRAWING COMPARISONS

Although the proceeding four case studies do not offer a single "best-practice" solution for benchmarking traffic-stop data, each provide a unique comparative population against which to compare such data. Each method has strengths and weaknesses which will be briefly outlined below. In the end, we must accept that at this point, social science cannot offer a single "gold standard" to guide how all traffic-stop data should be benchmarked. Different models may be more appropriate considering the types of data which are available, the questions that the agency and community need to have addressed, and the resources which are available for analysis. This summary is designed to help agencies and stakeholders evaluate the type of method that may be most appropriate for their jurisdiction's needs.

From the outset, it is important to note that all four benchmarks utilized in the case studies are non-violator populations. These benchmarks each measure different parts of the driving population (some measuring places where most drivers are, some measuring overall citywide driving demographics, some measuring only places where police make traffic stops). None of the models presented in this set of case studies accurately predicts the demographics of traffic violators within a given jurisdiction.

Benchmarking Comparison

The following chart was constructed to compare different benchmarks.

Benchmark	Benchmark Type	What it Measures	Past Research Using this Benchmark	Used in Litigation
Observations	Location Specific	Driving Population, and Violator Population	North Carolina (Zingraff, 2003), Arizona, (Solop, 2002), Pennsylvania (Engel, 2004), Rhode Island (Farrell, 2004), Florida (Alpert, 2004), California (Joseph, 2004), England (Miller, 2000)	Yes
Driving Population Estimate	Jurisdiction Level	Driving Population	Used in limited number of statewide studies; successfully compared to observation data in limited studies	No
Not-At-Fault Traffic Accident Data	Location Specific	Driving Population	Used in limited number of jurisdiction studies; has been successfully compared to observation data (Alpert, 2004)	No
Internal	Officer Level	Officer(s) to Officer(s) Comparison	Attempts to determine officers at the extremes.	Yes

Observation Data

Strengths:

Provides a true driving population at a particular time in a particular place, so that no estimation is necessary. This method allows analysis to be conducted on traffic stops in particular locations within a jurisdiction.

Can provide city-wide and location-specific analysis that enables an agency to see results city-wide and in specific areas of a jurisdiction.

Results can be stratified across day of week and time of day, which enables precise measurement for differing traveling populations.

Because the traffic is observed and not estimated, it implicitly accounts for many limitations that estimated populations have, such as non-resident populations (University students and tourists).

Limitations:

Requires the additional step of collecting observation data through teams of observers. Many estimate benchmark measures do not require the collection of additional data.

Requires management capability and on-site supervision to ensure that surveying teams collect the data at the right times and in a quality fashion.

Requires additional experience and resources to hire, train and manage surveyors to conduct the observations.

More difficult for researchers across the country to utilize due to the need for collection of observation data.

Observations may suffer from human errors that are made in identifying particular groups of drivers. Agencies will need numerous observations in many different locations to generalize to city-wide level.

Driving Population Estimate

Strengths:

The driving population estimate is measured city-wide. This method can be utilized for multiple jurisdictions without the costs and time burdens of roadway observations.

Takes into account flow of traffic from surrounding communities.

Can be used for multiple jurisdictions – good for statewide or multiple jurisdiction studies.

Limitations:

The driving population estimate only provides an estimate of the overall city-wide driving population. It cannot be used to accurately identify different patterns of drivers that exist in specific neighborhoods or at specific times of day.

Must be validated with roadway observations (takes away some of the cost and time efficiency when analyzing one or two jurisdictions at a time).

Requires existence of specific economic and traffic volume data for each agency.

Confusing to explain; often difficult for lay audience to understand.

Not-at-Fault Crash Data

Strengths:

Can utilize readily available information on the demographics of traffic crashes. This method has the potential to be much less expensive than gathering observational data.

Provides city-wide, and may provide location-specific, analysis.

Results can be stratified across day of week and time of day, which enables precise measurement for differing traveling populations.

Does not require specific skills or experience that would be difficult for other researchers across the country to acquire.

Limitations:

Traffic crashes may not always serve as a perfect proxy for the driving population. Reporting of crashes must be consistent across all groups.

Jurisdiction must collect race/ethnicity data for not-at-fault accidents for extended periods prior to using this data set as a benchmark.

In smaller jurisdictions, there simply may not be enough traffic accidents to create a large enough sample size to provide for a meaningful benchmark analysis.

Initial results were only significant after data was aggregated to city level. May not accurately predict location variances.

To date, requires some level of observation validation before results can be presented with confidence.

Internal Benchmarks

Strengths:

Allows for analysis of individual officer behavior or unit behavior at much more localized level. The department can use this information to begin to identify outliers or individual areas within the department where disparities exist. This information can be used for individual officer intervention or policy change.

Utilizes stop data only to compare officers – no additional data collection required.

Comparisons are straightforward and can easily be conducted by the agency or external researchers.

Can be inexpensively implemented for smaller agencies using easily accessible technology, such as Windows environment databases.

Limitations

Larger agencies may require the implementation of a software solution to adequately measure officer behavior, which may require extensive time and resources.

Will not provide agency-level information and cannot answer questions about agency performance.

May be unpopular in union environments where unions are concerned about protecting officer rights.

Broad patterns of disparate treatment may be masked when smaller units are compared within an individual jurisdiction. This method may not provide easy assessment of the existence of any overall "problem" with the stopping practices of the department.

These case studies provide a good overview of the basic benchmarking models that are currently utilized in racial-profiling research. While all of the models described above require further testing, particularly at smaller units of analysis such as the neighborhood or district, numerous conclusions can be drawn from each of these benchmarks if they are used responsibly.

Learning from Research & Practice

Chapter Three:

Post-Stop Analysis

Racial Disparities in Searches
Racial Disparities in Warnings and Citations

CHAPTER THREE: POST-STOP ANALYSIS

RACIAL DISPARITIES IN SEARCHES

One of the most persistent concerns in discussions of racial profiling nationwide is racial disparities in the likelihood of being searched once a motorist's vehicle has been stopped. Numerous studies of law enforcement traffic-stop activity suggest that motorists of color are significantly more likely to be searched than White motorists once they are stopped. 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 communities of color.

There are two important reasons why racially disparate search rates have been viewed with such concern. First, being searched changes the character of a traffic stop. In the mind of many motorists, searches transform the stop from being a potentially benign civil enforcement action to possessing 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 pretext to justify searching and harassing motorists (Harris 2002). 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 law 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 been blamed in the past for

racial disparities in search patterns. Although there is a fairly large body of literature in criminal justice on police discretion in arrest decisions, 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 search of a vehicle or motorists are multiple and complex.

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.[21] Most importantly, police searches of vehicles are protected by the Fourth Amendment doctrine that individuals are secure in their "persons, houses, papers and effects, against unreasonable searches and seizures." 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 ruled that police are not required to obtain a warrant prior to searching a vehicle, because drivers of vehicles have a lower expectation of privacy than residents in their homes (*Carroll v. U.S.*, 267 U.S. 132 (1925)). 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.

An officer is not legally permitted to conduct a search of a vehicle simply because the officer has made a lawful traffic stop. Several basic legal thresholds govern the search of automobiles or persons following a lawful stop. Searches may be conducted on the basis of probable cause, which includes observation of some evidence that the driver or passengers are committing a crime, involving such things as drugs, alcohol or firearms in plain view, or the odor of burning marijuana. Probable cause gives the officer a legal basis to arrest the driver, conduct a personal search of the driver and conduct a search of

[21] Thanks to David Harris for continually emphasizing the importance of the requirements of the 4th Amendment. See Harris (2003) and notes from his talk at the Northeastern conference, on file with author.

the vehicle's interior, including the passenger compartment and any closed containers found (*United States v. Watson*, 423 U.S. 411 (1976); *Robinson v. United States*, 414 U.S. 218 (1973); *New York v. Belton*, 453 U.S. 454 (1981)). The officer can also conduct a more limited search based on reasonable suspicion short of the probable cause needed for an arrest (*Terry v. Ohio*, 392 U.S. 1 (1968)). If the officer runs a warrant check and determines that the driver has an outstanding warrant, the officer may make a lawful arrest and may subsequently search the vehicle (*Whitely v. Warden*, 401 U.S. 560 (1971)). Any vehicle that has been lawfully impounded is eligible for an inventory search; police need not have a warrant or probable cause (*Colorado v. Bertine*, 479 U.S. 367 (1987)). Finally, a police officer can search the driver or the vehicle by gaining the consent of the driver. Consent must be voluntary and not the result of duress or coercion (*Schneckcloth v. Bustamonte*, 412 U.S. 218 (1973)), but the driver need not be informed of the right to refuse consent (*United States v. Drayton*, 536 U.S. 194 (2002)). When consent is voluntarily given, it completely eliminates the need for probable cause, reasonable suspicion or any other basis for the search.

The use of consent searches is one of the most controversial issues related to the legal justification for searching a vehicle or person following a traffic stop. Unlike searches based on probable cause or reasonable suspicion, consent searches are completely discretionary and do not require officers to establish a level of specific suspicion to justify searching the vehicle. Many criticisms of consent searches have arisen out of the racial-profiling controversy. Most importantly, critics argue that traffic stops are inherently coercive, and therefore, the voluntary nature of a consent search is undermined. 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.

Because there are many different routes by which officers may legally conduct a search following traffic stops, any analysis of racial disparities in searches must be conducted with these differences in mind. The discretionary nature of consent searches, however, highlights the difference between discretionary searches and non-discretionary searches, and provides a valuable tool for researchers

searching for a way to measure the use or abuse of discretion by law enforcement officers. If analysis of search data is attempting to measure the degree to which officer discretion results in racial differences in search behavior, researchers can separate non-discretionary searches, such as searches conducted incident to arrest or inventory searches of vehicles, from all other searches. By eliminating the searches that are comparatively lower-discretion searches, such as probable cause and reasonable suspicion, researchers may have an even better indicator of who police think are suspicious. In order to separate discretionary searches from non-discretionary searches, jurisdictions collecting data on searches should require officers to specify the justification for the search.

Including categories of searches as part of the data collection also makes it possible to examine racial disparities in the different types of searches. With that data, a researcher can determine whether officers justify searches of White drivers more than non-White drivers within the different categories of probable cause, reasonable articulable suspicion and consent.

