

To the Graduate Council:

I am submitting herewith a thesis written by Mikaela Cooney entitled “Judge, Jury, and Executioner: Organizational Factors that Affect Police Use of Lethal Force.” I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Criminal Justice.

Vic Bumphus, Ph.D., Chairperson

We have read this thesis and  
recommend its acceptance:

Gale Iles, Ph.D.

Roger Thompson, Ph.D.

Acceptance for the Council:

Stephanie Bellar, Ph.D.

Interim Dean of the Graduate School

JUDGE, JURY, AND EXECUTIONER:  
ORGANIZATIONAL FACTORS THAT AFFECT POLICE USE OF LETHAL FORCE

A Thesis  
Presented for the  
Master of Science  
Degree  
The University of Tennessee, Chattanooga

Mikaela D. Cooney  
May 2009

Copyright © by Mikaela D. Cooney  
All rights reserved.

## **DEDICATIONS**

This thesis is dedicated with fond remembrance to the two guiding forces behind my empirical journeys. To Kathryn Barth Horton – you saw greatness in me before I had even the slightest inkling of confidence. To Thomas Leon Vasquez, you are the reason I still search so vigorously for justice and truth. I miss you both dearly and I hope I have made you proud.

## **ACKNOWLEDGMENTS**

I wish to thank everyone who has helped me navigate through the perils of graduate school which have culminated in the completion of this thesis. I would especially like to thank Dr. Vic Bumphus for his expertise, diligence, and careful guidance throughout the research process. I would like to thank Dr. Gale Iles and Dr. Roger Thompson for serving on my committee. I would like to thank Dr. Tammy Garland for being my mentor, counselor, and friend. I would also like to thank everyone in the Criminal Justice department for their guidance and commitment to my education over the past two years.

I would also like to thank my friends and family who were up in the wee hours of the morning talking me down from the stress of graduate education and thesis preparation (especially Barry, Kyle, and Courtney.) I hope I did not scare away any potential graduate students! A very special and heartfelt thanks goes to my mother for providing the most emotional (and financial) support throughout this endeavor. Lastly, I would like to thank my son, Phoenix, for providing the majority of the comedic relief and Jacy, not only for his partnership, but for cleaning up the resulting messes from Phoenix's comedic relief.

## **ABSTRACT**

There currently exists an empirical gap in our knowledge of organizational factors as they relate to police use of lethal force. As a result of waning interest in macrolevel policing studies over the last three decades, the majority of our understanding of lethal force is derived from studies that specifically focus on microlevel factors (such as officer race or suspect behavior). The present study examined the relationship between organizational variables and the number of self-reported instances of lethal force by law enforcement officers. Departmental variables, jurisdictional characteristics, and the number of lethal force incidents reported annually were collected from law enforcement agencies across the United States (N=424) using a sampling frame provided by Institute for Law and Justice. Findings show that there is a limited working relationship between organizational factors and the use of lethal force. Implications of these findings and suggestions for future organizational research are discussed.

## TABLE OF CONTENTS

Chapter	Page
I.	<b>INTRODUCTION</b> .....1
II.	<b>LITERATURE REVIEW</b> .....5
	Legitimization of Police Use of Force.....5
	Conceptualizing Force.....7
	Normative Police Use of Force.....9
	Empirical Studies of Lethal Force Prior to <i>Garner</i> .....12
	Individual Factors.....13
	Situational Factors.....16
	External and Organizational Factors.....17
	Empirical Studies of Lethal Force Following the Garner Decision.....21
III.	<b>METHODOLOGY</b>
	Data and Measures.....24
	Dependent Variable.....25
	Independent Variables.....25
	Recoded Variables.....26
IV.	<b>RESULTS</b>
	Descriptive Statistics.....28
	Bivariate Relationships.....30
	Regression Analysis.....33
	Limitations.....34
V.	<b>DISCUSSION</b> .....36
	Review of the Results.....36
	Implications and Directions for Future Research.....38
	<b>LIST OF REFERENCES</b> .....41
	<b>APPENDIX</b> .....48
	<b>VITA</b> .....55

## LIST OF TABLES

Table	Page
1. Sample Police Agency Characteristics.....	29
2. Distribution of Lethal Force by Officer Size.....	30
3. Distribution of Letha Force by Jurisdiction Type.....	31
4. Distribution of Lethal Force Incidents by Community-Oriented Policing Emphasis...32	
5. Correlations between Organizational Characteristics and Lethal Force Incidents.....	33
6. Estimate for Regression on Police Use of Lethal Force.....	34



## **CHAPTER 1**

### **Introduction**

Despite inflated media reports of police brutality and violence, the average police-citizen encounter rarely results in the use of force (Alpert & Dunham, 1999; Greenfield, Langan, & Smith, 1999; Henriquez, 1999; Weitzer, 1999). In a study of adult custody arrests in six urban departments, Garner and Maxwell (1999) found that “most arrests involve no force, excessive or otherwise” (p.30). The authors also reported less than one in five arrests involved the use of non-lethal force. Additional studies have indicated that when force is used, it is generally at the lower end of the force continuum such as pushing or grabbing (Adams, 1999; Alpert & Dunham, 1999; Bayley & Garafolo, 1989). Despite its infrequent occurrence, however, police use of force has been the subject of extensive academic study for over forty years with as many theoretical frameworks.

The ability to use force and coercion separates law enforcement officers from the public and, as such, is the defining characteristic of the police (Alpert & MacDonald, 2001; Bittner, 1970; Reiss, 1971; Sherman, 1980). Weber (1964) argued that the ability of a state to use force against its enemies served to both protect and define the state. Similarly, Friedrich (1980) espoused that “to examine police use of force is to examine an activity at the core of politics and society” (p. 83). Although the police are entrusted to protect and serve their communities while minimizing harm to citizens, coercion or force – ranging from verbal to lethal – may be necessary during the course of an officer’s duty to accomplish these goals. An officer may use verbal coercion to apprehend a suspect or de-escalate a violent encounter; physical force may be necessary to make an

arrest, restrict the movements of a suspect, or preserve order in times of civil unrest. This ultimate source of authority also carries the greatest potential for abuse.

The broad police mandate, coupled with the authority to use force, has created a paradoxical and arguably controversial situation for law enforcement. Bittner (1970) argued that the irony of the police mandate is that police will abide by the law and maintain a professional atmosphere, but will violate these standards when necessary. Bittner (1990) went on to counter the conventional view of policing, arguing that the role of the police is not to enforce the law but to preserve order. Jacobs and O'Brien (1998) mirrored this claim and stated that the "use of criminal law and law enforcement agencies is to maintain control over the 'dangerous' classes who threaten public order" (p. 838). Police violence, they argued, was the result of encountering violence while on the job and thus a necessary response. While the use of political violence is rare, they maintained it was not a wholly inefficient method of control. Since the role of force is arguably pivotal to the functioning of society, minimizing the abuse of such power should be of great concern to any democratic government (Reiss, 1971).

Additionally, reducing the amount of force used by the police should be an official concern because of its importance to police-community relationships. Several studies have found that police use of force creates negative public perceptions well beyond the incident itself (Babcock, 1998; Terrill, Alpert, Dunham, & Smith, 2003; Williams & Hester, 2003). Milton, Halleck, Lardner, and Abrecht (1977) noted that not only have police shootings deemed unnecessary by the public led to urban violence and riots, but they have also resulted in individual suffering, budget crippling lawsuit payouts, and diminished respect for and confidence in the police.

Friedrich (1980) argued that society's perceptions of law and the police are negatively influenced by the aggregation of individual experiences with police use of force. In order to maintain a positive working relationship with the public, the police must exercise caution in their employment of force. Alienating the community in which an officer lives and works could undermine justice and serve as a barrier to the goals of law enforcement. Any efforts to reduce the use of force by law enforcement, however, must begin with determining the gaps in our knowledge with regard to force.

Despite calls by several researchers for local and national databases of police use of force incidents (Alpert & Fridell, 1992; Fyfe, 1988; Geller & Scott, 1992; Sherman & Langworthy, 1979), there has yet to be consistent reporting by all police departments. As a nation, we are not entirely certain how many individuals are abused, injured, or killed by law enforcement officials each year. Of the studies on lethal force, an overwhelming majority were conducted in the 1970s and 1980s. Given the different political and social environments during these decades, it is difficult to generalize the results of these studies to police use of lethal force today. Additionally, several of the recent studies on police use of force have simply re-analyzed data collected for previous studies (see Jacobs & O'Brien, 1998; MacDonald, Kaminski, Alpert, & Tennenbaum, 2001; White, 2000; White 2001).

Perhaps the most crippling limitation of a majority of lethal force studies is their focus on a particular department, city, or state. These studies suffer from generalizability issues across both space and time. Coupled with the varying definitions of lethal force used – including those which do not encompass all forms of deadly force – these studies have limited comparability as well. While there are studies that have examined

organizational factors, these variables are typically evaluated in conjunction with individual, situational, and other external variables. To date, there is only one study known to the author that has investigated only organizational factors as they relate to lethal force using a nationally representative sample (see Alpert & MacDonald, 2001).

