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Situational Determinants of Police Use of Force: Who the Suspect is vs. What the Suspect Does

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ABSTRACT

As providers of security services for the public, police officers should be more concerned with *what the citizen does* rather than *who the citizen is*. This concern should be reflected in police behavior regarding use of force towards the suspects. Borrowing from sociological and psychological perspectives, present study examines the determinants of police use of force using data collected by Garner and Maxwell in 1996-1997 about adult custody arrests in six urban law enforcement agencies in the U.S. Unlike many of the previous studies, the extent of force is expanded to include threat of force as well as different levels of physical force. Results provide strong and consistent evidence that probability of using force and the amount of force used by the police mostly depend on what the suspect does as opposed to who the suspect is, even after controlling for other factors. Suspect's behavior and demeanor towards the police appear as the most important factors explaining use of force behavior. The results also explain the effects of the race and gender relations as well as the presence of bystanders and other officers at the scene.

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Introduction

The nature of police citizen encounters can range from civil to very fiery which may include verbal and physical conflict. Understanding the characteristics of these encounters along with the behaviors of officers and suspects is important to realize the factors affecting police use of force. All around the world, policing includes and sometimes requires some amount of force. Bittner (1975) emphasizes this aspect of police work and, furthermore, says that police are nothing else than a mechanism for the distribution of situationally justified force in the society. Law enforcement officers are authorized to use force in specified circumstances, are trained in the use of force, and, typically, face numerous circumstances during their careers when the use of force is appropriate—for example, in making some arrests, preventing escape, restraining disorderly combatants, or protecting themselves and innocent victims from injury. As Skolnick and Fyfe (1993, p. 37) assert, "As long as some members of society do not comply with the law and resist the police, force will remain an inevitable part of policing".

Serious social and legal consequences of police use of force led many social scientists to study this important topic and enriched our understanding in this area. Previous research on police use of force indicates that police use force infrequently (Adams, 1999; Friedrich, 1980; Garner, Buchanan, Schade, & Hepburn, 1996; Garner & Maxwell, 1999; Worden, 1996). Whether measured by official use of force records (Alpert & Dunham, 1999), citizen complaints (Pate, Fridell, & Hamilton, 1993), surveys of officers, arrestees, or citizens (Garner, Schade, Hepburn, & Buchanan, 1995; Garner et al., 1996; Greenfield, Langan, & Smith, 1999), or observational methods (Friedrick, 1980; Worden, 1996) the data consistently indicate that only a small percentage of police-public interactions involve use of force. Nevertheless, the nature of police citizen encounters, in which police officers often have to make split-second decisions may yield

improper or excessive use of force that may result in damaging the police authority and legitimacy in the public.

Among various theoretical orientations to explain police use of force, Terrill and Mastrofski (2002) point out particular sociological and psychological perspectives that have guided previous research. The sociological perspective focuses on the personal and behavioral characteristics of the suspect and the impacts of those characteristics on the nature of police citizen encounters; whereas, the psychological perspective stresses the police officers' characteristics, experiences, and views.

In a broader sense, the sociological perspective or the situational approach focuses on the specific characteristics of the suspects and the situations in which the police encounter citizens. Terrill and Mastrofski (2002, p. 217) identify two distinct explanations within this domain: one being that force varies by *who the citizen is* the other focusing on *what the citizen does*. We expect that the behavior of the police officers should not be affected by the characteristics of the citizens such as race, gender, age, or social class. Legally, police officers are required to react to the actions of the citizens or suspects rather than their traits. Moreover, this reaction must be within the legal boundaries and in the case of police use of force, it must be legally justifiable. Applying force disproportionally based on who the suspect is rather than what the suspect does will substantially undermine the police legitimacy in the society.

As Geller and Toch (1996) indicate, a considerable amount of previous literature on police use of force has focused on whether the police used force in encounters with citizens and the attitudes and demographic characteristics of both officers and suspects. However, there is still a lack of information on whether '*who the suspect is'* or '*what the suspect does'* is a more decisive factor in police behavior toward the suspects. The distinction between who the suspect is and what the suspect does should not be understated since application of police force only to those who break the law or threaten the safety will enhance the police legitimacy (Terrill and Mastrofski, 2002). Furthermore, explained as psychological perspective, characteristics of the officers (who the officer is) are also worth investigation.

We should realize that use of force is not a static concept but a continuum of responses ranging from verbal commands to deadly force. Therefore, not only whether the police use force or not, but the amount of force used also merits investigation. In order to address these issues, first, the present study uses a force definition that combines actual physical force with threatened force to examine the presence of force. Second, another measure –maximum force– is used to examine the extent of force used under different circumstances.

Starting with examining the theoretical perspectives to address the factors affecting police use of force, available previous research will be reviewed to analyze why and in what situations police use force. The data collected by Garner and Maxwell in 1996-1997 in six jurisdictions in the U.S. (Garner & Maxwell, 2001) is analyzed to gain a better understanding of the effects of suspect and officer based factors on police use of force. Thus, the present study is sought to build on the original publication of Garner, Maxwell and Heraux (2002) and previous research by further analyzing situational factors and characteristics of officers on the prevalence and severity of police force. To the extent that the traits (who the suspect is) or behavior and demeanor (what the suspect does) of the suspect predict police use of force, it suggests policy interventions for police agencies.

Theoretical Perspectives

Not only police use of force is an infrequent event, but also use of force occurs at the lower end of the force continuum involving grabbing, pushing, or shoving (Adams, 1999). Garner et al. (1996, p. 6) found in their Phoenix, Arizona study that in 918 (57.9 percent) of a total of 1,585 cases involving some form of force, the highest level of force used by the police was some form of restraint; in another 350 (22.1 percent), no restraint was needed. Terrill's (2003) observational study of the police in Indianapolis, Indiana, and St. Petersburg, Florida yielded similar results. After examining 3,544 police-suspect encounters, he concluded that if verbal force is included, then most force falls into this category of behavior. Moreover, most force still occurs at the lower end of the continuum in the form of physical restraint and control even if verbal force is excluded.

