

USE OF FORCE AND THE STRUCTURE OF INTERACTION BETWEEN THE
POLICE AND CITIZENS

THESIS

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CHAPTER I

INTRODUCTION

One consistent area of concern among law, police, and the public is the amount of police force that is reasonably necessary to achieve citizen compliance (Terrill, 2005). However, determining what constitutes reasonable force is not always an easy task. The current study considers various correlates of police use of force, with a particular emphasis on citizen's demographics and self-reported behaviors. Previous studies looking at predictors and correlates of police use of force focus on observational and official data sources. However, this study is unique in that it relies on citizens' perceptions during interactions with police.

The Current Study

The current research uses the Police-Public Contact Survey 2002 to examine the correlates of use of force. This study seeks to address when and why police resort to the use of force. Several variables are used to measure the prevalence and severity of police use of force, while controlling for both citizen and officer demographics. The various nature of police-citizen nature of contact is examined, as are citizen behaviors to determine if any correlation exists between these variables and increased use of force by police.

Terminology

Force is defined by Merriam-Webster's Dictionary of Law (1996) as “to compel through pressure or necessity; to gain by the use of force or coercion; to cause a person or thing to follow a prescribed or dictated course; violence, compulsion, or constraint exerted upon or against a person or thing” (“Force, Use of,” 1996). Merriam-Webster's Dictionary of Law (1996) further breaks force down into the following categories: (1) deadly force: force that is intended to cause or that carries a substantial risk of causing death or serious bodily injury; (2) lawful force: force that is considered justified under the law and does not create criminal or tort liability; (3) non-deadly force: force that is intended to cause minor bodily injury; (4) reasonable force: lawful force that is reasonably necessary to accomplish a particular end (as preventing theft of one's property); and (5) unlawful force: force that is not justified under the law and therefore is considered a tort or crime (“Force, Use of,” 1996).

The State of Use of Force in Modern Policing

Police officers frequently encounter people in circumstances where the use of force is necessary to bring about compliance to an officer's command or to secure an arrest (Lumb & Friday, 1997). Law enforcement officers regularly encounter situations that require some type of coercive action or force, but not deadly force. Common scenarios include close encounters (e.g., breaking up bar fights and intervening in domestic disputes), flights by suspects, hostage situations, barricades, and crowd control. Officers clearly respond to many situations where less lethal force is the appropriate action (Harkleroad, 2004).

The dilemma faced by police administrators today is the balance between the use of lethal and less lethal force. On one hand, administrators advocate less lethal force as a means of reducing deadly force incidents and applying only the amount of force necessary to control a given situation. On the other hand, administrators must provide guidelines on less lethal force because it is also subject to abuse (McEwen, 1997). Implementation of a strong and rational policy on proper use of force (both lethal and less lethal) is one important way for administrators to gain that control (Institute for Law, 1996).

The use of weapons by police has to be, by its nature defined as force (Texas Criminal Law, 2004). Figure 1.1 shows chapter 9.51 of The Texas Penal Code (Texas Criminal Law, 2004, 11), arrest and search powers for Texas Peace Officers are enumerated in part as:

Figure 1.1: Police Authority to Use Force

(a) A peace officer, or a person acting in a peace officer's presence and at his direction, is justified in using force against another when and to the degree the actor reasonably believes the force is immediately necessary to make or assist in making an arrest or search, or to prevent or assist in preventing escape after arrest if:

- (1) the actor reasonably believes the arrest or search is lawful or, if the arrest or search is made under a warrant, he reasonably believes the warrant is valid; and
- (2) before using force, the actor manifests his purpose to arrest or search and identifies himself as a peace officer or as one acting at a peace officer's direction, unless he reasonably believes his purpose and identity are already known by or cannot reasonably be made known to the person to be arrested (Texas Criminal Law, 2004, 11).

In addition, The Texas Code of Criminal Procedure (Texas Criminal Law, 2004, 153) provides peace officers with the authority shown in Figure 1.2.

Figure 1.2: Art. 15.24. What force may be used.

[Use of reasonable force in arrest.]

In making an arrest, all reasonable means are permitted to be used to affect it. No greater force, however, shall be resorted to than is necessary to secure the arrest and detention of the accused (Texas Criminal Law, 2004, 153).

Use of Force Continuums

With a basic understanding of the definitions involved in force usage by police, we can now focus on the framework police are bound by when determining how and at what level to use force. Police operate on a force continuum, which provides for a range of police and suspect behaviors, and the corresponding reaction to the behavior. On the low force end of this continuum is the officer's mere presence and at the opposite lays deadly force by the officer (Institute for Law, 1996).

The use of force continuum guides training and policy development and establishes a consistent approach for officer encounters with hostile and resistant individuals (Lumb & Friday, 1997). A large middle ground exists whereby a wide range of suspect behaviors necessitates a flexible set of possible responses by the officer. In this range, a broad category of suspect actions calling for the use of less lethal force are included; both with weapons, and without (Institute for Law, 1996).

In looking at force continuums and policies McEwen (1997) reviewed several police and sheriff's department's use of force policies. McEwen (1997) reported on several relevant points addressing use of force in general, as well as a more focused look at less lethal policies. In part, McEwen's (1997) findings show that the availability of several less lethal weapons for an officer necessitates policy direction on when one technique or weapon should be used rather than another. Most policies advocate a situational approach depending on the circumstances of the incident. A typical policy statement for the situational approach is as follows: "Where force is warranted, officers should assess the incident in order to determine which technique or weapon will reasonably de-escalate the incident and bring it under control safely. Officers shall use only that force which is reasonably necessary to affect lawful objectives" (McEwen, 1997, 46).

Twenty-four policies specifically advocate a continuum approach to use of force (McEwen, 1997, 46). The usual continuum approach is to rely first on the officer's presence to control a situation, and if that fails, to move to increasingly severe types of force. Most of these policies state the aims of the continuum of force and then list authorized approaches.

Without doubt, the dynamics of all encounters are different, and it would be impossible to attempt to categorize and define the levels of force appropriate in any given situation. It is, however, reasonable to categorize the levels of force that may be used, to various degrees, in any situation. When an officer determines that the use of force is necessary and appropriate, he/she shall use an escalating level of force as show in Figure 1.3.

Figure 1.3: Sample Use of Force Continuum

- 1 **Officer Presence:** Often the presence of one or more officers will be enough to quell a potential or actual disturbance.
- 2 **Verbal Persuasion:** Quite often, a display of courtesy and respect coupled with firm control of the situation will encourage understanding and cooperation on the part of the subjects involved.
- 3 **Use of Hand Control/Physical Strength:** Frequently, subjects offer some degree of physical resistance. Normally, all that is required to overcome this type of resistance is the application of slightly greater physical strength and skill in restraining the subject.
- 4 **Use of Intermediate Weapons:** The baton shall be the primary intermediate weapon authorized for use by officers. All personnel shall adhere to the philosophy that the baton is to be used for defensive and control purposes only, and in situations where the use of the baton is justified and authorized.
- 5 **Use of Oleoresin Capsicum:** It is recognized that there may be circumstances where the levels of force as outlined above may be insufficient or dangerous for the officer or subject resisting. In such cases, officers are authorized to use oleoresin capsicum in accordance with the procedures outlined elsewhere in this policy .." This policy concludes by stating that use of deadly force is the last option and is governed by a separate policy statement.