Thus, it is the purpose of this study to determine which organizational factors, if any, are useful in predicting the rates of lethal force within a department. More specifically, this study uses a nationally representative sample to examine departmental variables as they relate to the number of lethal force incidents. In order to create a better understanding of police use of lethal force for this study, the following review of the literature assesses the legitimacy of the police to use force, conceptualizes what constitutes force, reviews the normative use of force, and examines the body of existing empirical research.

## CHAPTER 2

### Literature Review

It is agreed upon among academicians and criminal justice system personnel alike that police are granted the legitimate authority to employ force. In order to enforce the law and maintain order, police may be called upon to handcuff a suspect, use chemical weapons to de-escalate a violent encounter, or even resort to lethal force in order to protect the community. While the use of force has been the subject of much research over the past forty years, studies have produced mixed results. Thus it is important to examine police use of force for a number of reasons.

#### *Legitimization of Police Use of Force*

First, much of what is known about police use of force is only understood with marginal confidence given the conflicting findings of previous research. A better understanding of police use of force is necessary in order to implement methods in which to reduce its occurrence. Second, the use of force by police officers, while legitimate, can also result in an abuse of power. Police use of excessive or improper force undermines justice, alienates communities, and is generally deleterious to the functioning of a law-abiding society. Finally, the use of lethal force is perhaps the most important police behavior to examine given the potential grave consequences of its use. Fyfe (1988) stated “[w]hen police officers fire their guns, the immediate consequences of their decisions are realized at a rate of 750 feet per second and are beyond reversal by any level of review” (p. 166).

The formal authority to utilize force lies in the common law history of the police. Between the fifteenth and eighteenth centuries, English common law provided police

with the authority to use force consistent with the seriousness of the crime. Thus, lethal force could be employed to apprehend a suspect believed to have committed a felony offense (but not a misdemeanor) as it was punishable by death. Milton et al. (1977) noted that “homicide, rape, arson, mayhem, robbery, burglary, larceny, prison breach, and rescue of a felon were the only common-law felonies” that met this criteria (p. 39). Since law in the United States followed in the common law tradition, these caveats were in place throughout the same time period.

Thus it becomes obvious that the fleeing felon doctrine as utilized in recent decades was highly problematic given the range of felonies for which an individual could be arrested – including drug possession, fraud, and any number of non-violent crimes for which an individual can serve more than twelve months. Blumberg (1993) noted that the fleeing felon rule essentially shifted from a rule that allowed deadly force against dangerous suspects to a rule in which deadly force could be applied to individuals who posed no harm. The final word on deadly force was handed down by the Supreme Court in 1985 in *Tennessee v. Garner*, 384 U.S. 436.

The decision was based on the case of Edward Garner, a teenager, who was shot in the back of the head while he attempted to flee the scene of a burglary. Despite being “reasonably sure” Garner was unarmed, a Memphis police officer fired upon him pursuant to department policy and a Tennessee state law which provided that “[i]f, after notice of the intention to arrest the defendant, he either flee or forcibly resist, the officer may use all the necessary means to effect the arrest” (*Tenn. Code Annotated* [471 U.S. 1, 5], 1982).

This Supreme Court decision was one in a series of limitations in a line of what could be deemed a tightening of police discretion following in the likes of *Mapp v. Ohio* 367 U.S. 643 (1961) and the *Miranda v. Arizona* 384 U.S. 436 (1966) decisions. In 1985, the Supreme Court declared unconstitutional a Tennessee statute permitting the use of lethal force against an unarmed felony suspect. The Court concluded that “[w]here the suspect poses no immediate threat to the officer and no threat to others, the harm resulting from failing to apprehend him does not justify the use of deadly force to do so” (*Tennessee v. Garner*, 471 U.S. 1, 1985). The Supreme Court reasoned that the use of deadly force against a fleeing felony suspect was “constitutionally unreasonable. It is not better that all felony suspects die than that they escape” (*Tennessee v. Garner*, 471 U.S. 1, 1985).

Ultimately, the *Garner* decision brought about the end of hundreds of years of the fleeing felon doctrine. Although the ruling placed clear limitations on police use of lethal force, it made no mention of less than lethal force. Currently, actions that constitute less-than-lethal force are left to individual departments and those who research such behavior to define. Thus, to examine the research on police use of lethal force, we must properly define the word “force.”

### *Conceptualizing Force*

While it is agreed upon that police officers are granted legitimate authority to employ force, there is no consensus on what constitutes force; definitions and continuums are as numerous and varied as the research investigating the events themselves. In a review of fifteen use of force studies, Garner, Maxwell, and Heraux (2002) found that definitions and measurements of force were both ambiguous and generally exclusive in

many studies. They further noted that force was not defined in precisely the same manner even in studies relying on the same data set.

In addition, it is important to note that the definitional ambiguities associated with such incidents are complicated by the various terminology used in the research— *less-than-lethal force*, *non-lethal force*, *excessive force*, *use of excessive force*, *lethal force*, and *deadly force*. McEwen (1993) noted the differences between these terms “are more than an exercise in twisting words and lie at the core of data collection issues” (p. 26). While recent studies have begun to dichotomize police use of force as either *lethal* or *less-than-lethal*, the *less-than-lethal* distinction is arguably a misnomer. If used improperly or overzealously, certain forms of holds and weapons (e.g. carotid holds or tazers) can result in death. Thus, properly defining *lethal force* is critical in both exploring and understanding its use and prevention.

While the purpose of this study is not to extend the debate over definitional ambiguities, it is important for this study to seek a currently relevant definition of *lethal force* grounded in extant literature. As noted above, many of the previous investigations did not clearly define force; this is also true of *lethal force* studies. Researchers have relied on several indicators of lethal force, including officer-involved shootings resulting in injury or death (McElvain & Kposowa, 2008; Meyer, 1980; Waegel, 1984; White, 2002; White, 2003), police homicides (Jacobs & Britt, 1979; Jacobs & O’Brien, 1998; MacDonald, Kaminski, Alpert, & Tennebaum, 2001; Robin, 1963; Sherman & Langworthy, 1979), and number of firearm discharges<sup>1</sup> (Culliver & Sigler, 1995;

---

<sup>1</sup> With the exception of Culliver and Sigler (1995) and Meyer (1980), cases involving animal shootings, accidental discharges, and suicides were excluded from these studies.



Fyfe, 1982; Meyer, 1980; Milton et al., 1977). The operationalization of use of force, however, often fails to take into account other forms of lethal force employed by the police such as vehicle ramming or the use of other weapons (e.g. flashlight, knives, or batons).

A comprehensive definition of lethal force would include all types of behaviors and options employed by police which may result in death. Perhaps the best definition was presented by Alpert and Fridell (1992) as “a means, which when applied, is readily capable of causing serious bodily injury or death, and the outcome is only a chance happening” (p. 12). The utility of this definition is vast because: 1) it does not limit the “means” in which deadly force can be applied; 2) it does not exclude cases in which death did not result; and 3) while it is broad, it is precise enough so as to not to reduce the statistical importance of extreme outliers (such as a death resulting from the excessive use of a tazer). This definition of force helps to place existing research in perspective; however, it is also important to examine non-lethal force. Evaluating the nature and extent of non-lethal force provides an understanding of police normative and non-normative behavior and highlights the infrequent nature of lethal force.

#### *Normative Police Use of Force*

Literature on police use of lethal and non-lethal force typically revolves around the same independent variable clusters - individual, situational, or organizational and external factors. Individual factors include race, gender, and age of both the officer and suspect involved. Situational factors include the events leading up to the use of lethal force, suspect resistance, and presence of weapons. Organizational factors include administrative policy, agency size, and level of patrol. External factors include statutory

and legal changes, violent crime rates, and local political environments. Thus, this review of the literature examines factors related to these variable clusters.

The most recent review of the use of force literature by Adams (1999) indicated that law enforcement officers use non-lethal force infrequently. Likewise, a pilot study by the International Association of Chiefs of Police (IACP) found that force was used in only .04 percent of dispatched calls. When police do resort to force, they typically employ physical force at the lower end of the force continuum – such as shoving, grabbing, or pushing. Physical force is typically used when the police are making an arrest and when a suspect is resisting. In fact, suspect resistance has been found to be the strongest predictor of police use of force (Crawford & Burns, 1998; Garner et al., 1999; Worden, 1995). While situational variables (i.e. suspect cooperation and demeanor) are highly predictive of police use of force, Adams (1999) concluded that individual officer characteristics such as age, race, or gender seem to be unrelated to the use of non-lethal force.

Despite evidence that individual factors have limited utility in predicting police use of force, individual characteristics of the officer and suspect such as race, gender, age, education, and socioeconomic status have been studied extensively with mixed results. Officer gender has been shown to be statistically insignificant when comparing use of physical force (Alpert & Dunham, 1999; Hoffman & Hickey, 2005). Several studies also have shown that the interactions of race and ethnicity have relatively little effect on police use of force, contrary to public perception (Alpert & Dunham, 1999; Crawford & Burns, 1998; Friedrich, 1980; Garner et al., 1995; Garner, Maxwell, & Heraux, 2002; Lawton, 2007). A majority of these studies indicate that officer race or

ethnicity neither influences whether or not force is used nor the level of force employed. Interestingly, Alpert and Dunham (1999) found that officers used higher levels of force in encounters in which the suspect is the same ethnicity as the police officer.