Search Analysis Methodology

Different strategies have been utilized to determine whether or not non-White drivers are more likely than White drivers to be searched once they are stopped by the police. However, the existence of such disparities may not fully answer questions about the existence of racial bias in the decision to search a motorist. Instead, to understand disparities in search behavior, we must answer two basic questions: 1) Of those motorists who are stopped, are non-Whites searched proportionately more often than Whites? and 2) Are there legitimate explanations for the existence of such disparities? As discussed in the previous section, it is important to understand the legal justifications for the searches in order to analyze only discretionary searches, rather than non-discretionary searches, like searches incident to arrest or inventory searches of vehicles.

Three stages of analysis can be used together to attempt to answer these two questions. The first stage is a basic, bivariate analysis used to examine the relationship between the race of driver and whether or not the officer conducted a search during the traffic stop. This analysis compares the proportion of White drivers searched to the proportion of non-White drivers searched. Second, a multivariate analysis

can be used 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 assists in the process of ruling out some of the possible commonly asserted alternative explanations for simple racial disparities found in bivariate analysis. Finally, the outcome of searches can be examined to determine whether searches are more productive for certain groups, potentially justifying any existing racially disparate search rates.

Bivariate Analysis

Bivariate analysis can be used to determine how likely are non-White drivers and White drivers who are stopped to have the stop result in a discretionary search. To determine whether or not disparities between White and non-White searches are meaningful, the data can be tested for statistical significance. Unlike stop analysis, which involves the comparison of data sets in which the amount of statistical error is unknown, search analysis can have the necessary information to conduct tests of statistical significance. Since the search analysis only involves the traffic stop data, the degree of error associated with a jurisdiction's traffic stops can be estimated. As such, a chi-square test of significance can be employed to determine the extent to which an observed disparity is not the result of chance or random error alone.

Significance tests have limitations, however, that must be recognized in the analysis. Just because a result is statistically significant does not mean that it is substantively important. A small level of disparity may be statistically significant if it is based on a high number of cases. A large sample is often overly sensitive, detecting artifactual relationships that appear due to bias in the sample (Allison 1999). Additionally, a population of traffic stops is not a true sample; the data set contains all reported traffic stops.

A result that is not statistically significant, however, 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 researchers are 95% confident that observed differences are not due to sampling error or random chance alone, should policymakers dismiss results that the researchers 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.

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, 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, 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 the potential factors officers use to decide to search a vehicle, officers themselves cannot fully articulate the entire 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 experiences in similar situations that may lead to asking the types of questions that could justify a search. It is likely that the decision to search a motorist or vehicle comes from a collection of consciously and unconsciously recognized cues. Analyses of search data also cannot fully understand all the nuances that may influence an officer's decision to conduct a search, but can attempt to measure the extent to which race is associated with being searched, holding constant all other relevant factors which can be measured with these 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 as search. For example, if officers are more likely to search males, and males who are stopped are disproportionately non-White, a racial disparity would exist at the bivariate level, but 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, the analysis must control other factors that could

also be associated with the decision to search. This can be done using a statistical analysis technique called logistic regression.

A logistic regression model for searches uses a series of binary outcome variables to examine the relationship between race and the outcome variable (being searched), while simultaneously holding constant other variables that may affect an officer's decision to conduct a search. These variables that are held constant, sometimes called control variables, can include both driver/car characteristics (gender, age, passengers and registration plate) and situational variables (time of day and weekend versus weekday).

Due to the problems with statistical significance described in earlier parts of this section, those utilizing the data, including policymakers, practitioners and the public, should 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. Overall, the multivariate analysis provides the best indication of how strongly race affects the decision to search, controlling for all available variables. However, it is important to note that there are serious limitations to multivariate analysis. The situation factors that may have the greatest effect on an officer's decision to conduct a search are often missing or mis-specified in the traffic-stop data that is often available. For example, information on the seriousness of violations, past criminal history, demeanor and other legally relevant behavior are often not collected and therefore could not be included in such models. This means that even if you find statistically significant differences between the search rates of White and non-White motorists, other (non-measured) variables might still explain the existence of such racial differences. Therefore, conclusions drawn from multivariate analysis are limited and must be interpreted with caution.

Productivity of Searches: Outcome Test Models

Another way to evaluate the existence of racial disparities in searches is to examine the productivity of searches for Whites versus non-Whites. This productivity is often called the "hit rate," or the proportion of searches that are "successful" because they uncover contraband or other "seizable" evidence.

The use of hit rates as a tool in racial-profiling analysis is widely accepted as a reliable method to examine racial disparities in discretionary law enforcement behavior. By calculating success rates of searches for various racial groups, it is possible both to see evidence of race as a factor in law enforcement decisions about who to search, and to see how successful those decisions about suspiciousness are. The theory behind the hit-rate analysis is that officers will be more productive if they use characteristics of suspicious behavior to decide which suspects to search than if they use race and ethnicity (Harris 2003).

Ian Ayres discusses the use of hit rates in the context of "outcome tests," a method originally devised by economist Gary Becker, that can be used to analyze whether outcomes of a given activity are systematically different for minorities and non-minorities (Ayres 2002). Outcome tests provide insight into the standards that police officers are applying in deciding whether to conduct a search. If an officer is using the same standard to assess whether to search Whites and people of color, the proportions of "hits" should be the same for both groups. Employing a lower standard to people of color than to Whites will mean that more people of color are searched, but fewer "hits" are made. For instance, searching Whites if there is a .8 probability that drugs will be found, but searching people of color if there is a .3 probability that drugs will be found, will result in higher hit rates for Whites because the standard was high, and lower hit rates and larger proportions of people of color searched because the standard was low.[22] If searches of people of color are much less productive than searches of Whites, one can infer that the police are using a lower threshold for probable cause when searching people of color. Although this is not necessarily disparate treatment, it is evidence of unjustified disparate impact.

Hit-rate analysis is not without controversy, however, as a number of questions linger about whether it is actually a useful indicator of racial profiling. The disparities and similarities of hit rates between racial groups varies depending on what is categorized as a "hit" (types of drugs, amount, etc.) and which searches are used as a denominator. Changing these definitions potentially changes the relative hit rates dramatically.

There are a number of reasons why a good analysis of racial profiling should address questions of disparate searches. First, searches represent a more severe intrusion on the rights of drivers than simple traffic stops. Searches create heightened levels of apprehension for motorists and have more potentially severe consequences than traffic stops alone. Secondly, searches are an area where police are accustomed to collecting more information. Whether in traffic or non-traffic situations, searches are normally documented, and understanding search practices is accepted as a central part of any good management strategy.

While the analysis of searches is a potentially important tool for understanding racial differences in traffic enforcement and post-stop activities, there are a number of important cautions that should be heeded. Most importantly, scholars do not agree about what unequal search rates mean. Racial differences in searches could indicate bias and could also be a sign of differential behavior that gives rise to legally acceptable search criteria. Because most analysis has imperfect information for differentiating between the above two possible conclusions, most scholars recommend that departments monitor patterns of racial differences in search rates, particularly when accompanied by lower hit rates for non-White (or arguably relatively equal hit rates). Clearly one of the best strategies for examining disparities in searches is to compare the search patterns of individual officers who operate under similar working conditions. By comparing the search activity of similarly situated officers, supervisors may more easily identify officers with problematic search patterns.

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RACIAL DISPARITIES IN WARNINGS AND CITATIONS

Another topic of concern in racial profiling discussions involves the disposition of traffic stops. In traffic enforcement, police officers must decide when to stop a motorist and what action they will ultimately take once they have stopped the motorist. This latter decision, the disposition decision, may have profound implications for individuals who are stopped by the police. This section addresses whether racial disparities can be observed in the police dispositions. Are non-Whites treated differently than Whites in the disposition of a traffic stop?

In a traffic stop, the officer has almost unbridled discretion in choosing a disposition. Despite challenges to the officer's discretion, the courts have reaffirmed the importance of allowing officers to make such decisions without outside interference (Commonweath v. Newton Police Association 2003). Police administrators are not allowed to force police to write tickets for any law violation on the road. As a result, the officer may choose to ignore violations or issue warnings, even in cases where severe traffic offenses have occurred. Although this may not be a regular practice, it illustrates that an officer has the freedom to decide which among many actions to take with a motorist; the officer can ignore the offense, can warn the motorist or can write a ticket to the motorist. Each of these dispositions has different consequences for the motorist.

There are a number of reasons why the disposition of a traffic stop has received attention. First, the officer's decision to write a traffic warning as opposed to a ticket has serious financial implications for the driver. The driver faces the immediate effects of the fine attached to the offense, which can be quite large in some cases. For a couple of years, the driver may also have to deal with an increased insurance premium. Further, the penalties for a moving violation offense often follow a driver across state lines to affect his/her insurance premiums.

Another troublesome aspect of racial disparities in traffic-stop dispositions involves the issue that official records of police action might be interpreted as a reflection of trends in driving behavior. Since individual officers have so much discretion in traffic stops and dispositions, official records reflect the officers' actions, rather than how individuals or aggregated populations drive. This record might be

viewed as an objective record of driving behavior based on race and sex, however, rather than a record of discretion. If disparities exist in the dispositions of stops, and this is viewed as an objective record of driving behavior, it may lay the groundwork for the creation of inequitable policies. This reinforces stereotypes and creates a circular logic. Since non-Whites receive more tickets, they are considered to be worse drivers or represent more of the violating population. According to this argument, if an officer pulls over a non-White driver and tickets him, it is because the offender is a bad driver and more deserving of a ticket, as based on past official records of action.

A third reason why the officer's decision to ticket a motorist has received attention is because the officer may use more discretion in deciding on the disposition than in making the initial stop. In deciding to make a stop, the officer confronts one decision with only two possible outcomes: pull over or ignore. In deciding on a disposition, the officer must choose from several outcomes. Therefore, it is possible that the same offense committed by five different people might result in five different dispositions. This in and of itself is not grounds for concern; it does, however, raise questions about the factors that molded the officer's decision-making.

Ultimately, the variables that affect officers' decisions to write warnings rather than tickets are myriad. Several individual variables such as the age, sex, race, residence, social status and demeanor of the motorist may affect an officer's decision. The number of offenses and their severity may also play a role. Situational variables such as time of day, shift, traffic conditions, time of year and weather also mold officer decision-making. Finally, organizational priorities in the police department or within the community affect an officer's decision to write a ticket or a warning. If the administration expects officers to write tickets, the officer will be more likely to write tickets. Complicating the analysis of police discretion further, police contend with these variables all at once; therefore, the interplay between variables also results in variations in ticket and warning writing.

Dispositions Available to Police

In a traffic stop, police officers can choose to ignore the offense, warn the motorist or ticket the motorist. There are two different types of warnings to motorists: oral and written warnings. In the oral

warning, an officer gives a verbal warning to the motorist. For example, an officer might tell a motorist to slow down to within the posted speed limit. An oral warning is an unofficial use of officer discretion, because there is no record of the disposition. Neither the motorist nor the police have a written record of the stop.

