

PERCEPTIONS OF POLICE USE OF FORCE: A COMPARISON
BETWEEN CITIZENS AND POLICE OFFICERS

by

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DEDICATION

I dedicate this to my mother, Alice, and my grandparents, Warren and Janis.

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xi
ABSTRACT.....	xii
CHAPTER	
I. INTRODUCTION	1
Present Study	4
Research Questions.....	5
II. LITERATURE REVIEW.....	7
Use of Force.....	7
Definitions.....	7
Legal Precedents for Use of Force.....	10
Use-of-Force Continuum	14
Use of Force and Injuries.....	22
Correlates of Force.....	25
Perceptions of Police Use of Force.....	32
Perceptions.....	32
Perceptions of Police Legitimacy	34
Factors Influencing Perceptions of Police	39
Police Perceptions of Use of Force.....	45
III. METHODS	49
Design	49
Current Study	53
Analysis.....	59
IV. RESULTS	61

Sample.....	61
Introduction to Results.....	67
Less Force.....	70
Combined.....	70
Citizens versus Police.....	72
Justified.....	75
Combined.....	75
Citizens versus Police.....	77
Reasonableness.....	79
Combined.....	79
Citizens versus Police.....	81
Threat.....	85
Combined.....	85
Citizens versus Police.....	86
Participant Force.....	89
Combined.....	89
Citizens versus Police.....	90
Punishment.....	92
Combined.....	92
Citizens versus Police.....	94
Level of Punishment.....	97
Combined.....	97
Citizens versus Police.....	99
Leave With Pay.....	101
Combined.....	101
Citizens versus Police.....	102
Leave Without Pay.....	104
Combined.....	104
Citizens versus Police.....	105
Probation.....	107
Combined.....	107
Citizens versus Police.....	108
Prison.....	110
Combined.....	110
Citizens versus Police.....	111
Trust.....	113
Combined.....	113
Citizens versus Police.....	115
V. DISCUSSION.....	119

Reasonableness	120
Punishment.....	122
Participant Force	124
Trust	125
VI. CONCLUSION.....	127
Limitations	129
Future Research	130
APPENDIX SECTION.....	132
LITERATURE CITED	166

LIST OF TABLES

Table	Page
1. Sample Demographics	61
2. Sample Demographics for Police-specific Variables	64
3. Sample Demographics for Citizen-specific Variables	67
4. Mixed Effects Multilevel Model Explaining Whether Less Force Could be Used	74
5. Mixed Effects Multilevel Model Explaining Whether the Officer's Actions Were Justified	78
6. Mean Reasonableness Score	83
7. Mixed Effects Multilevel Model Explaining Perceptions of Reasonableness	83
8. Mixed Effects Multilevel Model Explaining Perceptions of Threat Level	87
9. Mixed Effects Multilevel Model Explaining How Much Force the Participant Would Use	91
10. Mixed Effects Multilevel Model Explaining the Assignment of Officer Punishment	96
11. Mixed Effects Multilevel Model Explaining the Level of Punishment Assigned	100
12. Mixed Effects Multilevel Model Explaining Amount of Leave With Pay	103
13. Mixed Effects Multilevel Model Explaining Amount of Leave Without Pay	106
14. Mixed Effects Multilevel Model Explaining Amount of Probation	109
15. Mixed Effects Multilevel Model Explaining Amount of Prison	112
16. Mixed Effects Multilevel Model Explaining Perceptions of Trust	116

LIST OF FIGURES

Figure	Page
1. Example of Linear Force Continuum	15
2. Example of Matrix Force Continuum used by Chicago Police Department	17
3. Example of Wheel Force Continuum	18
4. Survey Response Coverage for Police Respondents	63
5. Survey Response Coverage for Citizen Respondents	66

ABSTRACT

Police officers rely on citizen cooperation to effectively perform their job duties. Recent events involving police use of force have begun to widen the divide between police officers and citizens. Surprisingly, there is a lack of research regarding perception of police use of force. A majority of research that has been conducted on this topic focuses on individual-level characteristics like race, age, and gender. This study seeks to examine situational factors of use-of-force encounters to determine which aspects are influential. A factorial survey is employed to test situational factors while omitting individual-level characteristics. The situational factors include number of officers present, suspect and officer weapon, suspect movement, and suspect and officer injury. Participants were given 10 randomly assigned vignettes from a universe of 216. Questions about reasonableness, punishment, how much force the participant would use, and trust were asked after each vignette. Police officers recently enrolled in one of the Advanced Law Enforcement Rapid Response Training (ALERRT) Center's classes were sampled. The national survey firm SSRS was used to gather a nationwide sample of citizens. There were 821 officer and 488 citizen respondents used in the analysis. The results were analyzed using multilevel linear, logistic, and ordinal regression. Results indicate general agreement between officers and citizens regarding what influences their perceptions of force. These findings are discussed in comparison with other research and widely-held beliefs about the influence of race.

I. INTRODUCTION

On August 9, 2014, Michael Brown and Dorian Johnson were walking down the middle of the street after what was later considered a strong-arm robbery of a convenience store in Ferguson, Missouri. It was later seen on surveillance video from the convenience store that Mr. Brown had taken a pack of cigarillos and pushed a store employee. The robbery occurred around 11:50 a.m. and was reported by dispatch with a description of the suspects about four minutes later. At 11:57 a.m., more information was released to officers regarding the suspects' descriptions. Officer Darren Wilson finished another call around 12:00 p.m., reported himself available for service, and asked if the officers searching for Mr. Brown and Mr. Johnson needed assistance. Officer Wilson encountered Mr. Brown and Mr. Johnson within a minute and, from his vehicle, told them to walk on the sidewalk instead of in the middle of the street.

After driving past Mr. Brown and Mr. Johnson, Officer Wilson reversed his patrol vehicle, stopped in close proximity, and blocked the path of Mr. Brown and Mr. Johnson. According to Officer Wilson's statement, he began to exit the patrol vehicle when Mr. Brown moved toward him. The door was either pushed closed or it rebounded off Mr. Brown's body, causing it to close. A struggle ensued between Mr. Brown and Officer Wilson who was still inside his patrol vehicle. Mr. Brown struck Officer Wilson several times in the face. Officer Wilson stated that Mr. Brown reached for the firearm on his duty belt. Officer Wilson then fired two shots striking Mr. Brown in the hand with one of them. Mr. Brown and Mr. Johnson then fled from the police vehicle. Officer Wilson exited the vehicle and began to pursue Mr. Brown. Forensic evidence corroborated eyewitness accounts that Mr. Brown turned to face Officer Wilson and began to quickly

move toward him. Officer Wilson then fired 10 more shots, hitting Mr. Brown six more times. At about 12:02 p.m., Officer Wilson called for backup. It should be noted that Mr. Brown was unarmed. The entire encounter took around 90 seconds from start to finish.

Eyewitness accounts varied dramatically and ranged from Officer Wilson shooting Mr. Brown in the back to Mr. Brown “bull-rushing” Officer Wilson. Many eyewitnesses were found to be lying under oath when questioned by the prosecution. In fact, many witnesses admitted to not being present at any point of the encounter. Mr. Johnson’s statement was that Mr. Brown turned to face Officer Wilson with his hands raised and shouted that he did not have a gun and to stop shooting. The county, an independent medical examiner, and the federal government all conducted autopsies. All three autopsies confirmed that Mr. Brown was facing Officer Wilson for the six subsequent shots that killed him. Mr. Brown’s DNA was found on Officer Wilson’s firearm and inside his patrol vehicle. The detective performing the forensic test could not get both DNA and fingerprints because performing one test would critically affect the results of the other. It was noted that the procedure used to check Officer Wilson’s firearm into evidence was atypical in that he did it himself. Taking all of this evidence into account, a grand jury that was racially representative of the county as a whole, but not the city of Ferguson, decided not to indict Officer Wilson. There are several concerns with how the grand jury process was conducted. Many cite this grand jury’s proceedings as departing from the normal grand jury process (Department of Justice [DOJ], 2015).

Many national protests, including the “hands up, don’t shoot” movement, began as a result of the grand jury’s decision not to indict. This incident also helped spark the

“Black Lives Matter” movement. Additionally, the incident is linked to two New York Police Department (NYPD) officers being shot and killed in their patrol vehicle by a gunman who believed it was an appropriate response to the shooting of Mr. Brown. The incident also led to the shooting and wounding of two officers who were serving as security during a protest of the grand jury’s decision to not indict. Perhaps the most significant outcome of the Ferguson shooting was the creation of a national commission to review and make recommendations regarding policing and use of force. (DOJ, 2015)

This case and its aftermath demonstrate the importance of understanding perceptions of use-of-force encounters. Police officers and citizens often perceive such encounters differently. This occurs both during an encounter and in the time after. Use-of-force situations are extremely complex and usually occur very quickly. A lower percentage of citizens had direct contact with police in 2008 (17%) than in 2002 (21%) (Eith & Durose, 2011). Of those who had contact with police, it is estimated that only about 1.4% experienced use of force or the threat of force (Eith & Durose, 2011).

Though infrequent, use-of-force encounters are the focus of considerable media coverage and national conversation. This is not without standing. The authority to use force, including deadly force, is a unique and powerful tool possessed by police officers.

Researching perceptions of police use of force is an important part of closing the divide between officers and citizens. Unfortunately, this divide has been growing with the increased attention on incidents like Ferguson. Much of the research conducted on this topic focuses on what has been at the center of the national conversation, individual racial characteristics. Though this is an important topic, use-of-force encounters are so much more than the officer’s and suspect’s race. The intention of this dissertation is to examine

police officer and citizen perceptions of use-of-force encounters based on situational factors.

Present Study

This research will compare police officers' perceptions with citizens' perceptions of use of force. There are many instances where the public's perception of a use-of-force encounter does not match a court's ruling on the reasonableness and justification of using force. One explanation for this discrepancy is citizens' lack of knowledge about case law as well as the general circumstances in which an encounter occurred. Research on perceptions of police legitimacy shows a divide between police officers and citizens regarding what is important in police work (Mastrofski, Snipes, & Supina, 1996; Mazerolle, Bennett, Antrobus, & Eggins., 2012; Mazerolle, Bennett, Davis, Sargeant, & Manning., 2013; Nix, 2017; Reisig, Tankebe, & Mesko, 2012; Tyler, 2004 & 2006). Knowing that, it is easy to see how there might be a divide when discussing what constitutes a reasonable amount of force. There is a general attitude of "us versus them" when it comes to policing. This attitude became an entrenched part of policing during the professionalism era and has continued despite attempts to change it (i.e., community policing) (Potter, 2013). This research can begin to bridge that gap by providing a closer look at how these two groups perceive use-of-force encounters based on their situational factors.

Use-of-force research has gained much attention in light of recent events. For many years, the topic has been discussed in relation to racial conflict. Certain events, such as Ferguson, have continued to increase the focus on race. Race seems to play a role in people's perceptions of these encounters (Kochel, Wilson, & Mastrofski, 2011),

though not much else is known about other factors affecting perceptions. When taking individual-level characteristics out of a use-of-force scenario, there are still situational factors that influence the reasonableness of the force used. Some studies have examined situational factors along with race and found that the effects of race on use-of-force encounters become nonsignificant (Black, 1971; Black & Reiss, 1970; Friedrich, 1977; Lee, Jang, Yun, Lim, & Tushaus, 2010; Lundman, Sykes, & Clark, 1978; McElvain & Kposowa, 2008; Riksheim & Chermak, 1993). The present research employs an online factorial survey to examine the importance of situational factors on the perceptions of reasonable force. By excluding individual-level characteristics such as race, this research identifies the effects situational factors have on perceptions when they are the only aspects of an encounter considered. The findings can inform future research by providing a foundation of influential factors that can be built upon by adding environmental and individual characteristics.

Research Questions

The overall goal of this research is to determine how situational factors affect perceptions of the reasonableness of force used in police/citizen encounters. Eight research questions will guide the study:

1. Do situational factors influence police and citizen perceptions of force?
2. Does the number of officers present influence police and citizen perceptions of force?
3. Does the suspect's weapon, or lack thereof, influence police and citizen perceptions of force?

4. Does the suspect's movement, or lack thereof, influence police and citizen perceptions of force?
5. Does the officer's weapon, or lack thereof, influence police and citizen perceptions of force?
6. Does the level of the officer's injury as a result of the encounter influence police and citizen perceptions of force?
7. Does the level of the suspect's injury as a result of the encounter influence police and citizen perceptions of force?
8. Do police officer perceptions of force differ from citizen perceptions of force?

A factorial survey allowed the same scenarios to be presented to every respondent with only the desired factors changing. Factorial surveys provide each respondent with a set number of randomly assigned vignettes where the only factors that change are the independent variables being examined. This will be discussed in greater detail in chapter three. Each respondent was provided 10 different vignettes; thus the data were nested. The unit of analysis is the vignette, which was grouped by the respondent. Multilevel modeling allowed for within- and between-group comparisons.

The first chapter will discuss relevant literature regarding use of force as well as citizen and police officer perceptions of force. Following this is a discussion of the methodology employed to collect and analyze the data. Next, the results are presented. Finally, the results are discussed.

II. LITERATURE REVIEW

Many researchers have examined use-of-force encounters, though there is little research on perceptions of such force. The goal of this research is to fill that gap in the literature. The research on police use of force and perceptions of police force are the two major bodies of literature guiding the current project. Regarding the use-of-force literature, definitions and relevant legal cases concerning police force are discussed first to provide a foundation. Next, the force continuum is presented to establish an order to the amount of force used. Then, the literature covering police force and injuries is discussed, followed by the correlates of force. Regarding the perceptions literature, a general discussion of perceptions is provided followed by perceptions of police legitimacy. Next, the factors influencing the perceptions of the police and their use of force are presented. Finally, the literature on police perceptions of force is discussed.

Use of Force

Police use of force has fast become one of the most important topics in the United States. The lawful ability to use force, including deadly force, is one of the most important powers of police officers. Overall, police use-of-force encounters are relatively infrequent (Dunham & Alpert, 1995). Estimated use-of-force encounters range from 0.1% to 31.8% of the total number of police/citizen encounters, depending on the study (Hickman, Piquero, & Garner, 2008). Most research places the number of use-of-force encounters between 1–2%. Before discussing police use of force any further, it is crucial to define it.

Definitions. There are no generally accepted definitions of police use of force. However, the International Association of Chiefs of Police [IACP] (2001) defines force

as “that amount of effort required by police to compel compliance from an unwilling subject” (p. 1). It should also be mentioned that there are many different levels of force, which will be discussed in a later section. Some force is not typically seen as being reportable (e.g., mere police presences). Reportable force has been defined as “Reportable force is any use of force which is required to overcome subject resistance to gain compliance that results in death, injury or complaint of injury, complaint of continuing pain, or any use of force greater than low level force (see Levels of Control) and any application of the lateral vascular neck restraint” (Las Vegas Metropolitan Police Department, 2019).

Discussion regarding use of force is often broken into categories for comparison, such as lethal and less than lethal, physical and nonphysical, and excessive and non-excessive (Garner, Schade, Hepburn, & Buchanan, 1995). Which categories are used depends primarily on the research question being asked. Moving beyond a dichotomous comparison, force can be broken into three major categories: no physical force used (i.e., mere presence of police), less-than-lethal force, and deadly force. These categories of force fall along a continuum, which will be discussed in greater detail later.

Defining each of the three major categories listed above provides the foundation for further discussion of the use-of-force literature. The IACP (2017) defines less-than-lethal force as “[a]ny use of force other than that which is considered deadly force that involves physical effort to control, restrain, or overcome the resistance of another” in its National Consensus Policy Report regarding use of force (p. 2). Furthermore, the report defines deadly force as “[a]ny use of force that creates a substantial risk of causing death or serious bodily injury” (p. 2). Note that a death does not actually have to occur for the

force to be considered deadly. Though not explicitly defined in the literature, nonphysical force is frequently included on the force continuum. Using the previous two definitions as guidance, nonphysical force could be defined as the mere presence or nonphysical actions of an officer in an effort to control a situation. Such nonphysical actions could include verbal and nonverbal commands as well as intimidation. Together, these definitions are all encompassing when defining police use of force.

All three categories of force can be applied at different levels of adequacy. They can be inadequate, adequate, or excessive. Both the situation and the departmental policies governing the officer determine the level of force employed during an encounter (Shane, Lawton, & Swenson, 2017). Inadequate force would consist of any amount of force that is not enough to control a situation. Using pepper spray might be inadequate against a suspect with a gun. Adequate force would consist of any amount of force sufficient for controlling a situation relative to the suspect's amount of force. Police presence and nothing more might be an adequate amount of force to control a public disturbance. Recall that excessive versus non-excessive force is one of the three comparisons frequently made in the literature. When the amount of force exceeds the policy or situation, it might be deemed excessive. Drawing upon the IACP (2001) report of police use of force in America, excessive force is defined as "the application of an amount and/or frequency of force greater than that required to compel compliance from a willing or unwilling subject" (p. 1). It is important to note that police officers may use force at a higher level than the force used by the suspect in order to gain control of a situation. The use of such force must still be reasonable (Shane, Lawton, Swenson, 2017). When force is deemed excessive, it is considered unreasonable (Alpert &

Dunham, 2004). Reasonableness is defined by law and will be discussed in greater detail in the next section.

Legal Precedents for Use of Force. Several Supreme Court cases set the framework for police use of force. *Johnson v. Glick* (1973), *Tennessee v. Garner* (1985), and *Graham v. Connor* (1989) have bearing on the appropriate use of force by police officers. Another case mentioned in regards to use of force is *Illinois v. Gates* (1983), which established the standard of the totality of circumstances for determining probable cause. Though this case examined the legality of a search warrant, the totality of circumstances standard has been used to determine reasonableness for a variety of situations.

Johnson v. Glick (1973) is one of the first cases to establish a widely used standard for determining whether a particular use of force is excessive. Australia Johnson was being held in a detention facility in New York prior to his trial. While being booked back into the detention facility after appearing in court, correctional officer John Fuller confronted Johnson for not following instructions. Fuller charged into the cell after Johnson tried to explain that he and other detainees were following the instructions of correctional officers. Fuller grabbed Johnson by the collar and struck him twice in the head with a closed fist. Fuller then threatened to kill Johnson and break him in half. Before taking Johnson to the jail doctor, he was held in a cell for at least two hours. Johnson filed a complaint with the court, which was dismissed. That being said, this case provided a crucial statement by the Supreme Court for examining use-of-force cases. A four-pronged test was developed as a standard for assessing use-of-force cases. In the briefing of *Johnson v. Glick* (1973), the Court stated:

[1] look to such factors as the need for the application of force, [2] the relationship between the need and the amount of force that was used, [3] the extent of injury inflicted, and [4] whether force was applied in a good faith effort to maintain or restore discipline or maliciously and sadistically for the very purpose of causing harm (p. 1033).

This four-pronged test has become known as the “Glick test” and is used by courts to partially determine whether the use of force in a given situation is excessive.

The next case that provides guidance for use-of-force situations is *Tennessee v. Garner* (1985). This case establishes reasonableness for police use of force. Tennessee had a statute that allowed officers making an arrest to use any means necessary to stop a suspect who is fleeing or forcibly resisting arrest. It is important to note that the suspects in question do not need to have a weapon or threaten deadly force for the officer to shoot them. A Memphis police officer was following this statute when he shot and killed Edward Garner. Officers Leslie Wright and Elton Hymon were responding to a breaking-and-entering call at a house. The officers went into the house and saw Garner run out the back door. As Garner began to climb a fence, Officer Hymon told him to halt. Though Officer Hymon saw no weapons on Garner, he shot him because he did not believe that they would be able to capture Garner if he made it over the fence. Garner was found to have a stolen purse and a total of \$10. He died in the operating room from his injuries. Garner’s father sought damages in court stating that his son’s constitutional rights had been violated. The Court held that the Tennessee statute was unconstitutional and that making an arrest or using deadly force is actually a form of seizure (*Tennessee v. Garner*, 1985). The Tennessee statute was allowing the unlawful seizure of life with no present

danger. The Court decided that such force was only reasonable if there was probable cause that the suspect would pose a significant threat of death or serious physical injury to the police or public (*Tennessee v. Garner*, 1985).

Graham v. Connor (1989) might be the most notable case regarding police officers' use of force. Dethorne Graham was a diabetic who began to feel the onset of an insulin reaction. Knowing that he needed some sugar to counteract the insulin reaction, Graham asked his friend, William Berry, to take him to a gas station to purchase some orange juice. Upon entering the store, Graham saw that there were several people in line. He was worried that he would not get the juice in time. Graham then asked Berry to take him to a nearby friend's house to get something that would counteract the insulin reaction. Officer Connor saw Graham enter and exit the store hastily and decided to pursue Berry's vehicle to see what was happening. After a couple of blocks, Officer Connor stopped Berry and Graham. Berry explained that Graham needed to get some juice for his diabetes, but Officer Connor wanted to find out what happened in the convenience store. When Officer Connor went back to his car to call for backup, Graham exited the vehicle and ran around it twice. He finally sat down and ended up passing out on the curb for a brief period. After backup arrived, Graham was handcuffed and forced facedown onto the hood of a patrol vehicle. After regaining consciousness, Graham asked the officers to look in his wallet for the diabetic decal he carried. The officers refused and forcefully threw Graham into the backseat of Officer Connor's car. One of Graham's friends arrived with orange juice but was denied access to him. Graham was eventually driven home and released after the officers were satisfied that nothing

unlawful happened at the convenience store. Graham sustained a broken foot, cut wrists, and a bruised shoulder as a result of the encounter.

The Court used the four-pronged test mentioned above in *Johnson v. Glick* (1973). In doing so, they found that a jury would not be able to find the force applied in this situation to be constitutionally excessive (*Graham v. Connor*, 1989). The Court established the standard of objective reasonableness, which was to be used for all use-of-force cases instead of substantive due process. Substantive due process is the protection of rights not related to legal procedures. What matters is that the officer's actions were objectively reasonable in the given circumstance, not the officer's intent (*Graham v. Connor*, 1989). An officer's actions are judged on what a reasonable officer would do given the same circumstance. The Court stated that "[n]ot every push or shove, even if it may later seem unnecessary in the peace of a judge's chambers" is constitutionally unreasonable (*Graham v. Connor*, 1989, p. 396). Another noteworthy part of this decision is that "[t]he calculus of reasonableness must embody allowance for the fact that police officers are often forced to make split-second judgments in circumstances that are tense, uncertain, and rapidly evolving about the amount of force that is necessary in a particular situation" (*Graham v. Connor*, 1989, p. 396). It is, of course, easy to examine a situation with the power of hindsight, which is why the court takes into consideration the quickness at which an officer must make a decision. One problem with this ruling is that reasonableness is still not explicitly defined.

The combination of these four cases frame the decision-making of courts to this day. Using the Fourth Amendment along with the Glick four-pronged test, objective reasonableness and the totality of circumstances are the standards for which a police

officer's use of force is judged. Starting with the Glick test, the courts will first determine if the situation needed the force to be applied. Second, the court will examine the relationship between the amount of force used and the need for that force. Third, the court will take into account the injuries resulting from the encounter. In a previously decided case, *Gumz v. Morrissette* (1985), it was stated that excessive force should be "so egregious as to be constitutionally excessive, and the presence of some physical injury is certainly relevant to that determination" (p. 1401). That being said, it is important to note that injuries do not have to be present for force to be considered excessive (*Sharrar v. Felsing*, 1997). In *Sharrar v. Felsing* (1997), a group of four men were placed facedown with guns to the backs of their heads and were threatened with death. Though the court ruled this was not excessive force due to the potential that the men were dangerous, it is possible that force can be excessive without an injury. Finally, the court will determine whether the force was applied in good faith in order to maintain or restore discipline (*Johnson v. Glick*, 1973). These four factors help the court to determine the objective reasonableness of the force used. The court must examine these details for the entire situation while also understanding that the decisions are being made in a short and stressful time span. These cases, along with the definitions provided above, are factors considered by departments when creating a use-of-force policy.