In contrast, other studies have reported suspect race is associated with the use of non-lethal force (Smith, 1986; Terrill & Mastrofski, 2002; Worden, 1995). While officer race was not included in an examination of the interaction of officer and suspect race, Worden (1995) found that both reasonable and improper force were more likely if the suspect was African American. The race of the officer, however, was not significant in predicting the likelihood of the use of force. These findings suggest that individual factors have limited utility. Situational factors, however, have been more useful in explaining police use of force.

Situational factors include suspect attitude, demeanor, and the mental status of the offender. If the suspect is perceived as intoxicated or mentally ill, use of physical or chemical force by police officers may be necessary to restrain the individual. Furthermore, research has shown that the level of force used by the officers is often consistent with the level of resistance given by the offender (Alpert, Dunham, & MacDonald, 2004; Garner, Maxwell, & Heraux, 2002). Alpert, Dunham, and MacDonald (2004) addressed this issue by including two types of force (accommodating and dominating) in their study. Dominating force occurs when an officer uses force greater than the level of suspect resistance. Contrarily, accommodating force occurs when an officer utilizes force lower than the level of suspect resistance in an attempt to de-escalate a situation. Accommodating force is most often the method employed by police officers in a suspect encounter (Adams, 1999). Despite the infrequent use of force,

both accommodating and dominating, officers may be called upon to use an extreme form of dominating force – that which is lethal.

The review thus far has indicated that police use force very infrequently and that, when force is used, it typically involves less-than-lethal physical force. Intuitively then, the rate at which an officer uses lethal force should be lower than the rate of less-than-lethal force. While some researchers claim police homicides account for 2% to 5% of violent deaths annually (Robin, 1963), others have concluded that national reports of police homicides may be underreported and have placed the number around 3.6% (Sherman & Langworthy, 1979).

In an extremely telling illustration of the difference among lethal and less-than-lethal force rates, Sherman and Cohn (1986) calculated that an officer would have to work 198 years in Dallas, 594 years in Chicago, 694 years in New York City, 1,299 years in Milwaukee, and 7,692 years in Honolulu before he or she would be statistically expected to kill a suspect while on duty<sup>2</sup>. As a result of the statistical infrequency of lethal force, it should come as no surprise that studies on lethal force are limited.

Due to the overarching influence of the *Garner* decision, the remainder of literature review is divided into two parts. The first section examines the contextual factors affecting lethal force prior to the *Garner* decision. The second section examines lethal force variables studied after the decision.

#### *Empirical Studies of Lethal Force Prior to Garner*

While there is evidence to the contrary, Geller and Karales (1981) indicated that most lethal force studies support the general conclusion that:

---

<sup>2</sup> Calculations based on data collected from 1980-1984.

[t]he most common type of incident in which police and civilians shoot one another in urban America involves an on-duty, uniformed, white, male officer and an armed, black, male civilian between the ages of 17 and 30 and occurs at night, in a public location in a high-crime precinct, in connection with a suspected armed robbery or a “man with a gun” call (p. 56)

The following review of lethal force literature examines the individual, situational, and organizational factors related to lethal force to determine whether or not this generalization is correct.

#### *Individual factors*

Similar to criminal homicide, victims of police use of lethal force are overwhelmingly male (Fyfe, 1978; Milton et al., 1977; Robin, 1963). This is not surprising given the proportion of males that engage in criminal activity. Studies also have indicated that the majority of victims of police use of lethal force are disproportionately young (Geller & Scott, 1992; Kobler, 1975; Robin, 1963). Milton and colleagues (1977) found that more than one-third of offenders were between the ages of 19 and 24, although they represented 11% of the population and 26% of arrests for Index crimes. Robin (1963) and Kobler (1975) reached similar conclusions with regards to the age of offenders and their proportion of both the population and index arrests. Geller and Scott (1992) noted that, during the 1970s, the majority of individuals fired upon were between 17 and 30 years of age.

The variable most often studied in police use of lethal force research is the influence of race. Several studies have found that black officers are disproportionately involved in police shootings (Fyfe, 1978; Geller & Karales, 1981; Kobler, 1975). Geller

and Karales (1981) argued that the disproportionate involvement of black officers in off-duty shootings was due to their residence in higher crime areas. Fyfe (1978) found the disproportionate involvement of black officers in on-duty shootings was the result of assignment to higher crime areas as well. These two studies also indicated that black officers are disproportionately more likely to be shot at by civilians than white or Hispanic officers.

Several studies have also indicated that African Americans are disproportionately the victims of police homicides in relation to their representation in the population (Fyfe, 1982; Meyer, 1980; Milton et al., 1977; Robin, 1963). In the first study of police use of lethal force, Robin (1963) found that nearly 88% of police homicide victims were African American in spite of the fact they comprised only 22% of the population in Philadelphia.

While the studies mentioned above found African Americans were disproportionately victims of police homicide, the effects were often correlated with the number of black offenders arrested for violent crime. For instance, Meyer (1980) found that while 55% of shooting victims were African American they comprised 36% of all arrests and 46% of Part I index crimes. Milton et al. (1977) found similar percentages of minority victims and their criminal involvement. There are two conflicting theories that attempt to explain the disproportionate number of minority victims of police use of lethal force.

Goldkamp (1976) argued that lethal force studies fall into one of two schools of thought related to either internal or external factors. The first perspective is that the overrepresentation of minorities in police homicides is the result of racism or departmental permissiveness. In these cases, departments are more likely to overlook

racist behavior and are less likely to punish officers for their misconduct. The other theory argues that minorities are more heavily involved in criminal behavior, and therefore most likely to be shot as a result.

In a study of police shootings in Memphis, Fyfe (1982) found overwhelming support for the first perspective. His study found officers in Memphis were less likely than officers in New York City to shoot in self-defense and over half of the shootings were elective. Additionally, black property crime offenders were overwhelmingly killed by police officers in relation to their percentage in the population when compared to white suspects.

While racism and departmental laxity may help explain the disproportionate number of minority victims, it is also possible that relatively few officers are engaged in the behavior – the “bad apple” hypothesis. While there is no consistent information available, one study found marginal support for this hypothesis. Waegel (1984) reported that a few officers (n=13) were disproportionately involved in at least ten percent of the police shootings.

Similar to non-lethal force, officer variables have limited ability to predict police use of lethal force. Some studies, however, have found that the age of the officer as well as the length of service is significantly correlated with officer shootings. Sherman and Blumberg (1981) and Blumberg (1983), for example, found that younger officers were more likely to discharge their firearms when compared to older officers. They also found that officers with more time on the force were less likely to employ deadly force. In contrast, Alpert (1984) found that officer age and length of time on the force were not

related to officer shootings which may suggest these factors are specific to each department.

*Situational factors*

One variable that is consistently discussed among deadly force studies is the time of a shooting. Most occur at night, typically between 4:00 PM and midnight (Cerar, 1990; Geller & Scott, 1992). Robin (1963) noted that the tendency for police shootings to occur at night was consistent with criminal homicide patterns. In addition, a majority of deadly force incidents occur in public locations, typically out-of-doors locations such as in the street or highway (Geller & Karales, 1981; Robin, 1963). Two studies reported that the visibility of a citizen-police encounter was positively associated with deadly force (Friedrich, 1980; White, 2002).

Several studies also have found that police use lethal force most often in response to certain suspect behaviors or encounters. Most officers are involved in shootings in conjunction with robbery or burglary calls (Blumberg, 1982; Fyfe, 1978; Geller & Karales, 1981). Although the classification is problematic, Milton et al. (1977) found that 32% of the shootings reported by police were in response to disturbance calls such as family quarrels or assaults. A majority of studies have indicated that officers used lethal force either in defense of their own lives or the lives of others in response to threatening behavior by a suspect (Fyfe, 1978; Geller & Karales, 1981; Geller & Scott, 1992). Kobler (1975), for example, found that 75% of suspects were armed with some type of weapon and deadly force was employed either to prevent the suspect from escaping or to protect the officer from harm.



Despite the conventional view that police work is often dangerous, some researchers have found a considerable number of shootings involve unarmed suspects (Kobler, 1975; Meyer, 1980; Milton et al., 1977; Waegel, 1985). Estimates of unarmed suspects shot and killed by police range from nearly ten (Waegel, 1984) to over fifty percent (Fyfe, 1982). For example, in a study of officer shootings in Memphis, Fyfe (1982) noted that over half of African American suspects fatally shot by police officers were both unarmed and nonassaultive.

Officer assignment is also of interest to deadly force researchers. While the majority of deadly force incidents involve on-duty officers, some researchers have noted an unusually large percentage of incidents involving off-duty officers. The percentage of these shootings is fairly consistent across many studies ranging from 17% (Fyfe, 1980; Milton et al., 1977) to 28% (Binder, Scharf, & Galvin, 1982). Alpert and Fridell (1992) suggest that variation in the number of off-duty shootings may be related to departmental policy requiring off-duty officers to remain armed. While individual and situational factors explain some of the difference in rates of police use of lethal force, they do not account for all of the variance. Thus, some researchers have examined the effects of department-specific variables in order to account for the unexplained difference.