Defining force as acts that threaten or inflict physical harm on suspects, Terrill and Mastrofski (2002) and Terrill (2003) make a strong case to include verbal coercion such as commands and threats into definition of force. They consider commands and threats as force due to the coercive nature of these acts. Therefore, police attempts to question, advise, persuade, or suggest did not qualify as force and were not included in their force measure (Terrill & Mastrofski, 2002, p. 228). Some other researchers (Alpert & Dunham, 1999; Garner et al., 1995; Garner & Maxwell, 1999; Klinger, 1995; MacDonald, Manz, Alpert, & Dunham, 2003; Reisig, McCluskey, Mastrofski, & Terrill, 2004) also included verbal force in their force measures. For instance, Alpert and Dunham (1999, p. 55) included "strong directive language" but not "typical verbal commands". Garner et al. (1995; p. 158) considered verbal force to include cases when "officers shouted or used a command voice". Garner and Maxwell (1999, p.35) noted "…the nature of verbal communication, especially if it involves threats, shouting, or cursing, can be an element of force and needs to be incorporated into how we think about and measure the use of force." Similarly, threats of violence are reported as violence in FBI's Uniform Crime Reports. Furthermore, since most of the police force occurs at lower levels, or starts at lower levels and escalades, more emphasis should be given to different levels of force rather than solely focusing on extreme levels of force. It is necessary to understand how different forms of force are applied, in what circumstances, and to what extent.

As mentioned earlier, sociological and psychological theoretical orientations have mostly been used to explain police use of force. The sociological approach centers on the suspects' personal and behavioral characteristics and situational characteristics of the police citizen encounters. The psychological approach, on the other hand, seeks to explain police use of force based on the individual characteristics of the officers. Friedrich (1980) calls these perspectives situational and individual approaches, respectively. Yet, there is a third approach to police use of force which sees use of force as a product of the organizational setting (Friedrich, 1980). This line of research has mostly focused on the organizational culture and the environment in which the police perform their duties. An occupational subculture or "police culture" which stems from a set of shared values and attitudes to cope with the strain and ambiguity of police work is used

to explain use of force (Brown, 1988; Herbert, 1996, 1998; Lester, 1996; Paoline, Myers, & Worden, 2000; Skolnick & Fyfe, 1993; Smith, 1994; Terrill, Paoline, & Manning, 2003). The present study attempts to explain police use of force borrowing from the situational and psychological perspectives. The organizational approach is not examined in this study due to lack of organizational variables in the original dataset.

Situational Factors

Previous research has frequently addressed characteristics of the suspects in police use of force incidents. Suspect's demographic characteristics (who the suspect is) and suspect's behavior and demeanor (what the suspect does) are often found to be correlated with the prevalence and the extent of police force. Several studies report suspect's age, sex, ethnicity, and intoxication as statistically significant predictors of police force (Alpert & Dunham, 1999; Alpert & Fridell, 1992; Friedrich, 1980; Garner et al., 1995; Garner et al. 2002; Terrill & Mastrofski, 2002; Worden, 1996).

Issue of race in police-citizen encounters is believed to be a common denominator in numerous use of force incidents, especially ones including deadly force. For example, Alpert and Fridell (1992) noted that blacks are disproportionately the opponents in police shootings relative to their representation in the whole population. Smith (1986), Terrill and Mastrofski (2002), and Worden (1996) also reported that suspect's race is associated with increased use of force by the police: racial minorities, especially blacks, faced more police force than whites. However, in another research in three law enforcement agencies –police departments in two Oregon cities (Eugene and Springfield) and one county department in Florida (Miami Dade Police Department) Alpert and Dunham (1999) found that officers used higher levels of force against suspects of their own ethnic group than against suspects of other ethnic groups. However, they referred this conclusion to a tendency to deploy officers in areas with a majority of citizens of their own ethnicity.

Some other studies, on the other hand, reported that race of the suspect was not associated with increased use of force (Friedrich, 1980; Fyfe, 1988; Garner et al., 1995; Garner et al., 2002). Among these studies, Friedrich (1980) noted that not

only race but sex and gender of the citizen also did not affect police use of force. In his research on police shootings in New York City, Fyfe (1988) reported that the subject's race made little difference in the percentages of subjects wounded or killed among racial groups. Similarly, Garner et al. (2002) reported that they found little evidence to support racial concerns that police use more force against African Americans. Although their analysis showed that more physical force was used against African American suspects than white suspects, that effect was no longer statistically significant when controlled for the suspect's resistance.

Like suspect's characteristics, the suspect's behavior and demeanor toward the police (what the suspect does), and the physical and social settings of the incident situation have also been repeatedly addressed in previous research. Friedrich's (1980) pioneering study provides more insight on the role of suspect's behavior and other situational factors. Analyzing the data gathered in the observational study undertaken in 1966 by Reiss for the President's Commission on Law Enforcement, Friedrich (1980) reported that the context and characteristics of police-citizen encounters –among personal characteristics and organizational factors– accounted the strongest relationship for use of force. According to his findings, police were more likely to use force when the suspect is antagonistic, agitated, or intoxicated; when the offense is a felony, or other citizens are present at the scene. Worden's (1996) findings confirms earlier findings of Friedrich that drunkenness, a hostile behavior, and especially physical resistance all make the use of force more likely.

Some other studies also support the hypothesis that the police are more likely to use force against suspects who are antagonistic or intoxicated, (Garner et al., 1995; Garner et al., 2002; Smith, 1986; Terrill & Mastrofski, 2002). Garner et al. (2002) reported that prevalence of force is greater when the suspect is intoxicated but intoxication is not significantly associated with increased amount of force. They also reported that suspect's antagonistic demeanor –with or without physical resistance– toward the police significantly increased the likelihood of police use of force. If the suspect demonstrates a negative demeanor to the police or acts in a suspicious way, the officer will likely respond to him in a threatening or forceful way.

Starting 1960s, research on police behavior produced findings, which were replicated and widely accepted, that displays of hostility or disrespectful demeanor toward the police increase the odds of arrest (Worden and Shepard, 1996; Lundman, 1994, 1996ab). According to Klinger (1994), however, those researchers largely ignored crime and concentrated on specifying how extralegal variables such as location of police-citizen encounters and the race, sex, and demeanor of citizens affect arrest. He made a bold claim that all previous research was suspect because they failed to limit demeanor to legally permissible words and failed to control for crime. Thus, Klinger's criticism focused on two aspects of previous research. First, although demeanor is conceptually defined as legally permissible behavior, in previous studies measure of demeanor often included criminal conduct. He maintained that demeanor consisted of legally permissible behavior of citizens during interactions with police officers, and thus valid measures of demeanor would not include actions that violate the law. Second, criminal conduct was not controlled adequately when effects of demeanor on arrest were estimated. Consequently, Klinger (1994) noted that previous research failed to provide proper estimates of the effects of suspects' demeanor on probability of arrest; therefore, they were suspect until additional analyses of the datasets used in previous research and new observational research were presented.