Use-of-Force Continuum. The above definitions reiterate that force falls on a continuum and can range from the mere presence of police to the use of deadly force (Alpert & Dunham, 2000; Crawford & Burns, 1998; Garner, Schade, Hepburn, & Buchanan., 1995; Smith, et al., 2010; Terrill, 2003; Terrill, Alpert, Dunham, & Smith, 2003; Trostle, 1990). Many police departments employ a force continuum as part of their

use-of-force policy. Terrill and Paoline (2013) found that around 80% of their sample of over 7,000 police departments have a policy regarding a use-of-force continuum and the amount of force that can be applied in certain situations. The idea behind placing force on a continuum is that the different levels of force applied by police officers can be matched to the levels of resistance by suspects (Garner et al., 1995). Departmental policies give guidance for officers to increase or decrease the amount of force used relative to suspects' actions.

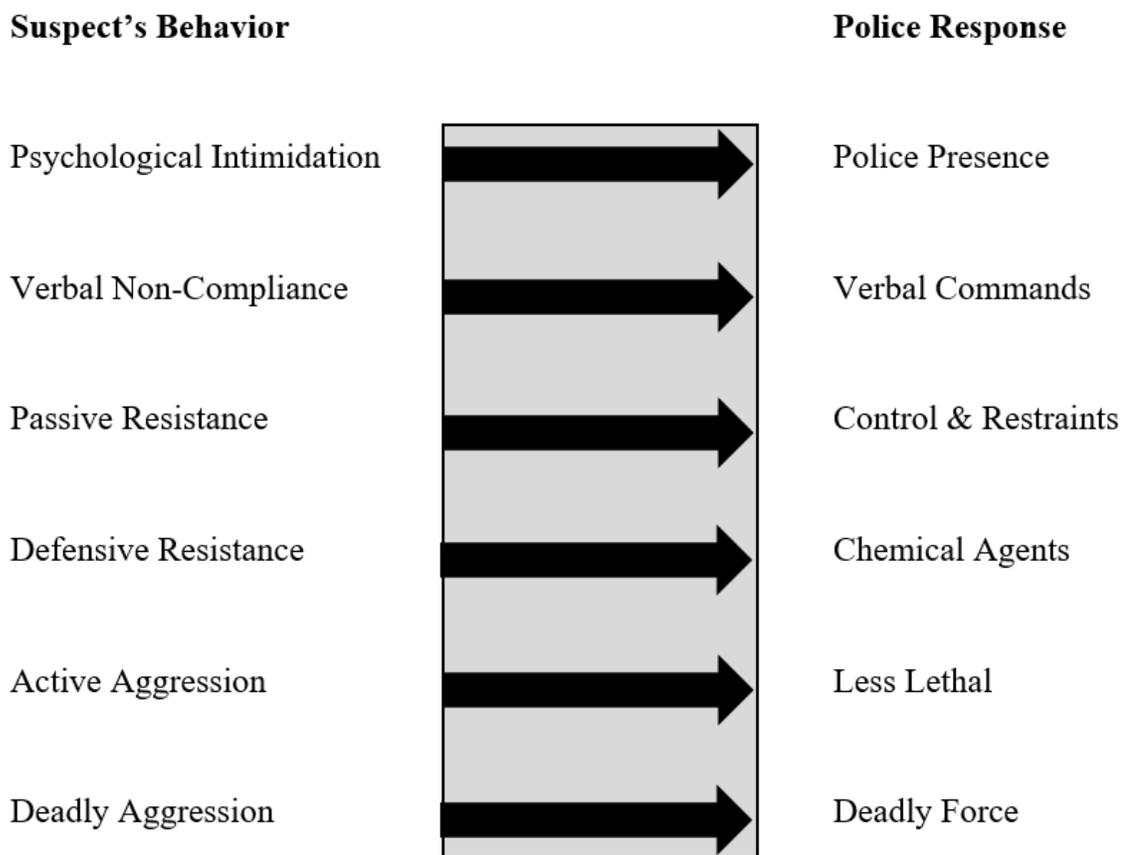


Figure 1. Example of Linear Force Continuum.

Different departments will define their force continuum in different ways. One of the major models for a force continuum is a linear design. This model uses a hierarchical structure that has an ascending scale for the officer to move through as the situation

progresses (McEwen, 1997). Another model closely associated with the linear model is known as a modified linear structure. In the modified linear model, a suspect's level of resistance corresponds with a method for de-escalation (Connor, 1991). According to the IACP (2017), the definition for de-escalation is:

Taking action or communicating verbally or nonverbally during a potential force encounter in an attempt to stabilize the situation and reduce the immediacy of the threat so that more time, options, and resources can be called upon to resolve the situation without the use of force or with a reduction in the force necessary. De-escalation may include the use of such techniques as command presence, advisements, warnings, verbal persuasion, and tactical repositioning. (p. 2)



USE OF FORCE MODEL CHICAGO POLICE DEPARTMENT

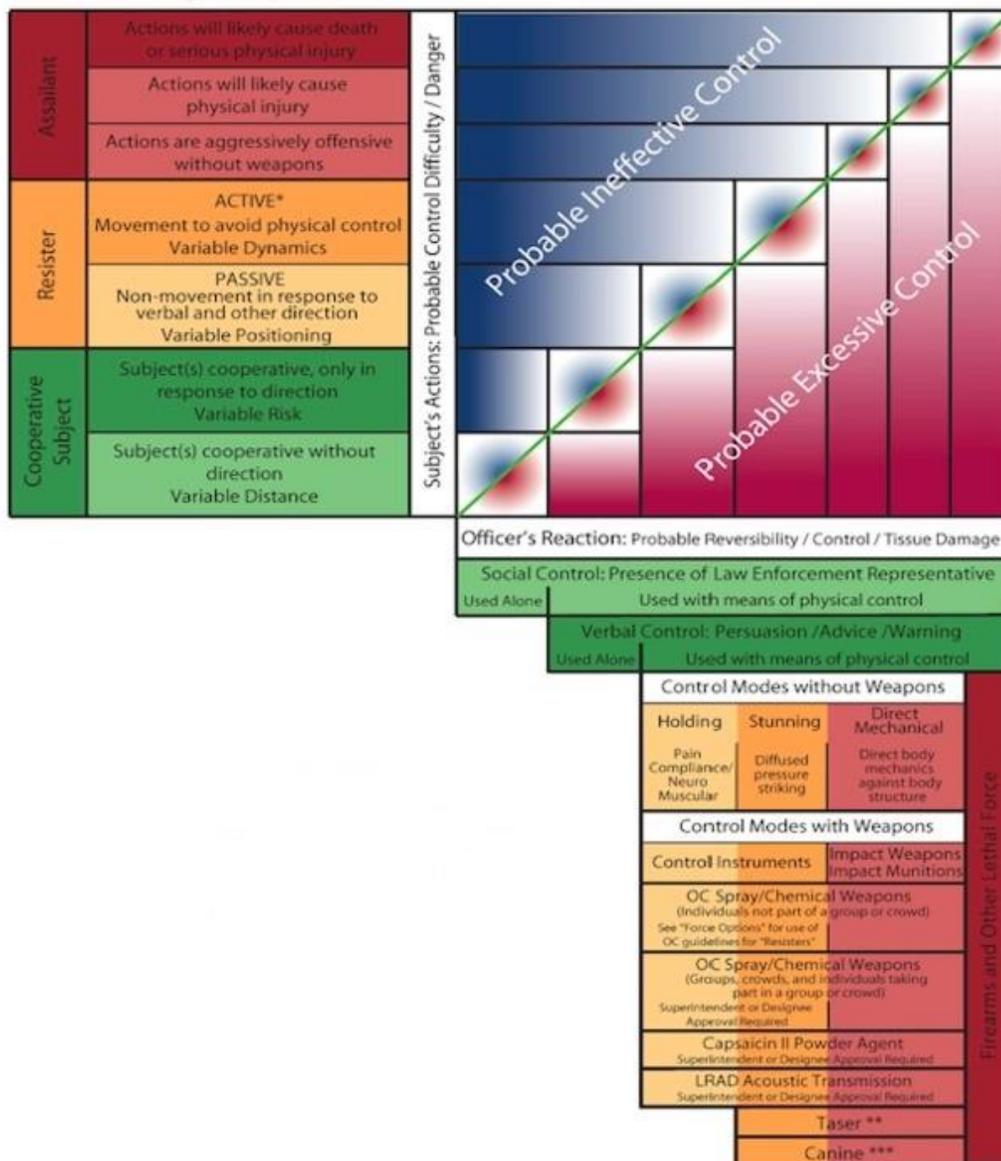


Figure 2. Example of Matrix Force Continuum Used by the Chicago Police Department.

In Terrill & Paoline's (2013) sample of departments that had a force-continuum policy, over 73% used a linear or modified linear continuum. A third approach is known as the matrix model, which models the suspect's resistance on a vertical axis while police response is on a horizontal axis (Terrill & Paoline, 2013) (see Figure 2). The final model

of the force continuum is known as the wheel (see Figure 3). This model is presented as a circle with a suspect's force on the interior and the officer's response on the exterior. This model can be imagined as the linear model looped back on itself. The idea is for police officers to see encounters in a nonlinear manor and be more fluid in their approach to different situations (Terrill & Paoline, 2013).

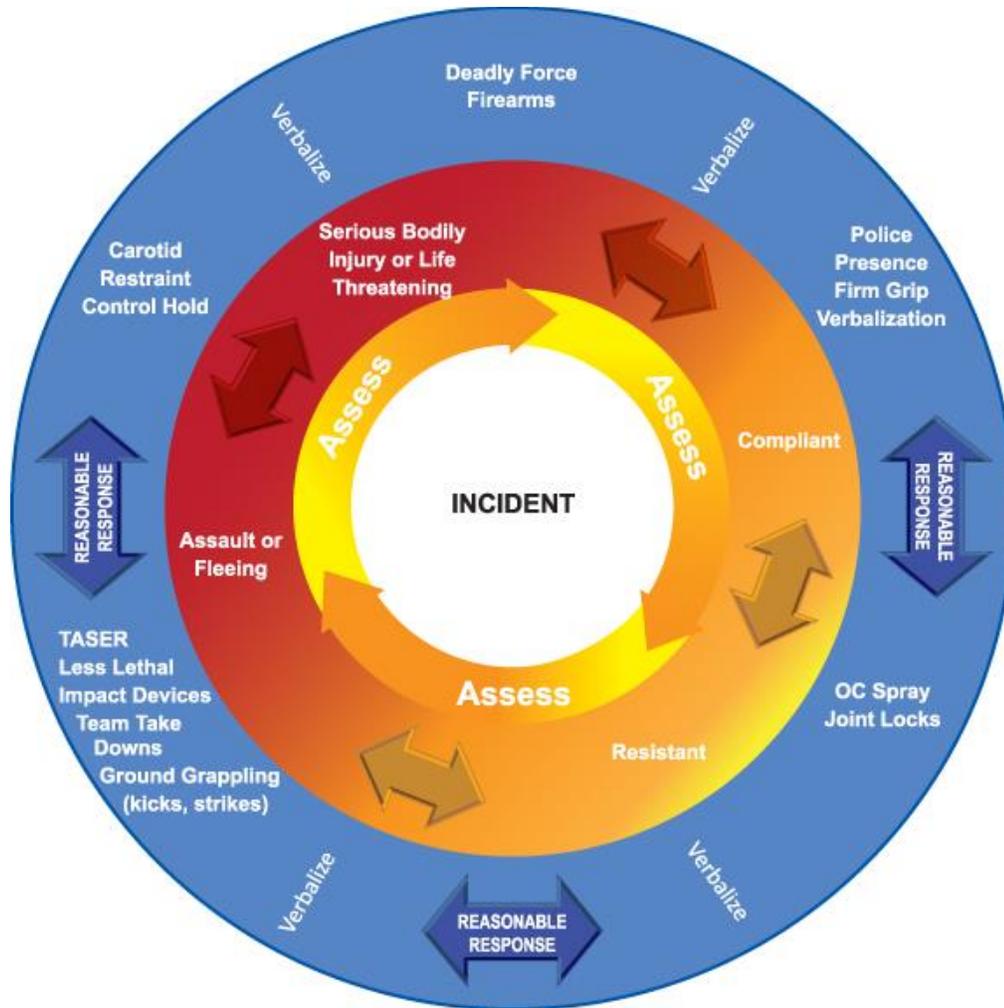


Figure 3. Example of Wheel Force Continuum.

Though using a continuum allows force to be rank ordered, the types of force discussed, as well as the actual ranking of certain tactics, vary widely in the literature (Alpert & Dunham, 2010; Garner et al., 1995; Terrill & Paoline, 2012; Terrill & Paoline,

2013). The most basic level of police force is the mere presence of police. Police are viewed with authority, which makes their presence forceful (Alpert, Dunham, & MacDonald, 2004; Tyler, 2004). This level of police force matches with suspect presence (Alpert & Dunham, 2000) and would fall under the nonphysical type of force. The next level would be vocal commands. This is another nonphysical type of force and can be used to gain control of a suspect using verbal resistance (Alpert & Dunham, 2000). Beyond these levels of nonphysical force is where the disagreement regarding ranking of force begins to present problems.

Terrill and Paoline (2013) found that around 97% of departments had a written policy regarding the use of less-than-lethal force by police officers. The use of hands-on tactics and less-than-lethal objects like oleoresin capsicum (OC) spray, conducted energy devices (CEDs), and batons tend to be placed in different rankings of the force continuum. Such tactics share a commonality in that they are all a physical type of force. Some agencies even break hands-on tactics into what is known as “soft empty hands” and “hard empty hands” (Terrill & Paoline, 2013). An example of a soft-hand tactic would be an officer holding the arm of a suspect, while a hard-hand tactic would be using fists to subdue a suspect. Such techniques would match with passive resistance by the suspect (Alpert & Dunham, 2000). The use of hands-on tactics has been found to increase the likelihood of both parties being injured (Smith, Kaminski, Rojek, Alpert, Mathis, 2007). The lower ranking of hands-on tactics can partially be attributed to the fact that the use of OC spray and CEDs fall under the category of less-than-lethal weapons (Trostle, 1990). The absence of a physical weapon is often associated with less lethality. That being said,

there have been cases where both officers and suspects have been severely injured or even died during encounters with no weapons present.

Though injuries can occur for both the suspect and the officer, hands-on tactics typically fall lower than OC spray and CEDs on the force continuum. Recall that OC spray and CEDs are placed in a variety of levels on the force continuum (Alpert & Dunham, 2010; Smith et al., 2010; Terrill & Paoline, 2012). Some force continua place chemical agents between soft- and hard-hands tactics (Smith et al., 2010), while others place them above the use of CEDs (Trostle, 1990). The adoption of OC spray by departments was controversial due to some reports of death from the spray's use. Many of these deaths could be attributed to asphyxia, prior health issues, or some type of drug use by a suspect (Smith et al., 2010). Smith and colleagues (2010) did find a general reduction in both suspect and officer injuries in cases where OC spray was deployed. The use of a chemical agent would combat defensive resistance by a suspect (Alpert & Dunham, 2000).

CEDs tend to be placed above OC spray for less-than-lethal tactics on the force continuum. Sousa, Ready, and Ault (2010) found that officers were more likely to use CEDs over OC spray when both options were available. One reason for this could be the potential for OC spray to blow back into an officer's face, thereby affecting the ability to control the situation. Terrill and Paoline (2012) found that use of CEDs generally increased risk of citizen injury. Many studies have examined use of CEDs as they relate to deaths. Smith et al. (2010) discuss these studies and report that CED-related deaths were generally caused by preexisting health conditions or drug use. That being said, as the risk to citizens increases, the risk to officers using CEDs decreases. Paoline, Terrill,

and Ingram (2012) found that use of CEDs decreased the number of officer injuries.

MacDonald, Kaminski, and Smith (2009) found decreases in police injury anywhere from 25% – 62% when using CEDs. CEDs would be used against suspects who were actively physically resisting an officer's control (Alpert & Dunham, 2000).

The next level up in use of force groups together impact weapons, such as batons, asps, and flashlights. Alpert and Dunham (2000) found that striking the suspect was done in 18% of cases where a suspect resisted violently or explosively. Impact weapons are used relatively infrequently. Many studies have found that the use of impact weapons results in fewer injuries to both police officers and suspects when compared to other tactics, such as hands-on. Alpert and Dunham (2000) explain this by pointing to the role of training with such weapons. They also discuss the impact weapon's use as a means of fending off attacks from a suspect rather than as a means of control. Some continua rank impact weapons with deadly force, while others rank them directly beneath deadly force. Impact weapons can be used to inflict fatal injuries, though it is the policy of many agencies to use them as a means of combatting aggressive suspects. The use of an impact weapon would occur against a suspect who is being violent or explosive (Alpert & Dunham, 2000).

The use of deadly force is the highest form of control an officer can use. There are both legal and extralegal factors an officer must consider when employing deadly force (Terrill & Mastrofski, 2002). Interestingly, there is relatively little research on this awesome power when compared to other policing topics (Fyfe, 1988). It is important to note that some agencies might rank deadly force with firearms, while others will merely state deadly force without the qualifier of firearms being used. The distinction comes

down to the definition of force. If the deadly force definition relies on firearms being used, then other weapons would be placed lower on the continuum. However, if deadly force is defined with an emphasis on the intention of the officer, then weapons beyond firearms might be ranked with deadly force. Having different definitions of force can result in different statistical outcomes when deadly force is studied because different situations will qualify as deadly force depending on the agency's definitions (Alpert & Dunham, 2004). The use of a firearm is always considered deadly force. Such force would be used against suspects with firearms or other means of deadly force (Alpert & Dunham, 2000). However, recall that police officers tend to use a higher level of force relative to the suspect (Alpert et al., 2004). This has been a huge point of contention between the police and public, which has led to much research on controlling police discretion to use deadly force (White, 2001).

Use of Force and Injuries. As previously discussed, use of different levels of force can result in different degrees of injury sustained by both an officer and a suspect. Eith and Durose (2011) reported that nearly 19% of people who experienced police use of force were injured. According to Alpert and Dunham (2000), the most common suspect injuries were bruises/abrasions (48%), followed by lacerations (24%). Similar to suspect injuries, they found the most common officer injuries were bruises/abrasions (64%), followed by sprains/strains (15%) and lacerations (15%). It is also important to note that there are instances of hands-on tactics, less-than-lethal weapons, impact weapons, and obviously deadly weapons resulting in both suspect and officer deaths. Any of these tactics can cause death through indirect factors. An example would be a man falling and striking his head on a rock resulting in death due to a physical altercation. It has been

shown in several cases that individuals under the influence of drugs or alcohol or those with preexisting conditions can have adverse reactions to being tased or pepper sprayed (Adang & Mensink, 2004; Strote and Hutson, 2006). Such instances are rarer than death resulting from impact weapons or deadly weapons, but they do occur, and as such should be considered when discussing use-of-force injuries.

Recall that hands-on tactics have been found to increase the likelihood of injury for both suspects and officers (Alpert & Dunham, 2000; Smith et al., 2007). When an officer and suspect have hands-on contact, it places both of them in a potentially dangerous situation. This can be said for any type of force that brings an officer in close proximity to a suspect. Suspects experience the highest risk of injury (81%) when an officer uses a closed fist, followed by feet/legs (67%) and hands/arms (65%) (Alpert & Dunham, 2000). When looking at hands-on tactics in relation to severity of injury, Meyer (1992) found that closed fists resulted in 64% of suspects and 36% of officers sustaining moderate to major injuries. Miscellaneous body force, such as pushing, shoving, and grappling, followed the use of a closed fist 46% for suspect injury and 15% for officer injury. Multiple officer takedowns were next at 24% suspect injury and 16% officer injury. Finally, kicking had a total of 20% of suspects injured and 11% of officers injured. Though police officers have a lower rate of injury, it is clear that tactics requiring the officers to be in close proximity to suspects result in a substantial amount of injuries to officers. Death can also occur as a result of hands-on tactics. One of the most recent cases of this occurred in New York City where Eric Garner died as a result of being placed in a choke-hold by officers. One of the goals of using CEDs and OC spray is to reduce the injuries to both parties with particular emphasis on reduced officer injury.

In general, research has shown that use of CEDs and OC spray reduces the risk to both officers and suspects. Paoline, Terrill, & Ingram (2012) found that officers using CEDs reported injuries at half the rate of those who used hands-on tactics. The overall reduction in injuries following the adoption of CEDs is consistent across most studies, though the amount reduced may vary depending on department. Whether the probe punctures count as an injury could be an explanation for this variation (Kaminski, Engel, Rojek, Smith, & Alpert, 2013). MacDonald, Kaminski, & Smith (2009) found a decrease of 25% in one department, while another had a 62% decrease in officer injuries upon sanctioning the use of CEDs. Some research suggests that CEDs are safer for officers when compared to OC spray. This can be attributed to the fact that officers are more likely to inadvertently compromise themselves and other officers with the use of OC spray, whereas the use of CEDs seldom affects the officer (Adang & Mensink, 2004). Though it is rare, the use of OC spray and CEDs have been known to result in death. Recall that many of these deaths can be attributed to the suspect being under the influence of something or having a preexisting condition that makes him or her susceptible to an extreme physiological response (Adang & Mensink, 2004; Strote & Hutson, 2006). Mostly it is found that when a CED or OC spray is used, there are few injuries for either party involved (Meyer, 1992). It is worth noting that many studies do not consider the irritation of OC spray or the small lacerations and electric shock of CEDs to be “true” injuries.

It is easy to see how impact weapons and deadly weapons can result in injury or death for both an officer and suspect. The use of impact weapons increases the risk for both officer and suspect when compared to less-than-lethal weapons as it places them in

close proximity to the suspect. Alpert and Dunham (2000) reported a 64% chance of injury when a baton was used. This is less than the chance of injury when an officer used a closed fist. Meyer (1992) found that 61% of cases involving a baton resulted in moderate or major injuries to the suspect and 16% to the officer. Additionally, striking with a flashlight resulted in moderate to major injuries for 80% of suspects and only 4% of officers. Both of these impact weapons have a higher risk of causing more serious injuries, especially when considering use of a flashlight. Surprisingly, Alpert and Dunham (2000) reported the use of handguns by officers had a lower chance of injury for the suspect (45%) when compared to all other types of force. The use of a handgun by an officer was also found to have the lowest risk for officer injury. The distance at which a handgun can be used keeps the officer away from a suspect. It is this distance that lowers the risk of officer injury. With impact and deadly weapons being at the highest point on the use-of-force continuum, they obviously pose the greatest risk of death.

Correlates of Force. There are many correlates of force. There are three major types: micro-level, macro-level, and organizational (Martaindale, 2016). All three types of correlates have an impact on a police officer's decision to use force. Each has several factors within it that can either appropriately or inappropriately influence an officer's decision.

Micro-level correlates of force include individual characteristics of both the suspect and police officer involved in the encounter, as well as the demeanor of both. Many studies have examined the impact of demeanor on decision-making in a police encounter (Dunham & Alpert, 2009; Engle, Sobol, & Worden, 2000; Friedrich, 1980; Holmes, Reynolds, Holmes, & Faulkner, 1998; Meehan, Strange, & McClary, 2015;

Worden, 1995; Worden & Shepard, 1996; Worden, Shepard, & Mastrofski, 1996). A suspect's behavior has been shown to have a large impact on the outcome of a police/citizen encounter. Several studies have found the demeanor of the suspect to be the best predictor of whether a police officer uses force (Friedrich, 1980; Meehan, Strange, & McClary., 2015; Terrill & Mastrofski, 2002; Worden, 1995). Engel et al. (2000) found that demeanor significantly affected police behavior even when controlling for other effects, such as extralegal variables. Dunham and Alpert (2009) went further than other researchers by examining police and suspect behavior as a fluid variable. Many studies examined demeanor as an overall static variable and in doing so excluded change in demeanor during the encounters. Dunham and Alpert (2009) found that both the officer's and suspect's demeanor varies throughout the encounter and is dependent on one another. Related to the demeanor of the suspect is a suspect's mental state, which encompasses mental capacity and state of mind.