#### *External and organizational factors*

One of the earliest studies to investigate the organizational influence on police use of force was conducted in the 1960s by James Q. Wilson (1968). He distinguished between three types of departments with regard to bureaucratization and professionalism - legalistic, watchman, and service-style. While the research did not explicitly focus on lethal force, he hypothesized that the local political culture and convictions of the

department chief influence officer behavior. He further theorized that watchman-type agencies would have higher rates of force as a result of aggressive responses to perceived disrespect by a suspect. Most studies, however, have failed to accurately predict lethal force based on this typology because most departments are diverse and fail to fit exclusively into one category (Scharf & Binder, 1983).

The communities in which the police operate inherently influence police use of force, lethal and otherwise. Lethal force research has produced conflicting results when comparing external factors. Some studies indicate that larger cities experience more police shootings than smaller cities (Jacobs & O'Brien, 1998; Milton et al., 1977), despite considerable variation between the cities sampled. Sherman and Langworthy (1979) found population density was only marginally predictive of police use of lethal force; however, Robin (1963) found that population size was not a consistent predictor of justifiable police homicides.

Most studies indicate a positive relationship between the number of sworn officers and police homicides. Both Robin (1963) and Milton et al. (1977) found that while there was a moderate relationship between department size and police homicides, the rates varied considerably from city to city. In Robin's (1963) study, smaller departments actually had higher rates of police homicides per 10,000 officers than larger departments. In contrast, White (2003) found the number of police shootings increased with the number of sworn officers, although the population decreased substantially when deadly force rates were higher. Sherman and Langworthy (1979) reached a similar conclusion when they found that the number of officers per 1,000 citizens was both positively and significantly related to police homicides.

The violence encountered by police officers has been hypothesized to influence the rate at which police respond with lethal force. Some studies find no relationship between homicide rates, violent crime rates, and police use of deadly force (Milton et al, 1977; White, 2003). Milton and colleagues (1977) concluded that shootings often occurred in conjunction with less serious crimes and, as such, were not reflected by violent crime indices. Other researchers have found that violent crime rates were positively associated with the rate of police shootings (Fyfe, 1980, 1982; Jacobs & Britt, 1979; Sherman & Langworthy, 1979; Sorenson, Marquart, & Brock, 1993). These findings have lent support to the community violence thesis which suggests that police use deadly force in response to the violence they encounter within their communities. For example, Kania and Mackey's (1977) ecological study found that the strongest predictors of police violence were levels of violent crime and homicide rates within a community.

Another variable of interest to researchers in the pre-*Garner* studies was economic inequality. Using the Gini index, both Jacobs and Britt (1979) and Sorenson, Marquart, and Brock (1993) found that economic inequality was a strong predictor of police killings. However, a later study conducted by Jacobs and O'Brien (1998) found that the Gini index did not influence the rate of police shootings. Jacobs and Britt (1979) concluded that the differences in economic stratification have a negative effect on the political strength of black citizens and consequently reduce their impact on overall rates of police use of force or violence. This finding lends credence to the minority threat hypothesis which postulates that police will use force against minority suspects or those viewed as the "dangerous classes" in order to preserve the status quo.

The effect of statutory change on the use of lethal force has emerged as another focal concern on lethal force research. In 1982, at least 24 states utilized the fleeing felon rule. During this time, seven other states were slowly converting to a more restrictive policy in which officers could employ lethal force only in the event of forcible felonies as defined by state statute rather than including all felonious crimes (Boutwell, 1982). Uelman (1973) was among the first to suggest that restrictive shooting policies reduced the number of officer-involved shootings. However, the seminal study investigating the restrictiveness of administrative policy as it relates to lethal force was conducted in New York in the 1970s.

Fyfe's (1979) study examined the number of police shootings following the implementation of a 1972 policy that was more restrictive of police behavior than the New York state statute. A substantial reduction in police shootings followed the change, especially among fleeing felons. Interestingly, the number of officers injured or killed on the job also decreased following implementation of the new policy.

Several other studies have found that changes in state-level statutes have a significant impact on the incidence of lethal force. White (2000, 2001) examined the effect of statutory change in Philadelphia and found that the removal of a deadly force policy in 1973 resulted in an increase in police shootings. These results were mediated by the reinstatement of a restrictive policy in 1980. This findings echo the results of studies conducted in other cities such as Kansas City, Los Angeles, and Dallas (Geller and Scott, 1992). Some studies, however, found that statutory changes do not fully impact the number of police shootings. Waegel (1984), for instance, found that despite a restrictive policy, almost one-fifth of police shootings involved a violation of policy.

Both Fyfe (1988) and White (2003) found that state law restricting deadly force did not effectively control discretion. These conflicting results suggest that other forces such as administrative environment and informal controls (such as peer influence) may have an intervening effect.

### *Empirical Studies of Lethal Force Following the Garner Decision*

Intuitively, one would expect an increase in the number of studies conducted following the *Garner* decision in an attempt to determine what effect, if any, the decision had on the use of lethal force. The opposite trend, however, is true. One reason given for the lack of recent studies is the reluctance of departments to provide researchers access to data (Alpert & Dunham, 2004). This reluctance to provide data could be the result of fears associated with legal liability, increased media attention, and the need to preserve a working relationship with the communities in which the police live and work.

If departments were to provide researchers with data indicating disproportionately high numbers of lethal force incidents, public confidence in the police could wane and create a difficult working environment for law enforcement officers. Media attention would only exacerbate the strained relationship, and the increased negative publicity would force citizens and officials alike to evaluate decisions made by the police, past and present. If investigations were to uncover unconstitutional behavior on the part of the police, expensive civil suit payouts could cripple the working budget of the department thereby decreasing the effectiveness of its crime-control capacity. Despite these fears, there are a few studies which have examined lethal force in the years since the *Garner* decision.

Most of the post-*Garner* studies reach similar conclusions as their predecessors. The proportion of African American residents, as well as the violent crime rate, continues to be significantly related to the number of police killings (Smith, 2003, 2004). Contrary to some pre-*Garner* studies (Jacobs & Britt, 1979; Sorenson, Marquart, & Brock, 1993), however, Smith (2003) found that the Gini index was not significantly related to police killings. Thus, economic stratification and economic inequality did not predict police use of lethal force as found in previous studies.

Similar to lethal force studies prior to *Garner*, male officers were still more likely to become involved in police shootings than females, younger officers were more likely than older officers to employ deadly force, and those with a college education were less likely to use lethal force than those with less than a college education (McElvain & Kposowa, 2008). White (2003) found that, of the statistically significant changes, more non-white officers were involved in deadly force incidents and fewer shootings involved robbery suspects following the *Garner* decision.

The relationship between administrative policy and police use of lethal force should have resulted in drastically different findings in the research following the *Garner* decision. Additionally, the impact of the decision should have had an equal effect on all departments in the United States; there is some evidence to this effect. White (2003) found that Philadelphia experienced a gradual and permanent decline in deadly force while Culliver and Sigler (1995) found firearm discharges in Tennessee decreased following the Supreme Court's decision. Tennenbaum (1994) found that the number of police homicides reduced by over 16 % which amounted to 60 homicides per year. The

number of police homicides also declined in states without constitutional statutes against lethal force (Tannenbaum, 1994).

The lack of consistency among the results of lethal force studies coupled with the outdated data employed by the seminal pieces is evidence of the need for a current evaluation. The review of the literature further highlights the critical need for a national examination of police use of lethal force – despite the difficulties associated with such work. In the interest of closing these gaps, this study utilizes a nationally representative study to determine whether organizational factors are associated with police use of lethal force. Specifically, this study examines the following questions:

- (1) Do departments with higher numbers of sworn officers and citizen-police ratios report more or less instances of lethal force than departments with smaller ratios?
- (2) Do the types of agencies and their jurisdictions affect the use of lethal force?
- (3) Do departments who emphasize community policing report more or less lethal force incidents than those who do not?
- (4) Does frequent post-academy training in lethal force techniques influence the occurrence of lethal force?
- (5) Do higher cumulative responses to the use of force continuum in hypothetical situations create a more permissive environment for actual lethal force incidents?

## **CHAPTER 3**

### **Methodology**

#### *Data and Variables*

It should be clear from the review of the literature that a current study of lethal force by law enforcement officials is critical. The current study seeks to examine which organizational factors, if any, predict police use of lethal force. In order to answer the research questions, data was employed from an existing organizational survey of law enforcement agencies across the United States. In February of 2000, a random, stratified sample of 668 agencies, including municipal, county, municipal-county, and sheriff's departments, was taken from a sampling frame provided by the Institute for Law and Justice.

Law enforcement agencies serving areas with populations between 50,000 and 250,000 and over 250,000 were selected with regard to regional diversity and service areas including rural, suburban, and urban areas. A total of 668 surveys were mailed, addressed to the chief executive officer of the department with an introduction letter and pre-paid envelope to increase the probability of return. Four-hundred and twenty-four surveys were returned representing a 63% response rate.