In response to Klinger's above criticism, Lundman (1994) reported additional analyses of data from three previously published papers based on Midwest City Police-Citizen Encounters Study. With demeanor limited to spoken words and crime partially controlled, his reanalysis suggested that the effects of demeanor depended on how it was represented. Lundman's 1996 study on observational data also yielded similar results: demeanor matters when it is limited to legally permissible words and displays of hostility and when crime is partially controlled, although the effects of demeanor vary with how it is represented (Lundman, 1996a). Like Lundman, Worden and Shepard (1996) also reanalyzed previous research to address Klinger's comments. Their study included reanalyzing data collected for the Police Services Study to determine whether previous analyses of these data misestimated the effects of demeanor on police behavior. Worden and Shepard concluded that their analyses provided no evidence that previous findings were biased either by the operationalization of demeanor or by the failure to

control more adequately for pre-intervention and interaction-phase crime (1996, p.99). Similarly, Lundman (1996a) concluded that there was little reason for questioning the agreement reached over decades that demeanor and other extralegal variables shape police actions.

Presence of others –police officers or bystanders– and incident location are other important factors associated with police force. According to Friedrich (1980), Worden (1996), and more recently Terrill and Mastrofski (2002), the likelihood of police force rises with the number of officers at the scene. Similarly, Garner et al. (2002) reported that the number of police officers significantly increased the likelihood of police force as well as the severity of the force used. However, this result seems tautological; in all four studies, it is not clear whether the report of the use of force over the police radio attracts additional officers to the scene or increased number of the police officers during the arrest increases the likelihood of using force or severity of the force used.

Presence of bystanders has also been found as a significant factor affecting police behavior (Friedrich, 1980; Garner et al., 2002). When bystanders are around, officers may perceive a need to exercise more control over suspects. Friedrich's study (1980) showed that the total number of citizens present has an increasing impact on use of force. Friedrich explains this result by highlighting that police authority and image are in greater jeopardy when more people are around. Therefore, the police sometimes rely on force to demonstrate their authority and to protect their image. Garner et al. (2002) also examined the effects of bystanders on police use of force and reported that presence of bystanders increases the likelihood of police use of force. Moreover, their analysis showed that if the bystanders are strangers to the suspect, the severity of the force used also increases. Both of the studies, however, do not clarify whether the large number of bystanders causes increased use of force or whether the use of force attracts an audience.

Officer-Based Factors

The psychological or individual approach centers on the impacts of officers' characteristics on use of force behavior. Those characteristics range from demographic factors and experiences to attitudes toward people. Like situational

factors, many studies have focused on individual characteristics of police officers; however, unlike the former one, research on the effects of officer-based factors has yielded to less consistent results. Evaluating prior research results, Adams (1999) notes that although use of force appears to be unrelated to an officer's personal characteristics such as age, gender, and ethnicity, more studies are needed in this area.

Most researchers have found that race of the officers is not a predictor of force (Alpert & Dunham, 1999; Blumberg, 1991, 2001; Fyfe, 1981; Garner et al., 1996; Geller & Karales, 1981; Hickman, Piquero, & Greene, 2000; Terrill & Mastrofski, 2002; Worden, 1996). Yet, Garner et al. (2002) reported that the effect of the officer's race was mixed; African Americans use no more force than white officers, but odds of force is higher for Hispanic officers than for white officers.

Officer's age in police-citizen encounters has been constantly identified a significant predictor of force. Younger officers are more likely to use force (Garner et al., 202; Terrill & Mastrofski; 2002) or tend to use more amount of force than older officers (Alpert & Dunham, 1999; Garner et al., 2002). Younger officers are also significantly more involved in shootings (Blumberg, 1991, 2001).

Previous research report mixed results on the effect of officer's gender on use of force. Some studies found that male officers were more likely to use force (Garner et al., 1996; Garner et al., 2002; Terrill & Mastrofski, 2002); whereas some other studies found no difference between male and female officers (Alpert & Dunham, 1999; Worden, 1996). Garner et al. (1996) reported a more detailed account of officer's gender and use of force; incidents involving male police officers and male suspects were more likely to involve force; male officers were more likely to use force on male arrestees. In another study, Hickman et al. (2000) noted that male officers were more likely to receive citizen complaints.

In summary, previous studies show that situational factors are more consistent determinants of police use of force than characteristics of the officers. Among the situational factors, suspect's behavior and demeanor toward the police (what the suspect does) gain more explanatory power than demographic characteristics of the suspect (who the suspect is). As Friedrich (1980, p. 95) notes, "police use of force depends primarily on two types of factors: how the offender behaves and

whether or not other citizens and police are present." However, there is still support that suspect's characteristics such as gender, age, and –to a lesser extent– race are associated with police force. Several studies associate presence of other police officers and bystanders with increased likelihood of police force but fail to explain whether use of force attracts more police officers and bystanders to the scene or presence of others increases the likelihood of force. Effects of the officer's characteristics on the use of force are generally mixed in previous research. Race and gender of the officer are often not related to use of force behavior while age has been identified a significant predictor.

Data and Methodology

Data gathered by Garner and Maxwell (2001) is analyzed in this study. The data (Understanding the Use of Force by and Against the Police in Six Jurisdictions in the U.S.) was collected to examine the amount of force used by and against law enforcement officers. The researchers gathered data about suspects' and police officers' behaviors from adult custody arrests in six urban law enforcement agencies: Charlotte-Mecklenburg (North Carolina) Police Department, Colorado Springs (Colorado) Police Department, Dallas (Texas) Police Department, St. Petersburg (Florida) Police Department, San Diego (California) Police Department, and San Diego County (California) Sheriff's Department. Data collection began at different times in the participating departments, so the total sample included arrests during the summer, fall, and winter of 1996-1997. Forms were completed by arresting officers and coded by the researchers for 7,512 adult custody arrests. Officer self-reports on the characteristics of the arrest situation, the suspects and the officers, and the specific behavioral acts of officers, suspects, and bystanders in a particular arrest were recorded. Police managers were not allowed to control or review the forms completed by arresting officers; thus, the forms were not official records but research data. Moreover, confidentiality of those arrest reports was guaranteed and officers were communicated about that confidentiality and that the data would not be used for any judicial, legislative, or administrative purposes. This confidentiality increased the likelihood that officers would provide more accurate information, which, in turn, increased the reliability and validity of data.