(Source: McEwen, 1997, 46)

Unfortunately, the mere presence of an officer, and the verbal communication skills of police rarely have the desired impact on a situation or an unruly individual. More often than not in such a setting, police are forced to resort to the use of force (Garner & Maxwell, 2002). The escalation model allows officers a degree of flexibility when confronting a person who is being unruly and who may be threatening the officer or other persons (Lumb & Friday, 1997).

The use of hands brings the officer into the suspect's arm span, increasing the opportunity for risk of injury or the overpowering of the officer (Lumb & Friday, 1997). Too often, that use of force necessary to bring the problem under control resulted in injury to suspects and the responding officers themselves. Another consideration is that traditional force usage also placed the officers and the police departments at greater risk of vulnerability to lawsuits for excessive use of force (Harkleroad, 2004).

A common misperception is that if a subject is injured during the process of being arrested (or perhaps while trying to assault the officer) then the officer must have done something wrong. Such public misperceptions are born from ignorance and inexperience with physical confrontation and a police officer's role performance requirements. Police encounters are influenced by the suspect's behavior, which may be aggressive, abusive, or antagonistic. When combined with alcohol and drugs, the individual in question is often impossible for the officer to deal with rationally (Lumb & Friday, 1997).

Limitations Placed on Force

Only for about twenty years has the use of force issue had defined parameters. Since the *Tennessee v. Garner* (1985) ruling, which limited the circumstances under which police can use deadly force; law enforcement has been engaged in an ever-evolving quest for the magic bullet of less lethal force that can adequately replace firearms (Tennenbaum, 1994). In March 1985, the United States Supreme Court held that laws authorizing police use of deadly force to apprehend fleeing, unarmed, non-violent felony suspects violate the Fourth Amendment, and therefore states should eliminate them (Tennenbaum, 1994).

Most jurisdictions considered police use of deadly force for all felonies to be legitimate until the Supreme Court decided *Tennessee v. Garner* (1985). In that case, Garner brought a wrongful death action under the federal civil rights statute against a police officer and his respective department for the fatal shooting of Garner's son as he fled the scene of a burglary. Garner's son was unarmed and shot in the back at the time of the shooting (Tennenbaum, 1994).

Use of Force Public Relations Disasters and Police Reactions

A few celebrated cases involving police use of force have attracted intense public scrutiny. Rodney King was beaten by several officers following a vehicular pursuit in Los Angeles. This beating of Rodney King on March 3, 1991, is probably the most publicized example of police excessive force, generating extensive television coverage and numerous news articles. Riots following the acquittal of involved officers in April 1992 reflected some citizens' frustrations about police excessive force and about the criminal justice system. Citizen concerns were ameliorated to an extent the following year by the subsequent convictions and prison sentences of two officers on charges of violating King's federal civil rights.

A second case involving use of force occurred in Detroit. Two police officers were found guilty of second-degree murder in the November 5, 1992 beating death of Malice Green (McEwen, 1997, 39). A third officer was acquitted of the charge of intent to commit great bodily harm. The beating of Rodney King and the death of Malice Green are deadly force incidents characterized by the misuse of less lethal weapons (McEwen, 1997).

The Commission on Accreditation for Law Enforcement Agencies (CALEA) and the International Association of Chiefs of Police (IACP) are two national organizations that have developed policy guidelines on use of force (McEwen, 1997, 42). CALEA has established standards for use-of-force policies, and the IACP offers its members a model policy on use of force. Many departments take these guidelines as starting points and make modifications to comply with state laws and reflect local law enforcement philosophies (McEwen, 1997).

CALEA was formed in 1979 as a voluntary accreditation program for law enforcement agencies (McEwen, 1997, 42). The Commission coordinates its efforts with four law enforcement member organizations (IACP; National Organization of Black Law Enforcement Executives; National Sheriffs Association; and Police Executive Research Forum). With support from its member organizations, CALEA has developed 436 standards organized into 40 topic areas (McEwen, 1997, 42). CALEA grants accreditation to law enforcement agencies that meet or exceed the set of applicable professional standards established by these organizations (McEwen, 1997).

CALEA provides 13 standards on lethal and less lethal force (McEwen, 1997, 42). Nine standards call for the development of written directives stating the department's specific policies and procedures on use of force. These written directives govern use of deadly force; discharge of warning shots; use of authorized less lethal weapons, procedures for rendering medical aid after use of lethal and less lethal weapons, initial proficiency with authorized weapons, and periodic (at least annual) testing of proficiency with authorized weapons (McEwen, 1997).

All the CALEA standards for use of force relate either directly or indirectly to less lethal force. The first standard says that personnel will use "only the force necessary to accomplish lawful objectives" (McEwen, 1997, 43). This standard clearly applies to the use of impact and chemical weapons in situations where deadly force is not warranted. Four standards have specific references to less lethal weapons. The standards cover the need for a written directive on the use of authorized less lethal weapons, procedures for rendering appropriate medical attention after use of a less lethal weapon, requirement of a written report on all applications of force with less lethal weapons, and a written directive that only authorized less lethal weapons can be used by officers on or off duty (McEwen, 1997, 43). Other applicable standards cover the review of reports on use of less lethal weapons, removal from line-duty assignments, demonstration of proficiency, issuance of policies on use of weapons, and annual analysis of reports on the use of less lethal weapons (McEwen, 1997).

In summary, the CALEA standards require police departments to confront their policies on the selection and use of less lethal weapons in order to achieve accreditation. Departments must demonstrate that written directives are in place, that appropriate training will be provided, and that annual reviews will be conducted using officers' reports on their use of less lethal weapons (McEwen, 1997).

The IACP established its National Law Enforcement Policy Center in 1987 under a grant from the Bureau of Justice Assistance. The objective of the center is to assist law enforcement agencies in developing and refining policies. Operating under the direction of an advisory board of law enforcement professionals, it has developed model policies in several key areas, including use of force (McEwen, 1997).

The first section of the IACP's model policy on police use of force states that its purpose is to "provide police officers with guidelines on the use of deadly and non-deadly force" (McEwen, 1997, 43). For less lethal weapons, the policy states, "Where deadly force is not authorized, officers shall use only that level of force on the force continuum that is reasonably necessary to de-escalate the incident and bring it under control" (McEwen, 1997, 43). It says further that officers should not be permitted to carry a less lethal weapon unless qualified in its use as determined by training procedures, and it calls for a written report whenever a less lethal weapon is used on a person (McEwen, 1997). The IACP recommends that the local policy include a list of the LTL weapons authorized by the department for sworn personnel (McEwen, 1997).