The survey included demographic questions about agency type, department size, and community policing emphasis. Additional subsections included questions concerning both lethal and non-lethal force items, situational items related to force, and investigatory options for use of force complaints. Both subsections included policy and training content and situational use of force was measured using a force continuum ranging from verbal reprimand to the use of lethal force based on research by Alpert and



Smith (1994). The current study uses the secondary data to examine how organizational factors affect the number of lethal force incidents reported by police departments annually.

#### *Dependent Variable*

For the current study, *lethal force incidents* were measured as the number of annual self-reported events involving lethal force. The original survey included one question asking departments to report the average number of lethal force incidents reported within the department annually. There were no instructions limiting the type of lethal force incidents; it is assumed that all types of lethal force incidents, such as those involving firearms, vehicles, or other weapons, were represented.

#### *Independent Variables*

The following variables were measured using only one question in the original survey. It did not provide definitions of the characteristics, thus, respondents had to use their best judgment in characterizing their departments. *Officer size* was the approximate number of sworn officers employed by each department. *Citizen-police ratio* was measured by dividing the number of sworn officers by the total population of the service area and multiplying by 100,000. Due to variability in population size, computing the ratio per 100,000 citizens allowed for ease of analysis and generalizability. *Jurisdiction type* was defined as the type of jurisdiction that the department served including rural, suburban, and urban categories.

*Agency type* was operationalized as the type of agency and consisted of four categories: municipal, county, consolidated municipal-county, and sheriff's departments. *Community oriented policing (COP) emphasis* was the degree to which departments

reported emphasizing community policing goals and strategies. It was measured using an ordinal scale ranging from no emphasis to high emphasis. *Training frequency* was conceptualized as the number of times post-academy training on use of lethal force was required by the department. It was measured on a scale ranging from less than once to monthly.

*Force continuum* was measured using the cumulative total of responses to the highest use of force authorized by the department to ten hypothetical situations. These ranged from the highest level of force permitted against a suspect verbally assaulting an officer or resisting arrest to the highest level of force permitted against a suspect threatening imminent harm. *Force* was divided into four levels of increasing severity: 1) verbal commands; 2) manual restraints (i.e. body force, come along holds, wrist locks); 3) non-lethal weapons (i.e. batons, flashlights, and chemical agents); and 4) deadly force. Reliability for all ten scale items was high with a Cronbach's alpha of .709.

#### *Recoded Variables*

Several interval and ratio variables were collapsed into ordinal categories to better fit the data analysis strategy. *Lethal force* was collapsed into three categories, representing zero, one, and two or more incidents per year. Frequency distributions indicated that this categorization fell very close along a natural one-third majority. *Officer size* and *citizen-police ratio* were also collapsed into three categories based on a one-third majority representing low, medium, and high levels. The *Force-continuum* variable was collapsed into four categories of increasing permissiveness: 1) highly restrictive; 2) restrictive; 3) permissive; and 4) highly permissive based on the cumulative total of continuum responses reported by each department.

*Jurisdiction type* was dummy-coded into two variables with 0 representing non-urban departments (rural and suburban) and 1 for urban to allow for analysis of urbanism as a specific attribute. Much of the literature concerning police use of force has historically focused on urban departments (Bayley & Garafalo, 1989; Friedrich, 1980; Garner et al., 1995; Klinger, 1995); while the current study was an exception, the nature of coding allowed for greater comparison to previous studies.

Additionally, *agency type* was dummy coded with 0 representing non-municipal and municipal departments to illuminate the differences between policing mandates unique to each department type. For instance, some departments provide a traffic enforcement function whereas others are utilized more for peace-keeping or in prisons and the courts. Still others have a crime-control function reminiscent of municipal departments. Finally, *COP emphasis* was collapsed into three categories of increasing emphasis representing none to low, moderate, and high emphasis.

## CHAPTER 4

### Results

#### *Descriptive Statistics*

Descriptive statistics for the lethal force data are presented in Table 1. One-third (33.9%) of responding departments reported zero lethal force incidents. Slightly over one-quarter (26.6%) reported having one lethal force incident while the remaining 39.5% reported two or more lethal force incidents. The reported number of lethal force incidents ranged from zero to ninety-eight with an average of five incidents annually.

Over half of the sample represented municipal departments (53.2%) while the remaining 46.8% were characterized as either county, consolidated municipal-county, or sheriff's departments. The number of sworn officers ranged from 14 to 9,400, with a median of 130 officers per department. The mean citizen-police ratio was 197 sworn officers per 100,000 citizens; the actual ratios ranged from 6.14 to 1,171 officers per 100,000 citizens. Slightly over 63% of departments indicated they highly emphasized the goals and strategies of community policing while less than six percent reported having little or no emphasis.

The majority of departments (59.3%) required post-academy training on lethal force annually. Slightly over one-fifth of the sample required training bi-annually while one-tenth indicated lethal force training was required quarterly. Of the force-continuum responses, well over half (62.9%) of the departments were characterized as highly permissive. Over one-third (35.7%) were characterized as permissive and less than two percent were considered restrictive; zero departments were highly restrictive.

**Table 1: Sample Police Agency Characteristics**  
(N=424)

Variable	Category	Value	N	%	M	SD	Mode
Lethal force	No incidents	0	129	33.9	1.06	.85	2
	1 incident	1	101	26.6			
	2 or more incidents	2	150	39.5			
Agency type	Non-municipal	0	198	46.8	.47	.50	1
	Municipal	1	225	53.2			
Jurisdiction type	Non-urban	0	200	51.7	.48	.50	0
	Urban	1	187	48.3			
Officer size	Low	1	138	33.0	2.0	.81	3
	Medium	2	138	33.0			
	High	3	142	34.0			
Citizen-police ratio	Low	1	138	33.3	2.0	.81	3
	Medium	2	138	33.3			
	High	3	139	33.5			
COP emphasis	None to low	0	25	5.9	1.57	.60	2
	Moderate	1	130	30.8			
	High	2	267	63.3			
Training frequency	Less than once	0	14	3.7	1.67	1.23	1
	Annually	1	224	59.3			
	Bi-annually	2	80	21.2			
	Three times per year	3	10	2.6			
	Quarterly	4	39	10.3			
	Six times per year	5	1	.3			
	Monthly	6	10	2.6			
Force continuum	Highly restrictive	1	0	0	3.62	.51	4
	Restrictive	2	5	1.4			
	Permissive	3	127	35.7			
	Highly permissive	4	224	62.9			

### *Bivariate Relationships*

Cross-tabulations were run to examine the distributions of lethal force by several of the independent variables. Of the organizational variables, *COP emphasis*, *citizen-police ratio*, *jurisdiction type*, and *officer size* were shown to be statistically significantly related to the number of lethal force incidents. The variable most closely related to lethal force was the number of sworn officers employed by a department. Table 2 presents the distribution of lethal force by officer size. Slightly over 62% of departments with a low number of sworn officers had no lethal force incidents. In contrast, over 65% of agencies with a high number of officers reported having two or more incidents.

Not surprisingly, a similar pattern was revealed with regard to citizen police ratio (table is not presented here). Citizen-police ratio was shown to be a moderate predictor of the number of lethal force incidents reported by police departments annually (gamma = .210,  $p = .002$ ). The number of departments with no lethal force incidents within each ratio category (low, medium, and high) decreased whereas the number of departments with two or more reported lethal force incidents increased.

**Table 2: Distribution of Lethal Force by Officer Size**

	Low		Medium		High	
	n	%	n	%	n	%
No incidents	77	62.1	39	30.2	11	8.9
1 incident	20	16.1	48	37.2	32	26.0
2 or more incidents	27	21.8	42	32.6	80	65.0
N	124		129		123	
Gamma - .586, $p < .001$						

The type of jurisdiction a law enforcement agency serves was also significantly related to the number of lethal force incidents ( $\chi^2 = 13.71, p = .001$ ). Table 3 presents the distribution of lethal force by jurisdiction type.

**Table 3: Distribution of Lethal Force Incidents by Jurisdiction Type**

	Non-Urban		Urban	
	n	%	n	%
No incidents	72	40.0	42	24.6
1 incident	51	28.3	44	25.7
2 or more incidents	57	31.7	85	49.7
N	180		171	
$\chi^2 = 13.71, p = .001$				

The results for jurisdiction type exhibited a pattern similar to that of citizen-police ratios. Non-urban departments were more likely to report having zero or one lethal force incidents compared to urban departments (72 versus 42 and 51 versus 44, respectively). More urban departments (n=85), however, reported having two or more lethal force incidents annually when compared to non-urban departments (n=57).

The emphasis a department places on community-policing goals and strategies was strongly associated with lethal force incidents. Table 4 presents the distributions of lethal force by community-oriented policing emphasis. As the degree of COP emphasis increased, the number of departments included in each category increased as well. The majority of departments (n=245) reported placing a high emphasis on the goals and strategies of community oriented policing; it was these departments that reported more lethal force incidents when compared to those with lower levels of emphasis. For instance, almost 40% of departments who reported placing a high degree of emphasis on community-oriented policing also reported two or more lethal force incidents annually.