Police officers are required to interact with suspects who may have a mental disorder or be cognitively impaired through the use of alcohol or drugs. Such suspects may exhibit erratic and violent behavior when confronted by the police. It has been found that individuals with mental disorders are more likely to have a weapon, resist police, and act more violently than those without mental disorders (Johnson, 2011). Johnson (2011) found that when controlling for mental disorders, officers were no more likely to use physical force. Similar to those with mental disorders, individuals who are intoxicated are more likely to resist arrest and act violently when encountered by police officers (Friedrich, 1980; Garner et al., 1995; Lawton, 2007; Terrill, Leinfelt, & Kwak, 2008; Worden, 1995). Unlike those with mental disorders, suspects using drugs or

drinking to excess are making a choice and are likely breaking laws. Many mind-altering drugs are illegal, and though it is not illegal to be intoxicated, it is more likely that the police are dealing with intoxicated suspects because of a violation of public-order laws.

One of the largest bodies of research regarding micro-level correlates of force examines the impact of suspect and officer race on the decision to use force. There are mixed results when it comes to the effects of a suspect's race on police use of force. There are studies that have found race to predict use of force, but the results range from weak to strong predictors (Crawford & Burns, 1998; Garner et al., 1995; Holmes, 2000; Holmes, Reynolds, Homes, & Faulkner., 1998; Payne, 2001; Terrill & Mastrofski, 2002; Worden, 1995). Kochel, Wilson, & Mastrofski (2011) found that minority suspects were more likely to be arrested and that a large effect size persisted throughout in their meta-analysis covering 27 data sets. The studies that find race to be a nonsignificant factor in police use of force tend to show that race effects disappear when situational factors are taken into account (Black, 1971; Black & Reiss, 1970; Friedrich, 1977; Lee, Jang, Yun, Lim, & Tushaus, 2010; Lundman, Sykes, & Clark, 1978; McElvain & Kposowa, 2008; Riksheim & Chermak, 1993). This merely covers the effects of a suspect's race on use of force. Police officers' race is also a factor considered when studying use-of-force scenarios. Once again, there are conflicting results regarding the officer's race as a use-of-force factor. One agreed-upon conclusion is that minority officers are generally overrepresented in high-crime areas, which results in a disproportionate number of minority officers involved in use of deadly force (Holmes et al., 1998).

The age of both the officer and the suspect has been examined to determine whether it affects a police officer's decision to use force. As with race, there are

inconsistencies in the literature regarding the effects of age in use-of-force situations. There are studies that find weak significant effects of age on use of force (Terrill & Mastrofski, 2002; Worden, 1995), while others find no significant effects (Lawton, 2007; Terrill, Leinfelt, & Kwak, 2008). Those studies that find a significant effect report that young adults experience more use of force (Terrill & Mastrofski, 2002). The age of the officer is generally related to the experience of the officer, which can also be influential in use-of-force scenarios.

There are mixed results about the impact of experience on use of force. Paoline and Terrill (2007) found that more experienced officers used less verbal and physical force. Terrill and Mastrofski (2002) found that inexperienced officers had more use of force. It has also been reported that more experienced officers who are still in patrol positions are more likely to use force. Such officers have an authoritarian mentality making them more likely to apply more force (Niederhoffer, 1967). Often discussed with police experience and age is the education level of the officer. Several studies have found that officers with at least a bachelor's degree are less likely to use force than those without higher education (McElvain & Kposowa, 2008; Paoline & Terrill, 2007; Terrill & Mastrofski, 2002). Worden (1995) found that more educated officers were slightly more likely to use force but less likely to use improper force.

The gender of an officer has either a small effect on use of force or no effect at all. Studies that find gender to be a significant predictor of use of force suggest male officers are more likely to use force than female officers (Garner et al., 1995; McElvain & Kposowa, 2008). That being said, many studies have found gender to be nonsignificant when examining police use of force (Friedrich, 1980). Lawton (2007)

found gender to be nonsignificant when situational characteristics were taken into account. Those that find gender to be nonsignificant often point to the fact that, relative to males, there are fewer use-of-force cases involving female officers. (Terrill & Mastrofski, 2002). More data need to be collected before a more conclusive statement can be made regarding an officer's gender as a predictor of use of force.

Moving from micro- to macro-level correlates allows for an examination of the situation and surroundings in which use of force occurs. Such factors include neighborhood characteristics, local crime rates, and situational characteristics. Situational characteristics can include a number of factors, such as the number of officers present, the number of bystanders, the presence of a weapon, the nature of the call, and many others. Several studies have found that the number of officers present at the call may not only predict the use of force but also the amount of force used. It was found that more officers present during an encounter increased the likelihood that force would be used and that it would be used at a greater level (Holmes et al., 1998; Lawton, 2007; Terrill & Mastrofski, 2002; Worden, 1995). Additionally, Friedrich (1980) found that as the number of bystanders increases, so too does the use of force. Beyond the number of people present, the severity of the offense seems to be a good predictor of use of force. As one would expect, the more serious the offense, the more likely it is that force will be used (Alpert et al., 2004; Black, 1971; Holmes et al., 1998; Lawton, 2007; Friedrich, 1980). Recall that as suspect force increases, officer force usually increases to match or dominate the situation. When responding to a more serious crime, it is reasonable that the amount of force used would be at a higher level in order to control the situation. Along these lines, the presence of a weapon increases the probability that force will be

used and at a higher level (Lawton, 2007). The presence of a weapon brings the threat level up dramatically for an officer and is, therefore, more likely to be combatted with more force (Holmes et al., 1998).

Neighborhood characteristics also affect use of force. Several studies have found an increase in use of force by officers responding to calls in dangerous neighborhoods (Lee et al., 2010; Terrill & Reisig, 2003; White, 2001). Terrill and Reisig (2003) found use of force to be significantly more likely in disadvantaged neighborhoods. Lee et al. (2010) and Smith (1986) also found that use of force increased in neighborhoods with high rates of unemployment. Additionally, it has been found that the residents of a neighborhood can affect police use of force. Racially heterogeneous neighborhoods are thought to decrease an officer's ability to see who belongs in certain locations (Lawton, 2007; Smith, 1986). When controlling for other variables, there are actually less crime reports filed in high-crime neighborhoods (Smith, 1986). This is likely due to a desensitization to certain actions that would receive attention in other neighborhoods. This leads to the influence of a neighborhood's crime rate on police use of force. Generally, a neighborhood with a higher crime rate has increased police use of force (Fyfe, 1980; Lee et al., 2010; Smith, 1986; Terrill & Reisig, 2003). Not all research has found the crime rate to significantly affect use of force. Lawton (2007) found the crime rate to be nonsignificant when other variables (e.g., police district, race, gender, experience, etc.) were taken into account.

The final type of correlate, known as organizational correlates, is comprised of those that deal with departmental policy, training, and police culture. These factors are all part of the police organization as a whole. The departmental policies in a police

agency are the most formal method of controlling use of force. Alpert and MacDonald (2001) found a variety of reporting rates for use of force depending on the reporting policies of the department. Reporting use of force was significantly lower for those agencies that required supervisors to file reports when compared to departments that allowed the officer to do so. Alpert and MacDonald (2001) also found agencies collecting use-of-force data for a specific reason had higher rates of reported force. It is not enough to merely have a use-of-force policy; it must be one that abolishes excessive force that might be acceptable under less restrictive guidelines (Geller & Toch, 1995). That is not to say that such policies should be so restrictive that officers are afraid to properly fulfill their duties. Beyond stating how force should be used in a police department, policies also govern the amount and type of use-of-force training officers receive.

Training begins in the police academy, but does not end upon graduation. Training can be broken into three major categories: preservice, pre-employment, and in-service. Preservice training occurs when police recruits are in the academy, while in-service training occurs during the course of regular service (Lee et al., 2010; Morrison, 2006). Pre-employment training occurs between the academy and regular duty as a means of bridging training and the real world (Alpert, Dunham, & Stroshine, 2006; Lee et al., 2010; Morrison, 2006). In-service training is required for officers to keep their peace-officer license valid. In doing in-service training, officers are expected to build their skill level, maintain their proficiencies, and remain current with all departmental policies. Training on use-of-force policies is crucial for officers to not only understand the policies, but to be able to actively and successfully follow them. Preservice training

cannot adequately prepare an officer for his or her job, which makes in-service training all the more important for keeping officers up-to-date on new tactics and policy changes (Alpert et al., 2006; Marion, 1998; Morrison, 2006). Lee et al. (2010) found in-service training to be a significant factor in explaining the levels of force used by police officers.

Perceptions of Police Use of Force

This section will examine the literature regarding both citizens' and officers' perceptions of police use of force. There has been little research on citizens' perceptions of use of force and even less on officers' perceptions. Understanding what influences perceptions is crucial for both police officers and citizens. Officers could use the information to form better relationships with the community. Citizens are tasked with making determinations of reasonableness based on the cases mentioned above when placed on a jury. Much of the research that looks at citizens' perceptions of police officers focuses on perceptions of police legitimacy. Though not directly related to perceptions of force, perceptions of legitimacy seem to play a role. As such, it is important to examine police legitimacy literature as part of this section. However, a brief overview of perceptions must come first.

Perceptions. Perceptions are developed as a result of diverse stimuli and are formed using all five human senses: sight, smell, touch, taste, and hearing. There are many factors that affect social perceptions. These can be divided into three general categories: the actor, the action, and the environment. The actor and the action are often discussed as variable, while the environment is considered invariant (Heider, 2015). That is not to say that perceptions cannot change due to the environment; rather the actor or action being perceived is considered set in an invariant environment. People may have

different perceptions based on the environment where an action occurs. What might be acceptable in one setting might be inappropriate in another. The cause of an action is also extremely important. There can be different perceptions as a result of the same action based on the cause (Heider, 2015). For example, people's perceptions of being pushed will change based on whether they were pushed out of the way of a runaway car or pushed because another person was being cruel.

Perceptions can be formed by both direct and indirect contact. This is an important point when discussing perceptions of police because there are many individuals who have no direct contact with officers, yet still perceive the police one way or another. Additionally, past experiences can affect perceptions. These past experiences can even have a greater impact on current perceptions regardless of new events. This allows perceptual inferences to be made at a glance because there is preexisting knowledge (Heider, 2015). One reason is people have a much more difficult time assessing other individuals quickly and accurately if there have been no past interactions. For example, one could see a ball for the first time and know many things about it. The mere sight of the ball would tell the person something about what it is made of and that it could be rolled. On the other hand, when someone sees a person for the first time, there is very little accurate information that can be gained regarding that individual's personality. Some perceptions can be based on appearance, though these perceptions are not as concrete as those based on a person's actions.

Beyond forming perceptions of others, people seek to affect others' perceptions of them. Someone may act a certain way to alter the perceptions of those around him or her (Heider, 2015). People can work to alter perceptions by using the knowledge of their

own judgments to perform a certain action. For example, a person might perceive someone chewing with their mouth open as rude. Therefore, when they themselves chew, they do it with their mouth closed so as to not seem rude to those around them. By controlling their actions, they are controlling other people's perceptions. This can be seen when moving beyond physical action and considering the sharing of wishes, intentions, or attitudes (Heider, 2015). Others can perceive and judge such intangible concepts based on their own experiences (Heider, 2015). Allowing others to know one's wishes, intentions, or attitudes gives the other person a certain amount of control. The perceptions of other individuals are important for many people and typically makes them act in accordance with social norms. This leads to the idea of police legitimacy in that it is a social norm for citizens to comply with police authority.

Perceptions of Police Legitimacy. The police have two powers that set them apart from almost all other workers. The power of arrest and the power to use deadly force against civilians should not be understated. The legal right to take someone's freedom or life is perhaps the most controversial aspect of policing and is often the focal point of police-citizen encounters. These rights are recognized by citizens in return for the protection and service provided by police officers. This requires that the police be seen with legitimacy. Legitimacy affects how obedient the public is when dealing with the police as well as the public's general law-abiding behavior (Tyler, 2004). This is very important when considering people's perceptions of use-of-force incidents. Someone who views the police as being very legitimate would be more likely to believe that officers are justified in their use of force, while those who have low perceptions of police legitimacy will likely see encounters as unreasonable. Police legitimacy

encompasses several perceptual aspects, including morality and law, procedural justice, individual and institutional authority, and voluntary compliance both with and without police presence. Morality comes into play when considering what people think of the law and what drives their obligation to follow it. Some might not consider certain crimes, such as illegal drug use, to be morally wrong, and, therefore, they may not obey such laws. When people view the law as morally just, they are more likely to follow the law even in the absence of a police presence (Hirschi, 1969; Hirschi & Stark, 1969; Tyler, 2006). Furthermore, morality affects perceptions of police legitimacy in that people can feel a moral obligation to obey both the law and the police (Mazerolle, Antrobus, Bennett, & Tyler, 2013). Even with a moral obligation to obey the law and police, there are things that can affect citizens' perceptions of legitimacy.

Like morality, procedural justice goes beyond policing and touches many aspects of the criminal justice system. There are four parts of procedural justice as it relates to police legitimacy. The first part deals with the officer giving citizens a chance to voice their opinions before decisions are made (Mazerolle, Bennett, Antrobus, & Eggin, 2012). This gives citizens a sense of value in that their opinions are being heard and considered by an authority figure. Another part involves the police being seen as a neutral and unbiased authority figure that is merely imposing the law regardless of a person's individual characteristics (Mazerolle et al., 2012). If the police applied the law by targeting individuals with certain characteristics (e.g., race), their authority would be considered biased and, therefore, unjust. This part of procedural justice deals with profiling and is one of the more impactful parts when shaping perceptions of police legitimacy (Mazerolle et al., 2012). The third and perhaps most important part of

procedural justice deals with citizens being treated with respect and fairness during encounters with police (Mazerolle et al., 2012; Sunshine & Tyler, 2003; Tyler, 2004). Sunshine and Tyler (2003) found fairness to be an important antecedent to police legitimacy. Perceptions of police legitimacy tend to increase when citizens are treated fairly and with respect (Mazerolle et al., 2012). This part goes hand-in-hand with the first two parts—letting someone express his or her views before making a decision is both fair and respectful. Additionally, being unbiased when imposing the law is just and fair. Some consider this to be the core of procedural justice (Mazerolle et al., 2012; Tyler, 2004). The final part deals with the trustworthiness of police. Police officers must convey a sense of openness and honesty when serving the public (Mazerolle et al., 2012). Reisig, Tankebe, & Mesko (2012) found trust in police to be the only significant factor when disaggregating procedural justice into its parts. Recall that the police have the unique powers of arrest and deadly force when performing their duties. Part of that power comes from citizen trust that such power will be used legitimately and in a just manner. This trust, and indeed procedural justice in general, must be perceived for both individual officers and police departments as a whole.

A single officer's actions can affect the perceptions of an entire department. Such instances often deal with excessive force and are highly publicized by the media as police misconduct. Conversely, a department's policies and style of enforcement can affect perceptions of an individual officer's legitimacy. Part of the institutional legitimacy goes back to the laws themselves. Those who write laws, the laws themselves, and the police officers enforcing the laws must all be seen as legitimate for the system to work. When an institution is seen as legitimate, it lends support to the individual officer's legitimacy

as a representative of that institution (Tyler, 2006). There are methods of policing that can increase the perceived legitimacy of a department. Hawdon, Ryan, and Griffin (2003) found that community policing increased the visibility of officers, which positively impacted citizens' perceptions of police. Additionally, it was found that a lack of police presence negatively affects citizens' perceptions of police officers. It should also be noted that increased visibility of police increased the amount of trust in both the department and its police officers (Hawdon, Ryan, & Griffin 2003). This implies an intervening effect between community policing and increased perceptions of police legitimacy.

Along with this increase in perceptions of legitimacy comes increased levels of compliance. Compliance is arguably the most important by-product of the police being perceived as legitimate. Several studies have found that when people are treated with respect during police encounters, they are more likely to comply, compared to those who feel disrespected (Mastrofski, Snipes, & Supina 1996; Mazerolle et al., 2012; Mazerolle, Bennett, Davis, Sargeant, & Manning, 2013; Reisig et al., 2012). This compliance falls into three main categories. The first category involves general compliance with laws when no police officers are present. The second category deals more with cooperation with the police by way of reporting criminal activity. This includes reporting a crime about which the police are unaware and providing information regarding the incident. The final category involves complying with instructions given by officers during an encounter. Citizens must largely voluntarily comply with the law because police officers cannot be everywhere to enforce it (Tyler, 2004). Without this compliance, police resources would quickly become ineffective at controlling crime.

Greater perceived legitimacy leads to more citizen cooperation with the police. As previously stated, police officers cannot be everywhere, so there is a reliance on citizens to report wrongdoings (Sampson, Raudenbush, & Earls, 1997). This is also considered voluntary compliance and helps to prevent and solve crimes (Tyler, 2004). Even when volunteering information about crimes, it is important for police officers to maintain procedural justice in order to further establish their legitimacy as authority figures. By volunteering information about a crime, citizens are recognizing the authority of the police to investigate the crime and exercise their powers of arrest and deadly force. When police officers are performing their duties, it is important that citizens comply with their commands to ensure a safe interaction. That being said, it is difficult for police to maintain order when individuals comply but return to noncompliance after the interaction is over (Tyler, 2004). This could occur if a citizen's perceptions of an officer's legitimacy decrease during the encounter due to a lack of respect and fairness on the part of the officer. Someone who sees the police as legitimate is more likely to voluntarily comply with an officer's commands during an encounter (Tyler, 2006). Each of these categories demonstrates the importance of the police being perceived as legitimate authority figures.

Perception of police legitimacy is a complex topic with many factors influencing individuals' perceptions. According to the research, the most influential factor seems to be the part of procedural justice regarding respectful and fair treatment (Mastrofski et al., 1996; Mazerolle et al., 2012; Mazerolle et al., 2013; Reisig et al., 2012; Tyler, 2004 & 2006). The factors discussed in this section were merely one part of what influences citizens' perceptions of police and police use of force. The ability of police to use force

in general is in part due to an overall perception that the police are a legitimate authority. That being said, there are individual-level factors that affect citizens' perceptions of the police beyond perceptions of police legitimacy.

Factors Influencing Perceptions of Police. There are many factors contributing to perceptions of use of force by police. These factors can be broken into individual characteristics, secondary contact, and primary contact. Individual characteristics arguably make up the most important factors. Such characteristics include age, gender, education level, income, race, and neighborhood. Age has been an interesting factor when considering public perceptions of police. Researchers have found that younger individuals have more negative perceptions of the police (Correia, Reisig, & Lovrich, 1996; Hadar & Snortum, 1975; Walker, Richardson, Denyer, & Williams, 1972). An individual's perception of the police has generally been found to improve with age. Jesilow, Meyer, and Namazzi (1995) found that older individuals had more positive attitudes toward police than younger people. This can be explained by the fact that crime is disproportionately committed by younger people. Therefore, they will, have more negative interactions with police resulting in less favorable perceptions. Additionally, it can be argued that younger people value freedom while older individuals value security (Correia, Reisig, & Lovrich., 1996).

There is no clear relationship between perceptions of police and gender. Some research suggests that women have more positive perceptions of the police (Hindelang, Dunn, Aumick & Sutton, 1975). Hadar and Snortum (1975) found that women hold police officers to a higher standard than men even though men express more dissatisfaction. Such differences could be attributed to women viewing officers as

providing services, while men see officers as enforcing laws. Correia et al. (1996) found that women are more likely to have poor perceptions of officers than their male counterparts. Despite these minor differences, it is generally accepted that there is little to no relationship between an individual's gender and perceptions of police officers (Correia et al., 1996; Jesilow, Meyer, & Namazzi., 1995; Lundman & Kaufman, 2003; Webb & Marshall, 1995). The mixed results point toward other characteristics being more important for perceptions of the police. Similarly, level of education does not seem to significantly affect attitudes toward police officers (Correia et al., 1996; Davis, 1990), except that more educated people are more likely to ask the police for help (Jesilow et al., 1995).

Recall that the American public generally holds favorable attitudes towards police officers (Ackerman et al., 2001; Cullen et al., 1996; Jesilow et al., 1995). However, when the public is divided by race, there are clear differences between groups. The effects of an individual's race on perceptions of police and police use of force are the most commonly researched individual characteristics. Most of these studies have found minority groups to have a less favorable perception of police officers, when compared to Whites (Ackerman et al., 2001; Cullen et al., 1996; Decker & Wagner, 1985; Hadar & Snortum, 1975; Jefferis, Butcher, & Hanley, 2011; Jesilow et al., 1995; Webb & Marshall, 1995; Weitzer & Tuch, 2004). This is especially true when discussing African-Americans and Hispanics (Weitzer & Tuch, 2004). In general, Blacks and Hispanics are less likely to agree with statements favorable toward the police (Webb & Marshall, 1995). These findings are not surprising when considering the history of highly publicized cases involving alleged police brutality against minority groups. One example

is the Rodney King case in Los Angeles. Maguire (1996) reported that Blacks were more likely to disagree with officers striking a person attempting to escape from police.

Weitzer and Tuch (2004) found race to be a strong predictor of attitudes toward police officers. The effects of race on perceptions of the police cannot be discounted; however, there are several studies that point toward neighborhood factors having a greater influence.

It has been argued that including perceptions of an individual's neighborhood is more important than one's race. Jesilow et al. (1995) found that perceptions of police officers were more strongly related to an individual's perception of his or her neighborhood and less related to racial-group membership. Maxson, Hennigan, and Sloane (2003) also found that race was not as important as neighborhood characteristics, though it did play a part in perceptions of police demeanor. Those with poor perceptions of their neighborhoods believe that the problems, including disorder and crime are due to a lack of police dutifulness. This results in negative perceptions of the police. In recent years this could be attributed to the "Ferguson Effect," which is the idea that officers are less willing to perform their tasks due to negative publicity (Wolfe & Nix, 2016).

Weitzer (1999) found that both Black and White people in middle-class neighborhoods had more favorable perceptions of police officers. Additionally, those with greater community associations were more likely to make positive statements about the police (Jesilow et al., 1995). It follows that those with more cohesive neighborhoods are more likely to have shared values and camaraderie. Such neighborhoods are inhabited by people willing to share the responsibility of protecting their community with police

officers, resulting in more informal contact (Maxson, Hennigan, & Sloane 2003). This leads to the next factor affecting people's perceptions of police, contact with police.

Secondary police contact can be defined as instances where an individual witnesses or learns about another individual's interactions with police but is not personally involved. Examples would include witnessing someone being arrested, hearing about the experiences of someone who has had personal contact (be it good or bad) with the police, or watching/reading about police encounters through various media outlets. Watching an individual being arrested can have a negative effect on a person's perceptions of police officers if there is a belief that the arrest was wrongful or excessive force was used (Weitzer & Tuch, 2004). Though there is no direct interaction with officers, the empathy or perceived injustice is enough to alter an individual's perceptions. Additionally, such an event will likely be discussed with others, thereby furthering negative perceptions of police officers. Even with no personal contact, people can have negative perceptions of police due to what they hear from others (Weitzer & Tuch, 2004). This is known as a vicarious experience and can have lasting effects on people who were not involved or even present during the encounter. Some research suggests that such vicarious experiences can influence large neighborhoods and entire subcultures (Harris, 2002; Jacob, 1971; Weitzer & Tuch, 2004). Beyond negative perceptions of police officers, vicarious experiences can affect an individual's perception of the amount of police misconduct (Weitzer & Tuch, 2004). Repeatedly hearing about police misconduct from others can negate any positive experience an individual has had. One way that this vicarious experience can go beyond the local area of the encounter is through media coverage.

The media have some of the strongest effects on perceptions of police officers. Maxson et al. (2003) reported that 35% of respondents were most influenced by the media. The same percentage of those influenced by the media had negative perceptions of police when compared to those influenced by personal contact with officers. Part of the reason for this is the fact that most highly publicized police encounters are of perceived police misconduct. Cases that are widely publicized have been found to have prolonged negative effects on public opinion of police officers (Weitzer, 2002). Examples of this would include the Rodney King incident and the Ferguson, Missouri incident. The negative effect of the media does not necessarily rely on a court's opinion of guilt; in fact, this can increase the negativity toward police officers. Many of these cases are then politicized and become part of the debate over race and police brutality (Walker et al., 1972). Interestingly, some studies fail to find media to be a significant predictor of perceived police effectiveness. Dowler (2002) found that media were only significantly related to perceptions of police effectiveness among those who had prior contact with police. However, the data used for this study were old (1995), and there could be different results if the analysis was run with more recent data. Media, including social media, have become a large part of where people get their information on police/citizen interactions. Callanan and Rosenberger (2010) found that the media did significantly increase confidence in the police; however, those with personal interactions with police officers were not affected by the media as much.