In summary, the CALEA standards and the IACP model policy express similar needs for policies to include statements about using only the force necessary to accomplish lawful objectives, requiring written reports on use of force incidents, establishing a procedure for reviewing reports, demonstrating regular proficiency in all agency-authorized weapons, and reviewing reports periodically to assess training and policy needs (McEwen, 1997). With regard to less lethal weapons, both recommend incident reports whenever an officer uses a less lethal weapon, regardless of the extent of injuries (McEwen, 1997).

As previously noted, the CALEA standards and the IACP model policy include statements about minimizing the force necessary for an incident. CALEA requires a written directive stating that personnel "will use only the force necessary to affect lawful objectives" (McEwen, 1997, 44). The IACP model policy says that "police officers shall use only that force that is reasonably necessary to effectively bring an incident under

control, while protecting the lives of the officer or another" (McEwen, 1997, 44).

About half the policies reviewed by McEwen (1997) go beyond these basic requirements to include specific statements on avoiding excessive force with less lethal weapons (McEwen, 1997, 45). A general statement from one policy is typical of this approach: "The force used shall be no greater than is necessary and reasonable in a given situation. The amount and degree of force which may be employed will be determined by the surrounding circumstances including, but not limited to: (a) the nature of the offense; (b) the behavior of the subject against whom force is to be used; (c) actions by third parties who may be present; (d) physical odds against the officer; and (e) the feasibility or availability of alternative actions." (McEwen, 1997, 47).

Organization of this Research

With the background provided for the state of police use of force, this research continues in the next chapter with a comprehensive review of related literature. A particular emphasis is given to citizen and officer demographic correlates of use of force. Chapter 3 details the methodology employed in the present study. Research hypotheses are provided as well as a thorough discussion of the variables used. The findings are shown in the fourth chapter. Both logistic regression and ordinary least-squares regression models are presented. The project concludes in Chapter 5 with a discussion of the findings and relevant policy implications.

CHAPTER II

LITERATURE REVIEW OF EXISTING STUDIES

Previous studies have observed force encounters between police and citizens from the police perspective. Such research examines how and why the police came into contact with a suspect, and how and why they used force against them. Very little research has focused on the public's perception of police use of force.

The Prevalence and Severity of Police Use of Force

Symbolic interactionist theory emphasizes the interplay between actors (i.e., the exchange of behaviors) within a given encounter and the use of situational factors which structure social exchange. Accordingly, the use of coercive force is part of a rational decision-making process based on "the expectations of success in achieving outcomes and the expectations and negative values of costs". As such, coercion is viewed as a goal-oriented behavior designed to control others, achieve justice, and/or assert and protect social identities (Terrill, 2005).

In May 1995, the Bureau of Justice Statistics convened a Police Use of Force Workshop to explore avenues for tracking, reporting and analyzing police use of force. Early studies on the incidence of use of force focused on deadly force by police. Deadly force results in the most severe injuries to its recipients and commands the greatest attention from the media. The early studies of

police use of lethal force looked at the incidence and circumstances of lethal force in individual cities (Institute for Law, 1996). An unintentional by-product of the early studies was that they uncovered the lack of recordkeeping of use of force of any kind by police agencies. Among other things, the lack of systematic, centralized data collection in many departments inhibited the rational development of new policies, training programs, and enforcement procedures (Institute for Law, 1996).

The workshop's evaluation of prior data relied heavily on the very few studies that had been completed at the time. The most comprehensive study at the time was done on the federal level, and was titled *Police Use of Force* by Antony Pate and Lorie Fridell (Institute for Law, 1996). To obtain a national picture on police use of force, Pate and Fridell (1996) selected a representative sample of 1,697 law enforcement agencies (1,016 municipal police departments, 588 county sheriffs' departments, 50 state police agencies, and 43 county police departments) from the total population of 15,801 agencies in the United States. The agencies also represented four population categories (below 10,000; 10,000 to 24,999; 25,000 to 49,999; and 50,000 and over) (Institute for Law, 1996, 20).

The surveys, mailed to the 1,697 agencies in August 1992, asked for police use-of-force data for the previous year (Institute for Law, 1996, 3). After a series of follow-up activities, the researchers received 1,111 completed surveys (a 65.5 percent response rate) (Institute for Law, 1996, 20). The survey asked about a wide range of degrees of force, from firm grips to firearms. The number of sworn officers was also requested so that rates of the use of force per 1,000 officers could be calculated. The results from the surveys were statistically weighted based on the number of agencies in the population by type of agency and population category (Institute for Law, 1996, 20).

Table 2.1 shows the weighted survey results for reported incidents of police use of force per 1,000 sworn officers in city police departments (the largest category of agencies) (Institute for Law, 1996, 21). The order of the results is generally in line with the degree of force. In other words, less serious types of force, such as handcuffs and bodily force, occur more frequently than more serious types of force, such as vehicle rammings and shooting of citizens. No further conclusions were drawn by the authors other than further collection of data based on citizen complaints of excessive force (Institute for Law, 1996).

Table 2.1: Reported Incidents of Police Use of Force per 1,000 Sworn Officers during 1991 in City Departments

Type of force	Rate per 1,000 sworn officers
Handcuff/leg restraint	490.4
Bodily force (arm, foot, or leg)	272.2
Come-alongs	226.8
Unholstering weapon	129.9
Swarm	126.7
Twist locks/wrist locks	80.9
Firm grip	57.7
Chemical agents (Mace or Cap-Stun)	36.2
Batons	36.0
Flashlights	21.7
Dog attacks or bites	6.5
Electrical devices (TASER)	5.4
Civilians shot at but not hit	3.0
Other impact devices	2.4
Neck restraints/unconsciousness-rendering Holds	1.4
Vehicle rammings	1.0
Civilians shot and killed	0.9
Civilians shot and wounded but not killed	0.2

Source: Institute for Law &, 1996, 21.

Garner and Maxwell's (2002) study focused on a wide variety of samples, sources, measures of force, analytical methods, and theoretical frameworks. Prior research reported that the prevalence of police use of force ranges from 0.8 percent to 58.1 percent of police-suspect encounters (Garner & Maxwell, 2002, 705). Additionally, few characteristics of officers, suspects, police departments, or neighborhoods are associated consistently with the amount of force used by the police. Using self-report data by police from 7,512 adult custody arrests in six jurisdictions, Garner & Maxwell (2002, 705) found that the associations between encounter level characteristics and police use of force are dependent on the inclusion of suspects' resistance and on the measure of force used.

Lumb and Friday (1997) found that in terms of the prevalence of the police use of force, during the time period for their study, July 1992 to December 1993, a total of 61 use of force reports were filed by police officers. Physical force was used 47.5 percent (N = 29) of the time, deadly force [3] 34.4 percent (N = 21) (Lumb & Friday, 1997, 140).