**Table 4: Distribution of Lethal Force Incidents by Community-Oriented Policing Emphasis**

	None to Low		Moderate		High	
	n	%	n	%	n	%
No incidents	11	52.4	43	38.1	75	34.0
1 incident	5	23.8	45	39.8	51	26.6
2 or more incidents	5	23.8	25	22.1	119	39.3
N	21		113		245	
Gamma - .324, $p < .001$						

Correlations were run among all of the major variables to examine the strength of the relationship between organizational characteristics and the number of self-reported lethal force incidents. The results are presented in Table 5. The strength of the relationships between the dependent and independent variables are in the same relational order as the cross-tabulations. Agencies with higher numbers of sworn officers were significantly more likely to report lethal force incidents than departments with less officers ( $r = .447$ ). Additionally, there was a moderate association between higher citizen-police ratios and self-reported lethal force ( $r = .157$ ).

Jurisdiction type was also moderately related to the dependent variable ( $r = .197$ ). Thus, urban departments were more likely to report instances of lethal force than non-urban departments. The relationship between community-oriented policing and lethal force is also worth noting. The higher the emphasis placed on community-oriented policing, the more likely the department was to report the use of lethal force ( $r = .198$ ).

Several of the variables used in the correlational analysis are highly interrelated, thus creating the need for a separate analysis. Urban departments typically employ more officers simply due to the size of the service area population. The desire to increase professionalism among police departments is on the rise and more departments are



adopting community-oriented policing goals and strategies as a means to that end. An overwhelming majority of the urban departments in this study (71%) reported placing a high emphasis on community-oriented policing. Due to the bivariate relationships between officer size, jurisdiction type, and COP emphasis, a partial correlation was run controlling for jurisdiction and COP emphasis. After controlling for these variables, officer size was still strongly related to lethal force ( $r = .432$ ).

**Table 5: Correlations between Organizational Characteristics and Lethal Force Incidents**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Lethal force								
(2) Agency type	.071							
(3) Jurisdiction type	.197*	.566*						
(4) Citizen-police ratio	.157*	.553*	.398*					
(5) Officer size	.447*	-.065	.289*	.221*				
(6) Force continuum	.076	.012	.022	.042	.084			
(7) COP emphasis	.198*	.201*	.139*	.190*	.231*	.034		
(8) Training frequency	.000	.019	-.002	.004	-.023	.036	-.048	

\* $p < .01$  (one-tailed)

#### *Regression Analysis*

A multivariate model was created to examine the relationship between the independent variables and variation in the number of self-reported lethal force incidents.

The regression model was created using the following multivariate equation:

$$\text{Lethal force} = \alpha + \beta_1 \text{ Officer size} + \beta_2 \text{ Citizen-police ratio} + \beta_3 \text{ Jurisdiction type} + \beta_4 \text{ COP emphasis} + \beta_5 \text{ Agency type} + \beta_6 \text{ Force continuum} + \beta_7 \text{ Training frequency.}$$

The findings from the regression are presented in Table 6. Only jurisdiction type and officer size were statistically associated with the use of lethal force. Agencies that

characterized their jurisdiction as urban ( $\beta = .146$ ) are more likely to report more lethal force incidents. As for officer size, departments with more sworn officers are more likely to report use of lethal force ( $\beta = .238$ ). The overall fit of the model ( $R^2 = .08$ ) indicates that jurisdiction and officer size are far from strong explanations for the overall variance in the number of lethal force incidents.

**Table 6: Estimate for Regression on Police Use of Lethal Force**

(N=424)

Independent Variables	B <sup>a</sup>	SE B	$\beta$
Officer size	.008	.002	.238*
Citizen-police ratio	-.008	.130	-.004
Jurisdiction type	3.571	1.796	.146*
COP emphasis	.065	1.328	.003
Agency type	-.090	1.817	-.004
Force continuum	-.195	.246	-.048
Training frequency	.289	.590	.030
Intercept	5.15		

F= 3.12, p = .002\*

R<sup>2</sup>= .08

<sup>a</sup> Unstandardized coefficient

\* p < .05 (two-tailed)

### *Limitations*

There were some limitations to the current study, especially given the use of secondary data. Conceptualization and operationalization were limited by the lack of extant research on variables specific to this study and the discrete measurements used to collect the data. Furthermore, this study sought only to examine lethal force. While there were binary questions concerning less-than-lethal force, only lethal force incidents was represented by a specific number thus limiting generalizability to all types of force. Additionally, there was no information available as to whether or not the lethal force incidents were justified or whether or not they conformed to departmental policy. There

was also no indication of what type of force was used which resulted in a fatality (such as by firearm, police vehicle, or other type of weapon).

The surveys utilized for data collection may not be fully representative given that it was the chief executive officers (or designated individuals) who responded and not supervising officers or review board personnel within the department. Furthermore, previous research has questioned the use of department data due to reporting bias or underreporting (see Sherman & Langworthy, 1979). Therefore, data used in the current study may or may not represent the actual number of force incidents.

## CHAPTER 5

### Discussion

#### *Review of the Results*

Previous research has considered the influence of situational, individual, and contextual characteristics on police use of lethal force but has largely neglected organizational factors. The present study was designed to answer several research questions concerning the effects of agency and jurisdiction type, officer size and citizen-police ratios, and community-policing emphasis as they relate to lethal force. Ideally, individual factors such as race, gender, or ethnicity should not be statistically associated with lethal force and situational factors. While they play a large role in the decision to use lethal force, should have only marginal predictive ability.

Organizational factors, however, should have the most impact on the rate at which police officers use lethal force and, consequently, should have the most predictive ability. The multivariate model used in this study was only able to predict eight percent of the variance in the self-reported number of lethal force incidents. Some of the findings acted counter intuitively and, although enlightening, the results were far from definitive.

Results from the regression indicated that the number of self-reported lethal force incidents increased with the number of sworn personnel. This finding is supported by previous research (Milton et al., 1977; Robin, 1963; Sherman & Langworthy, 1979; White, 2003) and lends further support to the theory that the odds of lethal force increase with the number of police-citizen encounters. Jacobs and O'Brien (1998) suggested that anonymity is higher in larger cities which can make police work more difficult. This, in turn, results in an increased likelihood of resorting to lethal force - especially in an

attempt to preserve existing order. It is also possible that smaller departments can rely more on informal controls to maintain order instead of resorting to violence.

Whether or not an agency characterized its jurisdiction as urban or non-urban was shown to predict police use of lethal force. This finding supports a type of “urbanism” theory. Previous research has focused heavily on large metropolitan departments whereas the current study employed a national probability sample of several jurisdiction types. However, the results were still heavily weighted toward urban departments. This may indicate that previous research inquiries into urban departments may not, in fact, be myopic or biased.

Agencies that reported a higher emphasis of community-policing goals and strategies actually reported more lethal force incidents compared to departments with little to moderate emphasis. Even when controlling for agency type, given that many municipal departments are transitioning to community-oriented departments, the effects were still statistically significant. One explanation of this finding is that community-oriented departments are often located in areas with higher crime rates and require more police presence. The odds of having to use lethal force in higher crime areas increases with each officer-citizen encounter. As previous research has shown (Fyfe, 1980, 1982; Jacobs & Britt, 1979; Kania & Mackey, 1977; Sherman & Langworthy, 1979; Sorenson, Marquart, and Brock, 1993), officers in higher crime areas encounter more violent offenders and respond with violence thus increasing the odds of resorting to lethal force.

It was surprising that the permissiveness of the department as determined by the force continuum was not associated with the number of reported lethal force incidents. While administrative policies have been shown to produce consistent declines in the use

of lethal force in the past (see e.g. White, 2003), results from the current study indicate that departmental permissiveness does not have predictive ability. One interpretation is that it does not necessarily follow that a highly permissive department would experience more lethal force instances than less permissive departments. Simply put, an officer may not automatically resort to lethal force in all situations where it may be warranted and supported by departmental policy.

#### *Implications and Directions for Future Research*

Policing research has shown that most individual variables are not statistically significant in predicting police use of lethal force (Alpert & Dunham, 1999; Bayley & Garofalo, 1989; Friedrich, 1980; Garner et al., 1995; Worden, 1995) and situational contexts only marginally explain the variance (see Adams, 1999). Although organizational factors examined in this study were unable to predict police use of lethal force in any meaningful way, the study has provided insight into a largely overlooked area of policing research. The present study employed a multivariate model whereas previous research has often employed dichotomous measures thus limiting the ability to make large-scale predictions. Additionally, the use of a national probability sample mediates the effects of limited generalizability often found in small site observational studies used by policing researchers.

Future studies of police use of force, whether from an organizational framework or not, will have to deal with the complexities of establishing conceptual definitions of force. Although needed, any conceptual shifts may cause further problems with access to data in a closed system such as the police which attempt to manage appearances through evidence of efficiency and effective crime control. One recent issue that adds to the

complexity is the recent scholarly trend in conceptualizing police vehicular force as an exercise of lethal force. Future research will need to take into account these adjustments as they will arguably affect the nature and numbers of lethal force incidents.