Primary contact would include both voluntary and involuntary personal police contact. Examples include being arrested or detained, calling to report a crime or request service, or interacting with police officers at community events. Those whose contact

with police officers involves more of the informal encounters, such as community events, seem to have a more positive perception of the police, while those with formal contact, such as being arrested, had less favorable perceptions (Maxson et al., 2003). Most studies find involuntary contact with police leads to less favorable perceptions (Cheurprakobkit, 2000; Correia et al., 1996; Weitzer, 1999; Weitzer & Tuch, 2004). Involuntary contact tends to be initiated by the police in response to citizen misconduct. This could include being stopped for speeding, contacted about a noise complaint, or being detained for questioning. Not surprisingly, Engel (2005) found police-initiated contact to be perceived as unfair to those involved. Additionally, being the victim of a crime affects one's perceptions of police officers. Some might argue that contact with police after being the victim of a crime is involuntary as no one chooses to be a victim. Conversely, some could argue that the victim is making voluntary contact to report the crime. Regardless of how it is classified, being victimized has a negative effect on perceptions of the police (Maxson et al., 2003). Undoubtedly, there is a perceived failure of the police to provide safety because the crime occurred.

This brings about the next form of police contact, which is contact made voluntarily with police officers. Research on voluntary police contact (e.g., reporting a crime or placing a call for service) has produced mixed results on the impact on an individual's perceptions of police officers. Maxson et al. (2003) reported that people with only formal contact, most of which was calling for service or to report a crime, had the most negative perceptions of the police. Other studies have noted that the outcome of the encounter affects an individual's perceptions (Jacob, 1971; Jesilow et al., 1995; Walker et al., 1972). Weitzer and Tuch (2004) state that being treated with respect has a

much greater effect on an individual's perceptions than the outcome of the encounter. Still other studies find a positive relationship between police contact and positive perceptions (Cheurprakobkit, 2000; Jacob, 1971). What is important to note is that contact with police does affect perceptions of police officers. Whether those encounters result in positive or negative perceptions seems to depend on other factors, such as race, prior experiences, and trust in the police.

Police Perceptions of Use of Force. One of the most infrequently researched topics on perceptions of use of force deals with police officers' perceptions of such encounters. Even less frequent are studies that look at police perceptions of police legitimacy. Recall that procedural justice is the primary means of building legitimacy for police officers (Mastrofski et al., 1996; Mazerolle et al., 2012; Mazerolle et al., 2013; Reisig et al., 2012; Tyler, 2004 & 2006). Treating citizens with respect and fairness during encounters was found to be the best way for police officers to increase citizens' perceptions of police legitimacy. Such increased legitimacy results in more compliance and cooperation by citizens during police encounters. Contrary to this, Nix (2017) found that police officers believed distributive justice to be the most influential factor affecting citizens' perceptions of legitimacy. Distributive justice differs from procedural justice in that it focuses on the outcome of the process, not the process's fairness. Police officers seem to focus on the results of their work, not the means by which it is accomplished. Both the process and the outcome are important factors affecting citizens' perceptions; however, the process seems to be a more influential factor (Nix, 2017; Tyler, 1994). This shows a disconnect between citizens' and police officers' perceptions of what is more important.

To better understand these differences, other researchers have examined police officers' perceptions of police use-of-force encounters with citizens. Rojek, Alpert, and Smith (2012) found that officers generally believe that their level of force was necessary and reasonable when asked about use-of-force interactions with citizens. They also found that other officers supported the level of force used by the primary officer involved in the situation. This suggests that officers will generally view each other in a positive light and support other officers' actions in use-of-force situations. Hadar and Snortum (1975) found that officers had a more positive opinion of the typical police officer when compared to citizens' perceptions. It should be mentioned that no matter the perceptions of use of force, police officers tend to back each other when they are in view of the public. This is known as the blue wall of silence and primarily deals with officers refusing to testify against each other (Kleinig, 2001). Research about the code of silence is inconclusive. Some studies show it exists (Kutnjak Ivković & O'Connor Shelley, 2008), while others show that a code of silence in law enforcement is less common than in civilian workforces (Kääriäinen, Lintonen, Laitinen, & Pollock, 2008; Rothwell & Baldwin, 2006). Westmarland (2005) suggests that officers are less likely to report illegal brutality when compared to other unethical behavior like acquisition of goods. The blue wall of silence can reach beyond official proceedings and could affect this research. Police officers may not be as willing to disagree with another officer's use of force when being surveyed or interviewed by researchers.

There did seem to be a more critical view if the officers were more experienced. Hadar and Snortum (1975) discuss this difference as a result of more experienced police officers being in administrative roles where they have more responsibility and, therefore,

must be more critical of police actions. Another explanation could be that more experienced officers are less likely to use force than their less experienced colleagues. Paoline and Terrill (2007) found that officers with more experience used less physical and verbal force overall. It would seem that the amount of time spent on the force has a negative effect on police officers' perceptions of use of force. However, a greater amount of time spent as a police officer can result in burnout.

It follows that officers who have spent more time on the force will have more burnout due to greater exposure to stressors. This, of course, will not always be the case. Younger and more inexperienced officers can also suffer from burnout. There are three dimensions of burnout: emotional exhaustion, depersonalization, and decreased personal accomplishment (Kop, Euwema, & Schaufeli, 1999; Maslach, 1993). Emotional exhaustion is the most recognizable dimension and deals with draining emotional responses (Kop et al., 1999; Maslach, 1993). This dimension is more situational-based, while the two other dimensions are perceptual. Depersonalization is related to the negative perceptions of citizens and other officers, while decreased personal accomplishment refers to the negative perceptions of the officer's self (Kop et al., 1999; Maslach, 1993). For police officers, burnout comes from two major places. The first deals with job-duty stresses, such as the threat of danger, while the second deals with organizational stresses like poor communication, management, and structuring (Burke & Mikkelsen, 2004). Police officers with higher levels of burnout tend to have a greater approval of the use of force. Burke and Mikkelsen (2004) found that police officers with higher levels of cynicism were more likely to favor use of force, while those who enjoyed their jobs were more likely to favor social skills to resolve conflict. Kop et al. (1999)

found that higher levels of emotional exhaustion and depersonalization resulted in using force to solve problems. Depersonalization was also positively related to the amount of force used.

III. METHODS

This research is focused on perceptions of use-of-force encounters. Recall that similar studies have focused on individual characteristics rather than situational factors. Race is probably the most studied individual characteristic with studies varying the race of both the officer and the suspect (Kochel et al., 2011). Other studies have tried to use situational factors to control for the effects of race (Black, 1971; Black & Reiss, 1970; Friedrich, 1977; Lee et al., 2010; Lundman et al., 1978; McElvain & Kposowa, 2008; Riksheim & Chermak, 1993). This study seeks to determine whether there is a difference in perceptions of use of force between police officers and citizens. Furthermore, it seeks to determine what situational factors, if any, affect both police and citizen perceptions of use-of-force encounters.

Design

This study employed a factorial survey to examine what situational factors affect people's perceptions of use-of-force encounters. Factorial surveys have been described as quasi-experimental and possess a number of benefits when researching judgments and perceptions (Wallander, 2009). These benefits include being able to study the context affecting perceptions, decrease the tendency to give socially desirable answers, and assess influential factors about which respondents are unaware (Wallander, 2009). Using a traditional survey to examine perceptions typically removes context. Wallander (2009) discusses an example where people's perceptions of the death penalty change depending on whether the context of the crime was provided. Additionally, when using a traditional survey, respondents are directly asked about their perceptions of certain factors, which allows them the opportunity to provide what they believe to be socially desirable

answers. Factorial surveys disguise the factors being studied, thereby achieving more truthful responses. This is done by presenting one story where only a few factors vary from case to case. Finally, respondents may not be aware of all the factors that affect their perceptions. If a respondent is unaware that the race of the officer would affect his or her perception of an arrest, the respondent may unknowingly provide an inaccurate answer when asked about the officer's race directly. Factorial surveys have been used in criminal justice research to study a variety of topics. These topics include deterrence, punitiveness toward certain crimes, drunk driving, routine conflict, and crime seriousness (Applegate, Cullen, Link, Richards, & Lanza-Kaduce, 1996; Durham, 1986; Herzog, 2003; Kennedy & Forde, 1994; Wallander, 2009).

Factorial surveys use vignettes, or short stories, where only the factors being examined vary. These factors are the independent variables that the researcher believes will affect a person's judgment. The dependent variable(s) comes from the question(s) asked in response to each vignette. Each factor has a number of levels that vary in each vignette. For example, one factor might be the suspect's race and could be comprised of four levels, White, Black, Asian, or Hispanic. Another factor might be the officer's race, which could be comprised of the same four levels. To find the total number of possible variations, one would multiply the levels of each factor. In this example there are two factors with four levels each; therefore, one would multiply 4×4 resulting in 16 possible combinations. This total is known as the vignette universe. There is no limit to the number of factors and levels that can be included in a factorial survey though the complexity increases as more factors are added. For example, if a survey had five factors with three levels, three factors with four levels, and two factors with six levels, the

vignette universe would be comprised of 559,872 different vignettes ($3 \times 3 \times 3 \times 3 \times 3 \times 4 \times 4 \times 4 \times 6 \times 6 = 559,872$). Once the vignette universe is created, it is important to assess the plausibility of certain combinations.

It is important to note that not all possible combinations may be plausible. Vignettes fall into three categories of plausibility. The first category is a plausible vignette. These vignettes are comprised of levels that can plausibly occur together. For example, one factor may be highest level of education, and another factor may deal with career. It is not only plausible but actually probable that someone with a medical degree would be a doctor. This is a plausible combination of factors. The second category deals with improbable vignettes. These are vignettes that have possible but unlikely combinations of levels. Going back to the previous example, if income was added as a factor, one possible vignette would be a doctor who makes less than \$10,000 a year. Though this is a possible combination, it is unlikely that a doctor would make less than \$10,000 a year. The final category deals with impossible combinations. Using the example of education and career, one possible vignette is someone with no high school education being a doctor. This is impossible because it takes advanced schooling to become a doctor; therefore, this combination could not exist in the real world. Vignettes that fall under the first category are usable and should be presented to respondents. The second category requires the researcher to make a decision whether to include implausible vignettes, while the final category of vignettes requires exclusion from the survey.

One benefit of the factorial survey is that it does not require each respondent to receive the whole vignette universe. There is much debate regarding the appropriate

number of vignettes to provide for each respondent (Auspurg & Hinz, 2014; Ludwick & Zeller, 2001). It is important that respondents are not given too many vignettes for a couple of reasons. One reason is that long surveys can cause survey fatigue, which may result in inaccurate responses or higher levels of incompleteness. The number of vignettes provided also deals with getting truthful responses. If too many vignettes are provided, it is likely that the respondent will realize what variables are being studied, which could result in socially desirable responses rather than valid ones (Auspurg & Hinz, 2014). Some argue that each respondent should receive only one vignette, thereby absolutely concealing variation of the factors (Auspurg & Hinz, 2014). Others argue that the number of vignettes given to each respondent varies based on the number of factors and levels. It has been suggested that using the simple formula (total number of factor levels – the number of factors + 1) provides the parameter (Ludwick & Zeller, 2001). For example, if there were three factors with three levels and two factors with two levels, the parameter would be nine ($13 - 5 + 1 = 9$). The parameter can be used as a general guideline for how many vignettes to provide. The most widely-held opinion is to use 10 vignettes per respondent because it provides enough data per person to avoid using a large sample while being short enough to avoid survey fatigue (Auspurg & Hinz, 2014). Using 10 vignettes per respondent was the method used for this research. The 10 vignettes for each respondent were randomly selected from the vignette universe. This allows for vignettes to be independent from one another (Jasso, 2006). Doing so also provides the ability to analyze both between-subject and within-subject variability.

Current Survey

This study seeks to examine the impact of different situational factors affecting perceptions of use-of-force encounters by using self-report factorial surveys. The survey was conducted online using the software Qualtrics. Recall that each respondent received 10 vignettes randomly selected from the 216 possible combinations with no repeats.

Before being given the first vignette, each respondent was asked to answer demographic questions regarding age, race, gender, highest level of education, state of residence, prior law enforcement experience, and prior military experience. Age was measured in years and was grand mean centered for all respondents. Race was divided into four categories: Caucasian, African-American, Hispanic, and Other. There were eight categories that could be selected for education: no school completed, high school diploma, some college no diploma, associate's degree, bachelor's degree, master's degree, professional doctorate, and a Ph.D. Education was condensed into a dichotomous variable where one (1) represented those with a bachelor's degree or higher and zero (0) corresponded to no bachelor's degree. Prior law enforcement and prior military experience were both dichotomously coded where one (1) meant yes and zero (0) was no experience. Additionally, both police and citizens were asked about their political association at the end of the survey. The respondent could choose Democrat, Independent, Republican, or Other. Including this question at the end of the survey allowed for the collection of data regardless of whether the respondent chose to exit the survey due to the sensitive nature of the political question.

Police officers were separately asked about the years of experience, primary job duty, and level of government. Years of experience were measured in years and were

grand mean centered. Primary job duty was broken into seven categories: patrol, special operations, training, investigations, administration, retired officers, and other. Level of government was divided into four groups: local, county, state, and federal officers.

Citizens were separately asked questions after the vignettes concerning income, general attitude toward police, amount of contact with police in the past year, and the overall perceptions of that contact. Income was broken into nine groups: under \$20,000, \$20,000 – \$29,999, \$30,000 – \$39,999, \$40,000 – \$49,999, \$50,000 – \$59,999, \$60,000 – \$69,999, \$70,000 – \$99,999, \$100,000 – \$149,999, and \$150,000+. The income variable was then aggregated into three groups: low income (\$0 – \$39,999), middle income (\$40,000 – \$99,999), and high income (\$100,000+). General attitude toward police was measured using a 0 – 10 point sliding scale where zero (0) corresponded to very negative and 10 was very positive. Contact with police in the past year was measured dichotomously where one (1) was yes to contact and zero (0) was no contact. The amount of contact could be 1 – 3, 4 – 5, or 6+. The overall perception of that contact was measured on the 0 – 10 point sliding scale where zero (0) corresponded to very negative and 10 was very positive.

The factorial survey used for this research described a use-of-force encounter using three factors with three levels and three factors with two levels. Recall that most research on perceptions of use of force involve individual-level characteristics, such as race. This survey sought to determine what situational characteristics, if any, affect people's perceptions of use of force. The first situational factor was the number of officers present as backup. The three levels were no backup, one officer as backup, or two officers. The second factor concerned the suspect's weapon. The three levels were

no weapon, a knife, or a gun. The final factor, consisting of three levels, dealt with the officer's weapon. The officer used either his bare hands, a Taser, or a gun. The fourth factor concerned suspect movement. The suspect could either be standing about 20 feet away or moving quickly toward the officer. The fifth and sixth factors were related to the outcome of the use of force and were both two-level factors. The fifth factor was the level of injury to the officer and was provided as either minor injuries or major injuries. The final factor dealt with the suspect's injuries and was also stated as being either minor injuries or major injuries.

The vignette universe was comprised of 216 different possible vignettes ($3 \times 3 \times 3 \times 2 \times 2 \times 2 = 216$) (See Examples 1 – 5). Each of these possible combinations fall under the first two categories of plausibility, meaning that no combinations needed to be excluded. The following five examples were randomly selected to provide the reader with a better understanding of the scenario and method used. The scenario is repeated with only the independent variables described above changing from one example to the next.

Vignette Example 1.

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a Taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

Vignette Example 2.

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

Vignette Example 3.

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

Vignette Example 4.

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

Vignette Example 5.

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

Several dependent variables were measured in response to each vignette. The first dependent variable was a dichotomous measure of whether the officer could have used less force. The second dependent variable was also dichotomous and concerned whether the police officer in the scenario was justified in his actions. Next, the respondent was asked how reasonable the police officer's actions were. This was measured on a 0 – 10 point sliding scale where zero (0) corresponded to absolutely unreasonable and 10 was absolutely reasonable. It has been suggested that an 11-point scale is ideal for factorial surveys because respondents tend to use fewer categories with larger scales (Auspurg & Hinz, 2014). The survey tool displayed the above mentioned 11-point scale but used an unseen decimal point resulting in a 0 – 100 scale for analysis. Following the question about reasonableness, the respondents were asked to rate how threatening the suspect's actions were using the same 0 – 10 point sliding scale with unseen decimals. Note that this deals with the perceptions of the suspect's threat level and not the suspect's level of resistance. Zero (0) equated to not at all threatening while 10 was extremely threatening. Then the respondents were asked to rate the amount of force they would have used if they had been the police officer in the scenario. This was

also measured on a 0 – 10 point sliding scale with unseen decimals where zero (0) corresponded to no force and 10 was the maximum amount of force possible (i.e., deadly force).

Next, the respondents were asked a series of questions dealing with possible punishments for the police officer involved. First, the respondent was asked whether the officer should be punished for his action or not. The question called for a dichotomous response that began a skip pattern. If the response was “yes,” the respondent was sent to the next punishment question. The next punishment question asked what punishment the officer should be given. The punishments included leave with pay, leave without pay, being fired, being given probation, and being given prison time. Choosing the option of firing the officer sent the respondent to the final question. If respondents chose leave with pay, leave without pay, probation, or prison, they were asked about the amount of that punishment the officer should receive. Each of the four outcomes was measured using a 0 – 10 point sliding scale with zero (0) being one day and 10 being the maximum amount of penalty. Upon finishing the amount of punishment questions, or if the respondent chose that the officer should not be punished, her or she was sent to the final dependent variable question.

Finally, the respondents were asked to rate their level of trust for the police department where the officer involved worked on a 0 – 10 sliding scale. A response of zero (0) indicated absolutely no trust while 10 corresponded with absolute trust in the department as a whole. Each of these questions was asked after each new vignette was provided.

Analysis

Recall that because each respondent completed 10 randomly assigned vignettes, responses are nested in participants, making vignettes level one and participants level two. Hierarchical data such as these do not necessarily require multilevel models, but clustering becomes an important issue to consider here. Ignoring clustering produces biased standard error estimates, which consequently invalidate tests of statistical significance. The standard errors are biased because traditional regression models produce smaller standard errors when used for multilevel data, which in turn inflates tests of significance. Accounting for clustering by using a mixed effects model provides more conservative standard errors thereby making tests of significance unbiased. Additionally, using multilevel models provides efficient coefficients and allows the level two variation to be examined (Goldstein, 2011; Nezlek, 2001). Research employing factorial surveys, such as this, have regularly used multilevel modeling to analyze the data (Auspurg & Hinz, 2014; Hox, Kreft, & Hermkens, 1991; Jasso, 2006; Rossi & Nock, 1982). The analysis will therefore begin by exploring whether multilevel modeling is necessary. This is done by comparing the likelihood ratio test to the linear model.

Equation 1. Multilevel Linear Regression Equation with Level 1 Explanatory Variables.

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{ij} + e_{ij}$$

Equation 2. Multilevel Linear Regression Equation with Level 2 Explanatory Variables.

$$\beta_{0j} = \gamma_{00} + \gamma_{01}W_j + u_{0j}$$

Equation 3. Combined Multilevel Linear Regression Equation with Level 1 & 2 Explanatory Variables.

$$Y_{ij} = \gamma_{00} + \gamma_{11}X_{ij} + \gamma_{01}W_j + u_{0j} + e_{ij}$$

The nature of the dependent variables also influences model selection. While a general linear model (adjusted for clustering as needed), for example, is appropriate for analyzing continuous dependent variables, a logistic regression model is more appropriate for analyzing dichotomous variables. Similar to that of the linear model, multilevel logistic regression accounts for clustered data and provides unbiased coefficient estimates. Using logistic regression, while accounting for clustering, can produce odds ratios that can also be converted into probabilities for interpretations. With the dependent variable being dichotomous, the odds ratios are the odds of selecting “yes.” Additionally, multilevel ordinal logistic regression was used to analyze the punishment-level question, which presents ordered responses for a respondent to select. Ordinal regression, while controlling for clustering, can also produce odds ratios that can be used to calculate proportions. Unlike the logistic regression odds ratios, these are interpreted as the odds of moving a level of punishment.

Equation 4. Multilevel Logistic Regression Equation with Level 1 Explanatory Variables.

$$\text{Log}\left[\frac{p_{ij}}{1 - p_{ij}}\right] = \beta_{0j} + \beta_1 x_{ij}$$

Equation 5. Multilevel Logistic Regression Equation with Level 2 Explanatory Variables.

$$\beta_{0j} = \beta_0 + u_{ij}$$

Equation 6. Combined Multilevel Logistic Regression Equation with Level 1 and 2 Explanatory Variables.

$$\text{Log}\left[\frac{p_{ij}}{1 - p_{ij}}\right] = \beta_0 + \beta_1 x_{ij} + u_{ij}$$

IV. RESULTS

Sample

There were two separate populations sampled for this research. See Table 1 for sample demographic variables. The first sample was comprised of U.S. police officers who have taken one of the courses provided by the ALERRT Center at Texas State University. The ALERRT Center has been named as the Federal Bureau of Investigation’s national standard in active response training. ALERRT provides a wide range of classes dealing with active shooter response and conducts training in every state. As such, ALERRT has trained over 100,000 officers nationwide and includes all levels of law enforcement. ALERRT trains local, state, and federal officers in all 50 states as well as Guam, Saipan, and Puerto Rico. Officers are sent a survey 90 days after completing an ALERRT class. The survey is used to ask questions about the usefulness of the training. The survey for this research was sent in place of the 90-day survey for a six-month period of ALERRT courses. This is a convenience sample; however, it is also a fairly nationally representative sample of police officers in the U.S.

Table 1. Sample Demographics

Demographic	Citizens (488)		Police (821)	
	N	%	N	%
Race				
Caucasian	175	35.86	639	77.83
African-American	117	23.98	58	7.07
Hispanic	101	20.70	77	9.38
Other	95	19.46	47	5.72
Higher Ed.				
No Four-year Degree	240	49.19	447	45.55
Four-year Degree or Higher	248	50.81	374	54.45
Gender				
Male	223	45.70	736	89.65
Female	265	54.30	85	10.35
Political Association				
Democrat	202	42.00	54	9.28
Independent	139	28.90	116	19.93
Republican	87	18.09	355	61.00

Table 1 Continued.

Other	53	11.01	57	9.79
Military Experience	63	12.91	269	32.76
	Mean	SD	Mean	SD
Age	43.41	15.58	41	10.28
Years Military Experience	6.95	7.36	9.04	6.87

The police officer sample consisted of 821 officers from 41 states. A total of 5,503 officers received emails, making the response rate 14.9%. Response rates for police surveys vary drastically. One study found that increasing the number of officers invited to take a survey decreased the response rate by 1% for every 100 officers (Nix, Pickett, Baek, & Alpert, 2017). Additionally, it was found that doing in-person surveys was the best way to get high response rates. Nix et al. (2017) noted that a lower response rate for police surveys was not a good predictor or nonresponse bias. The average age of the police sample was 41 (SD = 10.28) and ranged from 20 to 87 years old. A vast majority of the officers were Caucasian (n = 639, 77.83%), followed by Hispanic at 9.38% (n = 77), African-American at 7.07% (n = 58), and finally other races at 5.72% (n = 47). Not surprisingly, 89.65% (n = 736) of the police sample was Male, making 10.35% (n = 85) of the sample Female.