In a written warning, an officer provides the motorist with an official warning about a specific offense by filling out a special form. With the written warning, the officer has produced a record of the offense for both the motorist and the police department. Therefore, an official, written record of the discretionary decision exists. Although the officer has issued a written warning, there is no penalty for the motorist.[23]

Both verbal and written warnings differ from a traffic ticket. A traffic ticket always contains some sort of financial penalty for the recipient. It is worth noting that differences exist in the penalties attached to traffic tickets. Officers generally write traffic tickets for one of two types of offenses: moving or non-moving offenses. Moving offenses are violations in which the motorist was actively engaged at the time the motorist attracted the attention of the officer, such as speeding, changing lanes without a signal or tailgating. Non-moving offenses, on the other hand, are directed toward the condition of the vehicle, such as a lapsed inspection sticker, an excessively dirty license plate or a burned-out taillight.

Of the two types of citations, the courts generally treat moving violations more punitively. Moving violations carry higher fines. In addition, many states employ a point system to track a motorist's driving record. In such states, drivers try to keep their points as low as possible, because higher points affect insurance premiums. Drivers who receive moving violation tickets face a second penalty beyond the higher fines, since they receive a higher number of points than they would have received for a non-moving offense. Receiving additional points for a moving offense will result in the insurance company charging the driver a higher premium over the next two to five years. Therefore, a moving ticket has greater immediate and long-term costs than a ticket for a non-moving offense.

[23] Some states and municipalities may track warnings and issue tickets if a motorist gets a certain number of warnings.

Disposition Methodology

As with the decision to stop and the decision to search, there are two relevant research questions. First, do racial disparities exist in regard to who is ticketed, warned or released with no action? Second, if disparities exist in these dispositions, why? Are there explanations that can shed light on the disparities in these dispositions?

Unlike studies that examine who the police stop for traffic enforcement, the study of traffic dispositions does not require the creation of an independent benchmark. To determine whether racial disparities exist in officers' disposition decisions, a researcher would examine the number of people, broken down by race, who were issued a warning or citation compared to the overall population of those who were stopped, also broken down by race. For example, the researcher would compare the number of no-action dispositions, warnings and tickets for stopped Whites and non-Whites compared to the total numbers of Whites and non-Whites stopped overall.

With regard to the traffic stop, it is worth stating that moderate traffic offending seems to be evenly distributed across the population. Although minor traffic offending is common, the majority of traffic offenders refrain from engaging in other criminal offenses. Additionally, although most drivers engage in moderate traffic violations, it is only a small group of drivers who speed at far greater extremes than the rest of the driving population. Finally, police and the public generally agree on the offenses that are disorderly, with the public holding a more severe view about what constitutes traffic offending.

Bivariate Analysis

A bivariate analysis of traffic dispositions involves examining whether non-Whites who are stopped by police are more likely to receive a certain disposition than Whites. To conduct the analysis, the number of each disposition by race is compared to the number of total stops by race. Because both of these numbers are known, the degree of error can be calculated. Therefore, the researcher can recognize if there a small number of minority stops, which will ultimately affect the rate of minority dispositions for a certain action.

Multivariate Analysis

Multivariate analysis examines variables beyond just the number of Whites that receive tickets compared to non-Whites. Specifically, multivariate analysis can examine additional individual and situational-level variables. These studies generally examine the race of the driver in relation to his age, sex, location of residence and social status as measured by the make and year of the car. Studies have also examined the severity of the offense and the number of offenses. Finally, studies have examined time of day, day of week and month to check for seasonality.

Early studies have suggested two factors that affect officer dispositions in traffic stops. First, past research indicates that administrative policies within the police department play a large role in predicting whether the individual receives a ticket. Officers tend to write more tickets if their chief expects them to write tickets or if they are part of a special unit that focuses on traffic enforcement (Lundman 1979, Brown 1981). If this is accurate, enforcement of these policies should be even across different populations. Therefore, it would be expected that many motorists would be stopped, and a high rate of citations issued across all racial groups.

Second, studies suggest that the demeanor of a motorist affects an officer's disposition decision (Gardiner 1968). Officers tend to issue tickets to motorists who are rude to them. To isolate this variable, observational and interview data would have to analyzed in addition to stop data. One implication of this factor in the racial-profiling context is that some components of behavior can be racially or culturally specific. If police officers are not sensitive to this, they may interpret the behavior of people from different cultural backgrounds as rude and issue a citation stemming from this misperception.

Drawing Meaning From Disparities

Although it is relatively easy to calculate disparities in dispositions of stops, it is much more difficult to interpret what the disparities mean. There are several alternative interpretations that can be derived from higher or lower proportions of minorities being issued citations rather than warnings. Some analysts might interpret higher proportions of minorities being issued citations as evidence that police are using their disposition discretion to unfairly target minorities. Others might interpret lower proportions of

minorities receiving citations as evidence of unfair targeting of minorities by police. The lower rate of citations for minorities could mean that minorities have a greater chance of being stopped for lesser offenses. A higher number of warnings or no action might indicate that police are making pretextual stops and using the stop itself as a means of harassment.

Building on this argument, some attention has also moved beyond the question of dispositions generally to consider the issuance of warnings. One question in the consideration of warnings is whether a written or verbal warning is always, in actuality, a "break." Some motorists do not perceive written warnings as good fortune, but rather as a method for legitimizing a stop made for some other purpose, such as searching the car or harassing the driver. Different groups might also have different opinions about warnings. Some feel that if an officer did not have a strong enough reason to issue a citation, the driver should not have been stopped in the first place, and the police just issued the warning as post-stop justification for making the stop.

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Learning from Research & Practice

Chapter Four:

Managing What is Measured

Introduction

- Internal Monitoring
- Auditing Municipal Traffic-Stop Data: Implications for Racial Profiling Analysis
- Use of Video for Auditing and Analysis

Conclusion

CHAPTER FOUR: MANAGING WHAT IS MEASURED

INTRODUCTION

A major concern in the data-collection process is the quality and reliability of the data. Data collection is largely a self-monitored activity, dependent on each individual officer calling in stops or recording stop information consistently and accurately. If the officer fails to submit stop cards or call in stops, fails to complete all of the relevant fields, does not understand how to complete the fields or records inaccurate information, the overall data set will be compromised. This can affect the entire data-collection process and the results of the analysis, and can influence the accountability of the entire department. In addition, it can lead to more serious consequences for departments, such as the threat of lawsuits to compel external monitoring to ensure compliance.

This chapter provides some tools and methods of managing and monitoring the data-collection process, in terms of officers/units and the data themselves, to ensure the most accurate data possible. The first section looks at internal monitoring of departmental units and individual officers, which can be used both as an auditing tool and as a management tool. This method of police management can be used separate from, or together with, a more comprehensive racial-profiling data-collection process. The second section outlines various methods departments can used to ensure complete and accurate data sets. These are illustrated by examples of internal auditing for data integrity in Wichita, Kansas, and external monitoring for compliance in Providence, Rhode Island. The third section analyzes the feasibility of using in-car video cameras as a means of auditing data and monitoring officer behavior. Together, the chapter presents a range of options for strengthening the data-collection process and the integrity of the department as a whole.

INTERNAL MONITORING[24]

Given the difficulties with traditional benchmarking options, scholars and practitioners are turning to alternate forms of data collection and analysis to address racial-profiling concerns. One such method is an approach that is based on early intervention systems. Early intervention is a data-based management system that allows departments to identify officers whose behavior appears to be problematic and to intervene with counseling or additional training. This approach not only avoids the major concerns affiliated with the development of an adequate external benchmarking, but also allows for practical, targeted intervention that looks beyond traffic stops and race and ethnicity to some of the larger problems in policing.

Early Intervention Systems in the Racial Profiling Context

The early intervention approach in the racial profiling context comes out of two parallel movements in policing research: racial profiling and police accountability. Incorporating a police accountability tool into racial-profiling research broadens the scope of such research beyond data collection and the search for the denominator. This adds a practical angle to the issue of racial profiling by allowing for targeted intervention and problem-solving of a wide variety of issues.

Early intervention systems address one of the frequently overlooked limitations of traditional racial-profiling research: its practical utility. Even though the data collected and analyzed by departments may reveal large disparities as compared to the benchmark, this type of analysis too often does not offer solutions based on the identification of a potential problem, because the studies are too narrowly conceived or because the data results are never applied to a department's policing practices. The rationale behind police accountability programs generally is that a small number of officers are often responsible for the bulk of the department's problematic incidents. By identifying and concentrating training and intervention efforts on these officers, the department can address the potential problematic behavior in an efficient manner. The articulation and enforcement of standards can also have considerable impact on the

[24] This section derives from the conference talk entitled "Internal Benchmarking for Traffic Stop Data: An Early Intervention Approach," by Samuel Walker. Professor Walker's broader Police Accountability Project can be found

department by improving supervision and increasing accountability. Although early intervention systems generally examine a broad variety of policing activities, such systems can easily incorporate traffic-stop data into pre-existing early warning systems, or build the system around traffic-stop data already being collected.

Methodology

There are four basic components that make up early intervention systems, though the specific applications of these components will vary based on a department's objectives in implementing the system. These components are: (1) performance indicators; (2) a two-stage identification and selection process; (3) intervention; and (4) post-intervention monitoring and assessment. Together, these components give departments a practical tool for monitoring internal unit and officer behavior, and ensuring accountability at all levels of the department.

The first component, performance indicators, is comprised of the data relating to various aspects of officer performance that are entered into the early intervention system. While there are a wide variety of performance indicators, ranging from citizen complaints to non-lethal use of force to shooting incidents, the indicators most relevant in the traffic-stop context are data on traffic enforcement activity that are commonly collected in a racial-profiling study, including demographics of motor vehicle stops and pedestrian stops, searches, warnings, citations and arrests. In addition, individual officer-identifying information must be collected in order to analyze the performance of individual officers.

The second component of an early intervention system is a two-stage identification and selection process that first identifies officers whose performance indicators point to possible reasons for department concern, and then selects which officers should be referred for intervention. In the traffic-stop context, the identification stage involves an analysis of the data to identify deviations from data on similarly situated officers, categorized in terms of unit, shift or neighborhood assignments. Basing the analysis on variations between similarly situated officers overcomes the external benchmarking concerns discussed in the previous chapters. Comparing similarly situated officers controls the working environment and takes into

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on his website, http://www.policeaccountability.org.

account deviations that might occur because of different shifts, beats or types of assignment. The use of internal benchmarking recognizes that patterns of police activity vary according to particular contexts, including individual department or supervisor philosophies, enforcement strategies or priorities, the type of agency, the crime or offender rates in different areas, types of road or time of day, and the variations that may occur in policing activity based on the specific assignment. Peer-to-peer officer analysis also allows for identification of different types of officers and individual styles of policing.