Research about police use of force has mostly focused on deadly force. Pate and Fridell (1995) attribute this emphasis to the serious consequences of using deadly force as well as the ease of measuring the use of such force. Indeed, measuring deadly force is easier than measuring non-deadly force, which poses more problems not only because of the lack of concrete evidence but also because of a disagreement about the extent to which such force should be curtailed. In the data analyzed in this study, Garner and Maxwell (2002) developed four measures of the amount of force used by police officers in order to organize, present, and understand the nature and characteristics of the force used in representative samples of arrests: *Physical Force*, *Physical Force Plus Threats*, *Continuum of Force*, and *Maximum Force*. The first measure is a traditional conceptual dichotomy of arrests in which physical force is or is not used. The second measure, physical force plus threats, is similar to physical force but adds the use of threats and displays of weapons. The continuum of force measure captures the levels of force commonly used in official policies by the participating law enforcement agencies. The fourth measure, maximum force, is constructed at interval level by the researchers to rank the amount of force used by the police in making arrests. This study will use two of the above measures as dependent variables: physical force plus threats, and maximum force. The first measure will allow us to understand the role of different factors affecting the decision of the police to use or not to use force to make an arrest. The second measure, on the other hand, will help us evaluate the effects of the same factors on the amount of force used in arrest situations.

In the original study analyzing the data, Garner et al. (2002) used "physical force" to measure the prevalence of force and "maximum force" to measure the severity of force used by the police. The authors did not provide a rationale for not including threats of force or display of weapons, thus, limiting the prevalence of police force to the dichotomy of whether only physical force was or was not used. Hence, the present study departs from the original study of Garner et al. (2002) by adding threats of force or display of weapons to physical force as a measure of the presence of force. It should be noted that combining actual physical force with threat of force is not the same as including any verbal commands which might not be coercive in nature. The force measure used in the present study includes all

elements of physical force (use of severe restraints and use of any weaponless tactic) as well as use, display or threatened use of any weapon.

Limitations:

Several limitations to the present study should be considered. First, data collection project sought to obtain a sample of adult custody arrests that was representative of each department's annual arrests. The researchers did not draw a random sample of arrests throughout the year because that would have entailed complicated procedures for starting and stopping data collection by police officers. The project, therefore, sampled arrests continuously over a two- to seven-week period, depending on the size of the department and the rate at which officers made arrests. It is possible that selected range of time does not include trends in arrests and use of patterns. Second, use of force by officers or by subjects that did not result in the immediate arrest of the suspect was not captured in this research. Therefore, conclusions are limited to arrest behavior, not to all police behavior. Finally, the dataset does not include organizational or neighborhood characteristics, which might contribute to the police behavior. Future research on police use of force should consider these limitations.

Dependent Variables

The first dependent variable in this study measures if the police used force plus threats to make an arrest. Traditionally, research on use of force focused on dichotomies such as whether physical force is used or not. This study includes verbal threats of physical force as well as displays of weapons in the force definition which enables us to capture a broader range of force. The first dependent variable is, then, a conceptual dichotomy of those arrests where physical force and/or use of threats and displays of weapons were used or not.

The second dependent variable is the maximum force measure constructed by Garner and Maxwell (2001) to rank the amount of force used by the police. This variable is measured at interval level, which ranges from 1 to 100 with a ranking score of 1 being the least forceful and 100 being the most forceful. The researchers constructed this measure in a two-step process. In five of six participating agencies, 503 experienced officers were asked to rank more than 60 hypothetical types of force on a scale from 1 to 100 based, not on departmental

policy, but on their own personal experience. The exercise resulted in a measure that makes reasonable distinctions between different types of force. Officer presence, conversation and verbal commands are ranked near the bottom and the use of weapons especially firearms, are ranked at the top. The second step in developing the maximum force measure is to determine if such behaviors occurred in the sample of 7,152 arrests, and if so, to weigh them according to the rankings made by police officers. When officers reported that they engaged in two or more forceful acts, the one with the highest rank is recorded –hence the name is Maximum Force. This measure provides a scale which helps us identify how the amount of force can be measured in a way that approximates our understanding of variation in the use of force.

By using these two measures, this study attempts to overcome the limitations of depending solely on dichotomous variables which measure if physical force was used or not. Although those dichotomous measures are applied consistently across law enforcement agencies and capture the elements of force, they do not allow researchers to measure the amount of force used since they group together all uses of force from a push to use of deadly weapons. Clearly, there are differences between grabbing and kicking and between threatening to shoot someone and actually shooting. Therefore, the second dependent variable in this study, the maximum force measure, provides us with a better and more reasonable assessment of the amount of force used in arrest situations, rather than exclusively depending on the analysis of dichotomous variables. Moreover, this measure captures important aspects of the use of force that would be missed if we were limited to a simple dichotomy.

Independent Variables

The independent variables include characteristics of the suspects and the officers, and the situation in which the two interacted. The variables are selected based on their relationship with police use of force as evidenced in the policing literature. Of particular interest for this study are the variables for characteristics of the suspects indicating who the suspect is and what the suspect does.

Characteristics of the Suspect:

The first group of suspect characteristics identifies who the suspect is, and includes gender, age, and race of the suspect. Gender of the suspect is a dummy variable with males coded as 1 and females as 0. Age of the suspect is an ordinal variable grouping the age of the suspects into eight categories. Race of the suspect is a nominal variable indicating the suspect is white, black, or Hispanic or other race. Dummy variables for white suspects and Hispanic/other race are created and included in the analysis while black suspect category is left as the reference group due to the significant amount of black suspects among all arrestees (39.4% of the suspects are black). The second group of characteristics of the suspect identifies what the suspect does in which the suspect's demeanor, intoxication, and behavior are identified. Suspect's demeanor towards the police is operationalized by assessing whether the demeanor of the suspect toward the police was civil or antagonistic. The intoxicated dummy variable evaluates if the suspect was under the influence of alcohol or drugs. The last variable measures whether the suspect used or threatened to use physical force or not.

Characteristics of the Arrest Situation:

A set of variables are used to evaluate the effects of the arrest situation on police-suspect encounters. Among those, night, weekend, and public variables are dummy variables indicating that arrests occurred at night, at weekends, or in public locations. Two more dummy variables are created; one of them assesses if the location is known by the officer, the other indicates that the place is believed to be threatening to the police. The variable "Bystanders" is also a dummy variable indicating that there were bystanders present. Other variables assessing the arrest situation (Number of police at initial contact, maximum number of police present, and number of suspects at initial contact) are measured at interval level.

Characteristics of the Officers:

Variables evaluating officers' personal characteristics measure the gender, age, and the race of the officers. In order to test the general perception of racial discrimination against blacks, variables with different officer and suspect combinations are added. Leaving white officer/white suspect variable as the reference category, variables for white officer/black suspect, white

officer/Hispanic suspect, and other police/other suspect racial combinations are included in the analyses.