General Use of Force

The behavior of officers and suspects during encounters is influenced by the actions, comments, and demeanor of the other actor. Alpert, Dunham, and MacDonald's (2004) study looks at the interactive context of police-citizen encounters that result in the use of force. The results of the study show that police-citizen encounters are not only interactive but also asymmetrical with respect to authority (Alpert et al., 2004).

Police uses of force interactions with civilians are more likely to involve greater levels of force by the police relative to the level of suspect resistance when a suspect appears to

have less authority relative to the police officer. During an encounter, police and citizens interpret and decide how to respond to each other. This interpretive process can shape the outcome of an encounter and is an important link to the understanding of police behavior (Alpert et al., 2004).

In his study on the measurement of force used by and against police, Garner, et al. (1996) found that no force or only low levels of force were used in a large proportion of cases. In the majority of cases, the maximum level of force used by the suspect did not exceed speaking to the police in a conversational tone, while the level of force by police was equal or slightly above that used by suspects (Garner, et al., 1996).

Terrill (2005) examined the transactional process of the police–suspect encounter, which involves an attempt to model the micro-processes of how force is used within police–suspect encounters to determine how officers control or manage the encounter. For instance, after examining 344 arrest files from Oakland and San Francisco, California, Terrill (2005) concluded that the typical violent encounter began with a verbal request by an officer, followed by a citizen’s failure to abide by the request. The officer then escalated to a command or threat, which the citizen disobeyed, and the cycle of escalation continued on to the point of physical force.

In another study, conducted in Denver, Colorado, researchers proposed that police–citizen encounters move through three stages: contact, processing, and exit. Officers use a wide variety of tactics at each stage and that decisions made early in an encounter can affect subsequent decisions to use force. For instance, beginning encounters with tactics such as listening, questioning, or seeking information usually led to a less coercive outcome such as a verbal warning or offering advice. Conversely,

taking a more coercive approach at the start (e.g., verbal or physical restraint) had a greater likelihood of leading to a more coercive outcome (Terrill, 2005).

Finally, in a related Metro-Dade County, Florida study, actions taken by patrol officers during potentially violent situations were examined. Along the lines of the Denver study, the Metro-Dade study, broke down a potentially violent situation into four stages: (1) unassigned time, (2) approach, (3) contact, and (4) resolution. Terrill (2005) found that actions taken prior to involvement in potentially violent situations (e.g., knowledge of the patrol beat, places, people) may reduce the need to use force during the encounter; and that some officers in certain situations may not have been aggressive enough in handling potentially violent encounters. That is, they failed to take charge when it was clearly appropriate to take charge (Terrill, 2005).

Literature Related to the Current Studies' Hypotheses

Police-initiated Contacts

Most research focuses on police-suspect interactions. The interactional process whereby police come into contact with a suspect in general, and how those encounters result in force usage are examined in such studies. Further situational characteristics show that police might expect to use force at greater rates in police-initiated contacts because it is more difficult to establish their legitimacy at those times than if the citizen called for assistance (Friedrich, 1980).

Unlike the other studies, Garner and Maxwell (2002) collected data on a large number of behaviors by officers and then used clear definitions to operationalize multiple

measures of force. Garner and Maxwell (2002) used common data from every police area and every shift in six large urban jurisdictions to study the use of force in 7,512 adult custody arrests (Garner & Maxwell, 2002, 712). Garner and Maxwell's (2002) study tested the association of situational characteristics with the force used in arrests in six jurisdictions.

This focus resulted in the ability to consider types of situational characteristics that have not been included in prior research. In that framework, they were able to analyze police mobilization, or how the police came to be involved with the suspect. At least one characteristic was consistently associated with the use of force in Garner and Maxwell's 2002 study: police mobilization, or whether or not the contact was police-initiated.

Citizen behaviors

Compared with individual characteristics of the police and citizens, situational factors seem to have a greater impact on the use of force. Friedrich's (1980) findings showed that the citizen's behavior directly influences the use of force by police. Antagonism of the police provokes use of force, while civility and deference virtually precludes it (Friedrich, 1980).

Worden (1995) conducted a study of citizen demeanor and the effect of that behavior on police use of force. He found that police behavior is directly influenced by suspects' demeanor. As could be expected, when suspects are disrespectful, police are more likely to take coercive actions. Worden (1995) noted however, that the actual use of force by police was so infrequent, that not all citizen disrespect could be correlated with the use of force.

William Terrill's (2005) research examines 3,544 police–suspect encounters from an observational study of the police in an attempt to better understand the transactional process of the police–suspect encounter. Results indicate, within the context of a force continuum structure, that officers escalated the level of force in about one of five encounters involving nonresistant suspects, and de-escalated the level of force in three of four encounters involving resistant suspects (Terrill, 2005, 107).

Lumb and Friday (1997) noted that the two most commonly reported charges stemming from a citizen's use of force against an officer were "assault on an officer " (N = 9) and "intoxicated and disruptive" (N = 9) (Lumb & Friday, 1997, 140).

Kaminski and Digiovanni's study examined the effects of perceived impaired judgment due to mental illness, drugs, or alcohol among a sample of arrestees on police use of force and other outcomes. Using a combined measure of impairment, bivariate analysis of more than 2,000 arrests made by officers from a large southeastern municipal police department suggests that persons with perceived impaired judgment were only mildly problematic for police in this study (Kaminski & Digiovanni, 2004).

Multiple regression analysis of the effects of perceived judgmental impairment on use of force indicates it significantly increased the odds that higher levels of force were used, but the influence of this factor was less than the influence of other factors commonly examined in use-of-force studies. Additional analysis using a disaggregated measure of perceived impaired judgment reveals that the significant effect of the combined measure is a function of suspected drug intoxication rather than suspected alcohol intoxication or mental illness (Kaminski & Digiovanni, 2004).

The results indicate that the positive relationship between general impairment and use of force observed is due to drug impairment. Specifically, the odds that high force versus no force is used increase by nearly 100 percent when arrestees are impaired by drugs (odds ratio = 1.98; $p = .052$), and the odds of low force versus no force increase by 66 percent (odds ratio = 1.66; $p = .014$) (Kaminski & Digiovanni, 2004, 313). The effects of perceived mental status (odds ratio = 1.41; $p = .520$) and alcohol intoxication (odds ratio = 1.36; $p = .338$), although in the expected direction, are statistically unrelated to use of force (Kaminski & Digiovanni, 2004, 313). Whether the authors use the general measure of impairment or the specific indicators does not affect the other regressors in the model (Kaminski & Digiovanni, 2004).

To summarize, it appears that arrests of persons impaired by drugs increase only slightly the need for higher levels of force than arrests of unimpaired persons and those impaired by mental illness or alcohol, controlling for other factors. These other factors, such as suspected weapon possession or use, arrestee escape behavior, level of threat, and arrestee sex, are more important determinants of force than is impairment, at least in the sample of arrests analyzed by the authors (Kaminski & Digiovanni, 2004).