Deviations in the data lead to the identification of potentially problem officer behavior based on specific officers, time periods and locations of the problem. It must be emphasized that the data represents only a starting point and is not conclusive. Identifying deviations in the performance indicators is not a presumption of guilt, but simply initiates further investigation and action. Such investigation would include a discussion with the officer to see if there is an explanation for the deviations, or further investigation that might provide rationale for the officer deviations. If a performance review of the identified officer indicates that there is a problem with racial profiling, the officer would be selected for intervention.

If the deviations cannot be rationally explained during the identification and selection process, the department can move into the third component of the process: intervention. Intervention consists of formal steps, such as counseling, training, close supervision, performance review or reassignment, which the department takes to address the officer's specific performance problem. This may take the form of supervisory or command officers informally counseling the officer, referral to professional counseling or referral to retraining for specific skills and tactics. Intervention is a targeted solution designed to fit the particular officer and problem, whether on an individual or unit level. By identifying and selecting officers for intervention on an informal basis, before the formal disciplinary process kicks in, a department can approach and respond to potential problems in a timely manner.

The final component of an early intervention system is post-intervention monitoring and ongoing assessment of the effectiveness of the intervention. By tracking the progress of identified problem officers

who have undergone some type of intervention, the department can assess the effectiveness of the response and the monitoring in general.

Because it can monitor multiple aspects of policing activity and provide for targeted intervention before a problem grows, the early intervention approach is also an eminently practical tool for police accountability. Early intervention broadens the departmental focus beyond "racial profiling," addressing multiple accountability and supervisory issues at once, and providing incentives for individual, unit and supervisory accountability throughout the department.

Hypothetical Example

The following hypothetical example helps illustrate the effectiveness of this internal benchmarking approach, pointing to how internal monitoring systems can provide a broader perspective than many data-collection efforts, and can identify a number of different kinds of problems. The example is set in a city that has an overall Latino population of 7.5%, based on official census data, and an official Latino population in one specific district of 30%, with an unknown number of undocumented persons not represented in the official data. Data presented in the table represent traffic enforcement activity from five officers assigned to the evening shift in the specific district.

Officer	**Traffic Stops**	**% Latino**	**Complaints**	**Complaints per 100 Stops**
A	100	30%	0	0
B	40	25%	3	7.5
C	60	55%	2	3.3
D	20	33%	0	0
E	160	28%	1	0.62

The data represents patterns that are familiar to scholars and practitioners in the field, and reflects the fact that there are significant variations in policing activity among similarly situated officers. In addition, the data presents several distinct problems that might require attention and intervention by the department, as well as one example of exemplary officer performance.

In this example, the percentage of Latino traffic stops conducted by Officer C is higher than the percentage in the area's population and higher than the percentage of Latinos stopped by the officer's peers. Under an early intervention system, this officer's performance would come to the attention of the department's supervisors. Without presuming guilt, but using the data as a starting point, the department would review the officer's performance to see if Officer C is having a larger problem with regard to the Latino population. The review may require that Officer C be selected for intervention, such as counseling or additional training on racial profiling, or it may reveal that there are legitimate reasons for these traffic-stop patterns.

The data from Officer D points to an officer who has very little traffic stop activity compared to officers on the same shift, in the same area and with the same assignment. Here the data collection will raise questions about overall officer activity, around which the department can ask questions about other performance indicators. A review of the officer's performance may suggest the officer needs training in initiating activity in the field, or it may reveal issues external to specific performance, such as suggestions that the officer is working a second job to the detriment of policing responsibilities or is dealing with issues outside of work. The departmental response to these issues may include counseling and reminders that poor performance reviews will result in more serious action.

In contrast, Officer E has a comparatively high number of traffic stops. The data suggests that the officer is not exhibiting any personal bias, because the percentage of Latino drivers stopped is similar to their population in the district. However, because the officer is stopping so many Latino drivers (even more than Officer C), it is likely the officer will be known in the Latino community. This may result in a problem of the community's perception of racial profiling, rather than the problem of actual police bias. The department may respond to this issue by retraining the officer on the department's enforcement priorities, and encouraging the officer to devote more time to activities other than traffic stops, such as preventive patrol and informal contacts.

Officer B has a higher ratio of complaints to stops than his peers. In this case, it is important to analyze complaints compared to their activity, because one officer may have a high absolute number of

complaints, but a low ratio of complaints to traffics stop or arrests because the officer is very active. Another officer may have a low number of complaints, but a high ratio of complaints to traffic stops or arrests. In this case, the officer is not very active, but when conducting traffic stops, the officer is also instigating citizen complaints, suggesting an apparent problem with conduct during traffic stops. This may result in the department retraining the officer in traffic-stop tactics or "verbal judo" – how to effectively interact with citizens.

Finally, Officer A appears to have an exemplary performance record that demonstrates a high level of traffic enforcement activity, indicates no evidence of bias and includes no citizen complaints. The system can be used to identify such performance and use the data as the basis for departmental commendation.

The example demonstrates how several different problems – apparent racial bias, under-performance, distorted priorities, inappropriate conduct during traffic stops – as well as exemplary performance can be identified and addressed through the early intervention system. By identifying and selecting officers for intervention using data on traffic enforcement activity, potentially combined with other performance indicators, such as citizen complaints, the department has initiated a solution-oriented system of data analysis.

Strengths and Limitations of the Approach

A major potential shortcoming of an early intervention approach is that the program and method of analysis does not help when an entire department engages in wrongful conduct, such as racial or ethnic discrimination. Because the focus is on individual problems, and individuals are compared with one another, wrongful action by all of the individuals in the department will not reveal any problematic behavior. Although an increasing number of departments are implementing early intervention systems, a few of which utilize peer officer comparisons such as that recommended for racial profiling implementation, additional empirical research is needed to better understand the program in action.

Another limitation is that the department itself must impose some accountability standards, develop ways to use the tools well and follow up when aberrations in data from particular officers or units

are noticed. The tool is only as effective as the standards set by the departments. Therefore, a department that invests in the approach must make a commitment to use the information it collects, set standards of accountability and follow those standards by addressing problems that arise. In addition, departments must recognize that early intervention is a high-maintenance program that requires advance planning and continual administrative attention.

A major issue departments must confront is that many forms of early intervention approaches require collection of data on individual officers; therefore, when implementing an early intervention system, departments must ensure buy-in from unions and officers. This can be accomplished by emphasizing that the program works on a basis of confidentiality, with informal intervention. Only supervisors have access to the individual data, and records of intervention are not placed in the officers' personnel files. In addition, when the public is informed about the progress of the program, the department need only reveal the numbers of officers who were disciplined. This shows department accountability without revealing the names of the officers.

All of these limitations are tempered by the tremendous strengths that potentially result from an early intervention approach to the racial profiling issue. Early intervention can get beyond the normal "racial profiling" discussion and have a broader impact on accountability and supervisory issues. Tracking data on individual officers and comparing officer behavior with that of other individuals, across units and across shifts, allows the department to separate potentially problematic officers from the majority of good ones and address the specific problems that arise. The system has the potential to analyze a wide variety of behavior, based on the performance indicators, and thus can link or separate out racial-profiling concerns with other problematic behaviors such as complaints, use of force and vehicular pursuits, as well as more explicit positive indicators such as citizen or departmental commendations, awards and promotions. Early intervention also provides a mechanism for timely response to problematic behavior before it becomes a major problem. The department need not wait an entire year for data to be collected and analyzed before intervening. Because the data becomes much more relevant, the system provides incentive for buy-in from officers and unions.

The intervention phase of early intervention systems provides the agency with a problem-solving tool in addition to the simple identification of a problem. By talking with the officer about potentially problematic behavior, a department is better able to understand officer mindsets and rationale for making specific policing decisions. In addition, the early intervention cycle, in which potentially problematic behavior is identified, addressed and assessed again, provides the department with a mechanism through which it can continually work and rework the issue in an organized, problem-solving manner.

From an individual perspective, early intervention allows officers to be better officers. Targeted intervention means that one problematic officer cannot affect the whole unit or department, preventing good officers from being implicated for others' poor policing behavior. The system tracks general activity, which could include both over-aggressive behavior and under-productivity. In this way, it provides inherent incentives for individual officers to record data accurately and disincentives to try to falsify the data, as anything outside of the norm, including both under- and over-reporting, can be identified. In addition, it gives an officer a chance for change before problems are reported in personnel records and before formal disciplinary proceedings have to be initiated.

Finally, early intervention systems have the potential to improve police-community relations and trust. Careful implementation of the program can lead to a reduction in citizen complaints and problematic behaviors within the community. Informing the community that the department is implementing such a system and reporting general results can demonstrate to the community the department's commitment to accountability and improving officer performance. In short, early intervention systems hold the potential to proactively address racial-profiling issues on individual, organizational and community levels.

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AUDITING MUNICIPAL TRAFFIC STOP DATA: IMPLICATIONS FOR RACIAL PROFILING ANALYSIS

Most data-collection systems established to date have few, if any, built-in auditing mechanisms to ensure that the data collected by officers is complete and accurate. Unfortunately, this lack of accountability leaves analysts and departments open to serious criticism that officers or supervisors failed to comply with the data-collection mandate. A number of large-scale studies of traffic-stop demographics have recently noted that widespread missing or incomplete data places constraints on traffic-stop analysis (Greenwald 2001; Kroll Independent Monitor of Los Angeles Police Department 2002). In a recent study of racial disparities in traffic stops that was conducted in the state of Rhode Island, one jurisdiction experienced such serious data integrity problems that they were ordered by the courts to provide their data to an external monitor to ensure compliance. This section examines a number of proactive steps departments can take to reduce the likelihood of missing or inaccurate data, and prevent issues with non-compliance.

The Importance of Auditing

In studies of racial profiling it is particularly important that all interested stakeholders are confident that data is collected accurately on every traffic or pedestrian stop. A central goal of the racial-profiling data-collection effort has been to move the police-community dialogue away from emotionally charged anecdotes about particular encounters toward more concrete information about traffic or pedestrian stop activity. The usefulness of this data is greatly minimized if questions are raised about its accuracy. For example, if police officials believe that their officers only selectively complied with the data collection, they may be less likely to adopt policies to address any concerns raised by the data. Similarly, if members of the community believe that the police were non-compliant in collecting data, they will be less likely to accept the findings, particularly if the findings indicate minor or no racial disparities. Therefore, traffic and pedestrian stop studies that are intended to be used as a means of positive change should include some form of auditing to prevent criticism of non-compliance potentially undermining the entire project.