There were eight categories that could be selected for education: no school completed (n = 1, 0.12%), high school diploma (n = 55, 6.7%), some college no diploma (n = 269, 32.76%), associate's degree (n = 122, 14.86%), bachelor's degree (n = 289, 35.2%), master's degree (n = 70, 8.53%), professional doctorate (n = 4, 0.49%), and a Ph.D. (n = 11, 1.34%). Education was condensed into a dichotomous variable where one (1) represented those with a bachelor's degree or higher (54.45%) and zero (0) corresponded to no bachelor's degree (45.55%). There were only nine states not

the county at 26.37% (n = 207), the state at 19.11% (n = 150), and the federal level at 9.17% (n = 72). A majority of respondents were patrol officers (n = 412, 52.35%). The next two largest groups were investigations with 98 (12.45%) respondents and training officers with 80 (10.17%) respondents. Other primary job duties included special operations (n = 62, 7.88%), administrative (n = 59, 7.5%), and other (n = 59, 8.77%). There were seven (0.88%) respondents who were retired officers. Officers were also asked about prior military experience. Two hundred and sixty-nine (32.76%) officers had prior military experience, with an average of 9.04 (SD = 6.87) years served and a range from less than one year to 36 years.

Table 2. Sample Demographics for Police-specific Variables

Demographic	N	%
Level of Government		
Local	356	45.35
County	207	26.37
State	150	19.11
Federal	72	9.17
Primary Job Duty		
Patrol	412	52.35
Special Operations	62	7.88
Training	80	10.17
Investigations	98	12.45
Administration	59	7.50
Retired	7	0.88
Other	59	8.77
	Mean	SD
Years of Law Enforcement Experience	13.11	9.6

The second sample was comprised of citizens. The national survey company SSRS was used to distribute the survey. SSRS uses random-digit dialing in a once-a-week survey of 1,000 individuals 18 years and older throughout the U.S. Included in this random-digit dialing were cellphone numbers. Upon responding to this weekly survey, the participants were asked if they would like to join the SSRS pool of respondents for

future surveys in exchange for incentive pay. They were also asked if they have internet access. This allowed SSRS to maintain a constant national sampling pool where specific sampling can be conducted.

There were 488 civilian respondents out of 2,891 invited making the response rate 16.9%. There were responses from 44 different states. The citizen sample had an average age of 43.41 (SD = 15.58) and ranged from 19 years to 81 years old. When sampling from this population, minority groups were oversampled in hopes of receiving a nationally representative sample of citizens. Race can play an important role in individual perceptions of use of force; therefore, it is important to have a large enough sample of minorities to make comparisons. One hundred and seventy-five (35.86%) people were Caucasian, 117 (23.98%) were African-American, 101 (20.7%) were Hispanic, and the remaining 95 (19.46%) were other races. A slight majority of the citizen sample was Female (n = 265, 54.3%). Six participants (1.23%) had no school completed, 58 (11.89%) had a high school diploma, 120 (24.59%) had some college but no degree, 56 (11.48%) earned an associate's degree, 141 (28.89%) possessed a bachelor's degree, 77 (15.78%) had a master's degree, 14 (2.87%) had some sort of professional doctorate, and 16 (3.27%) had a Ph.D. Education was once again condensed into the binary variable described above. There were 240 (49.19%) respondents who fell into the no four-year degree category and 248 respondents (50.81%) who possessed a four-year degree or higher.

Four hundred and twenty-five respondents answered the income question. Of those, 43 respondents (10.12%) made under \$20,000 a year, 39 (9.18%) made \$20,000 – \$29,999, 48 (11.29%) made \$30,000 – \$39,999, 33 (7.76%) made \$40,000 – \$49,999, 37

(8.71%) made \$50,000 – \$59,999, 45 (10.59%) made \$60,000 – \$69,999, 80 (18.82%) made \$70,000 – \$99,999, 57 (13.41%) made \$100,000 – \$149,999, and 43 (10.12%) made \$150,000 or more a year. The income variable was then trichotomized into low (\$0 – \$39,999), middle (\$40,000 – \$99,999), and high (\$100,000+) income groups. Low income accounted for 30.59% of the respondents, middle accounted for 45.88%, and those with high income were the remaining 23.53%.

Three respondents did not answer the question about their state of residence. The six states not represented were Maine, New Hampshire, North Dakota, Rhode Island, Vermont, and Wyoming. See Figure 5. The state with the most responses was California (13.73%, n = 67). Democrat was the largest political group (n = 202, 42%) in the sample, followed by Independent (n = 139, 28.9%), Republican (n = 87, 18.09%), and Other (n = 53, 11.01%). Seven people did not respond to the question.

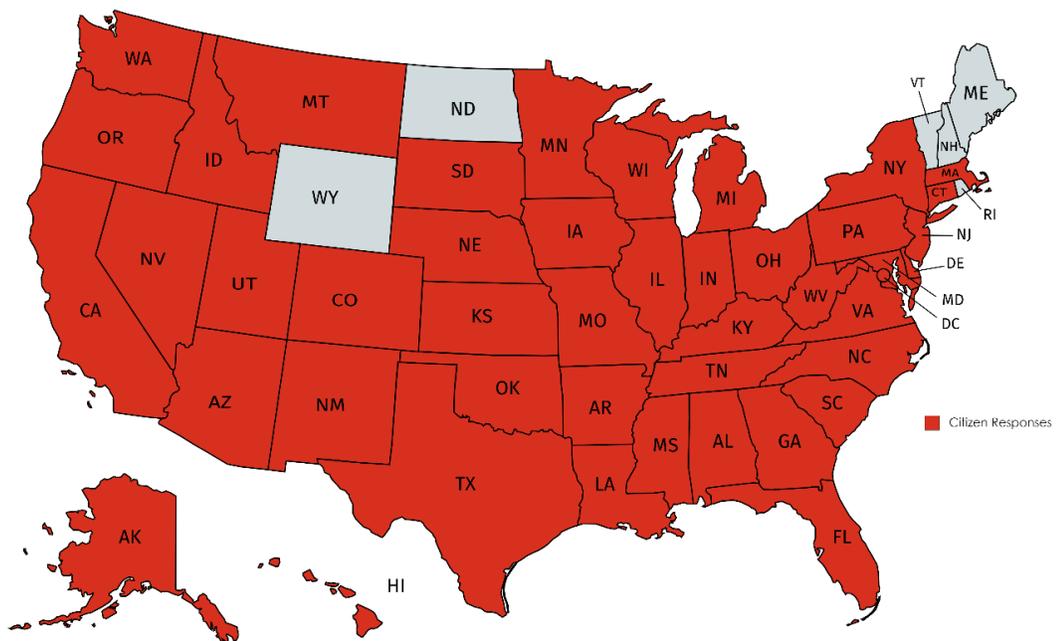


Figure 5. Survey Response Coverage for Citizen Respondents

Questions regarding respondents' general perceptions of police were also asked. See Table 3. Four hundred and sixty-one respondents answered the question; the mean was 6.52 (SD = 2.45) on the zero (0) to 10 sliding scale mentioned above, with higher scores indicating more favorable attitudes toward police. The responses ranged from 0 to 10. One hundred and seventy (36.88%) respondents had contact with police in the last year, and the average perception of that contact was 6.84 (SD = 2.62) on the 0 – 10 scale. Again, higher scores indicated more favorable attitudes regarding the contact with police. A vast majority (91.77%) of respondents who had contact with police had one to three encounters, while 5.88% had four to five encounters, and only 2.35% had six or more.

Table 3. Sample Demographics for Citizen-specific Variables

Demographic	N	%
Income		
Low (\$0 – \$39,999)	130	30.59
Mid (\$40,000 – \$99,999)	195	45.88
High (\$100,000+)	100	23.53
Contact with Police		
Yes	170	36.88
No	291	63.12
Number of Contacts with Police		
1 – 3	156	91.77
4 – 5	10	5.88
6+	4	2.35
	Mean	SD
Perceptions of Police	6.52	2.45
Perceptions of Contact with Police	6.84	2.62

Introduction to Results

As previously mentioned, mixed effects multilevel modeling is used to analyze the results of this survey. Multilevel modeling controls for vignette responses being nested within respondents. Also recall that there are 12 dependent variables in this study for a combined sample, a citizen sample, and a police sample. Each of these 12

dependent variables is presented in its own table with all three samples represented. Three of the 12 dependent variables are measured dichotomously, and multilevel logistic regression is used. One dependent variable is measured using ordinal categorical responses. This variable is analyzed using multilevel ordinal regression. The remaining eight dependent variables are measured using a continuous scale and multilevel linear modeling is employed. Both multilevel logistic regression and ordinal regression generate odds ratios, while the linear regression generates unstandardized coefficients. Odds ratios are interpreted as the change in the odds of selecting “1” or “Yes” for logistic regression or the change in the odds of changing a level for ordinal regression. Additionally, the odds ratios can be converted into probabilities by dividing the odds ratio by one plus the odds ratio. Linear regression coefficients are interpreted as the standard one unit change in X results in a change in Y by the coefficient amount. All interpretations for these odds ratios or coefficients are made on average, while controlling for other variables in the model, and while allowing for clustering.

Each table can be broken into two major categories: the level one variables (vignette variables) and the level 2 variables (respondent variables). Many of the independent variables are categorical, and their interpretations are made by comparing the variable in question to the reference group. The reference group is provided in parentheses in each table for each non-binary categorical variable. Binary variables are compared to the absence of the variable (e.g., 0 = Female and 1 = Male for the variable Male). The one exception is for officer and suspect injury. Both variables are coded so that zero (0) corresponds to a minor injury and one (1) corresponds to a major injury. It should be noted that when the citizen and police samples are analyzed separately, the

political association variable is dropped for the officer sample. Two hundred and thirty-nine police officers did not answer the political association question, thereby excluding them from analysis when that variable is included. Multilevel regression analyses were conducted with and without political association, and it was determined that political association had no significant effect for police outcomes.

It should also be noted that many of the tables present an interaction term between officer weapon and suspect weapon. When this interaction is present, the interpretation of suspect and officer weapon changes slightly. The presence of a suspect knife or gun is compared to the suspect using no weapon and when the officer was using his bare hands for the suspect weapon variable. Similarly, the presence of an officer's Taser or gun is compared to the officer using bare hands and when the suspect had no weapon for the officer weapon variable. The interactions are interpreted as that particular combination of suspect and officer weapon compared to a suspect with no weapon against an officer using his bare hands. Suspect weapon is moderating the officer weapon's effect on the dependent variable. For example, the effect of the officer using a Taser against a suspect with no weapon, compared to using bare hands, decreases reasonableness by 1.03 (see Table 7). However, when an officer used a taser against a suspect with a knife, the presence of the knife changes the effect of Taser on reasonableness by 2.13 when compared to the officer using bare hands against a suspect with no weapon. In other words, using a Taser goes from being unreasonable against a suspect with no weapon to reasonable when the suspect has a knife.

There are two model fit statistics presented for each regression model. The first is what is known as the deviance. Deviance is a model fit product of the maximum

likelihood estimation for multilevel models. Deviance deals with the lack of fit between the model and the data and involves transforming the likelihood by taking the natural log of the likelihood and multiplying it by negative two (Luke, 2004). The deviance cannot be directly interpreted; instead it is used to compare models and their fit to the data (Luke, 2004). A lower deviance implies a better model fit to the data. That being said, the more parameters present in a model, the lower the deviance will be. The Wald Chi² is a model level test and compares the simpler model with no explanatory variables to the more complex model that is estimated including explanatory variables (Hox, Moerbeek, & Schoot, 2018). The null hypothesis for this test is that all of the fixed effects slopes jointly equal zero (0), meaning that the simpler model would be preferred. When the Wald Chi² is significant, one would conclude that the more complex model is preferred. Additionally, multilevel regression results also provide the random effects intercept, which is the variance component of the model. This variance component is the expected value across all participants (Hox, Moerbeek, & Schoot, 2018).

Less Force

Combined. Table 4 presents the results for the multilevel logistic regressions used to determine what factors affect deciding whether or not the officer could have used less force. Recall that less force was a binary outcome where the respondent said that the officer could have used less force in the scenario or that the officer could not have used less force. Multilevel logistic regression generates odds ratios, which are interpreted in the same way non-multilevel odds ratios are with the addition of controlling for clustering. An example interpretation would be: when there were two officers present as backup, the odds of choosing that the officer could have used less force increased by 31%

or were 1.31 times greater when compared to the officer having no backup. Converting the odds ratio to a probability, it can be concluded that the probability of choosing less force when there were two officers as backup is 0.57. The combined sample model had a Wald Chi² of 1960.81, which was statistically significant at the 0.001 level.

Level one (vignette) variables were all found to have significant effects on determining whether the officer could have used less force. Additionally, all level one variables had the expected effects on choosing less force. An example of this would be that when the suspect used a gun compared to no weapon and when the officer was using his bare hands, the odds of choosing less force decreased by 89%. Furthermore, when the officer sustained major injuries over minor injuries, the odds of choosing that the officer could have used less force were 27% less. This corresponds to a 0.42 probability of choosing less force when the officer sustained a major injury rather than a minor one.

All interaction terms correspond to a decrease in the odds of choosing less force. Recall that suspect weapon is seen as a moderator for the effect of officer weapon on determining whether the officer could have used less force. When the officer uses a gun against a suspect with no weapon compared to using bare hands, the odds of choosing less force increase by 39.01 times. However, when the suspect also has a gun, the odds of choosing less force decrease by 90%. In other words, when an officer uses a gun against a suspect with no weapon, people are more likely to say that the officer could have used less force. These odds decrease by 90% when the suspect also has a gun.

Several of the level two (respondent) variables were found to have significant effects on choosing whether or not the officer could have used less force. Additionally, these variables met expectations regarding their effects on choosing less force. For

example, when compared to those without a four-year degree, respondents with a bachelor's degree or higher were 1.44 times more likely to say that the officer could have used less force. Not surprisingly, those with law enforcement experience had 49% lower odds of choosing less force, compared to those with no law enforcement experience. One interesting point of note would be that only those who chose other race were significantly different from Caucasians when choosing less force. Their odds of choosing less force were 60% greater than Caucasians.

Citizens versus Police. Police officers and citizens were very similar when it came to determining whether the officer could have used less force. Many variables were significant for both groups and shared directionality in terms of increasing or decreasing odds. For example, a suspect moving toward the officer decreased the odds of choosing less force by 82% in the citizen model and 85% in the police model, when compared to no movement. One major difference was the significance regarding officer injury. For citizens, officer injury was not a significant factor in determining less force, while for officers, an officer sustaining a major injury decreased the odds of choosing less force by 33%. For both groups, suspect injury significantly increased the odds of choosing less force.

The presence of a suspect weapon was found to be a significant moderator for police officers and citizens in most cases. The only difference regarding the interaction term between police officers and citizens was when an officer used a gun against a suspect with a knife. For officers, the presence of a suspect knife significantly decreases the odds of choosing less force regardless of officer weapon. For citizens, on the other

hand, the presence of a suspect knife significantly affected their decision to choose less force when the officer used a gun.

Level two (respondent) variables were rarely significant and tended to meet expectations. For citizens and police officers, different variables were significant when determining less force. Age significantly decreased the odds of choosing less force for citizens but was not significant for officers. Hispanic officers had significantly higher odds of choosing less force, compared to Caucasian officers. No minority group was found to be significantly different from Caucasians for the citizen sample. Furthermore, citizens with a four-year degree or higher had 1.36 times greater odds of choosing less force when compared to those with no four-year degree, while education was not significant for officers. The last major difference between officers and citizens was the effect of gender on choosing less force. Male citizens had 31% lower odds of choosing less force, while male officers had 2.16 times greater odds of choosing less force. The citizen sample follows what would be expected when considering gender, while the officer sample is surprising. Female officers were significantly less likely to choose less force when compared to their male officer counterparts.

Several citizen-specific variables were significant, while no officer-specific variables were significant. All citizen-specific variables met expectations regarding their effects on choosing less force. For example, as perceptions of favorability toward police increased, the odds of choosing that the officer could have used less force decreased.

Table 4. Mixed Effects Multilevel Model Explaining Whether Less Force Could be Used

Parameter	Combined		Citizen		Police	
	OR	SE	OR	SE	OR	SE
<i>Fixed Effects</i>						
Intercept	1.24	0.25	1.27	0.32	0.27**	0.11
Vignette Variables						
Backup (No Backup)						
One Officer	1.21*	0.09	1.07	0.11	1.18	0.13
Two Officers	1.31***	0.10	1.32**	0.14	1.28*	0.14
Suspect Weapon (No Weapon)						
Knife	0.14***	0.02	0.16***	0.03	0.11***	0.02
Gun	0.11***	0.02	0.10***	0.02	0.09***	0.02
Suspect Movement ^b	0.16***	0.01	0.18***	0.02	0.15***	0.02
Officer Weapon (Bare Hands)						
Taser	5.19***	0.59	2.91***	0.48	8.44***	1.29
Gun	39.01***	5.59	12.75***	2.41	111.25***	23.50
Officer Injury ^b	0.73***	0.05	0.88	0.08	0.67***	0.06
Suspect Injury ^b	1.57***	0.10	1.72***	0.15	1.38***	0.12
Interaction (No Weapon x Bare Hands)						
Knife x Taser	0.31***	0.06	0.57*	0.14	0.17***	0.04
Knife x Gun	0.24***	0.05	0.80	0.20	0.07***	0.02
Gun x Taser	0.27***	0.05	0.54*	0.14	0.16***	0.04
Gun x Gun	0.10***	0.02	0.34***	0.09	0.03***	0.01
Respondent Variables						
Age (GMC)	0.99***	0.01	0.98***	0.01	1.02	0.01
Race (Caucasian)						
African-American	1.03	0.18	0.81	0.16	1.23	0.39
Hispanic	1.28	0.22	0.77	0.16	1.71*	0.45
Other	1.60**	0.29	1.26	0.26	1.41	0.47
Higher Ed. ^b	1.44***	0.16	1.36*	0.20	1.21	0.19
Male ^b	0.97	0.13	0.69**	0.10	2.16**	0.60
Law Enforcement ^b	0.51***	0.07				
Political Association (Democrat)						
Independent	0.77	0.12	1.03	0.17		
Republican	0.72*	0.12	0.50***	0.11		
Other	0.73	0.15	0.83	0.21		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			1.29	0.22		
High (\$100,000+)			1.73**	0.36		
Perceptions of Police (GMC)			0.91**	0.03		
Contact with Police ^b			1.06	0.15		
Years of LE Experience (GMC)					0.98	0.01
Level of Government (Federal)						
Local					0.95	0.27

Table 4 Continued.

County					0.91	0.27
State					1.02	0.31
Primary Job Duty (Patrol)						
Special Operations					1.17	0.35
Training					1.29	0.34
Investigations					1.16	0.28
Administration					1.40	0.44
Retired					1.19	1.00
Other					1.57	0.44
<i>Random Effects</i>						
$\sigma^2_{u_{0j}}$ (Intercept)	2.00	0.16	1.30	0.17	2.77	0.27
Deviance	8656.17		4183.69		4829.27	
Wald χ^2	1960.81***		833.93***		1178.91***	
Number of Observations	10444		4423		6696	
Number of Groups	1049		444		762	

^b = Binary

(Reference Group)

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

Justified

Combined. Table 5 reports the results for deciding whether or not the officer's actions were justified. *Justified* was measured as a binary variable; the officer's actions were *justified* or *not justified*. Multilevel logistic regression is used to examine what situational factors were significant in determining justified actions. An example interpretation would be: the odds of choosing that the officer's actions were justified increased 6.59 times when the suspect was moving toward the officer, compared to when he was standing still. The combined sample model had a Wald χ^2 of 1721.36, which was statistically significant at the 0.001 level.

All level one (vignette) variables were significant with the exception of having only one officer as backup and officer injury. Furthermore, all significant level one

variables were consistent with expectations regarding direction of effects. An example of this would be when an officer used a gun against a suspect with no weapon; the odds of choosing *justified* were 96% lower when compared to using bare hands. Another example was the significant difference suspect movement had on choosing “justified.” The odds of choosing *justified* were 6.59 times greater when the suspect was moving toward the officer, compared to no movement. It is not surprising that officer injury did not significantly affect judgments of justification. However, it is interesting that the presence of two officers as backup significantly decreased the odds of choosing “justified,” compared to no backup while one officer did not.

The interaction term between suspect and officer weapon was significant and increased the odds of choosing *justified* regardless of combination. Recall that the odds of choosing *justified* when the officer used a gun were 96% lower when the suspect had no weapon. The odds of choosing *justified* when the officer used a gun increased 10.11 times when the suspect used a knife and 25.72 times when the suspect had a gun. This means that the use of a weapon by the officer was generally seen to be unjustified unless the suspect also had some type of weapon.

A surprising number of level two (respondent) variables were significant when determining whether or not the officer’s actions were justified. All minority groups had significantly decreased odds in choosing *justified* when compared to Caucasians. Additionally, all political associations had significantly greater odds of choosing *justified* when compared to Democrats. Not surprisingly, police officers had an 87% increase in the odds of choosing *justified*, compared to those without law enforcement experience.

Citizens versus Police. There were few difference between police officers and citizens when looking at the level one (vignette) variables. The major difference was the effect of backup on determining whether the officer's actions were justified. For citizens, the presence of two officers as backup significantly decreased their odds of choosing "justified," while backup was not significant at any level of police officers. It seems that the number of officers rather than the mere presence of backup impacts a citizen's perceptions of justified force. Officers and citizens agreed for all other variables, both in terms of significance and direction. For example, the odds of choosing *justified* were 6.44 times higher and 6.90 times higher for citizens and officers, respectively, when the suspect moved compared to no movement.

Citizen and police officer similarities continued when looking at the interaction term. The use of a gun by the officer significantly decreased the odds of selecting *justified* unless the suspect had a weapon. This was also true for the use of a Taser by the officer. The odds of choosing *justified* when the officer used a Taser were 60% lower for citizens and 69% lower for officers when the suspect had no weapon. The presence of a suspect knife increased the odds of choosing *justified* for an officer using a Taser. The odds of choosing "justified" for an officer using a taser were 2.13 times greater for citizens and 8.59 times greater for officers.

There were two major differences between officers and citizens when considering shared level two (respondent) variables. The first major difference was that no minority group was significantly different when compared to Caucasians for citizens, whereas all minority groups were significantly different than Caucasians for police officers. In the officer sample, every minority group had significantly decreased odds of choosing

justified when compared to Caucasian officers. This is a surprising difference. One would expect race to matter for citizens rather than police officers because the subculture of policing has been shown to overcome individual-level differences (Kleinig, 2001). The second major difference was that being male significantly increased the odds of choosing *justified* for the citizen sample and was not significant for the police sample. Once again, perceptions of police had a significant and positive effect on determining justified force for the citizen sample. There were no police-specific, level two variables that significantly affected judgments of justified police actions.

Table 5. Mixed Effects Multilevel Model Explaining Whether the Officer's Actions Were Justified

Parameter	Combined		Citizen		Police	
	OR	SE	OR	SE	OR	SE
<i>Fixed Effects</i>						
Intercept	1.52*	0.29	1.22	0.32	6.74***	2.64
<i>Vignette Variables</i>						
Backup (No Backup)						
One Officer	0.94	0.07	1.01	0.11	0.88	0.10
Two Officers	0.78***	0.06	0.70***	0.08	0.88	0.10
Suspect Weapon (No Weapon)						
Knife	4.00***	0.55	6.16***	1.20	2.88***	0.54
Gun	3.71***	0.50	7.28***	1.45	2.14***	0.38
Suspect Movement ^b	6.59***	0.48	6.44***	0.65	6.90***	0.72
Officer Weapon (Bare Hands)						
Taser	0.36***	0.04	0.40***	0.07	0.31***	0.05
Gun	0.04***	0.01	0.10***	0.02	0.02***	0.003
Officer Injury ^b	0.99	0.06	1.05	0.09	0.88	0.08
Suspect Injury ^b	0.70***	0.05	0.63***	0.06	0.77**	0.07
<i>Interaction (No Weapon x Bare Hands)</i>						
Knife x Taser	3.55***	0.68	2.13**	0.57	8.59***	2.50
Knife x Gun	10.11***	1.91	1.78*	0.46	62.05***	17.49
Gun x Taser	3.15***	0.60	2.07**	0.57	4.72***	1.19
Gun x Gun	25.72***	5.09	5.06***	1.39	135.88***	39.74
<i>Respondent Variables</i>						
Age (GMC)	1.00	0.01	1.01	0.01	0.98	0.01
Race (Caucasian)						
African-American	0.62**	0.10	0.85	0.17	0.51*	0.14
Hispanic	0.68*	0.11	1.01	0.21	0.56*	0.13

Table 5 Continued.