Based on the findings of this study, future research should focus on the influence of organizational factors but in the context of more informal factors such as administrative leadership styles, officer morale, and the influence of the police culture. Self-report surveys may also provide useful supplemental information and illuminate our understanding of the contexts in which lethal force is most often used or viewed as legitimate. In this sense, formal and informal police culture must be examined in order to develop a more in-depth understanding of the influence of organizational factors and increase their predictive ability.

## **LIST OF REFERENCES**



## LIST OF REFERENCES

- Adams, K. (1999). "What we know about police use of force." In *Use of force by police: Overview of national and local data* (pp. 1-14). Washington, DC: National Institute of Justice and Bureau of Justice Statistics.
- Alpert, G.P. (1989). Police use of deadly force: The Miami experience. In Dunham, R.G., and Alpert, G.P. (Eds.), *Critical issues in policing* (pp. 480-496). Waveland Press: Prospect Heights, IL.
- Alpert, G.P., & Dunham, R. (1999). The force factor: Use of force and suspect resistance. In *Use of force by police: Overview of National and Local Data* (pp.45-60). Washington, DC: Bureau of Justice Statistics.
- Alpert, G.P., & Dunham, R.G. (2004). *Understanding police use of force: Officers, suspects, and reciprocity*. New York: Cambridge University Press.
- Alpert, G.P., Dunham, R.G., & MacDonald, J.M. (2004). Interactive police-citizen encounters that result in force. *Police Quarterly*, 7(4), 475-488.
- Alpert, G.P., & Fridell, L.A. (1992). *Police vehicles and firearms: Instruments of deadly force*. Prospect Heights, IL: Waveland Press.
- Alpert, G.P., & MacDonald, J.M. (2001). Police use of force: An analysis of organizational characteristics. *Justice Quarterly*, 18(2), 393-409.
- Alpert, G.P., & Smith, W.C. (1994). How reasonable is the reasonable man?: Police and excessive force. *Journal of Criminal Law and Criminology*, 85(2), 481-501.
- Babcock, T.P. 1998. *Identifying police officers at risk: An empirical analysis of individual characteristics and situational factors related to violent police-citizen encounters*. Unpublished doctoral dissertation, Claremont Graduate University, Claremont, CA.
- Bayley, D.H., & Garafalo, G. (1989). The management of violence prone police officers. *Criminology*, 27, 1-25.
- Binder, A., Scharf, P., & Galvin, R. (1982). *Use of deadly force by police officers*. Final report. Washington, DC: National Institute of Justice.
- Bittner, E. (1970). *The functions of the police in modern society*. Rockville, MD: National Institute of Mental Health.
- Bittner, E. (1990). *Aspects of police work*. Boston: Northeastern University Press.

- Blumberg, M. (1982). *The use of firearms by police officers: The impact of individuals, communities, and race*. Ph.D. dissertation, State University of New York at Albany.
- Blumberg, M. (1993). Controlling police use of deadly force: Assessing two decades of progress. In R. Dunham & G. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (pp. 469– 492). Prospect Heights, IL: Waveland Press.
- Boutwell, J.P. (1982). Use of deadly force to arrest a fleeing felon- A constitutional challenge - Parts I and II. In J.J. Fyfe (Ed.), *Readings on police use of deadly force* (pp. 65-87). Washington, DC: Police Foundation.
- Cerar, J.C. (1990). Firearms discharge assault report, 1990: New York City Police Department Academy firearms and tactics section. New York Police Department. Unpublished annual report.
- Crawford, C., & Burns, R. (1998). Predictors of the police use of force: The application of a continuum perspective in Phoenix. *Police Quarterly*, 1(4), 41–63.
- Culliver, C., & Sigler, R. (1995). Police use of deadly force in Tennessee following *Tennessee v. Garner*. *Journal of Contemporary Criminal Justice*, 11(3), 187-195.
- Friedrich, R.J. (1980). Police use of force: Individuals, situations, and organizations. *Annals of the American Academy of Political and Social Science*, 452, 82-97.
- Fyfe, J. (1978). *Shots fired: An examination of New York City police firearms discharges*. Ann Arbor, MI: University of Michigan Microfilms.
- Fyfe, J. (1979). Administrative interventions on police shooting discretion: An empirical examination. *Journal of Criminal Justice*, 7, 309-323.
- Fyfe, J. (1980). Geographic correlates of police shooting: A microanalysis. *Journal of Research on Crime and Delinquency*, 17, 101-113.
- Fyfe, J. (1982). Blind justice: Police shootings in Memphis. *Journal of Criminal Law*, 73, 702-772.
- Fyfe, J. (1988). Police use of deadly force: Research and reform. *Justice Quarterly*, 5, 165-205.
- Garner, J.H., Buchanan, J., Hepburn, J., Schade, T., Groeneveld, R., & Mulcahy, A. (1995). *Understanding the use of force by and against police*. Final report. Washington, DC: National Institute of Justice.

- Garner, J.H., & Maxwell, C. (1999). Measuring the amount of force used by and against the police in six jurisdictions. In *Use of force by police: Overview of national and local data* (pp. 22-44). Washington, DC: U.S. Department of Justice.
- Garner, J.H., Maxwell, C.D., & Heraux, C.G. (2002). Characteristics associated with the prevalence and severity of force used by the police. *Justice Quarterly*, 19(4), 705-746.
- Geller, W., & Karales, K. (1981). Shootings of and by Chicago police: Uncommon crises, Part I: Shootings by Chicago police. *Journal of Criminal Law and Criminology*, 72(4), 1813-1866.
- Geller, W.A., & Scott, M. (1992). *Deadly force: What we know – A practitioner's desk reference on police-involved shootings*. Washington, DC: Police Executive Research Forum.
- Goldkamp, J.S. (1976). Minorities as victims of police shootings: interpretations of racial disproportionality and police use of deadly force. *Justice System Journal*, 2, 169-183.
- Greenfield, L.A., Langan, P.A., & Smith, S.K. (1999). Revising and fielding the police-public contact survey. In *Use of force by police: Overview of national and local data* (pp.15-18). Washington, DC: U.S. Department of Justice.
- Henriquez, M.A. (1999). IACP national database project on police use of force. In *Use of force by police: Overview of national and local data* (pp.19-24). Washington, DC: U.S. Department of Justice.
- Hoffman, P.B., & Hickey, E.R., (2005). Use of force by female patrol officers. *Journal of Criminal Justice*, 33, 145-151.
- Jacobs, D., & Britt, D. (1979). Inequality and police use of deadly force: An empirical assessment of a conflict hypothesis. *Social Problems*, 26(4), 403-412.
- Jacobs, D., & O'Brien, R.M. (1998). The determinants of deadly force: A structural analysis of police violence. *American Journal of Sociology*, 103(4), 837-862.
- Kania, R.R.E., & Mackey, W.C. (1977). Police violence as a function of community characteristics. *Criminology*, 15, 27-48.
- Klinger, D.A. (2004). Environment and organization: Reviving a perspective on the police. *Annals of the American Academy of Political and Social Sciences*, 593, 119-136.

- Kobler, A.A. (1975). Figures (and perhaps some facts) on police killing of civilians in the United States. *Journal of Social Issues*, 31(1), 419-432.
- Lawton, B.A. (2007). Levels of nonlethal force: An examination of individual, situational, and contextual factors. *Journal of Research in Crime and Delinquency*, 44(2), 163-184.
- MacDonald, J.M., Kaminski, R.J., Alpert, G.P., & Tennenmaum, A.N. (2001). The temporal relationship between police killings of civilians and criminal homicide: A refined version of the danger-perception theory. *Crime and Delinquency*, 47(2), 155-172.
- Mapp v. Ohio*, 367 U.S. 643 (1961).
- McEwen, T. (1996). *National data collection on police use of force*. Washington, DC: Bureau of Justice Statistics.
- McElvain, J.P., & Kposowa, A.J. (2008). Police officer characteristics and the likelihood of using deadly force. *Criminal Justice and Behavior*, 35(4), 505-521.
- Meyer, M. (1980). Police shootings at minorities: The case of Los Angeles. *Annals of the American Academy of Political and Social Science*, 452, 98-110.
- Milton, C.H., Halleck, J.S., Lardner, J., & Albrecht, G.L. (1977). *Police use of deadly force*. Washington, DC: Police Foundation.
- Miranda v. Arizona*, 384 U.S. 436 (1966).
- Robin, G.D. (1963). Justifiable homicide by police officers. *Journal of Criminal Law, Criminology, and Public Science*, 225-231.
- Reiss, A.J., Jr. (1971). *The police and the public*. New Haven, CT: Yale University Press.
- Scharf, P., & Binder, A. (1983). *The Badge and the Bullet: Police Use of Deadly Force*. New York, NY: Praeger.
- Sherman, L.W. (1980). Execution without trial: Police homicide and the Constitution. *Vanderbilt Law Review*, 3, 71-110.
- Sherman, L.W., & Blumberg, M. (1981). Higher education and police use of deadly force. *Journal of Criminal Justice*, 9(4), 317-331.
- Sherman, L.W., Cohn, E.G., Gartin, P.R., Hamilton, E.E., & Rogan, D.P. (1986). *Citizens killed by big city police, 1970-1984*. Washington, DC: Crime Control Institute.