Citizen's Demographics

Race

Smith (1986) found that while the racial prejudice effect is smaller than anticipated, the more racist the officer is, the more likely they are to use force against non-white citizens. Black citizens are more likely to be subject to reasonable force, but are less often treated with excessive force. In examining the role that differing neighborhoods play in police use of force, Smith (1986) found that police are more active

and aggressive in racially mixed neighborhoods. Police are also more likely to exercise coercive authority and use of force in racially mixed neighborhoods (Smith, 1986).

Age

Friedrich (1980) found that the use of force increases and then decreases as the age of the citizen increases, with those 18 to 25 years old most likely to receive force.

Gender

Friedrich (1980) found that gender seems to have little effect, contrary to the traditional view that females are handled less roughly by police. Morabito and Doerner (1997) found that suspect gender does not appear to have any bearing on officer use of force.

Officer's Demographics

Race

With regard to the race of officers involved in the use of force, Friedrich (1980) found that black officers are more likely to use reasonable force, while white officers are more likely to use excessive force. Conversely, Morabito and Doerner (1997) noted that nonwhite and white officers respond similarly. Officer race has no impact on choice of force (Morabito & Doerner, 1997).

Other Officer Characteristics

Morabito and Doerner (1997) found that rookies do not exhibit a propensity to use force on suspects any more than veteran officers. Therefore, officer characteristics do not reveal any substantial tendency to resort to increased force options in violent encounters. In terms of officer characteristics, males, college graduates, and veterans are more likely to resort to increased force options when using force. College educated officers are more

than twice as likely to choose increased force options over personal weapons when dealing with heavier suspects (Morabito & Doerner, 1997). Similarly, rookies who are at a weight disadvantage are more than twice as likely to resort to increased force options (Morabito & Doerner, 1997, 685).

Officer behaviors

Number of officers

Multiple officers are more likely to use force than single officers. This could be due to the fact that more officers will naturally deploy to more serious incidents (Friedrich, 1980). Garner and Maxwell (2002) also found a consistent correlation to multiple officer's presence and increased use of force, but decreased severity of force. Lumb and Friday (1997) found that in two-thirds of the cases of use of force in their study, more than one officer was involved.

Gaps in Existing Literature

Most previous studies are based on official data and observational research. Garner and Maxwell (2002) note that the use of surveys of police-public contact can provide more representative, nationwide samples of police public encounters and the use of force during such encounters. This method relies on self-reporting from respondents about their own and police behavior and has been limited to reporting national aggregates; and, like independent observations of the police, generated a small number of use of force incidents studies. It measured both the prevalence and severity of force and used multivariate statistical tests to spot characteristics associated with the police use of force.

This study is innovative as it relies on citizen's perceptions of use of force as well as their self-reported reactions to police that may affect the likelihood force is used. Much as Garner and Maxwell (2002) suggested, the data from the Police-Public Contact Survey is self-reported and directly from the perspective of public respondents.

The current study is predicated on the nature and structure of the interaction between police and suspects. The specific question posed by this study is: what are the correlates of police use of force against suspects?

CHAPTER III

RESEARCH METHODS AND PROCEDURES

Sample Description

The data for this study were obtained from the Police-Public Contact Survey 2002, which is on deposit at the Inter-university Consortium for Political and Social Research (ICPSR). The Police-Public Contact Survey (PPCS) was conducted by the Bureau of the Census on behalf of the Bureau of Justice Statistics. The PPCS was created by the Bureau of Justice Statistics to document contacts between police officers and citizens that resulted in the use of force. The survey has been conducted three times, with the first time being in 1996, the second in 1999, and in 2002. The data for the current study were collected in July 2002. The unit of analysis was individuals and the population was respondents aged 16 and older to the National Crime Victimization Survey (NCVS) during the period January-June 2002. The data for this study were collected between July and December 2002 (U.S. Dept. of Justice, 2005).

The target sample size was 93,410 persons for the PPCS. However, the final sample was 76,910 (82 percent response rate). Respondents were excluded because of mental or physical impairment (2882), non-English speakers (455), and refusal to participate in the study (2261). The remaining persons (10902) were excluded

because of unavailability. Interviews were conducted in person (34 percent) and via telephone (U.S. Dept. of Justice, 2005).

For the purposes of the current study, only persons who reported having face-to-face contact with the police during the previous 12 months were included. Thus the final sample size for this research is 20.5 percent of the original total sample. Those individuals who had not experienced face-to-face contact in the previous 12 months were excluded, as these persons would have no information of relevance to the study (U.S. Dept. of Justice, 2005).

Research Hypotheses

The key purpose of this study is to determine the situational factors leading to the use of force by police against citizens. I hypothesize that a certain set of situational factors will be positively correlated with use of force. Those situational factors are: (1) police initiated stops and investigations, (2) the citizen's race, (3) the citizen's gender, (4) the citizen's behaviors towards the police, (5) the officer(s)'s race, and (6) the number of officers present. Finally, I expect to find interactive effects between demographic variables of citizens and officers and the other types of independent variables measured.

Hypothesis 1

Police initiated stops of citizens are positively correlated with use of force.

I expect the hypothesis to be consistent across the types of contact initiated by the police, whether it is a traffic stop, call for service, investigation, or otherwise. Kavanagh (1994) found that police officer-initiated contacts were associated with the greater use of

force. Garner (2002) reported that compared with arrests that stem from officers being dispatched, arrests in which the officer initiates the contact with the suspect are associated with a greater prevalence but not a greater severity of force.

The PPCS contains data which measure the nature of police contact, and whether that contact was initiated by the police. This variable will be used to predict the likelihood of use of force.

Hypothesis 2

Police interaction with non-white citizens is positively correlated with use of force.

Fyfe (1988) stated that minority (usually African American) citizens are disproportionately at the receiving end of police use of force decision. Smith (1986) found that increased amounts of force are associated with neighborhoods with a higher proportion of racial minorities. Worden (1995) identified the suspect's race (predominantly black) as being a statistically significant predictor of all categories of his measure of force. Terrill and Mastrofski (2002) reported that a suspect's race is associated with an increased prevalence or severity of force.

The PPCS contains race and ethnicity data for respondents. This variable will be used to predict the likelihood of use of force.

Hypothesis 3

Male citizens are positively correlated with use of force.

Fyfe (1988) stated that poor, urban, male citizens are disproportionately at the receiving end of police use of force decisions. Smith (1986) found that encounters with antagonistic, male suspects that do not occur in public places are associated with officers' greater use of force. Garner et al. (2002) reported on characteristics that were

consistently associated with statistically significant increases in all measures of an officer's use of force, one of which is being male. Worden (1995) identified the suspect's sex (male) as being a statistically significant predictor of all categories of his measure of force. Terrill and Mastrofski (2002) found that the police used more force against nonwhite, younger, poorer, or intoxicated suspects who resisted police authority. Garner et al. (2002) found that in all analyzed models, the police use more force against male suspects than against female suspects. The PPCS contains data which measures the respondent's gender. This variable will be used to predict the likelihood of use of force.