Other	0.58**	0.10	0.79	0.17	0.41**	0.12
Higher Ed. ^b	0.92	0.09	0.86	0.13	1.05	0.15
Male ^b	1.13	0.14	1.39*	0.20	0.91	0.23
Law Enforcement ^b	1.87***	0.25				
Political Association (Democrat)						
Independent	1.36*	0.20	1.03	0.17		
Republican	1.36*	0.21	1.33	0.29		
Other	1.12***	0.21	0.89	0.22		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			0.86	0.15		
High (\$100,000+)			0.68	0.14		
Perceptions of Police (GMC)			1.17***	0.04		
Contact with Police ^b			1.18	0.17		
Years of LE Experience (GMC)					1.00	0.01
Level of Government (Federal)						
Local					0.71	0.18
County					0.82	0.22
State					0.78	0.22
Primary Job Duty (Patrol)						
Special Operations					0.73	0.20
Training					1.11	0.27
Investigations					0.94	0.21
Administration					1.14	0.33
Retired					0.52	0.38
Other					0.65	0.16
<i>Random Effects</i>						
$\sigma^2_{u_{0j}}$ (Intercept)	1.58	0.14	12.7	0.17	1.83	0.22
Deviance	8002.89		3879.12		4302.17	
Wald χ^2	1721.36***		787.46***		1021.14***	
Number of Observations	10444		4423		6696	
Number of Groups	1049		444		762	

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Reasonableness

Combined. Table 7 presents the results for perceptions of the reasonableness of the officer's actions. Reasonableness was measured on a continuous scale, and multilevel

linear regression was used to analyze the data. An example interpretation would be: suspect movement had a significant positive effect on the reasonableness score when compared to a suspect not moving. The combined sample model had a Wald Chi² of 3736.72, which was statistically significant at the 0.001 level.

Level one (vignette) variables generally had significant effects on perceptions of reasonableness with the exception of having only one officer as backup and the use of a knife by the suspect. Additionally, the directions of many of the effects were consistent with expectations. An example is that when the officer used a Taser, there was a significant and negative effect on reasonableness. This negative and significant effect increased from -1.03 (Taser) to -3.40 (gun) when the officer used a gun. Recall that this is when the suspect had no weapon. Another example is a suspect sustaining a major injury, compared to a minor injury, which resulted in a significant negative effect (-0.12) on reasonableness.

One variable that contradicts expectations is suspect weapon. One would assume that the presence of a suspect weapon against an officer with bare hands would increase perceptions of reasonableness. Interestingly, when a suspect used a gun, compared to no weapon, and when the officer used bare hands, reasonableness significantly decreased. Another puzzling finding dealt with officer injury. When the officer sustained major injuries rather than minor ones, reasonableness significantly decreased. It would be expected that officer use of force would be seen as more reasonable if the officer sustained major injuries in the encounter.

The interaction term involving suspect and officer weapon was significant for all combinations. The effects of officer weapon on reasonableness changed from being

negative to positive when moderated by the presence of a suspect weapon. For example, the suspect having a gun changed the effect of an officer using a gun by 5.23, compared to no weapon versus bare hands.

The level two (respondent) variables did not have a significant effect on perceptions of reasonableness, with the exception of age. Age had a significant positive effect on perceptions of reasonableness. Older respondents were more likely to have a favorable view of the police in general, which could be the reason for this positive effect. It might be surprising to learn that when compared to Caucasians, there were no significant differences for minority groups. This is likely due to the fact that situational factors are being controlled, with each respondent getting the same amount of information. Another surprising finding is that whether the respondent was a police officer did not significantly affect perceived reasonableness. It seems that providing the same information can close the assumed gap between officers' and citizens' perceptions of reasonable police force. This will be further discussed in the next chapter.

Citizens versus Police. When comparing citizens and police officers for the level one (vignette) variables, there are fewer differences than may be assumed. Many variables had the expected effects on perceived reasonableness. An example is a suspect moving toward the officer, which increased perceptions of reasonableness by 1.65 for citizens and 1.36 for police officers, when compared to no movement. Another example of an expected finding is the agreement regarding the officer's use of a gun. When an officer used a gun, compared to bare hands against a suspect with no weapon, perceptions of reasonableness decreased by 2.40 units for citizens and 4.10 units for police officers.

One difference was that for citizens, the presence of two officers as backup significantly decreased perceptions of reasonableness, while for officers, backup had no significant effect on reasonableness at any level. Another major difference between the two groups deals with suspect weapon. For citizens, the presence of a knife or gun, compared to no suspect weapon, significantly increased perceptions of reasonableness. Contrary to this, for police officers, the presence of a knife or gun, compared to no suspect weapon, significantly decreased perceptions of reasonableness. These effects are in direct opposition to each other and wash out the significance of suspect weapon for the combined model. The final major difference involves the officer and suspect injury variables. For citizens, the suspect sustaining a major injury over a minor one significantly decreased perceptions of reasonableness. For citizens, officer injury was not significant. For officers, on the other hand, officer injury significantly decreased perceptions of reasonableness, while suspect injury did not have a significant effect. This seems to point toward respondents identifying more with the character most closely related to their role in society.

The moderating effect of suspect weapon on the effects of officer weapon on reasonableness is significant and positive for both samples. Interestingly, the use of a knife moderated the effect of the use of a Taser or gun the same amount for citizens. When an officer used a Taser or gun against a suspect with a knife, there was an increase in reasonableness of 1.21 units. In other words, the presence of a knife changed the effect of the officer using a Taser or gun by 1.21 for citizens. Another way to examine these results involves looking at the means for each combination of suspect and officer weapon. See Table 6 for mean perceived reasonableness for citizens and officers.

Table 6. Mean Reasonableness Score

Weapon Combination (Suspect x Officer)	Citizen		Police	
	Mean	SD	Mean	SD
No Weapon x Bare Hands	6.07	3.14	7.05	3.09
No Weapon x Taser	4.97	3.27	6.15	3.40
No Weapon x Gun	3.58	2.97	3.22	2.89
Knife x Bare Hands	7.40	2.47	6.04	3.52
Knife x Taser	7.40	2.58	7.88	2.69
Knife x Gun	6.41	2.75	8.63	2.19
Gun x Bare Hands	7.33	2.80	5.65	3.75
Gun x Taser	7.84	2.42	6.65	3.38
Gun x Gun	7.36	2.59	8.95	1.92

Level two (respondent) variables continued to not have significant effects on perceptions of reasonableness when comparing those used for both police and citizens, with the exception of Male. Being male had a significant positive effect on determining reasonableness for citizens, but not for police officers. It should be noted that age became nonsignificant for both groups when the samples were split. Recall that there were different controls used for each of the different samples. The only sample-unique variable that mattered for citizens was their general perceptions of police, which had a predictable significant positive effect on perceived reasonableness. One interesting finding for the police sample was the significant negative effect of local and county officers, compared to federal level officers. This could be due to the fact that local and county officers are more likely to use force than federal officers because of their presence in the general public.

Table 7. Mixed Effects Multilevel Model Explaining Perceptions of Reasonableness

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	6.19***	0.19	6.68***	0.24	7.48***	0.34
<i>Vignette Variables</i>						
Backup (No Backup)						

Table 7 Continued.

One Officer	-0.06	0.06	-0.05	0.08	-0.004	0.08
Two Officers	-0.15*	0.06	-0.32***	0.08	0.03	0.08
Suspect Weapon (No Weapon)						
Knife	-0.03	0.11	1.34***	0.15	-1.16***	0.14
Gun	-0.27*	0.11	1.49***	0.15	-1.62***	0.14
Suspect Movement ^b	1.49***	0.05	1.65***	0.07	1.36***	0.07
Officer Weapon (Bare Hands)						
Taser	-1.03***	0.11	-1.13***	0.15	-0.99***	0.14
Gun	-3.40***	0.11	-2.40***	0.15	-4.10***	0.14
Officer Injury ^b	-0.25***	0.05	-0.04	0.07	-0.46***	0.07
Suspect Injury ^b	-0.12*	0.05	-0.37***	0.07	0.03	0.07
Interaction (No Weapon x Bare Hands)						
Knife x Taser	2.13***	0.15	1.21***	0.21	2.94***	0.20
Knife x Gun	4.24***	0.16	1.21***	0.21	6.75***	0.20
Gun x Taser	1.75***	0.15	1.33***	0.21	2.06***	0.20
Gun x Gun	5.23***	0.15	2.18***	0.21	7.63***	0.20
Respondent Variables						
Age (GMC)	0.01***	0.004	0.01	0.01	0.01	0.01
Race (Caucasian)						
African-American	-0.20	0.16	0.19	0.19	-0.34	0.25
Hispanic	-0.05	0.16	0.14	0.20	-0.05	0.21
Other	-0.26	0.17	-0.24	0.21	-0.17	0.27
Higher Ed. ^b	-0.18	0.10	-0.26	0.15	-0.02	0.12
Male ^b	-0.03	0.13	0.33*	0.14	-0.31	0.22
Law Enforcement ^b	0.06	0.13				
Political Association (Democrat)						
Independent	0.08	0.15	-0.17	0.16		
Republican	0.30	0.15	0.21	0.21		
Other	-0.06	0.19	-0.16	0.25		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			-0.13	0.16		
High (\$100,000+)			-0.37	0.20		
Perceptions of Police (GMC)			0.26***	0.03		
Contact with Police ^b			0.05	0.14		
Years of LE Experience (GMC)					-0.02*	0.01
Level of Government (Federal)						
Local					-0.70**	0.23
County					-0.48*	0.24
State					-0.45	0.25
Primary Job Duty (Patrol)						
Special Operations					0.10	0.24
Training					0.11	0.21
Investigations					0.003	0.19

Table 7 Continued.

	Administration					0.34	0.25
	Retired					-0.27	0.67
	Other					-0.18	0.22
<i>Random Effects</i>							
	$\sigma_{u_{0j}}^2$ (Intercept)	1.90	0.11	1.52	0.14	1.85	0.14
Deviance		50439.72		20184.80		32781.60	
Wald χ^2		3736.72***		2220.25***		3111.87***	
Number of Observations		10444		4423		6696	
Number of Groups		1049		444		762	

^b = Binary

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

Threat

Combined. Table 8 presents the results for perceptions of how threatening a suspect is being in a use-of-force encounter. Level of threat was measured on a continuous scale, and multilevel linear regression was used to analyze the data. An example interpretation would be: when the suspect was using a knife, compared to no weapon, there was a significant positive effect on threat level. Note that this model did not include the moderating effects of suspect weapon on officer weapon. This means that suspect- and officer weapon variables are interpreted independently and compared to their individual reference group. The combined sample model had a Wald Chi² of 10714.48, which was statistically significant at the 0.001 level.

All level one (vignette) variables were significant, except for suspect injury, and were consistent with expectations. One example is when the suspect moved toward the officer, the perceived level of threat significantly increased by 1.92. When the suspect used a gun, the threat level increased by 3.65, compared to when the suspect used no

weapon. Furthermore, the suspect was seen as significantly more threatening when the officer sustained major injuries rather than minor ones.

One interesting finding involves the officer weapon variable. When the officer used a Taser, compared to bare hands, the threat level score significantly decreased by 0.23. This decrease was even greater (-0.60) and still significant when the officer used a gun compared to bare hands. It is interesting that the officer weapon significantly impacted respondents' perceptions of how threatening the suspect was during the encounter.

Several level two (respondent) variables were significant when determining how threatening the suspect was. These significant variables met expectations in terms of direction of effects. African-Americans and those in the other race category found the suspects actions to be significantly less threatening than Caucasians. Those with law enforcement experience tended to judge the suspect's actions to be more threatening when compared to those without law enforcement experience.

Citizens versus Police. There is much agreement between officers and citizens when determining suspect threat level. The same variables significantly affected police officers' and citizens' perceptions of threat level, and in the same direction, with only one exception. Suspect movement had a significant and positive effect on threat level for both officers and citizens. Another expected finding shared by both samples was that when a suspect used a gun, there was a significant increase in threat level by 3.33 for citizens and 3.97 for officers. As in the combined sample, officer weapon was a significant negative predictor of threat level for both groups individually. This is interesting because one could expect this for citizens who have no experience in these

situations and might be basing their decision on the officer’s choice of response but would expect officer respondents to make their own judgments.

The one difference between officers and citizens involved suspect injury. Threat level score significantly decreased when the suspect sustained a major injury over a minor one for the citizen sample. Suspect injury did not have a significant effect for officers when determining the threat level of the suspect. It noteworthy that citizens were significantly influenced by the civilian injury in the scenario, but the officers were not.

Unlike the combined model, there were very few significant level two (respondent) variables when comparing the police and citizen samples. Males found the suspect to be more threatening compared to females in the citizen sample, but not for the police sample. There were no significant effects for the sample-specific variables in the police model. Similarly, a majority of sample-specific variables were not significant for citizens in determining threat level. The only significant citizen-specific variable was perceptions of police, which had a positive effect on threat level.

Table 8. Mixed Effects Multilevel Model Explaining Perceptions of Threat Level

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	3.67***	0.14	3.99***	0.08	4.58***	0.23
<i>Vignette Variables</i>						
Backup (No Backup)						
One Officer	-0.10*	0.05	-0.07	0.07	-0.08	0.06
Two Officers	-0.16***	0.05	-0.23**	0.07	-0.12*	0.06
Suspect Weapon (No Weapon)						
Knife	3.23***	0.05	2.73***	0.07	3.70***	0.06
Gun	3.65***	0.05	3.33***	0.07	3.97***	0.06
Suspect Movement ^b	1.92***	0.04	1.89***	0.06	1.98***	0.05
Officer Weapon (Bare Hands)						
Taser	-0.23***	0.05	-0.31***	0.07	-0.20***	0.06
Gun	-0.60***	0.05	-0.61***	0.07	-0.56***	0.06
Officer Injury ^b	0.25***	0.04	0.24***	0.06	0.22***	0.05
Suspect Injury ^b	-0.05	0.04	-0.13*	0.06	-0.01	0.05

Table 8 Continued.

Respondent Variables						
Age (GMC)	0.01***	0.003	0.01	0.01	0.001	0.01
Race (Caucasian)						
African-American	-0.42**	0.13	-0.03	0.19	-0.23	0.18
Hispanic	-0.12	0.13	0.07	0.19	-0.22	0.15
Other	-0.36**	0.14	-0.22	0.20	-0.29	0.19
Higher Ed. ^b	-0.11	0.08	-0.18	0.14	0.11	0.09
Male ^b	0.13	0.10	0.33*	0.14	-0.17	0.15
Law Enforcement ^b	0.84***	0.10				
Political Association (Democrat)						
Independent	0.13	0.12	-0.07	0.16		
Republican	0.20	0.13	0.23	0.20		
Other	-0.10	0.15	-0.31	0.24		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			-0.17	0.16		
High (\$100,000+)			-0.30	0.20		
Perceptions of Police (GMC)			0.24***	0.03		
Contact with Police ^b			0.16	0.14		
Years of LE Experience (GMC)					0.003	0.01
Level of Government (Federal)						
Local					-0.11	0.16
County					-0.19	0.17
State					-0.17	0.17
Primary Job Duty (Patrol)						
Special Operations					0.01	0.17
Training					0.08	0.15
Investigations					-0.16	0.14
Administration					-0.20	0.18
Retired					0.21	0.49
Other					-0.12	0.16
<i>Random Effects</i>						
$\sigma^2_{u_{0j}}$ (Intercept)	1.34	0.07	1.51	0.13	0.95	0.07
Deviance	43913.19		19058.97		27591.04	
Wald χ^2	10714.48***		3509.05***		8541.48***	
Number of Observations	10444		4423		6696	
Number of Groups	1049		444		762	

^b = Binary
 *p ≤ 0.05
 **p ≤ 0.01
 ***p ≤ 0.001

Participant Force

Combined. Table 9 presents results from multilevel linear regression models that examine how situational factors impact how much force the participant would use. An example interpretation would be: a suspect moving toward the officer significantly increased the level of force the respondent would use by 1.55, when compared to the suspect not moving. This means that the respondent will use more force when the suspect moves toward the officer versus when the suspect stays still. The combined sample model had a Wald χ^2 of 10921.67, which was statistically significant at the 0.001 level.

All of the level one (vignette) variables are significant with the exception of suspect injury for determining how much force the participant would use. Additionally, all level one effects meet expectations. For example, when the suspect used a gun, compared to having no weapon, there was a significant increase in the amount of force a respondent would use. Respondents would decrease their amount of force by 0.21 when there were two officers as backup, compared to no backup. Respondents would generally use less force as backup increased. As in the previous model dealing with threat level, officer weapon had a significant and negative effect on determining the amount of force a respondent would use. This effect increased from Taser (-0.13) to gun (-0.29), compared to bare hands. Note that these models did not contain an interaction term involving suspect and officer weapon, meaning interpretations are made independently.

Several level two (respondent) variables are significant in determining the amount of force a respondent would use. Most of these results would be expected. For example, African-American respondents would use significantly less force than Caucasians. Those

with at least a four-year degree would use significantly less force than those without a four-year degree. Additionally, those who identify with the Republican Party would use significantly more force than Democrats. One unexpected result is that as age increases, the amount of force a participant would use significantly increases. One would expect older respondents to prefer using less force than their younger counterparts because research has shown age to negatively affect use of force (e.g., Terrill & Mastrofski, 2002).

Citizens versus Police. There is only one difference when comparing citizen and police officer samples for level one (vignette) variables. For citizens, the use of a Taser, compared to bare hands, significantly decreased the amount of force they would use. For officers, the use of a Taser over bare hands did not significantly affected the level of force they would use. All other level one variables were significant and had the same directional effect on determining level of force they would use. When the suspect used a gun, compared to no weapon, citizens and officers increased their level of force by 3.12 and 4.32 respectively. Interestingly having only one officer as backup was not significant for either sample separately, though it was for the combined sample.

There are very few differences when examining level two (respondent) variables as well. Males would use significantly more force than females in the citizen sample, though there was no difference in the police sample. Several citizen-specific variables were significant for predicting the amount of force a respondent would use. As favorable perceptions of police increased, the amount of force the respondent would use significantly increased by 0.21 units. Additionally, Republican respondents would use significantly more force, compared to Democrats.

Only one police-specific variable was significant for determining amount of force. Those in administrative roles would use significantly less force than patrol officers. This can likely be explained by the variation between managerial and frontline mindsets. Recall that officers in managerial roles are required to be more critical of frontline officers because of the responsibilities associated with police administration (Hadar & Snortum, 1975). Furthermore, one might expect years of experience to have a significant negative effect on how much force would be used for the police sample. It is generally thought that more experienced officers are less likely to use force, though the evidence is mixed (e.g., Hadar & Snortum, 1975; Paoline & Terrill, 2007).

Table 9. Mixed Effects Multilevel Model Explaining How Much Force the Participant Would Use

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	3.12***	0.14	3.71***	0.22	3.98***	0.23
<i>Vignette Variables</i>						
Backup (No Backup)						
One Officer	-0.11**	0.04	-0.10	0.07	-0.08	0.05
Two Officers	-0.21***	0.04	-0.29***	0.07	-0.14**	0.05
Suspect Weapon (No Weapon)						
Knife	3.16***	0.04	2.29***	0.07	4.00***	0.05
Gun	3.71***	0.04	3.12***	0.07	4.32***	0.05
Suspect Movement ^b	1.55***	0.04	1.55***	0.06	1.57***	0.04
Officer Weapon (Bare Hands)						
Taser	-0.13**	0.04	-0.27***	0.07	-0.02	0.05
Gun	-0.29***	0.04	-0.42***	0.07	-0.14**	0.05
Officer Injury ^b	0.32***	0.04	0.27***	0.06	0.31***	0.04
Suspect Injury ^b	-0.02	0.04	-0.03	0.06	-0.01	0.04
<i>Respondent Variables</i>						
Age (GMC)	0.02***	0.003	0.01**	0.01	0.002 ⁻	0.01
Race (Caucasian)						
African-American	-0.36**	0.13	-0.04	0.18	-0.30	0.17
Hispanic	-0.24	0.13	-0.07	0.19	-0.14	0.15
Other	-0.46***	0.14	-0.33	0.19	-0.16	0.19
Higher Ed. ^b	-0.20*	0.08	-0.22	0.14	0.08	0.09
Male ^b	0.11	0.10	0.30*	0.13	-0.06	0.15

Table 9 Continued.

Law Enforcement ^b	1.08***	0.10				
Political Association (Democrat)						
Independent	0.22	0.12	0.05	0.16		
Republican	0.37**	0.13	0.56**	0.20		
Other	0.13	0.15	0.03	0.24		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			-0.20	0.16		
High (\$100,000+)			-0.49*	0.19		
Perceptions of Police (GMC)			0.21***	0.03		
Contact with Police ^b			0.19	0.14		
Years of LE Experience (GMC)					0.01	0.01
Level of Government (Federal)						
Local					-0.15	0.16
County					-0.16	0.17
State					-0.18	0.17
Primary Job Duty (Patrol)						
Special Operations					-0.10	0.17
Training					0.12	0.15
Investigations					-0.26	0.13
Administration					-0.41***	0.17
Retired					0.20	0.48
Other					0.003	0.16
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)	1.35	0.07	1.49	0.12	0.95	0.07
Deviance		42953.42		18486.34		26830.21
Wald χ^2		10921.67***		3173.95***		10062.02***
Number of Observations		10444		4423		6696
Number of Groups		1049		444		762

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Punishment

Combined. Table 10 examines which variables affect people's perceptions regarding punishment for the officer involved in the use-of-force encounter. These results are from multilevel logistic regression models where the odds ratios are

interpreted normally with the addition of controlling for clustering. An example interpretation would be when there were two officers present as backup, the odds of choosing no punishment for the officer significantly increased 1.41 times, compared to no backup being present. The combined sample model had a Wald χ^2 of 1462.80, which was statistically significant at the 0.001 level.

Level one (vignette) variables generally followed expected outcomes, and nearly all were significant with the exception of one officer as backup and officer injury. It is worth noting that the mere presence of backup did not significantly affect choosing to punish the officer. However, when there were multiple officers present, the odds of assigning punishment significantly increased. Additionally, if the officer received a major injury over a minor one, it did not impact participants' decision to punish the officer. Other level one variables were significant and predictable. An example of this would be when the officer used a gun against a suspect with no weapon; the odds of assigning a punishment were 20.41 times greater when compared to when he used bare hands. Conversely, when the suspect used a gun against an officer with bare hands, the odds of the officer being punished decreased 66% when compared to no suspect weapon.

Note that the above interpretations take into account the interaction term, which is used in this model. Recall that suspect weapon is seen as a moderating effect for officer weapon on whether or not the officer is punished. As mentioned above, the odds of choosing to punish the officer when he used a gun against no weapon was 20.41 higher compared to using his bare hands. This effect is changed with the presence of a suspect weapon. The odds of choosing to punish the officer when he used a gun against a suspect

with a knife decreased 88%. This effect increased in magnitude to a 96% reduction in the odds of selecting punishment when the officer used a gun against a suspect with a gun.

Level two (respondent) variables were generally not significant with the exception of three variables. The odds of choosing to punish the officer decreased significantly as age increased. This might be a surprising finding considering that older people typically have more favorable views of police officers (Correia et al., 1996; Hadar & Snortum, 1975; Jesilow et al., 1995; Walker et al., 1972). It appears that they are also more likely to choose to punish officers for use of force. African-American respondents had 1.69 times the odds of assigning punishment to the officer when compared to Caucasians, which was a significant difference. Not surprisingly, those with law enforcement experience were significantly less likely to punish the officer when compared to those without law enforcement experience. It is interesting that Republicans were not significantly different than Democrats on moving up a level of punishment. Republicans are often shown to be more punitive than Democrats (e.g., Jacobs & Carmichael, 2001; Payne, Gainey, Triplett, & Danner, 2004).