Although few studies of racial profiling have adopted comprehensive auditing mechanisms, some essential features of auditing can be discussed. Auditing mechanisms are typically designed to ensure complete and/or accurate data. Complete data means that information is collected and recorded on every traffic and pedestrian stop that is designated by statute or policy to be included in the study. Accurate data means that all the information collected on traffic and pedestrian stops is correct. Different types of monitoring systems are necessary to ensure both complete and accurate data. To ensure completeness, monitoring systems must be designed to cross-check traffic or pedestrian stop data against other official records of traffic or pedestrian stop activity. To ensure accuracy, monitoring systems must be able to verify that the traffic or pedestrian stop information is correct.

In addition to different types of auditing mechanisms, there are also various channels through which auditing may be conducted. Departments may develop internal monitoring programs to proactively monitor traffic-stop data in real time as the data collection is taking place. This might include supervisors cross-checking traffic-stop data collection against other official records of officer activity, such as internal activity logs, Computer-Aided Dispatch (CAD) calls or written citations. As a second option, departments can engage (either voluntarily or when forced by courts or political bodies) outside reviewers to conduct external monitoring. Such monitoring often occurs when outside stakeholders challenge the completeness or accuracy of a department's data, and an audit of the data is conducted, either by the department or an outside agency, to address these concerns after the data has already been collected.

While auditing is a relatively new topic in the field of racial-profiling data collection and analysis, a great deal can be learned from the experiences of those few departments who have attempted comprehensive auditing programs. The auditing techniques used by these departments are described below to help illuminate the challenges and benefits of different types of auditing strategies.

External Monitoring: The Providence Auditing Experience

The issue of auditing arose in Providence, Rhode Island, during the first few months of a statewide data-collection initiative. Providence was one of 41 jurisdictions in the state of Rhode Island

required to collect data for all routine traffic stops by The Traffic Stop Statistics Act.[25] 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 (approximately one minute) during the course of a traffic stop to carefully fill-in bubbles on a data collection card provided by the Attorney General. These cards were produced in booklet form similar to the traffic citations that officers had been using for years. The cards were collected on a monthly basis and scanned into an optical character reader.

Realizing the importance of complete and accurate data collection in Rhode Island, a team of researchers from Northeastern University who had been contracted to analyze the traffic-stop statistics for the state, began monitoring the traffic-stop data to ensure compliance at the outset of the study. Following the release of the first quarterly report in June 2001, researchers and outside observers raised a number of questions about whether or not officers in every jurisdiction were filling out traffic-stop statistics cards for each stop. When it appeared that a department was experiencing compliance problems following the first few months of data collection, the Attorney General's office contacted that department to report the problem. In response, a number of departments voluntarily adopted internal auditing strategies to verify the completeness of their data. These internal auditing strategies included matching data cards with official citation records, assigning supervisors to review data cards for completeness and accuracy after each shift, and cross-checking traffic-stop cards with other official sources of data, such as computer aided dispatch records.

While some departments took proactive steps to ensure compliance, the City of Providence remained a particular concern. Between January 2001 and June 2001, the rate of documented car stops in Providence, which has a department of approximately 450 sworn officers, declined from a high of 25 stops per day in January to a rate of less than four stops a day in June. In the fall of 2001, the American

[25] 1999 Rhode Island HB 7164, Section 31-21.1-4. The Act required the collection of data for all routine traffic stops made by the Rhode Island State Police and all municipal police departments.

Civil Liberties Union (ACLU) and the Rhode Island Attorney General brought suit against the City of Providence for non-compliance with the Traffic Stop Statistics Act.

On November 30, 2001, the Providence Police Department entered into an agreement with the Rhode Island Attorney General and the Rhode Island affiliate of the ACLU to allow Northeastern University to monitor the traffic-stop data-collection process to ensure compliance. The court order required the Providence Police Department to submit all computer-aided dispatch records, citation records and in-car video records for traffic stops to Northeastern University in an effort to monitor whether or not officers were filling out traffic-stop cards for every traffic stop.

Internal Monitoring: Wichita Police Department

While the experiences in Providence, Rhode Island, illustrate how departments may be forced to accept outside monitoring of their data collection program, most jurisdictions that are currently auditing traffic-stop data are doing so voluntarily. One example of a successful internal monitoring program is the department in Wichita, Kansas. In 2000, the Wichita Police Department, working in collaboration with a group of concerned citizens, designed a data-collection system to capture information about the nature, demographics and outcome of all discretionary and non-discretionary traffic, pedestrian and bicycle stops. In January 2001, officers in the Wichita Police Department began collecting data using data-collection cards with fill-in bubbles.

At the outset of data collection, the Wichita Police Department developed an internal monitoring strategy designed to ensure officer compliance. This strategy was developed based on the belief that compliance was better obtained through voluntarily auditing rather than forced auditing by an external group. Members of the department's data-collection team had an open discussion prior to commencing data collection about the various strategies they could employ to audit and monitor the stop data. Instead of a centralized auditing system, the department elected to adopt a system in which supervisors were in charge of monitoring the stop reports submitted by the patrol officers under their charge. If a supervisor noticed a discrepancy between the data submitted for the study and the known activities of the officer, the supervisor took action to investigate why the form was either inaccurate or incomplete. In Wichita, the

mere existence of an internal monitoring system allowed the Department to directly respond to any community concerns about the completeness of the data that was collected without the necessity of external monitoring.

Determining if Data is Complete

Although the motivation for and control of the data-collection process were different in Providence and Wichita, both studies employed similar strategies to determine whether or not the data collected by officers was complete. The first step for both Departments was to identify existing official records of traffic-stop activity against which stop data could be compared. In Wichita, the department chose an auditing strategy where supervisors conducted a daily cross-check of stop data cards collected from all their officers against the Officer Daily Activity Reports (ODAR) routinely filled out by officers at the completion of a shift. To aid in the cross-checking process, the department added a unique serialized form number (commonly called a lithocode) to all ODARs to help supervisors match data-collection forms with ODARs as every record of a stop on the ODAR should correspond to a data-collection form.

One of the main challenges to this method of auditing was supervisor training. Supervisors were required to sign off on all ODARs to make sure there was a data-collection form number that matched each car stop. Although officers could circumvent the data-collection process by failing to complete an ODAR entry for those stops where they did not also fill out a data-collection form, there was significant incentive for officers to note all stops on the ODAR since they were evaluated on the number of traffic, pedestrian and bicycle stops they conducted.

In addition to the daily review of police ODARs, the Wichita Police Department randomly selected Computer Aided Dispatch (CAD) Records for daytime traffic stops for a six-month period to determine whether the traffic stops called into the CAD system matched the stops from the data-collection cards. In 90-95% of the cases, the randomly selected CAD entries matched a stop form. The 10% of non-matched CAD entries were presumed to be due to officer errors in calling in information to the CAD. Because officers in Wichita do not always call their stops into the CAD system, it is an imperfect measure of all stops.

In Providence, the external monitors used two different types of data to evaluate the stops, based on whether a citation was issued. To determine if a traffic-stop card was filled out for those stops that resulted in a citation, the external monitors compared the traffic-stop data with all official records of traffic citation activity in the Department. The Department routinely computerizes these records before they are sent to the traffic tribunal. On a monthly basis, the external monitors matched citation records with the traffic-stop cards from that month which had the "citation given" field checked. From the commencement of the monitoring, Providence achieved a "match rate" between traffic-stop statistics cards and official records of traffic citation activity ranging from 75%-90%. This high rate of compliance was not surprising since the Providence Police Department had assigned an Inspector to begin internally monitoring the citation records to make sure that every official record of a citation had a corresponding traffic-stop statistics card. At the end of every month, Northeastern University gave PPD a list of all citation records that did not match a card and a list of all cards that did not have a matching citation record.

For those stops that did not result in a citation, the external monitors turned to CAD data to verify the completeness of the data that was collected. At the outset of this process, the Providence Police Department knew the CAD data was incomplete. The Department did not enforce a policy requiring officers to call their traffic stops into the CAD. In fact, there were more records of traffic stops in the study data than there were CAD entries for traffic stops.

As a first step in assessing the accuracy of the CAD data as a source of information about traffic-stop activity, the monitors first matched all official records of citation with CAD entries. The monitors were sure that every traffic citation represented a traffic stop; therefore, a corresponding record should appear in the CAD system. Because there was no unique identification for traffic stops that appeared on both CAD and citation records, the monitors created a 30-minute window around each citation to determine if a CAD call with the same officer ID was made during that window. Using this method, they found that many citation records were not found in the CAD system.

To improve the completeness of the CAD data, the Providence Police Department issued a general order requiring all traffic stops to be called into the CAD system. Additionally, the Department was ordered by the court to have officers call in the unique lithocode number found on the bottom of each traffic-stop statistics card to the CAD system. Once the Department began calling lithocode numbers into the CAD system, the monitors realized that officers and data-entry personnel were making numerous time and date errors. These errors made monitoring without the use of lithocodes problematic. The monitors began sending monthly reports back to PPD listing officer identification information for all CAD entries that were missing lithocodes and/or did not match a traffic-stop statistics cards. These reports allowed the PPD to begin taking direct disciplinary action against specific officers who either failed to call their stops into the CAD system or failed to fill out traffic-stop statistics cards. The use of lithocodes both helped the monitors pinpoint the CAD entries that were missing cards and allowed PPD to begin taking remedial action against specific officers to bring the Department into compliance.

Determining if the Data is Accurate

While it is challenging to verify the completeness of the traffic and pedestrian stop data, it is even more difficult to determine whether or not the data that is collected is accurate. High-profile incidents of data subversion, however, such as those uncovered in the New Jersey State Police investigation of troopers involved in the 1999 shooting of Black and Hispanic occupants during a traffic stop,[26] put concerns about data accuracy in the forefront of most inquiries about the validity of police self-reported traffic-stop data. Some of the methods employed in Wichita and Providence provide a useful starting point for developing more comprehensive methods to assess the accuracy of traffic and pedestrian stop data.