Findings

To analyze and explore the effects of different factors on the decision of law enforcement officers to use force or threat with physical force or display of weapons, a logistic regression model is estimated. For further evaluation of the effects of those factors on the amount of force used by the police and since the second dependent variable is measured at interval level, OLS regression model is used to analyze the data. The latter model is run with robust standard errors to eliminate threat of heteroskedasticity. Table 1 shows the results of the analysis reporting the factors that affect police behavior regarding both the decision of using force and the amount of force used. It should be noted that the explanatory power of the first model is stronger than the second one: the first model explains 25% of the variance on the dependent variable while the second model can explain 17%. It is apparent that some other variables, not included in these analyses due to limitations of the data set, could also contribute to our understanding of the officers' decision to use force.

TABLE 1 – Factors Affecting Police Use of Force

VARIABLES	**Presence of Force**		**Amount of Force**	
	b (SE)	**p>|z|**	**b (Robust SE)**	**p>|t|**
Constant	-3.497 (.300)	**.000**	25.076 (.762)	**.000**
Suspect's Characteristics				
Suspect Male	**.435 (.100)**	**.000**	**1.295 (.225)**	**.000**
Suspect's Age	-.007 (.019)	.733	.079 (.053)	.132
Suspect White	-.311 (.172)	.071	-.838 (.444)	.059
Suspect Hispanic/Other Race	-111 (.177)	.533	.622 (.454)	.171
Suspect Antagonistic	**.946 (.867)**	**.000**	**1.634 (.291)**	**.000**
Suspect Intoxicated	-.017 (.815)	.834	.086 (.213)	.687
Susp. Uses or Threatens w/ Physc. Force	**2.246 (.096)**	**.000**	**6.767 (.386)**	**.000**
Arrest Situation				
Night	.009 (.079)	.903	.267 (.198)	.174
Weekend	.107 (.075)	.154	.090 (.194)	.642

Public Location	**-.174 (.077)**	**.024**	-.226 (.202)	.263
Location is Known by Police	.068 (.103)	.508	-.407 (.256)	.112
Place Believed Threatening to Police	.103 (.098)	.291	**.584 (.249)**	**.019**
Bystanders Present	**.401 (.075)**	**.000**	**.962 (.193)**	**.000**
# of Police at Initial Contact	-.081 (.043)	.055	**-.356 (.139)**	**.011**
Maximum # of Police Present	**.256 (.026)**	**.000**	**.958 (.097)**	**.000**
# of Suspects at Initial Contact	.034 (.042)	.425	.202 (.128)	.115
Officers' Characteristics				
Officer Male	**.589 (.135)**	**.000**	**.856 (.295)**	**.004**
Officer's Age	-.049 (.029)	.094	-.044 (.069)	.523
Officer Black	.012 (.212)	.954	**1.411 (.571)**	**.014**
Officer Hispanic & Other Race	.149 (.204)	.463	.325 (.541)	.549
White Officer / Black Suspect	-.281 (.195)	.150	**-1.051 (.500)**	**.036**
White Officer / Hispanic Suspect	-.052 (.232)	.825	**-1.498 (.563)**	**.008**
Other Police / Other Suspect	.044 (.228)	.846	**-1.713 (.596)**	**.004**
Pseudo R^2 / R^2	.246		.167	
LR Chi-Square (23)	1628.15	**.000**		
% Correctly Predicted	85.65			
F			42.29	**.000**
N	6758		6758	

Source: ICPSR 3172 "Understanding the Use of Force by and Against the Police in Six Jurisdictions in the U.S." Garner, Joel H. and Christopher D. Maxwell (1996-1997). b= logistic regression coefficient, and unstandardized regression coefficient in OLS model. Standard errors are in parentheses. The OLS model is run by robust standard errors to eliminate heteroskedasticity. Estimations are based on two-tailed tests. Multicollinearity is not a problem.

Among the variables indicating who the suspect is, only gender of the suspect has statistically significant impact both on the likelihood of using force and the amount of force used by the police. Male suspects are more likely to face police force than female suspects, and when force is used, it occurs at increased levels. This result is consistent with some previous studies which found a gender effect in police use of force (Worden, 1995; Garner et al., 1996; 2002; Terrill and Mastrofski, 2002). However, the present study finds no significant relationships with regard to suspect's age and race in both models.

Suspect's race has been a central concern in the research on police use of force. Although previous studies did not provide consistent evidence, the general

concern is that the police tend to use more force against African American or Hispanic suspects than white suspects. As noted earlier, findings from the original study of Garner et al. (2002) provided little evidence on the role of race. The present study finds a similar result. Although African American suspects seem more likely to be the subject of police force than whites, the p-value is .071 which is close to the statistical significance level but does not meet the traditional criterion of $p < .05$. Likewise, amount of force used against African American suspects increases compared to the level of force used against white suspects, but the p-value (.059) does not meet the traditional significance criterion, even though it is closer. On the other hand, neither the prevalence nor the level of force for African American suspects significantly differs than Hispanic suspects or suspects of other races.

Current study presents strong evidence that suspect's behavior and demeanor toward the police are significant determinants of police force. If the suspect uses or threatens with physical force, the police are more likely to use force, and the amount of force increases significantly. Similarly, the probability of using force and the amount of force significantly increase when the suspect is antagonistic towards the police. These findings confirm earlier findings of Garner et al. (2002) and other previous studies which found *what the suspect does* as a major indicator of police force. Contrary to previous research, however, the current study does not provide any evidence that the police are more likely to use force against intoxicated suspects.

Prevalence and amount of police force significantly increase when the suspect is antagonistic or uses physical force or threatens with force. For a better understanding of the role of gender and suspect resistance in the prevalence of police force, the coefficients in the logistic regression model (Presence of Force) were converted to expected probabilities of using force or threatening with force through CLARIFY software (King, Tomz, & Wittenberg, 2000; Tomz, Wittenberg, & King, 2001). Table 2 provides expected probabilities of police using force or threatening with physical force in arrest situations across different gender combinations of suspects and police officers depending on the demeanor of the suspect.

TABLE 2: Expected Probability of Using Force and/or Threatening with Force

	Suspect Not Antagonistic & Does Not Use or Threaten Force	Suspect Antagonistic & Uses or Threatens Force	Difference
Suspect Male/Officer Male	.12 (.012)	.77 (.023)	.65
Suspect Male/Officer Female	.07 (.012)	.64 (.041)	.57
Suspect Female/Officer Male	.08 (.011)	.68 (.033)	.60
Suspect Female/Officer Female	.05 (.009)	.54 (.048)	.49
Average Probability	.04	.66	.62

NOTE: Standard errors are in parentheses. To simulate different levels of suspects' demeanor towards the police, suspect antagonistic and uses or threatens with force was set at yes and no. Suspect's age, number of police at initial contact, maximum police at present, number of suspects at initial contact, and officer's age were set at their means. Race of the suspect and the officer were set at white and suspect intoxicated. For location, time was set at night and weekdays, police knows the location, place is considered as threatening, bystanders present, and it is a public place. Estimations were produced using Clarify: Software for Interpreting and Presenting Statistical Results. Version 2.0 (Tomz et al 2001).