Citizens versus Police. Though there was considerable agreement between citizens and officers regarding how situational factors affected the decision to punish, there were some interesting differences. Backup did not matter for the police officer sample at any level, while citizens had significantly greater odds of choosing punishment when there were two officers as backup, compared to none. Another interesting difference came from suspect weapon. For officers, the presence of a knife significantly reduced the odds of assigning punishment but not the presence of a suspect gun. Citizens had significantly decreased odds of punishing when a suspect weapon was present, be it a

knife or gun. The final difference was the significance of suspect injury for the citizens but not police officers.

The disagreement surrounding the significance of suspect weapon can be seen again when looking at the interaction term. For police officers, all combinations of the interaction term significantly reduced the odds of assigning punishment. For example, the use of a gun against a suspect with no weapon increased the odds of choosing punishment 38.48 times more than when the officer used his bare hands. However, the use of a gun against a suspect with a knife significantly reduced the odds of assigning punishment by 98% for police officers. In other words, the presence of any suspect weapon type significantly changed the odds of assigning the officer a punishment. The use of a gun against a suspect with a knife did not have a significant effect for the citizen model. The use of a knife by the suspect did significantly moderate officer weapon when the officer used a Taser or when he used a gun against a suspect with a gun.

The level two (respondent) variables were generally not significant for either group with the exception of age for citizens and being an African-American officer compared to a Caucasian officer. Note that African-American citizens were not different from Caucasian citizens. African-American officers had 2.14 times greater odds of assigning punishment. Both higher income groups were significantly more likely to choose punishment, compared to the low income group. As expected, those with more favorable perceptions of police were less likely to assign punishment. The only significant officer-specific variables were local and state officers, compared to federal officers. Both groups were more likely to assign punishment.

Table 10. Mixed Effects Multilevel Model Explaining the Assignment of Officer Punishment

Parameter	Combined		Citizen		Police	
	OR	SE	OR	SE	OR	SE
<i>Fixed Effects</i>						
Intercept	0.33***	0.07	0.32***	0.10	0.09***	0.04
Vignette Variables						
Backup (No Backup)						
One Officer	1.15	0.10	1.04	0.13	1.05	0.12
Two Officers	1.41***	0.12	1.54***	0.19	1.24	0.14
Suspect Weapon (No Weapon)						
Knife	0.27***	0.04	0.13***	0.03	0.48***	0.09
Gun	0.34***	0.05	0.11***	0.03	0.79	0.14
Suspect Movement ^b	0.17***	0.01	0.15***	0.02	0.18***	0.02
Officer Weapon (Bare Hands)						
Taser	2.52***	0.31	2.41***	0.43	3.06***	0.51
Gun	20.41***	2.73	9.47***	1.77	38.48***	7.20
Officer Injury ^b	0.95	0.07	0.91	0.09	0.97	0.09
Suspect Injury ^b	1.42***	0.10	1.83***	0.19	1.11	0.10
Interaction (No Weapon x Bare Hands)						
Knife x Taser	0.24***	0.05	0.45**	0.14	0.07***	0.02
Knife x Gun	0.12***	0.03	0.75	0.22	0.02***	0.01
Gun x Taser	0.28***	0.06	0.43**	0.14	0.20***	0.05
Gun x Gun	0.04***	0.01	0.23***	0.07	0.01***	0.002
Respondent Variables						
Age (GMC)	0.98***	0.01	0.98***	0.01	1.00	0.01
Race (Caucasian)						
African-American	1.69**	0.32	1.22	0.29	2.14*	0.64
Hispanic	1.16	0.22	0.75	0.19	1.17	0.31
Other	1.35	0.27	0.97	0.25	1.16	0.39
Higher Ed. ^b	1.15	0.14	1.16	0.21	0.92	0.14
Male ^b	0.88	0.13	0.75	0.13	0.89	0.24
Law Enforcement ^b	0.62**	0.09				
Political Association (Democrat)						
Independent	0.81	0.14	1.07	0.22		
Republican	0.76	0.14	0.90	0.24		
Other	0.77	0.17	1.06	0.32		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			1.69*	0.35		
High (\$100,000+)			2.43***	0.61		
Perceptions of Police (GMC)			0.83***	0.03		
Contact with Police ^b			0.92	0.16		
Years of LE Experience (GMC)					1.01	0.01
Level of Government (Federal)						
Local					1.99*	0.58

Table 10 Continued.

County					1.50	0.46
State					1.88*	0.59
Primary Job Duty (Patrol)						
Special Operations					1.14	0.34
Training					1.17	0.31
Investigations					1.18	0.28
Administration					0.90	0.28
Retired					1.01	0.86
Other					1.35	0.37
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)	2.20	0.19	1.92	0.25	2.30	0.27
Deviance	7283.63		3323.43		4094.27	
Wald χ^2	1462.80***		688.12***		869.06***	
Number of Observations	10444		4423		6696	
Number of Groups	1049		444		762	

^b = Binary

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

Level of Punishment

Combined. Table 11 shows results from a multilevel ordinal model using situational factors to predict moving level of punishment. The responses for these models were from respondents who selected the punishment option in the previous question. The odds ratios for these models are interpreted like other ordinal regression models with the addition of controlling for clustering. An example interpretation would be: the odds of moving up a level of punishment significantly decreased by 46% in the combined sample model. The combined sample model had a Wald χ^2 of 258.82, which was statistically significant at the 0.001 level.

Interestingly, few level one (vignette) variables were significant for predicting moving a level of punishment. The only variables that significantly decreased the odds

of moving a level of punishment were the use of a knife by the suspect against an officer using bare hands and when a suspect moved compared to staying still. The only two variables that significantly increased the odds of changing level of punishment were the use of a gun against a suspect with no weapon, compared to using bare hands and the suspect sustaining a major injury over a minor one. It is expected that suspect injury would play a significant role in determining level of punishment. On the other hand, it is interesting that the suspect's use of a gun against an officer using his bare hands was not significant when the officer's use of a gun against a suspect with no weapon was significant. Note that these interpretations are made according to the presence of an interaction term.

In the interaction term, the suspect's use of a knife was not found to be a significant moderator regardless of officer weapon. Contrary to this, the suspect's use of a gun was a significant moderator regardless of officer weapon. For example, the odds of moving a level of punishment significantly decreased by 80% when the officer used a gun against a suspect with a gun. Recall that the odds of moving a level of punishment were 5.24 times higher when the officer used a gun against a suspect with no weapon compared to using his bare hands. This demonstrates the importance of knowing the suspect's weapon, or lack thereof, when determining level of punishment.

Level two (respondent) variables were generally not significant with the exception of three variables. Age and having law enforcement experience both significantly decreased the odds of moving up a level of punishment. Being male significantly increased the odds of moving up a level of punishment when compared to Females. Like in the previous model regarding whether or not to punish the officer, it is interesting that

Republicans were once again not significantly different from Democrats on moving level of punishment.

Citizens versus Police. When comparing citizens and police officers regarding level of punishment, there is one major difference. There are very few significant variables for either group. The variables that are significant generally meet expectations. For example, the odds of moving a level of punishment significantly increased by 59% and 33% for citizens and officers, respectively. The major difference between the two groups involves suspect weapon. For citizens, suspect weapon significantly decreased the odds of moving a level of punishment regardless of whether it was a knife or gun when used against an officer using his bare hands. Suspect weapon was not significant at any level for officers on the other hand.

In regards to the interaction term, only when the officer used a gun against a suspect with a gun was there a significant effect. The use of a gun against a suspect with a gun decreased the odds of moving level of punishment by 66% for citizens and 91% for officers. Recall that the use of a gun against a suspect with no weapon increased the odds of moving level of punishment.

The level two (respondent) variables were found to have no significant effects on moving up a level of punishment with the exception of age. The older an individual respondent is, the less likely he or she it to move up a level of punishment. More favorable perceptions of police decreased the odds of moving level of punishment for citizens. Local and county officers were less likely to move up level of punishment when compared to federal officers. It is interesting that local officers were more likely to punish the officer involved but less likely to move up a level of punishment, when

compared to federal officers. This means that federal officers are less likely to punish, but when they do, they are more likely to assign a higher level of punishment. Additionally, special operations and administrative officers had increased odds of moving level of punishment compared to patrol officers.

Table 11. Mixed Effects Multilevel Model Explaining the Level of Punishment Assigned

Parameter	Combined		Citizen		Police	
	OR	SE	OR	SE	OR	SE
<i>Fixed Effects</i>						
Vignette Variables						
Backup (No Backup)						
One Officer	1.00	0.13	0.90	0.16	1.17	0.22
Two Officers	0.99	0.12	1.00	0.17	0.95	0.18
Suspect Weapon (No Weapon)						
Knife	0.39***	0.11	0.35**	0.13	0.55	0.22
Gun	0.68	0.18	0.45*	0.18	1.38	0.50
Suspect Movement ^b	0.54***	0.06	0.53***	0.09	0.46***	0.08
Officer Weapon (Bare Hands)						
Taser	1.15	0.22	1.38	0.34	0.99	0.30
Gun	5.24***	0.98	2.60***	0.61	17.85***	5.58
Officer Injury ^b	1.01	0.10	0.88	0.12	1.22	0.19
Suspect Injury ^b	1.36**	0.14	1.59***	0.23	1.33***	0.20
Interaction (No Weapon x Bare Hands)						
Knife x Taser	0.77	0.31	0.51	0.26	0.79	0.57
Knife x Gun	0.69	0.23	1.18	0.52	0.33	0.19
Gun x Taser	0.42*	0.15	0.48	0.27	0.39	0.19
Gun x Gun	0.20***	0.07	0.34*	0.17	0.09***	0.05
Respondent Variables						
Age (GMC)	0.98**	0.01	0.98**	0.01	0.99	0.02
Race (Caucasian)						
African-American	1.14	0.31	0.91	0.30	0.85	0.40
Hispanic	0.98	0.27	0.58	0.20	1.39	0.64
Other	1.47	0.43	1.22	0.44	2.55	1.41
Higher Ed. ^b	0.90	0.15	0.64	0.16	1.29	0.32
Male ^b	1.54*	0.32	1.51	0.37	2.20	0.97
Law Enforcement ^b	0.59*	0.13				
Political Association (Democrat)						
Independent	0.69	0.17	0.61	0.18		
Republican	0.98	0.26	1.14	0.43		
Other	1.23	0.40	1.94	0.81		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			1.04	0.30		

Table 11 Continued.

High (\$100,000+)			1.14	0.41		
Perceptions of Police (GMC)			0.84***	0.05		
Contact with Police ^b			0.90	0.22		
Years of LE Experience (GMC)					1.01	0.02
Level of Government (Federal)						
Local					0.35*	0.17
County					0.27*	0.14
State					0.42	0.22
Primary Job Duty (Patrol)						
Special Operations					3.55**	1.68
Training					1.47	0.63
Investigations					1.52	0.59
Administration					3.38*	1.77
Retired					3.89	5.43
Other					2.04	0.90
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)			3.65	0.40	3.07	0.47
<hr/>						
Threshold Parameter						
Cut 1			-2.07***	0.33	-2.58***	0.45
Cut 2			1.39***	0.33	0.77	0.44
Cut 3			3.14***	0.34	2.12***	0.44
Cut 4			4.46***	0.35	3.87***	0.47
<hr/>						
Deviance			5186.31		2693.19	2572.93
Wald χ^2			258.82***		122.87***	193.93***
Number of Observations			2090		1069	1117
Number of Groups			791		355	516

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Leave With Pay

Combined. Table 12 shows results for amount of leave with pay based on situational factors for those who both chose to punish the officer and then chose for that punishment to be leave with pay. A multilevel linear regression model was used to get these results. An example interpretation would be: when a suspect used a knife against an officer using his bare hands, compared to using no weapon, the amount of leave with

pay significantly increased by 0.99. The combined sample model had a Wald Chi² of 45.31, which was statistically significant at the 0.01 level.

There were only two significant level one (vignette) variables in determining amount of leave with pay. The first variable was suspect knife, which is interpreted above. The only other significant variable was officer weapon. Amount of leave with pay significantly increased when an officer used a gun, compared to no weapon against a suspect with no weapon. Not surprisingly, the only significant interaction term involved an officer using a gun against a suspect with a knife, compared to using bare hands against a suspect with no weapon. This situation significantly decreased the effect of gun on amount of leave with pay by 1.46. This demonstrates the importance of the officer using a gun on determining the amount of leave with pay. Aside from the moderating effect of a knife, or the suspect using a knife against an officer using bare hands, officer gun was the only significant predictor of amount of leave with pay.

Level two (respondent) variables also did not have a significant effect on determining amount of leave with pay with the exception of higher education. Those with a four-year degree chose significantly lower amounts of leave with pay, compared to those without higher education. Note that the respondent having law enforcement experience did not matter. It is surprising that so few level two variables were significant being that almost no level one variables were significant. This further points to the importance of whether or not the officer used a gun for determining amount of leave with pay.

Citizens versus Police. First and foremost, it must be stated that the Wald Chi² of 38.28 was not statistically significant meaning that the model including explanatory

variables was not a better fit to the data compared to the intercept-only model. This means that the model does not adequately fit the data. The Wald Chi² of 39.03 for the citizen model is significant at the 0.05 level. The citizen results do not differ much from the combined sample model with the exception of officer injury having a significant positive effect on amount of leave with pay. The only significant level two (respondent) variable in the citizen model was perceptions of police. This effect was significant and positive.

Table 12. Mixed Effects Multilevel Model Explaining Amount of Leave With Pay

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	3.45***	0.76	3.65***	1.10	1.44	1.61
Vignette Variables						
Backup (No Backup)						
One Officer	-0.03	0.28	-0.61	0.31	0.72	0.46
Two Officers	-0.25	0.28	-0.35	0.34	0.04	0.44
Suspect Weapon (No Weapon)						
Knife	0.99*	0.45	0.50	0.48	1.24	0.76
Gun	0.53	0.53	1.23*	0.58	0.43	0.86
Suspect Movement ^b	0.16	0.27	0.13	0.35	-0.01	0.40
Officer Weapon (Bare Hands)						
Taser	0.14	0.43	-0.57	0.54	0.65	0.65
Gun	1.67***	0.43	1.09*	0.45	2.34***	0.73
Officer Injury ^b	0.32	0.24	0.75**	0.29	-0.02	0.36
Suspect Injury ^b	-0.15	0.24	0.23	0.28	-0.29	0.35
Interaction (No Weapon x Bare Hands)						
Knife x Taser	-0.43	0.79	0.38	0.34	-1.23	1.55
Knife x Gun	-1.46*	0.63	-0.56	0.60	-2.75	1.44
Gun x Taser	0.23	0.68	-0.30	0.84	0.44	0.99
Gun x Gun	-0.32	0.76	-1.19	0.77	1.21	1.53
Respondent Variables						
Age (GMC)	0.003	0.02	-0.02	0.02	-0.01	0.05
Race (Caucasian)						
African-American	0.67	0.60	1.42	0.77	-0.42	0.89
Hispanic	-0.43	0.63	0.47	0.79	-2.06*	0.96
Other	0.22	0.72	0.81	0.90	-0.19	1.56
Higher Ed. ^b	-0.84*	0.41	-0.87	0.63	-0.81	0.54

Table 12 Continued.

Male ^b	0.07	0.48	-0.01	0.56	1.21	1.03
Law Enforcement ^b	-0.71	0.55				
Political Association (Democrat)						
Independent	0.63	0.54	-0.10	0.63		
Republican	0.29	0.64	0.71	0.95		
Other	0.70	0.76	0.25	1.26		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			-0.22	0.71		
High (\$100,000+)			0.35	0.86		
Perceptions of Police (GMC)			0.28*	0.13		
Contact with Police ^b			-0.52	0.58		
Years of LE Experience (GMC)					0.003	0.05
Level of Government (Federal)						
Local					0.01	1.24
County					0.47	1.27
State					1.21	1.30
Primary Job Duty (Patrol)						
Special Operations					-1.26	1.42
Training					0.39	0.87
Investigations					0.04	0.88
Administration					-0.05	1.66
Retired						
Other					0.47	1.24
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)	6.56	0.82	6.21	1.04	6.33	1.19
Deviance	1607.58		719.39		990.20	
Wald χ^2	45.31**		39.03*		38.28	
Number of Observations	346		167		205	
Number of Groups	219		104		138	

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Leave Without Pay

Combined. Table 13 shows results from a multilevel linear regression model using situational factors to predict the amount of leave without pay. These results are from those who both chose to punish the officer and then chose for that punishment to be

leave without pay. The combined sample model had a Wald Chi² of 91.80, which was statistically significant at the 0.001 level.

All level one (vignette) variables were nonsignificant with the exception of the officer using a gun against a suspect with no weapon, compared to using his bare hands. This significantly increased the amount of leave without pay. Suspect weapon was a significant moderator for officer weapon except when the officer used a Taser against a suspect with a knife. All other interactions had a significantly negative effect on amount of leave without pay. For example, there was a decrease in leave without pay when the officer used a gun against a suspect with a gun. The presence of a suspect gun changes the effect of an officer gun from positive to negative.

Level two (respondent) variables were not significant with the exception of being African-American, compared to Caucasian, and being male, compared to female. Being African-American increased the amount of leave without pay, while being male decreased the amount of leave without pay.

Citizens versus Police. There were several differences between citizens and police officers for determining amount of leave without pay. A knife compared to no weapon, when the officer was using his bare hands, was significant for officers but not citizens. Alternatively, suspect movement was significant for citizens but not officers. The use of a gun against a suspect with no weapon, compared to using bare hands, was significant and positive for both groups. The interaction between an officer's Taser and a suspect gun was significant for officers but not citizens. All other variables were nonsignificant for both models including other interaction combinations.

There were only a few significant level two (respondent) variables for determining leave without pay for citizens and only one for police officers. Both income groups significantly increased amount of leave without pay when compared to the low income group for citizens. African-American citizens selected higher amounts of leave without pay, compared to Caucasian citizens. Being a training officer compared to patrol had a negative effect on amount of leave without pay for police officers.

Table 13. Mixed Effects Multilevel Model Explaining Amount of Leave Without Pay

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	4.32***	0.49	3.88***	0.65	4.03***	0.99
<i>Vignette Variables</i>						
Backup (No Backup)						
One Officer	0.11	0.22	0.21	0.31	0.10	0.30
Two Officers	0.35	0.22	0.50	0.29	0.25	0.30
Suspect Weapon (No Weapon)						
Knife	-0.12	0.44	-0.56	0.61	0.10**	0.58
Gun	0.80	0.41	-0.02	0.62	1.58	0.54
Suspect Movement ^b	-0.19	0.20	-0.66*	0.27	0.29	0.30
Officer Weapon (Bare Hands)						
Taser	0.12	0.31	0.16	0.41	0.23	0.42
Gun	1.69***	0.32	1.47***	0.40	1.75***	0.44
Officer Injury ^b	0.34	0.18	0.27	0.24	-0.02	0.25
Suspect Injury ^b	0.20	0.18	0.14	0.24	0.19	0.24
<i>Interaction (No Weapon x Bare Hands)</i>						
Knife x Taser	0.46	0.62	0.85	0.81	0.23	1.01
Knife x Gun	-1.26*	0.57	-0.97	0.73	-0.85	0.92
Gun x Taser	-1.32*	0.60	-1.51	0.89	-1.47*	0.75
Gun x Gun	-1.89***	0.59	-0.63	0.80	-1.77	0.95
<i>Respondent Variables</i>						
Age (GMC)	-0.01	0.01	-0.01	0.01	0.01	0.03
Race (Caucasian)						
African-American	0.98**	0.38	1.19*	0.47	0.78	0.63
Hispanic	-0.22	0.40	-0.07	0.52	-0.78	0.62
Other	-0.05	0.43	-0.09	0.55	0.31	0.79
Higher Ed. ^b	-0.08	0.25	-0.74	0.38	0.39	0.35
Male ^b	-0.71*	0.31	-0.50	0.37	0.16	0.58
Law Enforcement ^b	-0.42	0.33				
Political Association (Democrat)						

Table 13 Continued.

Independent	0.15	0.36	-0.02	0.42		
Republican	0.19	0.38	1.09*	0.55		
Other	0.49	0.48	0.89	0.67		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			1.15**	0.42		
High (\$100,000+)			1.11*	0.54		
Perceptions of Police (GMC)			0.002	-	0.08	
Contact with Police ^b			-0.26		0.36	
Years of LE Experience (GMC)					-0.04	0.03
Level of Government (Federal)						
Local					-1.13	0.71
County					-0.36	0.74
State					-0.62	0.78
Primary Job Duty (Patrol)						
Special Operations					-0.21	0.63
Training					-1.21*	0.59
Investigations					0.68	0.57
Administration					-0.62	0.66
Retired					-0.30	1.54
Other					-1.04	0.58
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)	4.64	0.53	4.16	0.66	4.80	0.71
Deviance	4710.93		2335.89		2532.11	
Wald χ^2	91.80***		67.97***		67.81***	
Number of Observations		952		482		511
Number of Groups		517		250		306

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Probation

Combined. Table 14 presents results for multilevel linear regression models looking at situational factor effects on amount of probation assigned. These results are from those who both chose to punish the officer and then chose for that punishment to be

probation. The combined sample model had a Wald Chi² of 48.05, which was statistically significant at the 0.01 level.

There was only one significant level one (vignette) variable for determining amount of probation. When the officer used a gun, compared to no weapon, against a suspect with no weapon, there was an increase in the amount of probation. No other variables were significant at level one, including the interaction term for suspect and officer weapon. This furthers the importance of the officer using a gun when assigning an amount of punishment.

There were more level two (respondent) variables that significantly affected amount of probation than level one variables. Age, being African-American compared to Caucasian, and having a political association of Other compared to Democrat significantly increased the amount of probation.

Citizens versus Police. There were a few differences between citizens and police officers regarding the amount of probation. For citizens, officer gun positively affected amount of probation, while it was not significant for officers. Suspect injury had a significant negative effect for police officers, while it had a significant positive effect for citizens. It is interesting that officers would give less probation if the suspect sustained a major injury over a minor one.

No combination of the interaction term was significant for citizens. Contrary to this, the use of a Taser against a suspect with a knife or gun had a positive and significant effect for police officers. The two categories of the interaction term involving the officer using a gun are omitted because no police officer respondent chose probation for the level of punishment when the officer in the scenario used a gun.

African-American citizens, compared to Caucasian citizens, gave greater amounts of probation. Hispanic officers, compared to Caucasian officers, also gave greater amounts of probation. Surprisingly, those identifying as Independent or Other were significantly different from Democrats for the citizen sample.

Table 14. Mixed Effects Multilevel Model Explaining Amount of Probation

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	4.12***	0.96	2.38*	1.09	8.40	5.02
Vignette Variables						
Backup (No Backup)						
One Officer	0.32	0.41	0.40	0.52	-0.69	0.55
Two Officers	-0.27	0.41	0.07	0.48	-0.51	0.68
Suspect Weapon (No Weapon)						
Knife	-0.72	1.17	-0.20	1.20	-1.35	1.98
Gun	-1.58	0.99	-1.35	1.30	-1.09	1.52
Suspect Movement ^b	0.13	0.39	0.10	0.44	0.48	0.60
Officer Weapon (Bare Hands)						
Taser	0.48	0.53	0.90	0.62	-1.63	0.88
Gun	1.15*	0.57	1.88**	0.63	-1.15	1.35
Officer Injury ^b	0.29	0.34	0.41	0.38	0.99	0.56
Suspect Injury ^b	0.35	0.36	0.88*	0.41	-1.10*	0.50
Interaction (No Weapon x Bare Hands)						
Knife x Taser	1.02	1.50	0.46	1.64	5.40*	2.19
Knife x Gun	0.41	1.40	-0.20	1.43	--	
Gun x Taser	1.79	1.34	1.29	1.90	4.04*	1.73
Gun x Gun	-0.47	1.31	-0.97	1.57	--	
Respondent Variables						
Age (GMC)	0.05**	0.02	0.05**	0.02	-0.15	0.13
Race (Caucasian)						
African-American	2.22**	0.74	2.11**	0.77	-4.24	2.62
Hispanic	1.20	0.71	1.02	0.79	5.08**	1.86
Other	-0.08	0.79	-0.51	0.82	-2.04	4.33
Higher Ed. ^b	-0.77	0.52	-1.06	0.55	-0.20	1.37
Male ^b	-0.02	0.57	-0.17	0.61	-3.16	4.46
Law Enforcement ^b	-0.41	0.77				
Political Association (Democrat)						
Independent	0.99	0.66	1.40*	0.66		
Republican	1.05	0.78	0.75	0.88		
Other	2.50***	0.76	3.35***	0.74		
Income (Low \$0-\$39,999)						

Table 14 Continued.