In Wichita, supervisors cross-check the information on all Officer Daily Activity Reports with the information that officers report on their traffic, pedestrian and bicycle stop forms to ensure that times,

[26] In this incident, Troopers Hagan and Kenna fired numerous rounds into a van driven by young Black and Hispanic occupants. During the investigation, the New Jersey State Police discovered that Hagan and Kenna had been "ghosting" their traffic search records, falsely recording that non-White individuals who were searched were

dates and personal information match. While this method provides a useful way to catch errors, it may be less helpful in identifying purposeful subversion, such as that seen in New Jersey, since officers may purposefully record inaccurate information on both the ODAR and the stop forms.

The external monitoring project in Providence attempted to use independent observations of traffic-stop encounters to verify the accuracy of the data collection. As part of the court order, the Providence Police Department provided Northeastern University with all in-car video tapes for the monitoring period. In Providence, all patrol cars have mounted video recorders inside the cruiser that theoretically begin recording when the overhead lights are activated. According to the Department, officers do not have the ability to turn the video on or off. Therefore, the external monitoring team assumed that video records would provide a neutral source of data about both the existence of the traffic stop and the characteristics of those who were stopped.

Northeastern University researchers coded all observable traffic stops for videotapes collected during the monitoring period to determine the race of the driver, whether a search was conducted, the number of passengers and whether the stopped vehicle had in-state or out-of-state plates. Though potentially valuable to verify the accuracy of data, the use of video data is limited in a number of ways. Because the lithocode numbers are not recorded on the tapes, video observations must be matched with traffic-stop data based on time and date rather than lithocode. Using this method, it is difficult to determine whether or not the existence of non-matching attributes (race of driver, number of occupants, search, etc.) is due to inaccurate information or whether the video observation is actually an entirely different stop. As a result, viewing and coding the in-car videos is both a time-consuming process and limited because of the difficulty of verifying that the observed stop is the same as that recorded on the traffic-stop statistics card. Additionally, as described in the section of this report on the use of in-car video observations as a source of data, many tapes are of poor quality, and scattered use of the video decreases the value of the data as either a primary source of traffic-stop data or as a tool for monitoring.

White. For more information on this incident, see: Michael Raphael, "Accused of lying about drivers' race," The Star-Ledger, April 20, 1999, p.1

Lessons Learned and Recommendations for Future Auditing

The external monitoring and internal disciplinary action in Providence ultimately paid off. In the 12 months following the beginning of successful monitoring and the commencement of disciplinary action against individual officers, the Providence Police Department achieved match rates on citation records and CAD data between 85% and 95%. Virtually all citation records could be matched with the CAD data, and roughly 90% of CAD entries had corresponding traffic-stop statistics cards. These indicators gave the monitors more confidence that all traffic stops were being called in, and provided the community with reliable traffic-stop information upon which to determine the existence of racial disparities in stops and searches.

The Wichita program of internal monitoring also proved valuable for the Department and the community. By relying more heavily on the oversight of supervisors to verify the accuracy of officer reports in real time, the Department ensured that data was complete and accurate throughout the data-collection process. This provides an excellent example of why designing an oversight system for data collection before a department actually begins gathering statistics can help provide evidence to counter claims of incomplete data.

Although neither the Providence nor Wichita monitoring programs are without flaws, the experiences in these two departments offer a number of recommendations for future monitoring strategies:

Know how you would verify your data before an external concern is raised.

Establish a mechanism to track all traffic-stop cards through the system, such as a lithocode that is unique to each card or entry to provide for easier cross-checking later in the process.

Emphasize to patrol and traffic officers that someone is looking at their traffic-stop cards and cares that the cards are complete and accurate. There is a role for internal monitoring at both direct supervisor and higher command level.

Report the results of audits in all traffic-stop statistics publications. This sends a message to officers and the community that the department takes completeness and accuracy seriously.

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USE OF VIDEO FOR AUDITING AND ANALYSIS[27]

An increasingly common response to the racial profiling controversy is support for the use of video technology in police vehicles. Camera-car data has the potential to be an incredibly valuable tool for understanding police practices and documenting citizen-police encounters. In terms of police accountability, the data can reveal information about the about use of pretext stops and searches, and provide clues as to how an officer behaves while in the car. Video data can be used to assess compliance with organizational policies. Cross-checking the data with CAD or patrol logs through auditing procedures can help measure the extent of unrecorded stops. In addition, the data can provide useful insight into police-citizen interactions in the context of the most common encounters between police and citizens, the traffic stop.

To date, however, there have been few systematic studies of camera-car data, especially in the context of racial-profiling research, despite the history of the use of videos in police vehicles and despite the recent surge in use related to the racial-profiling controversy. There are a number of reasons for this lack of research in the area of audio-visual equipment. First, the use of such equipment is a relatively new phenomenon, and researchers are only beginning to devise ways to extract relevant data from the records. Departments are also hesitant to cooperate with researchers and release the data unless there is legal or public pressure.[28] In addition, camera archives become generally immense if all of the records are kept for a significant period of time,[29] or tapes are recycled too swiftly to allow for research into previous months or years of data. Finally, and perhaps most daunting for researchers, the review process is tedious and time-consuming, and given the current technology and the scattered use of the video equipment, makes

[27] This section derives from the conference talk entitled "Studying Camera-Car Archives: Issues and Preliminary Findings," given by Jay Meehan, Jennifer Dierickx and Michael Ponder.

[28] For instance, in his testimony before the House of Representatives Committee on Government Reform on "The Benefits of Audio-Visual Technology in Addressing Racial Profiling," Charles Dunbar, Jr., the superintendent for the New Jersey State Police, said: "We will not give out these tapes to anyone unless there's a court proceeding and we're directed to give them up. It is just our policy that they're like our records. We won't make them available to anyone unless there's a specific legal request. We consider that – we consider that the same as one of our reports. They're just not given out." 19 July 2001, available at <http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_house_hearings&docid=f:77191.wais>.

[29] Superintendent Dunbar also stated, "We will be storing over 50,000 tapes per year. We anticipate that we will have an ongoing inventory of over 400,000 tapes. We are spending in excess of $500,000 for new storage facilities."

the value of the data somewhat questionable. With analog video records, researchers must spend hours pouring over countless tapes on which little or no significant data has been recorded. The improvements in technology from analog to digital and CD-Rom hold the potential to make the process easier.

Vehicle Audio-Visual Systems

The characteristics of in-car camera systems vary widely from department to department. The central features of these systems are the equipment that is used, how cars fitted with cameras are assigned to officers, the procedures for tracking equipment usage, tape storage and rotation, the integrity of the archives, and audit and review procedures to ensure compliance. All of these may have negative effects on the quality and accessibility of the data.

In terms of equipment, many cars are fitted with analog video cameras attached to the interior roof that begin recording when the overhead lights are turned on. Some departments are moving toward attaching the camera to the outside of the car, near the lights, to allow for better recording quality. For those departments where only some of the cars are equipped with cameras, assignment processes vary and may affect the integrity of the video data. For instance, some departments allow more senior officers to choose their vehicles, which may allow those officers who are uncomfortable with video monitoring, viewing it as a threat to their autonomy, to choose vehicles that are not equipped with cameras. There are a variety of procedures for overseeing how the tapes actually get into the cars and tracking the videotape usage. In some cases, the lack of standardized procedures and supervisory oversight means that officers are able to take out vehicles without tapes in the video recorders or with tapes that have already been recorded. The integrity of the video archives is also a potential concern that varies across departments. Some departments store the videos in a locked room, but some departments keep the videos in a room that is open, with easy access to a degaussing machine. Finally, there are variations in procedures covering auditing or review of the tapes and compliance with other procedures. Sometimes review of the tapes is required a certain number of times a week, sometimes it is incident-driven based on a complaint, accident or chase, and sometimes the tapes are not reviewed at all. Generally, however, departments are moving

from voluntary to mandatory systems, with more institutionalized procedures and reviews that are embedded in routines, thus increasing the accountability of the department.

History of Vehicle Audio-Visual Systems[30]

The use of mobile recording devices to document police-citizen interactions dates back to the 1970s, when officers in certain police departments began to carry compact tape recorders on an informal basis. One such department, Albuquerque, New Mexico, began this practice in the late 1970s and formalized it in 1992 in a policy statement that required officers to carry tape recorders as a method of documentation (Lesce 1995). The tape recorders provide an "objective" record of interactions with citizens and also allow supervisors a means of monitoring the work of their officers. As an informal practice, officers in other cities, including Los Angeles, Reno and Santa Fe, carry cassette recorders to capture an objective record of their contacts with citizens (Shuster 1996).

The literature varies as to when police departments first experimented with using cameras to film police-citizen contacts. Kubiovak reports that the first year that a police department used a camera in a patrol car was 1983, when the Bountiful Police Department in Utah equipped one of their police cars with a video camera (1997). This early camera system was quite cumbersome, requiring two Bountiful Police Officers, because one officer had to hold the camera to film. Schrest et al. traced the origin of vehicle audio-video systems back to 1984, after an analysis of Uniform Crime Reports data found that four out of every five officers attacked (both fatal and non-fatal) happened to be on uniformed patrol (1990). Departments began considering a video system as a tool that could capture police assaults on video so that the assailant could eventually be held criminally responsible (Schrest et al. 1990, citing Liquori and Perry 1988).

Despite the early interest behind equipping patrol cars with cameras, police departments still faced barriers trying to install and implement the use of video systems. One such barrier was the technological limitations of the time. In the early 1980s, police departments used tube-type cameras,

[30] This section is based on research conducted by W. Carsten Andreson, a Ph.D. candidate at Rutgers University and a Research Associate at the Center for Criminal Justice Policy Research, Northeastern University.

which were ill-equipped for patrol cars because they were bulky and their recording quality was poor. In 1986, however, the technology progressed with the introduction of a new camera that operated off of a microchip and could function in low light (Schrest et al. 1990). With the introduction of this new video camera, police departments began to seriously consider implementing MVR units, and started to focus on logistical issues.

A major logistical consideration was how to finance the systems. Financial partnerships developed between police departments and both the government and the private sectors. For instance, the Georgia Department of Public Safety formed a partnership with the Federal Drug Enforcement Agency (DEA) in 1986 to carry out "Operation Pipeline," a drug-seizure operation. Using a combination of funds from the federal government and from drug seizures, the program quickly evolved from cameras in three cars to cameras in 280 cars, which were used as tools in enforcing the federal drug policy (Johnson 1992). The State Police used the vehicle cameras to document their drug-seizure operations and collect evidence against drug runners transporting illicit drugs on Georgia's interstates, thus increasing the chance a defendant would be convicted. In a process evaluation of "Operation Pipeline," Johnson reports that Georgia had a 100% conviction rate for drug-related cases after implementing this system. State troopers also utilized video recorders to pursue drivers operating motor vehicles under the influence of drugs or alcohol (1992).