First, Table 2 shows that the probability of using force or threatening with physical force dramatically differs depending on the demeanor and behavior of the suspect. Regardless of gender, the police are 62% more likely to use force or threaten with force when the suspect is antagonistic and uses force or threatens with force, other things being equal. Table 2 also allows us to compare the variation in the probability of use or threat of physical force across different suspect/police officer gender combinations. When they are antagonistic and threatening, male suspects face 9% (.77 - .68 = .09) more probability of use of force or threat than female suspects when the officer is male. The amount of increase in this probability changes slightly when the officer is female (.64 - .54 = .10). Taken together, both male and female officers are approximately 10% more likely to threaten or use force against male suspects than they do against female suspects when the suspects are antagonistic and threatening. Most likely this is because males are anticipated to be capable of doing more harm than females in general. These findings suggest that although *who the suspect is* still important in presence of police force, *what the suspect does* has a more substantial impact on police behavior.

Unlike the previous research this study also examined the variation in the amount of force across different race combinations of the suspects and the police officers

depending on the demeanor of the suspect toward the police. To facilitate interpretation of the statistical findings, the coefficients reported in the OLS regression model (Amount of Force) were converted to expected values of the average maximum force by police through probability simulations using CLARIFY software (King et al., 2000; Tomz et al., 2001). Table 3 provides expected values of the amount of maximum force used in arrest situations.

TABLE 3: Expected Levels of Force with Varying Suspect's Demeanor

	Suspect Not Antagonistic & Does Not Use or Threaten Force	Suspect Antagonistic & Uses or Threatens Force	Difference (% Change)
White Officer/White Suspect	29.88 (.309)	38.29 (.457)	8.41 (28.15%)
White Officer/Black Suspect	29.66 (.282)	38.06 (.429)	8.40 (28.32%)
White Officer/Minority Suspect	31.32 (.527)	39.72 (.624)	8.40 (26.82%)
Black Officer/White Suspect	31.30 (.631)	39.71 (.713)	8.41 (26.87%)
Black Officer/Black Suspect	31.12 (.714)	40.53 (.782)	9.41 (30.24%)

NOTE: Standard errors are in parentheses. To simulate different levels of suspects' demeanor towards the police, suspect antagonistic and uses or threatens with force was set at yes and no. Suspect's age, number of police at initial contact, maximum police at present, number of suspects at initial contact, and officer's age were set at their means. Gender of the suspect and the officer were set at male and suspect not intoxicated. For location, time was set at night and weekdays, police knows the location, place is considered as threatening, bystanders present, and it is a public place. Estimations were produced using Clarify: Software for Interpreting and Presenting Statistical Results. Version 2.0 (Tomz et al 2001).

Table 3 shows that regardless of the suspect's or the officer's race, police officers use more amount of force if the suspect is antagonistic and uses or threatens with physical force, holding other independent variables constant. The average level of force used against antagonistic and threatening suspects is approximately 28% more than that of suspects with civil demeanor. This finding confirms that suspect's behavior and demeanor are more significant predictors of police force than suspect's race.

Results are mixed for the characteristics of the arrest situation. Arrests took place in public locations are significantly associated with decreased prevalence of police force but not decreased amount of force, while place believed to be threatening to the police is associated with increased amount of force but not increased prevalence. The high risk of the environment simply affects officers' behaviors. However, knowing that the place is threatening itself does not affect

the officer's initial decision whether to use force or not, other things being equal. Other three considerations –whether the arrest occurred at night, at weekends, or location is known by the police– are consistently not associated with either of the force measures.

Going beyond the earlier analysis of Garner et al. (2002) and other studies (Friedrich, 1980; Terrill & Mastrofski, 2002; Worden, 1996), the current study provides substantial insights on the role of presence of others. The presence of bystanders increases the likelihood of police force and amount of force used. Similarly, increased number of officers at the arrest scene is significantly associated with increased prevalence and increased amount of force. Unlike previous research, the current study controlled the effect of other police officers' presence by including the number of officers at initial contact into the equation. The findings indicate that more police officers at initial contact are not associated with presence of force; however, involvement of more officers significantly reduces the amount of force used to make an arrest. It seems that decision to use force is not affected by the number of other police officers at the arrest scene. Number of suspects at initial contact, however, is not a significant predictor of police force in both models.

The present study provides evidence that male officers use more force than female officers and this finding is consistent in both models. Contrary to previous research, officer's age is not significantly associated with increased likelihood or increased amount of police force. The effect of officer's race is mixed. Prevalence of force does not differ across African American or Hispanic officers and officers of other races, compared to white officers. However, African American officers use more amount of force than white officers do in arrest situations.

This study also tested whether white officers are more likely to use force against minorities and whether the amount of force increases in those encounters. Findings provide consistent evidence that prevalence of force in white officer-white suspect arrest situations is not different than white officer-African American or white officer-Hispanic suspect encounters. Furthermore, white officer-minority suspect combinations are associated with decreased amount of force compared to arrest situations where both the officer and the suspect are white.

In summary, the present study provides evidence that suspect's gender, suspect's demeanor toward the police, suspect's threat or use of force, presence of bystanders and other police officers, and officer's gender are significantly associated with increased prevalence ad increased amount of police force in arrest situations. The number of officers at initial contact is significantly related to decreased amount of force. Arrests in public locations are associated with decreased prevalence of police force but not with amount of force; whereas, place believed to be threatening to the police is not associated with prevalence of force but increased amount of force.

Discussion and Conclusion

The present analysis provides consistent evidence that the suspect's demeanor and threat or use of force have a substantial impact on both the prevalence and amount of police force. In other words, both prevalence and amount of police force are mostly driven by *what the suspect does* rather than *who the suspect i*s. However, other factors also come into play, including gender of the suspect and officer, and various characteristics of the arrest situation. The results presented in this analysis mostly support previous research, besides present new information and insights on determinants of police use of force.