- Sherman, L.W., and Langworthy, R. (1979). Measuring homicide by police officers. *Journal of Criminal Law and Criminology*, 70(4), 546-560.
- Smith, B.W. (2003). The impact of police officer diversity on police-caused homicides. *Policy Studies Journal*, 31(2), 147-163.
- Smith, B.W. (2004). Structural and organizational predictors of homicide by police. *Policing: An International Journal of Police Strategies and Management*, 27(4), 539-557.
- Smith, D. (1986). "The neighborhood context of police behavior." In A. Reiss & M. Tonry (Eds.), *Communities and Crime* (pp. 314-341). Chicago: University of Chicago Press.
- Sorenson, J., Marquart, J., & Brock, D. (1993). Factors related to killing of felons by police officers: A test of the community violence and conflict hypotheses. *Justice Quarterly*, 10, 417-440.
- Tennenbaum, A.N. (1994). The influence of the Garner decision on police use of deadly force. *Journal of Criminal Law and Criminology*, 85(1), 241-260.
- Tennessee v. Garner*, 471 U.S. 1 (1985).
- Terrill, W., Alpert, G.P., Dunham, R.G., & Smith, M.R. (2003). A management tool for evaluating police use of force: An application of the force factor. *Police Quarterly*, 6(2), 150-171.
- Terrill, W. & Mastrofski, S. (2002). Situational and officer based determinants of police coercion. *Justice Quarterly*, 19, 215-248.
- Uelman, G. (1973). Varieties of public policy: A study of police policy regarding the use of deadly force in Los Angeles County. *Loyola of Los Angeles Law Review*, 6, 1-55.
- Waegel, W.B. (1984). The use of lethal force by police: The effect of statutory change. *Crime and Delinquency*, 30(1), 121-140.
- Weitzer, R. (1999). Citizens' perceptions of police misconduct: Race and neighborhood context. *Justice Quarterly*, 16, 819-846.
- White, M.D. (2000). Assessing the impact of administrative policy on use of deadly force by on- and off-duty police. *Evaluation Review*, 24(3), 295-318.
- White, M.D. (2001). Controlling police decisions to use deadly force: Reexamining the importance of administrative policy. *Crime and Delinquency*, 47, 131-151.

- White, M.D. (2001). Identifying situational predictors of police shootings using multivariate analysis. *Policing: An International Journal of Police Strategies and Management*, 25(4), 726-751.
- White, M.D. (2003). Examining the impact of external influences on police use of deadly force over time. *Evaluation Review*, 27(1), 50-78.
- Williams, J.J., & Hester, G. (2003). Sheriff law enforcement officers and the use of force. *Journal of Criminal Justice*, 31(4), 373-381.
- Wilson, J.Q. (1968). *Varieties of police behavior*. Cambridge, MA.: Harvard University Press.
- Weber, M. (1964). *The theory of social and economic organization*. New York: Free Press.
- Worden, R.E. (1995). The “causes” of police brutality: Theory and evidence on police use of force. In W. Geller & H. Toch (Eds.), *And justice for all: Understanding and controlling police abuse of force* (pp. 31-60). Washington, DC: Police Executive Research Forum.

## **APPENDIX**

## Use of Force Survey

**Approximately**, how many sworn officers does your department employ?

\_\_\_\_\_

What is the **approximate** population of the jurisdiction your department serves?

\_\_\_\_\_

How would you characterize the jurisdiction your department serves?

Urban

Rural

Suburban

Is your department/agency:

Municipal

County

Consolidated Municipal/County

Sheriff's Department

What is your rank or position? \_\_\_\_\_

What level of emphasis does your department place upon community policing goals/strategies?

no emphasis

low-level emphasis

moderate emphasis

high-level emphasis



## Use of Lethal Force

1. Does your department have a written policy or policies explicitly detailing the use of lethal force? *If no, please proceed to question number 2.*  
 Yes  
  
 No
2. Does your department require training following the basic training academy on the use of lethal force?  
 Yes  
  
 No
- 2b. **If yes**, how often is this training required?  
  
\_\_\_\_\_
3. **Approximately** how many incidents involving the use of lethal force are reported to your department annually? \_\_\_\_\_
4. Does your department require reporting any use of lethal force?  
  
 Yes  
  
 No
5. Does your department's policy require officers to report incidents that require an officer to **merely** unholster his/her firearm?  
 Yes  
 No
6. Does your department's policy **only** require officers to report discharging their firearm?  
 Yes  
 No
7. Does your department's policy **only** require officers to report incidents in which an officer shoots someone?  
 Yes  
 No

## Use of Non-Lethal-Force

1. Does your department have a written policy or policies regarding the use of non-lethal force? *If no please proceed to question number 3.*  
 Yes  
  
 No
2. **If yes**, does your department require training in the use of non-lethal-force following the basic training academy?  
  
 Yes (**How often is this training required**\_\_\_\_\_)  
  
 No
3. **If no to question number 1**, does your department have plans to implement one within the next two years?  
  
 Yes  
  
 No
4. Does your department's non-lethal-force policy **explicitly** describe the amount of reasonable force based on a use of force continuum?  
  
 Yes  
  
 No
5. Does your departmental policy require officers to report **any** use of non-lethal force?  
  
 Yes  
  
 No
6. Does your department's policy regarding non-lethal force require officers to attend psychological evaluation or counseling following incidents involving non-lethal force?  
  
 Yes (**Specify**\_\_\_\_\_)  
  
 No

7. Check all the following training objectives mandated by your department's use of non-lethal force policy.

- Policy interpretation
- Diversity training
- Conflict management skills
- Dynamic training
- Training in the use of non-lethal weapons
- N/A

8. Which of the following are mandated forms of non-lethal force according to your department's policy? *Check all that apply.*

- |   |   |
|---|---|
| <input type="checkbox"/> Vehicle ramming                      | <input type="checkbox"/> Electric device              |
| <input type="checkbox"/> Batons                               | <input type="checkbox"/> Twist locks or wristlocks    |
| <input type="checkbox"/> Flashlights                          | <input type="checkbox"/> Unholstering weapon          |
| <input type="checkbox"/> Chemical agents                      | <input type="checkbox"/> Swarming                     |
| <input type="checkbox"/> Neck restraints                      | <input type="checkbox"/> Handcuffs and leg restraints |
| <input type="checkbox"/> Bodily force (arms, feet legs, etc.) | <input type="checkbox"/> Come-along-holds             |
| <input type="checkbox"/> Other impact devices                 | <input type="checkbox"/> Firm grips                   |
| <input type="checkbox"/> Dog attacks                          | <input type="checkbox"/> Other_____                   |
| <input type="checkbox"/> N/A                                  |   |

9. Does your department keep records of the number of incidents involving the use of these methods of force? *Check all that apply.*

Vehicle ramming

Come-along-holds

Batons

Firm grips

Flashlights

Handcuffs and leg restraints

Chemical agents

Swarming

Neck restraints

Unholstering firearms

Bodily force (arms, feet legs, etc.)

Twist locks of wristlocks

Other impact devices

Electric devices

Dog attacks

Other\_\_\_\_\_

N/A

10. For each of the following hypothetical situations indicate the highest level of force permissible according to your department's use of force policy.

1. Verbal commands

3. Use of non-lethal weapons

2. Manual restraints and holds

4. Deadly Force

Suspect verbally resists arrest

Suspect resists arrest with personal weapons i.e. hands and feet

Suspect attempts to flee the scene

Suspect poses an imminent threat of physical danger to officer or bystanders

Suspect directs profanity towards an officer(s)

Suspect takes a hostage as a shield

Suspect presents a blunt weapon

Suspect presents a knife or other weapon capable of puncturing

Suspect presents a firearm but is not directing the weapon toward any person

Suspect directs a firearm, in a threatening manner, at an officer(s) or others

## **Consequences of non-compliance**

1. Please check all procedures used to investigate allegations of excessive use of force by your department's policy?

Internal Review Board or departmental review

External Review Board consisting of only civilians

External Review Board consisting of a combination of civilians and police officers

Reviewed by the District Attorney or Prosecutor's office for possible criminal litigation

Other \_\_\_\_\_

2. Who or what body determines the penalty for the excessive use of force?

\_\_\_\_\_

**Please include a copy of your department's use of force policy and return to the following address:**

## VITA

Mikaela Dionne Cooney was born in Fort Ord, California on September 11, 1985. After her father was stationed at Fort Campbell, Kentucky in 1989, she attended elementary and middle schools in Montgomery County, Tennessee and graduated from Northwest High School in 2003. After graduation, she entered the University of Tennessee at Chattanooga and received her Bachelor of Science in Criminal Justice in May of 2007. That August, she entered the Graduate School at the University of Tennessee at Chattanooga and is a candidate for the Master of Science in Criminal Justice. Following graduation, she plans to enter the University of South Carolina to pursue her doctorate in Criminology and Criminal Justice