Hypothesis 4

Citizen resistance to police (verbal and/or physical) is positively correlated with use of force.

Garner et al. (2002) reported that citizens who made obscene or insulting remarks were positively associated with the use of force. Kavanagh (1994) found that the suspect's disrespect toward officers is associated with the greater use of force. Garner et al. (2002) reported that a suspect's resistance was associated with the police's increased use of force. Engel et al. (2000) noted that whether the suspect fought with officers was associated with increased use of force. Finally, Terrill and Mastrofski's (2002) measure of suspects' resistance was associated with officers' greater use of force.

The PPCS contains data which measure the respondent's level of resistance to officers. This variable will be used to predict the likelihood of use of force.

Hypothesis 5

Black officers are more likely to have higher rates of use of force.

Garner et al. (1995) reported the odds of police use of force are higher for non-

white officers than for white officers. Brown and Frank (2006) found that black officers are more likely to arrest citizens, particularly black citizens and black officers are more likely to be in use of force and use of deadly force incidents. Kuykendall and Burns (1980) suggest that black officers are more aggressive and stricter with black citizens when compared to white officers.

The PPCS contains data which measure respondent's perception of the race of the officers involved in each incident. This variable will be used to predict the likelihood of use of force and the severity of use of force

Hypothesis 6

Multiple officers are positively correlated with use of force.

In more serious incidents, more officers will logically be deployed to assist in gaining control of the situation. Given that the incident has already reached a higher level of severity by the time additional officers arrive on scene, I expect the rate of force to also be higher.

The PPCS contains data which measure the presence of more than 1 officer on scene. This variable will be used to predict the likelihood of use of force when multiple officers are present.

Variables

The PPCS data contain variables measuring citizens' perceptions of police encounters. Respondents were asked to report their experiences including demographics, self-reported behaviors during police contact, and police behaviors. Respondents were

also asked to self-report on their behaviors and attitudes during the encounter.

Independent Variables

Among the independent variables used in this study, several focused on the nature of the respondent's contact with the police. One of the main purposes of determining the nature of contact was to test the transactional dynamic that exists when the police initiate the contact versus the respondent calling for police assistance. Hypothesis 1 states that I believe police initiated stops will be correlated with higher use of force, and determining the nature of the contact will test that assertion.

Variable 015 measured "Was this contact initiated by the police?" This variable was originally coded so that 0=missing, 1=yes, 2=no, and 3=don't know. This variable was recoded so that 1=yes, 0=no, and the remaining values were coded as missing. Several questions on the survey measured why the police initiated the contact. The reasons measured include traffic accident, traffic stop, reporting a crime or problem to the police, requesting assistance from the police, investigating a crime, and suspected of a crime. More than fifty 'other' reasons were also given by respondents ranging from responding to a burglary alarm to runaway dog. These 'other' responses were not used in the final analysis of this study. Each of these reasons for police contact were measured with separate variables using dichotomous response categories: (1) yes or (2) no. Table 3.1 summarizes the frequency and percentage distributions of the responses to the reasons why police initiated contact with the respondents.

Table 3.1: Frequency and Percentage Distributions of Nature of Police Initiated Contacts with Respondents

Independent Variables	Frequency	Percentage
Traffic Accident	2088	13.3%
Traffic Stop	6018	38.3%
Reported Crime	4367	27.8%
Police Provided Assistance	1179	7.5%
Police Investigating Crime	904	5.7%
Suspected of Crime by Police	362	2.3%
Miscellaneous Other Reasons	813	5.1%
	N=15731	100%

The independent variables in the above table measure the initial reason of the police/citizen transaction. These variables describe how the respondent came to be in face-to-face contact with the police. The categories capture most of the possible ways one can come in contact with a police officer.

Variables 026-031 were indicative of the respondent's behavior during police contact. Variable 026 asked "At any time during this contact, did you argue with, curse at, insult, or verbally threaten the police?" The response categories for 026 included (1) yes, (2) no, and (3) don't know. Variables 027-031 fell under the question, "At any time during this contact, did you..." Variable 027 was titled "Disobey or interfere with the officer(s)?" Variable 028 was titled "Try to get away?" Variable 029 was titled "Push, grab, or hit the police officer(s)" Variable 030 was titled "Resist being handcuffed, arrested, or searched?" Variable 031 was titled "Physically do anything else?" These variables were recoded into a summation scale to capture the escalating severity of

Table 3.2: Frequency and Percentage Distributions of Nature of Citizen's Behavior

Citizen's Behavior	Frequency	Percentage
Argued with Police	218	1.4%
Disobeyed Police	37	.2%
Tried to Get Away from Police	16	.1%
Pushed, Grabbed, Hit Police	4	.00003%
Resisted Being handcuffed or arrested	17	.1%

respondent behavior so that V027=1, V028=2, V029=3, V030=4, and V031=5.

While most of the variables are reflective of service-driven encounters where the police are involved in low-risk investigations or simple calls for service, the traffic stop variable is notable. Terrill and Mastrofski (2002) found that proactive stops were significantly more likely to involve force than were other police contacts.

Dependent Variables

The dependent variable in this study is use of force by police. This concept is captured through multiple variables. The first variable used measures whether or not respondents experienced any use of force. Respondents were asked: "During this contact, did the police use or threaten to use force against you for any reason?" The response categories included (1) yes, (2) no, and (3) don't know. The categories were recoded as a dichotomous variable where (1)=yes and (0)=no. The "don't know" response category was included in the missing data.

The second concept measuring use of force used three questions to account for the severity of the force used against respondents. Variables 017 through 020 measured how much force was used. Respondents were asked "Did the officer(s) actually push or grab you?"(Yes=1), "Actually kick or hit you?" (Yes=2), and "Actually point a gun at you?"

(Yes=3). These 3 variables were recoded in a weighted summation scale.

Finally, the current study measures if the respondent perceived any force used as excessive. Respondents were asked, “Do you feel any of the force used or threatened against you was excessive?” This dichotomous variable was measured with a (1) yes or (2) no. This variable was recoded so that (1)=yes and (0)=no. Table 3.3 summarizes the percentage distribution of the dependent variables measured.