One would hope that the behavior of police officers is not affected by certain characteristics of suspects such as race or gender but by legal justification of measures like resistance or safety threats during an arrest situation. However, it seems that *who the suspect is* still accounts for the decision of police officers to use force or increased amount of force, as male suspects face more police force or increased amount force regardless of their behavior. This study has also shown that male officers are more likely to use force or threaten with physical force than female officers. Along with the suspect characteristics, male officers are more likely to use force on male arrestees and when use of force occurs, it occurs at increased levels. On the other hand, the fact that male suspects are subject to more police force is may just be due to the anticipation that males are potentially more harmful than females.

As noted earlier, use of force is a necessary tool for the police to perform their duties. However, when applied improperly, it can have serious repercussions for

police officers, departments, and the public. When the police disproportionately target citizens of a particular gender or race, it undermines legitimacy of the police within the society. One promising result of the current analysis is that the race of the suspect is not a decisive factor in police force to complete an arrest. However, the fact that the police used more force on suspects on the basis of the suspect's gender suggests the need for an emphasis on the distinction between citizens' behavior and citizens' traits, departmental values, and accountability to the society and law in police training.

Nevertheless, findings of the present study suggest that the demeanor and behavior of the suspect toward the police are the strongest predictors of police force. Suspects who are antagonistic or who threaten or use physical force are more likely to face police force at increased levels. In his criticism to earlier research Klinger (1994, p.477) asserts "criminal conduct is not adequately controlled when the effects of demeanor on arrest are estimated". He finds that after controlling for pre-intervention and interaction-phase criminality, estimated effect of demeanor is small in magnitude and statistically insignificant. The debate Klinger initiated focused on arrest behavior and whether extralegal variables such as demeanor had an effect on arrest or not. In response to Klinger, Lundman (1994, 1996a), and Worden and Shepard (1996) reaffirmed that when the suspects display a hostile demeanor toward the police, the likelihood of arrest by the police rises even after partially controlling for crime. Attempting to explain relationship between extralegal variables –along with others– and police behavior regarding use of force in making an arrest, current study finds evidence that suspects with antagonistic demeanor are more likely to face police force, and when use force occurs, it occurs at increased levels. However, one caution should be noted here is that the current analysis does not control for the type of crime due to limitations of the data set.

Considering the dynamic nature of police-citizen encounters, future research should pay more attention to the level of force in accordance with suspect resistance. In this regard, temporal sequencing of police and suspect behaviors warrants further elaboration. It is important to know whether the suspect's antagonistic demeanor preceded or followed the officer's behavior.

Findings of the current study on the effect of bystanders support previous research (Friedrich, 1980; Garner et al., 2002; Worden, 1996). Presence of bystanders is associated with increased prevalence of police force and increased amount of force. Indeed, one can understand that police officers may perceive a need to exercise more control over the suspects to demonstrate their authority and protect their image when other people are around. However, additional bystanders may also mean an increased number of citizens witnessing the force being applied. In any case, a practical implication of this result is that the police should try to disperse the bystanders when the tensions run high. Dispersing the crowd may also prevent potential effects of bystanders on suspect behavior since the suspects may want to take advantage of people witnessing an arrest by provoking the police officers to go harsher. Future research should include the effects of bystanders not only on the behavior of the police officers but also on the suspect behavior, especially in situations where suspects and bystanders know each other.

An important contribution of this analysis is clarifying the role of presence of other police officers in the arrest scene. Consistent with previous research, the present study finds evidence that the likelihood of using force and the amount of force increase with the increase in the number of officers at the scene. However, previous research cannot explain whether the number of police raises the likelihood of using force or the report of use of force over the police radio attracts additional officers to the scene. To overcome this problem, the number of police at initial contact is used as a control variable in current study. Increased number of police officers at initial contact is significantly associated with decreased amount of force. It appears that it is the report of the use of force over the police radio that attracts officers, rather than use of force occurs when greater number of police is present. This result implies that if more than one officer responds to the incident at first, they handle the situation in a way requiring less amount of force or even with no use of force. It is important that police officers must be trained how to handle conflict situations before escalading to levels that physical force is necessary. Another practical implication of this finding is increasing the number of police officers at initial contact in potentially conflictive situations. Police departments should review their policies to encourage officers to call for back up and to assign two-officer patrols in areas where use of force occurs frequently.

It is likely that majority of situations, involving use of physical force by the police, are the result of the escalation of conflict between the suspect and the police officers. Previous research shows that police use of force is infrequent and when it happens, it happens at lower levels. In order to capture a wide extent of police force, the present study uses a force definition that combines actual physical force with threats of force. It can be argued that extremely low levels of force such as verbal commands and threats are result of relatively generic police field procedures; therefore, reflect common procedures rather than choice of the officers. However, due to their potential to result in more serious encounters, police force used at lower levels should be taken seriously. Future research should go beyond focusing only highest level of force and should include verbal threats in use of force measures to provide a better understanding of how lower level conflict situations evolve into more serious encounters.

Danger and uncertainty are two important characteristics of police working environments. The perception of danger leads officers to be more cautious in some areas, which in turn may contribute to their expectation of using force. Current findings support this general approach that is laid out in previous research (Friedrich, 1980; Lester, 1996). The police tend to use more amount of force if they believe that the location is threatening to them. However, effects of the environment on police use of force should be further clarified by future research taking suspect and organizational characteristics into account as well.

Some twenty years ago, Friedrich (1980:95) noted that "police use of force depends primarily on two types of factors: how the offender behaves and whether or not other citizens and police are present." The results presented in the current study largely confirm and enhance his remarks and other similar research in this area. The analysis shows that police behavior regarding use of force depends mostly on *what the suspect does* rather than *who the suspect is*, controlling for other factors. In order to develop a better understanding in this area, additional empirical evidence must be collected with multiple sources of data covering a wider range of police-citizen encounters while incorporating multiple measures of force and an expanded set of organizational and neighborhood characteristics.

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, D.C.: U.S. Department of Justice, National Institute of Justice and Bureau of Justice Statistics, October 1999. NCJ 176330.

Alpert, G.P., & Fridell L.A. (1992). *Police Vehicles and Firearms: Instruments of Deadly Force*. Prospect Heights, IL: Waveland Press.

Alpert, G.P., & Dunham R.G. (1999). The force factor: measuring and assessing police use of force and suspect resistance. In *Use of Force by Police: Overview of National And Local Data* (pp. 45-60). Washington D.C.: U.S. Department of Justice, National Institute of Justice and Bureau of Justice Statistics, October 1999. NCJ 176330.

Bittner, E. (1975). *The Functions of The Police in Modern Society*. New York, NY: Aronson.

Blumberg, M. (1991). Police use of deadly force: exploring some key issues. In T. Barker, & D.L. Carter (Eds.), Police Deviance (p. 221). Cincinnati, OH: Anderson Publishing Co.