The example set by the Georgia State Police in implementing a large-scale, agency-wide mobile video system has served as a model to police departments in Alabama, Indiana, Kentucky, Mississippi, Montana, Nebraska and West Virginia (Johnson 1992). In particular, certain states examined the partnership that Georgia established with the DEA to fund their program. Following Georgia's example, the Kentucky State Police partnered up with the federal government to fund their system for collecting evidence in drug-seizure operations.

Another source of funding for video systems has come from private business. In particular, insurance companies have donated money to police departments in Mississippi and Alabama specifically to assist police in securing criminal convictions against drivers they arrest driving under the influence of

alcohol or drugs (Johnson 1992). When police departments collect a video record of an intoxicated driver, it increases the chances that an offender will plead guilty. Insurance companies hope this will deter drunk driving and reduce the expense generated from car accidents caused by drunk drivers.

In 1998, in response to growing public distrust of police conduct and professionalism, and increasing allegations of racial profiling, the New Jersey State Police implemented an agency-wide in-car video program. The primary purpose was to produce video records of police-citizen contacts to monitor trooper and citizen behavior, though the system is also used in collecting evidence of criminal events and traffic fatalities. In addition, the New Jersey State Police are using their videotapes for supervising trooper behavior, allowing supervisors to take proactive strategies in focusing on areas of officers' work performance that might need addressing, and as a training tool. Finally, the in-car video cameras have protected officers in two cases in which citizens filed false claims of trooper misconduct (Esposito 1999).

In the past three years, the use of in-car camera systems has expanded rapidly, in part because of funding initiatives by the federal government. In 2000, the Office of Community Oriented Policing Services of the U.S. Department of Justice provided 41 state police agencies $12 million to purchase 2,900 video cameras in 2000 (U.S. DOJ COPS Office 2000). They continued the program in 2001, 2002 and 2003, by providing a total of $9.3 million for more than 2,100 additional cameras (U.S. DOJ COPS Office 2001; U.S. DOJ COPS Office 2002; U.S. DOJ COPS Office 2003). Through the COPS grants, almost every state agency is fitted with cameras in at least some of their vehicles.[31]

Several states are also promoting the use of in-car camera programs as part of legislation around racial-profiling data collection. For example, legislation in Texas, Missouri and Minnesota provides for the installation of video cameras in lieu of or in addition to collecting data. As part of the Texas racial-profiling legislation that was enacted in 2001, departments are exempted from expansive data-collection requirements if they instead choose to install audio-visual recording equipment (S.B. 1074, codified as

[31] A list of agencies that have received money from COPS as of 18 July 2002 can be found at http://www.usatoday.com/news/nation/2002/07/18/cameras-poll.htm.

2001 Tex. Gen. Laws ch. 2.131-2.138**)**. Video cameras are also included as requirements in consent decrees, and audio/visual systems have been installed in jurisdictions around the country voluntarily.

In the last few years, in-car camera technology has seen dramatic advances as digital technology improves (Sharp 2003). Manufacturers of police cameras are increasingly switching over to digital technology, even though the technology remains largely untested in the field. Digital technology offers numerous potential benefits, especially in relation to its storage, search, viewing and copying capabilities. Departments have begun incorporating this technology into their video programs. For instance, in October 2003, the New Jersey State Police issued a Request for Proposals to begin a pilot program of Digital In-Vehicle Recording devices, and video and metadata transfer and training services.

Research on in-car camera systems is still catching up with the changing policing environment. In July 2001, United States Assistant Attorney General Viet Dinh testified before a House Committee: "We have not performed any research or funded any specific research within the Department of Justice, and I have undertaken a review of social science literature with respect to the use of audio-visual and I have not seen any significant statistical research" (Dinh 2001). Two others who testified before the same committee reported that they did not know of any studies on the effectiveness of audio-visual equipment in preventing or documenting racial profiling or police misconduct (Testimony of Hon. Royce West, Texas Senate and testimony of Rachel King, ACLU legislative director).

However, research evaluating the general effectiveness of video systems is expanding, though few studies focus directly on the racial-profiling context. A few studies on various jurisdictions around the country have been conducted in recent years (Maxfield and Andreson 1999; Morrison 2000; Maghan, O'Reilly, and Ho Shon 2002; Sharp 2003). In addition, the International Association of Chief of Police (IACP) was awarded a COPS grant in June 2002 to examine the installation, use and impact of in-car video systems in 47 state police and highway patrol agencies (IACP website). The research project, which is concentrating on police officer safety, agency liability, community perceptions of police and police professionalism, will evaluate current systems and provide suggestions for further implementation of

successful video programs. The work by Meehan, Dierickx, and Ponder (2003) is some of the first to concentrate on how in-car camera systems can be used in the racial-profiling context.

Benefits and Limitations of Video Data

As outlined in the previous section, the use of cameras in police cars predates the rise of the racial-profiling controversy. Cameras were used to help officer safety, promote police accountability and provide the departments with a valuable training tool. At the same time, these potential benefits are tempered by officer resistance to use of the technology, largely based on a desire for autonomy in performing policing activities. Many officers feel they need independence and autonomy to do their jobs well, and that video monitoring will interfere with that autonomy. Studying camera-car archives in of the racial-profiling context can provide insight into this tension between the benefits and officer resistance and desire for autonomy.

As part of Meehan, Dierickx and Ponder's studies of camera-car archives in two unnamed police departments, the researchers examined how, and under what circumstances, in-car cameras are actually used. After a review of 375 tapes between the two departments, which accounts for about 1,660 hours of video, the researchers determined that fewer tapes (2.3 per shift) were generated than was anticipated (4-5 per shift average). Of the 375 tapes, 23 percent (87 tapes) were blank, either showing snow or because they had been degaussed. One explanation for this large percentage of blank tapes is a theory of officer resistance in which officers sign tapes out and back in without using them. Because of the lack of supervision or auditing, the officers face little chance of detection. A second explanation is that the tapes are blank because of equipment malfunctions. However, few malfunctions were reported in the video logs.

Other findings by Meehan, Dierickx and Ponder relate to officer compliance with the audio-video policy and requirements. A department policy requires officers to conduct checks of the camera and microphone at the beginning of each tape in order to ensure that the equipment is functioning properly. Of the 288 tapes that were not blank, officers conducted camera checks in only 10.4% of the tapes and conducted microphone checks in only 10.1% of the tapes.

The researchers found 1321 encounters between police and citizens on the tapes, a mean of 4.5 encounters per tape. In terms of actual microphone use, the microphone was turned off 95% of the time, with partial or complete audio the other 5% of the time. This demonstrates the limited application that audio recordings might have on examinations of issues such as consent searches. To know if consent was truly voluntary in a consent search, a researcher, department or court would need to be able to hear the citizen give consent. The ability to hear this, however, is entirely dependent on whether the officer complies with the microphone policy. The researchers found that officers selectively turn on microphones at certain parts of the encounter, and turn them off during other parts of an encounter.

The main implication in these findings is that overall compliance with departmental policy in these departments is low. An initial departmental response to this finding might be to make supervision and auditing of the tapes more stringent to encourage better compliance. The lack of compliancy, however, raises questions about the usefulness of video data for resolving disputes about police/citizen behavior. Because there are so few encounters generally, and so few per tape, a researcher must review every tape, rather than just a sample, to ensure the integrity of the analysis.

Application to Racial Profiling Research

Meehan, Dierickx and Ponder's research also shows the potential benefits and limitations of audio-visual vehicle data in racial-profiling research. Of the 1,321 police-citizen interactions on the tapes, 41% of the encounters were of traffic stops and 59% were related to other encounters, usually connected with homes or businesses. The percentage of vehicle stops is lower than in the national data (51%), which may be due to assignment system and/or call load.

In terms of discerning racial and gender characteristics of motorists in vehicle stops, the data proves limited. The researchers were unable to determine the race of the person stopped in 55% of the cases, and unable to determine the gender of the driver in 46% of the cases. This has major implications for departments and social scientists, because it means the video data is of limited utility for general data collection or even for auditing purposes. If a stop is unrecorded or missing data on race or gender, the missing data cannot be filled in through the use of in-car recordings. Reasons for the inability to

determine race and gender included lighting conditions and effects from the glare and window, the position of the camera in the vehicle, the position of the police vehicle in relation to the car that was stopped and whether the driver exited the car.

Finally, the researchers looked at the video data on motorists who were searched after the vehicle was stopped. Of those searched, the researchers were unable to determine the race of the driver only 12% of the time, or 10 out of the 80 searches. The race of the driver was more easily discernable when there was a search, because the drivers often exited the vehicle. As mentioned earlier, however, the audio-visual data provided little help in determining which searches were consent searches and whether consent was voluntarily given, since microphones were turned off in 95% of the police-citizen vehicle stop encounters.

Maximizing the Usefulness of Car Camera Data

Technological advances may have a profound effect on the availability and usefulness of the data. One of ways in which departments can upgrade their use of car cameras is by computerizing the system for tracking tape assignments, which eliminates the need for handwritten logs and streamlines the process of checking tapes out of and into the department. Recent technology also allows departments to move to completely digital storage systems that allow for searching the archives and cross-referencing the data with CAD, radio and call systems. The use of a server to store the data, downloaded from the camera every time a car returns to the station, will eliminate the necessity of checking tapes out and back in and the possibility of blank tapes. The server can also systematize the functioning of the camera, flagging every time the vehicle's lights go on. These changes in technology will potentially make car-camera archives useful and less burdensome additions to the tools available to departments.

If car-camera data is to be useful to departments and in the racial-profiling controversy, several current practices require attention. First, ensuring high-quality and readily available equipment is essential to gathering a meaningful set of data. The equipment must be functioning properly, and the processes for using the equipment must be streamlined so that officers do not face complications and difficulties in checking out and using cars with cameras. Second, officers must be effectively and continually trained in the use of the equipment, then supervised to ensure the equipment is actually functioning and being used

for every shift. Perhaps most importantly, departments must implement clear policies regarding officer compliance with camera use and how the data should be utilized for monitoring police activity or auditing other data that is collected. By requiring officers to use the equipment, mandating regular supervisory review of the use of equipment and the data, and periodically checking the data against other data, such as citations or traffic-stop cards, the department can ensure that car cameras are not superfluous pieces of equipment. Simply equipping police cars with video equipment does nothing to improve policing activity if the cameras are not operating during police-citizen encounters or the data simply remains on the tapes, without being reviewed or analyzed, until the tapes are erased.