Table 3.3 Percentage Distributions of Dependent Variables Used Police Behavior

Dependent Variables	Frequency	Percentage
Police Threatened or Used Force	209	1.3%
Grabbed/Pushed by Police	83	.5%
Kicked/Hit by Police	16	.1%
Police Pointed Gun	36	.2%
Police Used or Threatened Other Force	123	.8%
Excessive Force Used or Threatened	158	1%

The characteristics of both officer and suspect behavior form the most seemingly obvious indicators of whether force will be used during an encounter or not. Defying police authority, which is measured above by disobeying, arguing, and resisting, can be perceived as either disrespect, resistance, or both. A citizen who fails to respond to an officer's command may be considered both disrespectful and resistant. Terrill and Mastrofski (2002) noted that suspects who displayed disrespectful behavior toward officers were no more likely to have force used on them than were those who were respectful. Of the total sample 15,731 respondents who had contact with police, only 209 (1.3%) reported that the police used or threatened force against them.

Control Variables

The control variables measured basic demographic information on respondents and police. The age variable (004) was originally coded so that each respondent's age was listed in ascending order. The age variable was recoded so that more manageable 8-year categories (16-24, 25-33, 34-42, 43-51, 52-60, and 61 and over) were utilized.

The race variable (005) originally was coded with categories of (1) white, (2) black, (3) American Indian, (4) Asian, Pacific islander, and (5) Other. This variable was recoded so that 1=White, 2=Black, and 3=Other. Ethnicity was measured in variable 006 as Hispanic origin with response categories of 1=yes and 2=no. Variable 003 measured gender with response categories of 1=male and 2=female.

Respondents provided their perceived observations of the police officers in variables 20 and 21. Variable 20 asked, "How many officers were present?" Respondents filled in the number of officers for their response, Variable 21 asked "(Was/Were) the police officer(s) White, Black, or some other race?" Response categories included 1=White, 2= Black, and 3=Other.

Tables 3.4 and 3.5 summarize the percentage distribution of the control variables measured. Terrill and Mastrofski (2002) found that police force was more likely when citizens were male and black, as well as also finding a male gender effect. Officers were still more forceful toward men, nonwhites, young suspects and lower-class suspects. Despite the circumstances such suspects present, they are significantly more likely to be on the receiving end of greater levels of force. Officers' gender and race were generally unrelated to force, although black officers patrol "more aggressively" (e.g., conduct more stops and questioning) than do their white counterparts.

Men also have a greater chance of being on the receiving end of all forms of force. Here, the greatest difference is in physical restraint: a 19% chance for men and a 13% chance for women (Terrill & Mastrofski, 2002, 225). Officers were also more likely to use verbal force on men than on women (44% versus 40%) (Terrill & Mastrofski, 2002, 225).

Table 3.4 Percentage Distributions of Control Variables Used (Citizens)

Control Variable	Frequency	Percentage
Age		
16-19	1180	7.5%
20-29	3407	21.7%
30-39	3605	22.9%
40-49	3376	21.5%
50-59	2322	14.8%
60 and over	1841	11.7%
Race		
White	12199	77.5%
Black	1492	9.5%
Hispanic	1542	9.8%
Other	498	3.2%
Gender		
Female	7839	49.8%
Male	7892	50.2%
	N=15731	100%

Table 3.5 Percentage Distributions of Control Variables Used (Police Officers)

Control Variable	Frequency	Percentage
Race		
Mostly White	230	52.9%
Mostly Black	22	2.8%
Mostly Other Race	12	25.3%
Bi-racial	110	5.1%
Don't Know	61	14%
More than one Officer present	1062	6.75%

CHAPTER IV

RESULTS

Analysis Strategy

Two strategies of analysis are implemented in this study. First, logistic regressions are presented for the categorical, dichotomous dependent variable measuring use of force. The logistic regression analysis was conducted to evaluate the net impact of particular citizen, police and situational factors on the likelihood of force being used. Second, ordinary least squares regressions (OLS) were completed using the continuous dependent variable measuring the scale of force used.

Logistic Regression

Logistic regression allows for statistical controls in studies when experimental controls are not possible. These logistic models are interpreted as the change in the odds associated with a one-unit change in the independent variable. In other words, as the odds ratio associated with an independent variable increases, so does the likelihood of police use of force.

The logistic regression models were run separately so that each predictor variable was run in separate analysis predicting the likelihood of use of force. Table

4.1 summarizes these results. After the initial analyses, a complete model including all of the predictor variables was run. Table 4.2 summarizes the odds ratios for the comprehensive model. As shown in Tables 4.1 and 4.2, all of the predictor variables have a highly statistically significant relationship with the likelihood of use of force except the 'Other' race variable. As is expected whenever you add multiple variables into a model, the magnitude of the odds ratios decrease in the full model compared with the bivariate models. For the remainder of the discussion here, I will focus on the odds ratios presented in Table 4.2.

Table 4.1: Bivariate Logistic Regression Coefficients and Odds Ratio for Predictors of Police Use of Force

Variable	Odds Ratio
Contact Initiated by Police	0.034***
Citizen's Gender	3.115***
Citizen's Age	2.748***
Citizen's Race (Black)	2.745***
Citizen's Race (Hispanic)	0.014***
Citizen's Race (Other)	0.753
Citizen Argumentative	28.664***
Citizen Disobedience	67.958***

Notes: N=209.

The significance levels are: *= $p < .05$, **= $p < .01$, and ***= $p < .001$ (two-tailed tests).

Table 4.2 Complete Model Logistic Regression Coefficients and Odds Ratio for Predictors of Police Use of Force

Variable	Odds Ratio
Contact Initiated by Police	2.88***
Citizen's Gender	2.735***
Citizen's Age	1.864***
Citizen's Race (Black)	3.17***
Citizen's Race (Hispanic)	2.272***
Citizen's Race (Other)	0.76
Citizen Argumentative	14.586***
Citizen Disobedience	20.281***

Notes: N=209.

The significance levels are: *= $p < .05$, **= $p < .01$, and ***= $p < .001$ (two-tailed tests).

As shown in Table 4.2, police initiated contact is associated with an increased likelihood of police use of force. The odds ratio (2.88) means that there is a 188% increase in the likelihood of police initiated contacts to result in use of force compared with non-police initiated contacts. Gender is also a significant predictor of the likelihood of use of force. Again, there is an increased likelihood (173.5%) for males compared to females to experience police use of force. Race is also a significant factor. Blacks and Hispanics compared with whites are more likely to experience police use of force, 217% and 127% respectively.

The two largest predictors of the likelihood of use of force measure police-citizen interaction. Citizens who argue, insult or otherwise perturb officers are nearly 14 times more likely to experience force than those citizens who do not insult officers. Likewise,

citizens who fail to comply with officer demands and assault an officer are almost 20 times more likely to report force being used as compared with compliant citizens. Each of these findings is consistent with the research hypotheses. The most important predictors (arguing and disobeying officers) clearly have the most impact on the likelihood of citizens to report use of force.

OLS Regressions

In my second major type of analysis, I use ordinary least-squares regression (OLS) to model the prediction of situational factors on the amount of force used. As discussed in Chapter 3, force was originally measured with three separate variables. These variables were recoded, combined into one variable, and the resulting weighted summation scale is used as the outcome variable.