Blumberg, M. (2001). Controlling police use of deadly force: assessing two decades of progress. In R.G. Dunham, & G.P. Alpert (eds.), *Critical Issues in Policing* (pp. 559-582). Prospect Heights, IL: Waveland Press.

Brown, M.K. (1988). Working the Street: Police Discretion and the Dilemmas of Reform. New York, NY: Russell Sage Foundation.

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.J. (1981). Who shoots? A look at officer race and police shooting. *Journal of Police Science and Administration, 9*(4), 367-382.

-----. (1988). Police use of deadly force: research and reform. *Justice Quarterly, 5*(2), 165-205.

Garner, J.H., Schade, T., Hepburn, J., & Buchanan J. (1995). Measuring the continuum of force by and against the police. *Criminal Justice Review, 20,* 146-168.

Garner, J.H., Buchanan J., Schade, T., & Hepburn, J. (1996). *Understanding the Use of Force by and Against the Police*. Research in Brief, Washington D.C.: U.S. Department of Justice, NIJ. November 1996.

Garner, J.H., & Maxwell, C.D. (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. 25-44). Washington D.C.: U.S.

Department of Justice, National Institute of Justice and Bureau of Justice Statistics, October 1999. NCJ 176330.

Garner, J.H., & Maxwell, C.D. (2001). Understanding the Use of Force by and Against the Police in Six Jurisdictions in the United States, 1996-1997. [Computer file]. ICPSR version. Shepherdstown, WV: Joint Centers for Justice Studies, Inc./Lansing, MI: Michigan State University, School of Criminal Justice [producers], 2001. Ann Arbor, MI: Inter- university Consortium for Political and Social Research [distributor], 2001.

Garner, J.H., & Maxwell, C.D. (2002). Understanding the use of force by and against the police in six jurisdictions: Final report. Submitted to NIJ, Office of Justice Programs.

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.A., & Karales K.J. (1981). *Split-Second Decisions: Shootings Of & By Chicago Police.* Chicago, IL: Chicago Law Enforcement Study Group.

Geller, W.A., and Toch H. (1996). Understanding and controlling police abuse of force. In W.A. Geller & Toch, H. (Eds.), *Police Violence: Understanding and Controlling Police Abuse of Force* (pp. 292-328). New Haven, CT: Yale University Press.

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 D.C.: U.S. Department of Justice, National Institute of Justice and Bureau of Justice Statistics, October 1999. NCJ 176330.

Herbert, S. (1996). Morality in law enforcement: chasing 'bad guys' with the Los Angeles police department. *Law & Society Review*, *30*, 798-818.

-----. (1998). Police subculture reconsidered. *Criminology, 36*, 343-369.

Hickman, M.J., Piquero, A.R., & Greene, J.R. (2000). Does community policing generate greater numbers and different types of citizen complaints than traditional policing? *Police Quarterly, 3*(1), 70-84.

King, G., Tomz, M. & Wittenberg, J. (2000). Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science, 44*(2), 347-61.

Klinger, D.A. (1994). Demeanor or Crime? Why Hostile Citizens Are More Likely to Be Arrested. *Criminology,* 32 (3): 475-493.

-----. (1995). The micro-structure of nonlethal force: Baseline data from an observational study. *Criminal Justice Review,* 20, 169-186.

-----. (1996). Bringing Crime Back in: Toward a Better Understanding of Police Arrest Decisions. *Journal of Research in Crime and Delinquency,* 33(3), 333-336.

Lester, D. (1996). Officer attitudes toward police use of force. In W.A. Geller & Toch, H. (Eds.), *Police Violence: Understanding and Controlling Police Abuse of Force* (pp. 180-190). New Haven, CT: Yale University Press.

Lundman, R. (1994). Demeanor or Crime? The Midwest City Police Citizen Encounters Study. *Criminology*, 32 (4), 631-653.

-----. (1996a). Demanor and Arrest: Additioanl Evidence from Previously Unpublished Data. *Journal of Research in Crime and Delinquency,* 33(3), 306-323.

-----. (1996b). Extralegal Variables and Arrest. *Journal of Research in Crime and Delinquency,* 33(3), 349-353.

MacDonald, J.M., Manz, P.W., Alpert, G.P., & Dunham, R.G. (2003). Police use of force: Examining the relationship between calls for service and the balance of police force and suspect resistance. *Journal of Criminal Justice,* 31, 119-127.

Paoline III, E. A., Myers, S.M., & Worden, R.E. (2000). Police culture, individualism, and community policing: Evidence from two police departments. *Justice Quarterly, 17*(3), 575-605.

Pate, A.M., Fridell, L.A., & Hamilton, E.E. (1993). *Police Use of Force: Official Reports, Citizen Complaints, and Legal Consequences, Final Report (Volumes I and II).* Washington, DC: United States Department of Justice, National Institute of Justice.

Reisig, M.D., McCluskey, J.D., Mastrofski, S.D., & Terrill, W. (2004). Suspect disrespect toward the police. *Justice Quarterly, 21*(2): 241-268.

Skolnick, J.H., & Fyfe, J.J. (1993). *Above The Law: Police and Excessive Use of Force*. New York, NY: The Free Press.

Smith, D. (1986). The neighborhood context of police behavior. In A. Reiss & M. Tonry (Eds.), *Communities and crime* (pp. 313-341). Chicago: University of Chicago Press.

Smith, M.R. (1994). Integrating community policing and the use of force: Public education, involvement, and accountability. *American Journal of Police, 8*(4), 1-21.

Terrill, W., & Mastrofski, S.D. (2002). Situational and officer-based determinants of police coercion. *Justice Quarterly, 19*(2), 2002.

Terril, W. 2003. Police use of force and suspect resistance: the micro process of the police-suspect encounter. *Police Quarterly, 6*(1), 51-83.

Terrill, W., Paoline III, E.A., & Manning, P.K. (2003). Police culture and coercion. *Criminology*, *41*(4), 1003-1034.

Tomz, M., Wittenberg, J., & King, G. (2001). CLARIFY: Software for interpreting and presenting statistical results. Version 2.0 Cambridge, MA: Harvard University, June 1. http://gking.harvard.edu

Worden, R.E. (1996). The causes of police brutality: theory and evidence on police use of force. In W.A. Geller & Toch, H. (Eds.), *Police Violence: Understanding and Controlling Police Abuse of Force* (pp. 23-51). New Haven, CT: Yale University Press.

Worden R.E. and Shepard, R.L. (1996). Demeanor, Crime, and Police Behavior: A Reexamination of the Police Services Study Data. *Criminology*, 34 (1), 83-105.

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