Conclusion

The three preceding sections demonstrate various ways of increasing accountability and integrity at the individual, unit and departmental level. By managing and monitoring the data being collected – whether for racial-profiling data-collection purposes or not – departments can get a better handle on what is going on within the department. They can use data analysis to understand how units and individual officers compare with one another and whether relative under- or over-performance requires action on the part of management. Through auditing stop data against other measures such as CAD data, internal activity logs or written citations, departments can ensure that the data is complete and accurate so that inaccuracies don't mar the results of the data analysis. The studies of video monitoring show that video archives are currently not effective as a monitoring technique, though changes in technology and proper supervision of car-camera policies could make the data more useful.

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Conclusion and Recommendations

CONCLUSION AND RECOMMENDATIONS

Research and practice has come a long way since the emergence of the national controversy about racial profiling in the mid-1990s. Numerous studies have helped create a growing base of knowledge about the most reliable, accurate and useful analytical tools for measuring or monitoring the existence of racial bias in traffic enforcement activity. Throughout this document, we have synthesized the state-of-the-art practices in collecting, analyzing and interpreting traffic-stop data to better answer community concerns about the existence of racially biased traffic-stop practices. While this document and the companion Practitioners Guide provide an overview of the most common analytical techniques, there are many areas of analysis and interpretation that are still being validated and tested by academics and practitioners.

Today the collection and analysis of data on traffic enforcement is seen by many law enforcement agencies as simply a good management practice. Although traffic stops are the most frequent form of contact that law enforcement has with the citizenry, they are one area of policing where we have kept little systematic information. Despite a history of having limited systematic information on traffic stops, police agencies have taken a leadership role among many public sector organizations when it comes to using data to organize and manage day-to-day operations of their organizations in many other areas. For example, police routinely analyze information on calls for service and incidents reported to the police, and on arrests to determine where problems exist. In recent years, police managers have used this information to identify the characteristics of problems as a tool for developing unique and focused strategies to address the problems. While this has been the practice in many police agencies when dealing with crime, few have conducted similar analyses of traffic enforcement information.

Many local police agencies have begun to see data on traffic stops as essential information which can allow them to manage their practices more efficiently. In fact, the Commission on Accreditation for Law Enforcement (CALEA) has mandated collecting and analyzing information on traffic enforcement as a standard for all its member agencies. CALEA believes that analyzing information on all traffic stops is critical to the professionalizing of law enforcement operations nationally. Much more work is needed to

help agencies effectively manage and use this information to make better decisions about where, when and how to make traffic stops.

The collection of aggregate statistics and information regarding law enforcement activities can provide important information about the nature, character, demographics and results of police enforcement action. This information is critical for law enforcement managers who must effectively monitor and manage the traffic-stop activities within their department. However, after years of study and debate, scholars and practitioners have begun to realize that the most effective and productive use of racial-profiling data may not always be to determine whether or not profiling exists, but rather, to provide concrete information to police and community members for discussing the costs and benefits of various traffic enforcement strategies in their local community.

Racial disparities in traffic stops or citations can be caused by organizational and individual factors that social scientists are just beginning to understand. Bias on the part of an individual officer is just one of several possible explanations for disparities in traffic stops, citations and searches. 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 particular racial groups. A larger number of officers may be assigned to a particular neighborhood because that neighborhood has more crime and thus an increased need for police services. As a result, individuals who live, work or drive through this neighborhood are more likely to be stopped and cited than individuals who live in other neighborhoods. If the neighborhoods where police assign additional patrols are neighborhoods where people of color are more likely to live, then the deployment decision may result in racial disparities in traffic citations.

Regardless of why they occur, racial disparities in traffic enforcement impose real costs on minority citizens. Disproportionate traffic citations may result in increased insurance premiums for those targeted by the police.[32] In addition to the individual financial costs, these kinds of disparities may erode the trust between the police and members of their local community. If members of certain communities

[32] Bill Dedman and Francie Latour (2003) "Speed Trap: Who Gets A Ticket, Who Gets A Break" *Boston Globe*, July 20, A1.

perceive that they are targeted by the police, they may be reluctant to report crimes, and equally important, to work with police to solve the crimes that have been reported. This situation can have serious implications for the overall public safety of a community.

Trying to unravel the meaning, cause and impact of racial disparities in traffic enforcement activity is complex and challenging for the best agencies and communities. It requires a commitment by law enforcement to identify and address the causes – whether individual or structural - of illegitimate racial disparate traffic enforcement practices. It also requires community members to openly engage with law enforcement about the trade-offs between receiving services to make communities safer and being unduly burdened with traffic stops and citations. The analysis and reporting of traffic-stop data is a necessary first step in this process, which is ultimately both challenging and necessary for addressing the problem of racial profiling.

Learning from Research & Practice

Appended Materials

APPENDED MATERIAL
CONFERENCE INFORMATION

CO-SPONSORS

Open Society Institute, Gideon Project
http://www.soros.org/initiatives/justice/focus_areas/gideon
The mission of the Open Society Institute's Gideon Project is to improve the fair administration of criminal justice in the United States. The project awards grants in four areas affecting youth and adults in the criminal justice system: (1) Improving Public Defense Services; (2) Death Penalty Reform; (3) Racial Profiling; and (4) Prosecutorial Accountability.

Institute on Race and Justice, Northeastern University
http://www.irj.neu.edu
The mission of the Institute on Race and Justice at Northeastern University is to utilize strategic social science research methodologies to assist government agencies, educational institutions and community stakeholders in the development of policy changes to advance the cause of social justice. The Institute was founded on the premise that academic institutions can work with communities to provide rigorous and objective information that can be used to influence 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. The coupling of community practitioners and social scientists allows practitioners access to academic input while providing academics with more current and salient ideas and data on issues in the field.

Lamberth Consulting
http://www.lamberthconsulting.com
Lamberth Consulting was formed in 2000 in an effort to provide racial-profiling assessment, training and communication services to universities, states, counties, cities, civil rights groups, litigators and communities. Their mission is to help governments, organizations and communities proactively address the practice or perception of racial profiling by providing the highest-quality services and solutions through objective, quantitative methods.

American Civil Liberties Union
http://www.aclu.org
The ACLU is dedicated to preserving the protections and guarantees enshrined in the American system of government and the Constitution's Bill of Rights. The ACLU works to secure Americans' First Amendment rights, right to equal protection under the law, right to due process and right to privacy.

National Organization of Black Law Enforcement Executives
http://www.noblenatl.org
NOBLE was founded in 1976 upon the recognition that Black law enforcement executives could have a significantly more effective impact upon the criminal justice system through a unified voice. NOBLE's mission statement is: "To ensure equity in the administration of justice in the provision of public service to all communities, and to serve as the conscience of law enforcement by being committed to justice by action."

CONFERENCE PARTICIPANTS

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CONFERENCE AGENDA

Saturday, March 8, 2003

8:00 – 8:30 **Breakfast and Introductory Remarks**
Jack Greene, John Lamberth, Jack McDevitt, Deborah Ramirez

8:30 – 11:30 **Session One:**
Technical Presentation of Four Case Studies of Racial Profiling Analysis
This session included presentations by representatives from four jurisdictions where analysts are currently utilizing different comparative benchmarks. The presentations were technical in nature, presenting preliminary findings and addressing challenges in the analysis process. The workshop ended with an open discussion of the strengths and weaknesses of the different models presented in the case studies. The aim of the workshop was to produce a chapter of this report with information from each of the case studies to help guide researchers, local practitioners and community representatives with examples on strategies for benchmarking and analysis of traffic-stop data.
Presenters:
Dr. Amy Farrell, Northeastern University (Rhode Island)
Dr. John Lamberth, Lamberth Consulting (Michigan and others)
Dr. Scott Decker, University of Missouri at St. Louis (Missouri)
Dr. Geoff Alpert, University of South Carolina (Miami)

11:30 – 1:00 **Lunch Presentation**
Analyzing Contact Data to Assess Racial Bias
Speaker: Dr. Lorie Fridell, Research Director, Police Executive Research Forum

1:00 – 2:00 **Group Discussion Regarding Case Studies**
Moderator: Jack McDevitt, Northeastern University

2:00 – 4:30 **Session Two:**
Analytic Strategies Session to Address Issues Other Than Benchmarking

Use of Internal Benchmarks
This was a presentation on the use of internal benchmarks to compare the activities of different officers or units within a department over time. The presentation involved the use of racial-profiling data as part of an early-warning system.
Presenter: Dr. Sam Walker, University of Nebraska-Omaha

Analysis of Post-Stop Data (searches, duration of stop, etc.)
This presentation discussed the advantages and limitations of using post-stop activity data, such as searches, to help answer questions about racial profiling and racial disparities in post-stop activity.
Presenters:
David Harris, University of Toledo
Dr. Matthew Zingraff, North Carolina State University

7:00 – 9:00 **Evening Plenary:**
Confronting Racial Profiling in the 21st Century: Implications for Racial Justice
Speaker: Angela Davis

Sunday, March 9, 2003

8:00 – 9:00 **Working Breakfast**
Speaker: Bob Stewart, President and CEO Bobcat Training Consulting;
Former Executive Director, NOBLE

9:00 – 11:30 **Session Three:**
Community-Police Partnerships – Benefits and Challenges
Three teams of police-community partners made presentations about their experiences working in collaboration with the issue of racial-profiling data collection. The task force presenters discussed different types of task forces and the following challenges they faced in their work:

- Listening to other points of view or interpretations – when numbers mean different things to different people
- Being caught in the middle – the academic on the task force
- The need for a mediator or neutral facilitator
- Issuing the report and taking the message of the task force back to constituents
- Making police recommendations – what to do once the data is collected and analyzed

Presenting Teams:
Washtenaw County, Michigan
Detroit Metro area, Michigan (ALPACT)
Wichita, Kansas
Rhode Island

11:30 – 1:00 **Lunch Presentation**
Speaker: Dr. Ziad Asali, President, American Arab Anti-Discrimination Committee

1:00 – 3:30 **Session Four:**
Tools for Auditing Traffic-Stop Data
Auditing has become a particularly important area of concern following reports from some jurisdictions that indicate little or no profiling following claims from the community that the data was not gather fairly and accurately. This session addressed some of the methodologies used to audit traffic-stop data, including use of CAD records, citation data and in-car video data.
Introductory Remarks: King Downing, ACLU
Presenters:
Dr. Amy Farrell, Northeastern University
Deputy Police Chief Terri Moses, Wichita Police Department
Dr. Jay Meehan, Oakland University