Five separate models were used to test the research hypotheses. In Model 1, contact initiated by police was regressed on the level of force. Model 2 added in citizen gender and race/ethnicity. Model 3 contains citizen behaviors. Model 4 shows the effects of the police officers' race and ethnicity. Model 5 shows the impact of multiple officers on the amount of force used. Table 4.3 shows these findings.

Table 4.3: Regression Coefficients Predicting Level of Force										
Independent Variables	Model 1		Model 2		Model 3		Model 4		Model 5	
Contact Initiated by Police	0.024	***	0.018	***	0.016		-0.127		-0.130	
	(0.003)		(0.003)		(0.003)		(0.101)		(0.101)	
Citizen's Gender			0.023	***	0.019	***	0.032		0.035	
			(0.003)		(0.003)		(0.025)		(0.025)	
Citizen's Age			-0.001	***	0.000	***	-0.001		-0.001	
			(0.000)		(0.000)		(0.001)		(0.001)	
Citizen's Race (Black)			0.034	***	0.031	***	0.032		0.028	
			(0.006)		(0.005)		(0.033)		(0.033)	
Citizen's Race (Hispanic)			0.017	***	0.019	***	0.053		0.056	
			(0.005)		(0.005)		(0.037)		(0.037)	
Citizen's Race (Other)			-0.008		-0.009		-0.040		-0.032	
			(0.009)		(0.009)		(0.072)		(0.072)	
Citizen Argumentative					0.299	***	0.076		0.083	
					(0.013)		(0.090)		(0.090)	
Citizen Disobedience					0.138	***	0.200	***	0.199	***
					(0.006)		(0.065)		(0.064)	
Black Officers							-0.036		-0.031	
							(0.055)		(0.055)	
Multiple Officers Present									0.008	
									(0.005)	
	R ² =.003		R ² =.012		R ² =.085		R ² =.054		R ² =.061	

Notes: N=209. Shown are the metric coefficients with standard errors in parentheses. The significance levels are: *=p<.05, **=p<.01, and ***=p<.001 (two-tailed tests).

As predicted in Hypothesis 1, Model 1 shows a positive correlation between police initiated contacts and the amount of force used. However, as other predictor variables are added into subsequent models, the statistical significance of this relationship disappears suggesting that other factors are far more important in predicting the seriousness of force used.

Hypotheses 2 and 3 predicted that non-white and male citizens would experience more use of force. These hypotheses were supported with the exception of the 'other' race category in the logistic regression analyses. Similarly, the OLS results show that race and gender are correlated in the predicted direction with the seriousness of force used. Younger, male, Black and Hispanic respondents have positive coefficients predicting level of force used. These findings are presented in Model 2. Similar to Model 1, the effects of race, age, and gender dissipate when more proximal variables are added into the model.

Model 3 accounts for citizen behaviors: arguing with the police and disobeying or assaulting officers has positive correlations with the amount of force used. The magnitudes of the coefficients are relatively higher than the other correlates, suggesting a more prominent impact on the continuum of force used. Model 3 also has the highest R-squared value (.085) of all the models presented. These findings suggest that incorrigible citizens are more likely to experience higher levels of force than more compliant citizens. These findings show support for Hypothesis 4.

Model 4 tests the research hypothesis that black officers are more likely to use more severe levels of force when compared with other officers. This hypothesis (number 5) is not supported by the current findings. The coefficient is negative and not

statistically significant. Thus, while black officers are more likely to use force, as shown in the logistic analyses, black officers are not more likely to use severer force.

Model 5 shows all the predictor variables examined, which includes multiple officers. While the coefficient is positive and in the expected direction, the results are not statistically significant. Thus, Hypothesis 6 is not supported by the findings.

The most statistically significant correlate of the use of force scale is citizen disobedience. Likewise, the relationship between citizen disobedience and use of force in the logistic regression analyses was the largest net effect. These findings suggest that when citizens disobey officers, attempt to flee, or assault officers, citizens are increasing their risk of the police using force and the severity of the force which may be used against them.

CHAPTER V

CONCLUSION

The results of the study are significantly different from some common misconceptions widely held and perpetuated by the media. While there were findings that were completely expected, e.g. the positive correlation between citizen's disobedience and police use of force; there were some novel results.

Hypothesis 1

Police initiated stops of citizens are positively correlated with use of force.

There is ample support for this hypothesis in the findings. There is a 188% increase in the likelihood of police initiated contacts to result in use of force compared with non-police initiated contacts. One possible explanation for this finding is that more active and aggressive officers are typically associated with self-initiated activity. With increased activity, a natural result will be a higher probability to be involved in incidents resulting in the use of force.

Hypothesis 2

Police interaction with non-white citizens is positively correlated with use of force.

These hypotheses were supported with the exception of the 'other' race category. The results show that race and gender are predictive of the use of force and are interrelated with the seriousness of force used. Younger, male, Black and

Hispanic respondents are more likely to experience police use of force.

Hypothesis 3

Male citizens are positively correlated with use of force.

The findings show that males are more likely to be the subject of police use of force. As expected, males are both more likely to have face-to-face contact with police and to be subjected to police use of force.

Hypothesis 4

Citizen resistance to police (verbal and/or physical) is positively correlated with use of force.

This is the most significant predictor of police use of force. Naturally, citizens who resist the police are much more likely to have the police use force against them.

This interaction is justifiable and expected.

The results show that when citizens engage in resistive or assaultive behavior, e.g. pushing, hitting, kicking, or trying to flee officers, they can expect to be subjected to an increased level of both the amount and severity of police use of force

Hypothesis 5

Black officers are more likely to have higher rates of use of force.

This hypothesis is not supported by the findings. It is also statistically insignificant. As compared to white officers, there is no evidence that black officers use more or more severe force.

Hypothesis 6

Multiple officers are positively correlated with use of force.

This hypothesis, like number 5 is not supported by the findings. While the

correlation is in the expected direction, the results are not statistically significant.

There is little evidence of widespread problems with police use of force in general, and with regard to this study. Lending a large measure of credibility to the impact of these findings is the fact that the data are reported by citizens who have had interactions with police. Again, while previous studies draw from police-reported data, this study comes straight from citizens.

The seeming misperception by many citizens that police use of force is excessive, widespread, unjustified, and institutionalized appears to have little support according to citizen's self-reports.

This study can be an interesting preliminary examination which can lead to more open discussions with the public about the myths and realities regarding the police and use of force.

Perhaps the simplest statistic found in this study is the most telling. 209 of 15731 (1.3%) reported police using force and 123 of 15731 (0.8%) reported experiencing excessive use of force. Without minimizing the horrible effect even one instance of excessive use of force has on the police-community relationship, this percentage of total police contacts reported is notably smaller than media-generated reports of police violence against citizens. This and future studies on this subject should find their way to more popular readership rather than being limited to academia.

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