Mid (\$40,000-\$99,999)	0.97	0.59		
High (\$100,000+)	1.81*	0.80		
Perceptions of Police (GMC)	-0.10	0.13		
Contact with Police ^b	0.49	0.52		
Years of LE Experience (GMC)			0.04	0.13
Level of Government (Federal)				
Local			-0.35	1.74
County			-0.27	2.01
State			3.96	2.31
Primary Job Duty (Patrol)				
Special Operations			--	
Training			1.28	2.84
Investigations			0.06	1.79
Administration			5.38	3.84
Retired			--	
Other			1.97	1.92
<i>Random Effects</i>				
$\sigma_{u_{0j}}^2$ (Intercept)	4.00	0.93	2.35	0.79
Deviance		883.12		656.82
Wald χ^2		48.05**		69.26***
Number of Observations		191		146
Number of Groups		111		85

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Prison

Combined. Table 15 shows results for amount of prison based on situational factors for those who both chose to punish the officer and then chose that punishment to be prison. A multilevel linear regression modeling was used to get these results. An example interpretation would be the amount of prison significantly decreased when the suspect moved toward the officer, compared to no movement. The combined sample model had a Wald Chi² of 51.30, which was statistically significant at the 0.001 level.

Most significant level one (vignette) variables met expectations except for suspect injury. It would be expected that the use of a gun against a suspect with no weapon would significantly increase the amount of prison, while suspect movement would decrease it. Suspect injury, however, did not meet expectations regarding amount of prison. One would assume that when a suspect sustained a major rather than minor injury, there would be an increase in amount of prison time. This was not the case. There was a significant decrease in prison time when the suspect had a major injury. Not surprisingly, the presence of a suspect gun changed the effect of an officer using a gun by -3.44.

Level two (respondent) variables were generally not significant. These variables met expectations. For example, being African-American increased the amount of prison given to the officer when compared to Caucasians. This would fit with the idea that minority groups have less favorable perceptions of police, an increased fear of abuse of force, and a sense of injustice in the criminal justice system as a whole.

Citizens versus Police. There are several differences between citizens and police when it comes to amount of prison. One difference is that suspect gun and movement are both significant for officers but not for citizens. Another difference is that officer gun is significant for citizens but not officers. The final difference is that suspect injury had a significant and negative effect on prison time for officers but not citizens. This remains a surprising result. Regardless of the sample, it would be expected that an increase in officer injury would increase amount of prison.

None of the interaction terms is significant for the citizen sample. Note that no interaction terms are presented for the police sample. No officer assigned prison when

the officer in the scenario used a Taser, regardless of suspect weapon or lack thereof.

The terms involving the use of an officer gun were omitted from the model due to collinearity.

Very few level two (respondent) variables were significant for predicting amount of prison. One interesting significant variable in both models was African-American. Being African-American compared to Caucasian resulted in a higher amount of prison. Additionally, there was an increase in prison amount for Hispanic citizens, compared to Caucasian citizens.

Table 15. Mixed Effects Multilevel Model Explaining Amount of Prison

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	5.82***	0.87	4.92***	1.11	7.85***	2.47
<i>Vignette Variables</i>						
Backup (No Backup)						
One Officer	0.004	0.30	-0.49	0.44	-0.04	0.33
Two Officers	0.17	0.31	0.07	0.47	-0.21	0.27
Suspect Weapon (No Weapon)						
Knife	-1.03	1.16	-0.20	1.32	0.98	0.81
Gun	2.17*	0.94	2.05	1.08	-2.48***	0.58
Suspect Movement ^b	-0.64*	0.27	-0.72	0.42	-1.17***	0.31
Officer Weapon (Bare Hands)						
Taser	-0.39	0.72	-0.96	0.85	3.54	3.12
Gun	0.77	0.45	1.19*	0.60	0.32	2.24
Officer Injury ^b	0.17	0.24	0.45	0.35	0.001	0.26
Suspect Injury ^b	-0.56*	0.24	-0.08	0.38	-0.63**	0.24
<i>Interaction (No Weapon x Bare Hands)</i>						
Knife x Taser	2.61	1.63	2.24	2.93	--	
Knife x Gun	1.18	1.21	0.38	1.42	--	
Gun x Taser	-1.80	1.15	-1.81	1.32	--	
Gun x Gun	-3.44**	1.20	-2.29	1.52	--	
<i>Respondent Variables</i>						
Age (GMC)	0.03	0.02	0.06*	0.03	-0.05	0.05
Race (Caucasian)						
African-American	1.87**	0.68	2.28**	0.88	2.82*	1.32
Hispanic	1.07	0.74	3.09**	1.09	0.05	1.01
Other	0.33	0.73	1.63	0.97	-1.30	0.96

Table 15 Continued.

Higher Ed. ^b	-0.55	0.44	0.19	0.69	-0.30	0.54
Male ^b	0.59	0.66	1.11	0.68	--	
Law Enforcement ^b	-1.21*	0.61				
Political Association (Democrat)						
Independent	1.42*	0.68	0.26	0.84		
Republican	1.64*	0.71	1.85	1.04		
Other	1.14	0.81	1.88	1.14		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			-0.36	0.90		
High (\$100,000+)			-0.50	0.97		
Perceptions of Police (GMC)			-0.20	0.12		
Contact with Police ^b			-1.08	0.63		
Years of LE Experience (GMC)					0.10	0.05
Level of Government (Federal)						
Local					-0.44	0.90
County					-0.36	1.02
State					-0.07	0.91
Primary Job Duty (Patrol)						
Special Operations					-0.91	0.92
Training					0.37	0.93
Investigations					-1.48	0.84
Administration					-2.42*	1.03
Retired					-1.34	2.53
Other					-1.42	1.00
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)	4.20	0.68	3.07	0.89	4.01	0.76
Deviance		724.25		344.70		349.35
Wald χ^2		51.30***		46.25**		121.67***
Number of Observations		178		88		91
Number of Groups		117		51		75

^b = Binary

*p ≤ 0.05

**p ≤ 0.01

***p ≤ 0.001

Trust

Combined. Table 16 depicts results from a multilevel linear regression model examining the impact of situational factors on perceptions of trust for a department where an officer involved in a use-of-force encounter is employed. An example interpretation

would be perceptions of trust decrease by 2.08 when an officer using a gun against a suspect with no weapon compared to using his bare hands. The combined sample model had a Wald Chi² of 3101.78, which was statistically significant at the 0.001 level.

All level one (vignette) variables were significant with the exception of officer backup. No amount of backup significantly affected perceptions of trust, compared to the officer not having backup. The other level one variables were significant and most met expectations. One finding that seems to counter expectations is officer injury. There was a significant negative effect on trust when the officer sustained a major injury over a minor injury. Suspect injury also had a significant negative effect on trust, though this is to be expected.

The use of suspect weapon as a moderator for officer weapon's effect on trust was present in these models. It would seem that people's perceptions of departmental trust were based on the officer's weapon; however, this effect significantly changed based on whether the suspect used a weapon. There was a significant negative effect on trust when the officer used a Taser or a gun against a suspect with no weapon, compared to using his bare hands. The presence of a suspect weapon, be it a knife or gun, had a significant positive effect on trust when the officer used a Taser or gun. For example, the use of a gun against a suspect with no weapon, compared to bare hands, reduced trust by 2.08. However, the use of a gun against a suspect with a knife increases trust by 2.17, meaning that a person's perceptions of trust move from untrusting to trusting with the presence of a suspect weapon.

Some level two (respondent) variables were significant. These significant variables generally met expectations. For example, as age increased, so too did trust.

This is not surprising being that older people generally have more favorable views of police officers. It is noteworthy, though not surprising, that African-American respondents had significantly less trust, compared to Caucasian respondents. Those with law enforcement experience were also more likely to express a higher level of trust, compared to non-law enforcement respondents. Additionally, people with higher levels of education had less trust, compared to those without, while those identifying with the Republican Party had increased trust compared to Democrats.

Citizens versus Police. When comparing citizens' and officers' level of trust, there are many points of agreement with the exception of suspect weapon, officer injury, and suspect injury. Citizens had increased trust when the suspect had a knife or gun, compared to no weapon, and when the officer used his bare hands. Conversely, officers had decreased trust when the suspect had a gun compared to no weapon. Note that the use of a knife was not significant for officers but was for citizens. The other major difference between officers and citizens regarding trust deals with officer and suspect injury. As with other models, suspect injury was significant for citizens but not for officers, while officer injury was significant for officers but not citizens. This once again implies respondents identified with their societal roles.

The use of suspect weapon to moderate officer weapon's effect on trust was similar for officers and citizens. For both groups, the presence of a suspect weapon positively and significantly changed the effect of officer weapon on trust. For example, for both citizens and officers, the use of a gun, compared to no weapon, against a suspect with no weapon to decreased trust by 1.55 and 2.33 respectively. When a gun was used

against a suspect with a gun, however, the effect changed by 1.17 for citizens and 4.01 for officers.

Level two (respondent) variables were mostly nonsignificant with the exception of age and being male, which both had a positive effect on trust for citizens only. Note that when examining the sample separately, African-American is no longer significant. This is an unexpected result for the citizen-only model. As with reasonableness, one might expect minority groups to have significantly decreased levels of trust, compared to Caucasians. This effect seems to drop when people are presented with situational factors and the same amount of information about the encounter.

The only citizen-specific variables that had an effect were high income compared to low income and perceptions of police. High income had a negative effect, while perceptions of police had a positive effect. An interesting finding for police-specific variables is that local, country, and state officers had significantly less trust, compared to federal officers. No other law enforcement-specific variables were significant.

Table 16. Mixed Effects Multilevel Model Explaining Perceptions of Trust

Parameter	Combined		Citizen		Police	
	B	SE	B	SE	B	SE
<i>Fixed Effects</i>						
Intercept	6.24***	0.19	5.94***	0.22	7.96***	0.34
<i>Vignette Variables</i>						
Backup (No Backup)						
One Officer	-0.02	0.05	0.02	0.07	0.01	0.06
Two Officers	-0.06	0.05	-0.12	0.07	0.01	0.06
Suspect Weapon (No Weapon)						
Knife	0.48***	0.08	1.16***	0.11	-0.11	0.10
Gun	0.32***	0.08	1.33***	0.11	-0.49***	0.10
Suspect Movement ^b	0.92***	0.04	1.11***	0.05	0.79***	0.05
Officer Weapon (Bare Hands)						
Taser	-0.60***	0.08	-0.62***	0.11	-0.55***	0.10
Gun	-2.08***	0.08	-1.55***	0.11	-2.33***	0.10
Officer Injury ^b	-0.18***	0.04	-0.01	0.05	-0.36***	0.05
Suspect Injury ^b	-0.09*	0.04	-0.26***	0.05	0.02	0.05

Table 16 Continued.

Interaction (No Weapon x Bare Hands)						
Knife x Taser	0.98***	0.11	0.53***	0.16	1.41***	0.14
Knife x Gun	2.17***	0.11	0.58***	0.16	3.40***	0.14
Gun x Taser	0.78***	0.11	0.56***	0.16	1.02***	0.14
Gun x Gun	2.81***	0.11	1.17***	0.16	4.01***	0.14
Respondent Variables						
Age (GMC)	0.02***	0.001	0.01*	0.01	0.01	0.01
Race (Caucasian)						
African-American	-0.55**	0.18	-0.21	0.19	0.04	0.26
Hispanic	0.01	0.17	0.08	0.20	-0.03	0.22
Other	-0.36	0.18	-0.35	0.20	-0.07	0.28
Higher Ed. ^b	-0.22*	0.11	-0.24	0.14	-0.18	0.13
Male ^b	0.06	0.13	0.31*	0.14	-0.07	0.22
Law Enforcement ^b	0.44***	0.14				
Political Association (Democrat)						
Independent	0.10	0.16	-0.04	0.16		
Republican	0.41*	0.17	0.26	0.21		
Other	-0.10	0.20	-0.15	0.24		
Income (Low \$0-\$39,999)						
Mid (\$40,000-\$99,999)			-0.23	0.16		
High (\$100,000+)			-0.41*	0.20		
Perceptions of Police (GMC)			0.43***	0.03		
Contact with Police ^b			0.02	0.14		
Years of LE Experience (GMC)					-0.01	0.01
Level of Government (Federal)						
Local					-0.88***	0.24
County					-0.58*	0.25
State					-0.76**	0.26
Primary Job Duty (Patrol)						
Special Operations					-0.28	0.25
Training					-0.15	0.22
Investigations					-0.09	0.20
Administration					0.01	0.26
Retired					0.33	0.73
Other					-0.14	0.24
<i>Random Effects</i>						
$\sigma_{u_{0j}}^2$ (Intercept)	2.61	0.13	1.61	0.13	2.53	0.15
Deviance	44241.14		18085.75		28719.234	
Wald χ^2	3101.78***		2030.18***		2070.81***	
Number of Observations	10444		4423		6696	
Number of Groups	1049		444		762	

^b = Binary

Table 16 Continued.

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

V. DISCUSSION

Police officers and citizens seem to have very different opinions regarding the reasonableness of use-of-force encounters. Anecdotally, it seems that citizens are shocked when a grand jury determines there is not enough evidence to indict an officer involved in what is perceived to be an unreasonable use of force. One reason could be the amount of information a grand jury has, compared to uninvolved citizens. An example of this would be the use-of-force encounter that occurred in Ferguson, Missouri, which was described previously. Many people got their information from news reports about the encounter, while the officers at the department involved have access to police reports. Citizens are charged with making these decisions based on situational factors alone. Making decisions to send an officer to trial or convict him or her based on race would be unconstitutional and completely contrary to the American idea of a fair trial. Events like that in Ferguson, Missouri have shown how these encounters can impact the relationship between citizens and officers. This divide has widened in recent years and can negatively impact the effectiveness of police work, given that officers rely on citizens' cooperation to successfully serve the community.

This study sought to address eight research questions about perceptions of police use of force. Using the results from this study, suggestions regarding the information publicly available after a use-of-force encounter are made. This is done in hopes of bridging the gap between officers and citizens by gaining a better understanding of what influences the perceptions of each group. The first question asked about situational factors as a whole, while six questions dealt with individual situational factors thought to affect perceptions of force. The final question sought to examine whether police officers

and citizens differ in their perceptions of force. The first and final question were the heart of this research. In general, this study was done to determine whether situational factors affect perceptions of force and whether these effects were different for police officers and citizens. The answers to these questions will be discussed in the following section.

Reasonableness, punishment, and trust have all become major issues affecting people's general perceptions of police use of force. Citizens seem to perceive a suspect's actions differently and believe they would respond differently if put in the place of the officer. Using this as a framework, the results previously stated can be broken into four overarching discussion points. The first point deals with the overall perceptions of the force in regard to reasonableness. The second point focuses on punishment and includes factors regarding level and amount of punishment. The third discussion point focuses on how the participant would have responded in the same situation. The final point deals with the general trust for a department as a whole based on the actions of a single officer. The discussion of these topics will be organized into these four major categories. Additionally, special attention will be placed on the race variable of the respondent as it has been one of the most widely debated topics in recent years.

Reasonableness

Several questions after each vignette were geared toward the topic of reasonableness. These include the question about whether the officer could have used less force, whether the officer's actions were justified, rating the officer's actions on a reasonableness scale, and to some degree whether the officer should be punished for his actions. The term "reasonableness" will be used in this section to discuss the findings for

all four of the previously stated questions. Generally speaking, situational factors did affect perceptions of reasonable police use of force. When considering the number of officers as backup, having only one officer as backup did not seem to matter, though having two officers did. That being said, backup was only impactful for citizens. For police officers, no amount of backup influenced their perceptions. Officers might not consider backup relevant because having backup does not necessarily mean other officers were involved in the actual force. It could also mean that officers believe a certain amount of force is necessary regardless of the number of officers present.

Perceptions of reasonableness for both officers and citizens were affected by the suspect's weapon and movement. This agreement continued when discussing officer weapon. Officer weapon mattered for reasonableness regardless of the question asked. One major and interesting difference between citizens and officers was the influence of officer versus suspect injury. One can speculate that citizens are placing themselves in the role of the suspect, while officers are placing themselves in the role of the officer when determining reasonableness. Unlike citizens, however, officers were somewhat influenced by suspect injury. When provided with the same information, officers and citizens are generally influenced by the same factors except for resulting injuries.

Interestingly, the race of the respondent did not affect judgments of reasonableness in the manner that would be expected according to some prior research. Race is thought to play a major role in determining perceptions of reasonable force. This study excluded the race of the suspect and officer to examine situational factors independent of individual-level characteristics. When race is not provided, citizen's perceptions of reasonableness were generally not affected by the respondent's race.

Additionally, the only time that race was significant was for the police officer sample, when participants were asked if the officer's actions were justified. This goes against the idea that law enforcement supersedes race (Kleinig, 2001). Most research on public perceptions have found minority groups generally have less favorable perceptions of police (Ackerman et al., 2001; Cullen et al., 1996; Decker & Wagner, 1985; Hadar & Snortum, 1975; Jefferis et al., 2011; Jesilow et al., 1995; Webb & Marshall, 1995; Weitzer & Tuch, 2004); however, it would seem that this effect disappears when focusing on situational factors and controlling for the race of the individuals involved.

The fact that officers and citizens are generally influenced in the same way by the same situational factors seems counterintuitive when considering recent public criticisms of police use of force. As mentioned above, one potential explanation could be the amount of information citizens receive about a use-of-force encounter. Police officers often cannot release much information about an encounter if it is being investigated. This research suggests that presenting the situational factors about the encounter could impact perceptions of reasonableness. Recall that officers focus on the outcome, while citizens focus on the process. Releasing the situational factors associated with a case to the public, if possible, might be one way for officers to reduce some of the criticisms about the force used.

Punishment

Questions dealing with punishment involved asking respondents if the officer should be punished, what that punishment should be, and how much of that punishment should be administered when applicable. The term "punishment" will be a general term describing all punishment-related questions as a single topic. Police officers and citizens

generally agreed on what situational factors mattered regarding punishment. Research has shown situational variables are the most influential set of factors determining the amount of force an officer uses (Stinson, 2015; Terrill, 2003; Terrill & Mastrofski, 2002; Terrill & Reisig, 2003). Both groups tended to focus on the officer's weapon as a means for determining punishment. Similar to the results on reasonableness, citizens were significantly influenced by suspect injury but not officer injury. Officers only focused on suspect injury when determining level of punishment, not whether to punish. Interestingly, situational factors did not seem to matter when determining the amount of a certain punishment.

For the combined sample and police-only sample, African-Americans were more likely than Caucasians to punish the officer. Once again, these results are surprising when considering the subculture of police officers. This difference continued for several combined models assessing the amount of a selected punishment. This was especially true when considering the amount of prison. African-Americans generally perceive the courts to be harsher than Whites (e.g., Secret & Johnson, 1989). This could change when considering a police officer was the one being punished.

Results indicate that a respondent's race generally did not affect choosing punishment or level of punishment for citizens. It has been suggested that Whites and minorities have similar attitudes regarding punitiveness (except in regard to the death penalty, see Cochran & Chamlin, 2006); however, Whites' attitudes include racial prejudice, while minority attitudes are based on fear of crime (Cohn, Barkan, & Halteman, 1991; Johnson, 2008; Payne, Gainey, Triplett, & Danner., 2004). It might be expected that White respondents would differ from minority respondents if their

punitiveness is based on racial prejudice and no race is provided in the scenario. Minority groups did tend to differ from Whites when it came to amount of punishment selected. Additionally, political ideology was generally not significant in regard to punishment. This might be surprising because Republicans are often considered to be more punitive than Democrats (e.g., Payne et al., 2004). One reason for the absence of significance could be the general association between political ideology and race (Cochran & Chamlin, 2006; Johnson, 2008). Being that race was not significant, it would follow that political association would also not be significant due to its collinearity with race.

Participant Force

Participant force was covered by two questions. The first had the respondent assess how threatening the suspect's actions were, and the second asked them to rate how much force they would have used in that situation. There was nearly perfect agreement between citizens and police officers regarding what situational factors influenced how threatening a suspect was and how much force they would have used. Note that the measurement was how threatening the suspect was, not the level of resistance used by the suspect. The only differences were the significance of an officer using a Taser for participant force and the significance of suspect injury when assessing threat level. Both differences involved the variable being significant for citizens but not for officers. Citizens and officers even agreed that having one officer backup was irrelevant, but having two other officers present would reduce the force they would use. Though officers would generally use more force than citizens, both were influenced by the situational factors provided. Recall that research has shown an officer's decision to use

force is primarily influenced by situational factors (Stinson, 2015; Terrill, 2003; Terrill & Mastrofski, 2002; Terrill & Reisig, 2003). This study alludes to the idea that citizens might be influenced in a similar fashion. To fully understand this, one would need to incorporate individual-level characteristics to see if the effect persists.

For the combined sample, African-Americans perceived the suspect to be less threatening and would generally have used less force against them. However, without exception, minorities were not significantly different from Whites in determining threat level or predicting the amount of force to use for the individual samples. This means there was no racial gap for citizens or officers when examined separately. Some research has found that Whites tend to be more accepting of excessive force or the use of more force when compared to minority groups (Barkan & Cohn, 1998; Cullen et al., 1996; Halim & Stiles, 2001). These results show that despite the racial gap regarding what constitutes acceptable force, Whites and minorities do not differ in the amount of force they would use given only situational factors. Racial differences might immerge with the inclusion of individual-level characteristics (e.g., suspect and officer race, gender, etc.).

Trust

The actions of a single officer can affect the public's perception of an entire department or even the police as a whole (e.g., Ferguson, Missouri). With few exceptions, the same situational factors were influential for citizens and police officers; however, there were some differences in the direction of those influences. Additionally, officer injury was only significant for the officer sample, and suspect injury was only significant for the suspect sample. As previously mentioned, this might be explained by each group placing themselves in the role most closely associated with their role in

society. The officer identifies more with the responding officer, while citizens see themselves as the potential suspect in the encounter. Officer injury negatively affecting an officer's trust in the department could stem from officers wanting a department that provides better training and support for its employees. Conversely, mistrust for a department that allowed its officers to severely injure a suspect might explain the negative effect of suspect injury on citizens' trust. The fact that neither group was significantly influenced by the opposite role seems to highlight the growing divide between police officers and citizens.

Similar to the punishment section, African-Americans differ from Whites in the combined sample, though this effect disappears when the samples are separated. When considering the citizen-only sample, one would expect minority groups to be less trustful of the police when compared to Whites (MacDonald & Stokes, 2006; Tyler, 2005; Warren, 2011). This effect might be washed out by the inclusion of the respondent's general perception of police officers. Race not mattering for the police-only sample is consistent with expectations. Trust in the police is a crucial element of successful policing. These results suggest some differences regarding what is important for each group.

VI. CONCLUSION

This section will briefly address each research question and then discuss general conclusions based on the findings. Generally speaking, situational factors seem to play an important role for both citizens and officers. The number of officers present typically only mattered when there were two officers as backup. Generally, suspect weapon consistently affected perceptions. Suspect movement nearly always affected perceptions of use of force. Similar to suspect weapon, officer weapon was significant for most outcomes. Though not as frequently as the previously mentioned variables, officer injury was an important factor when forming perceptions. Suspect injury was generally impactful in a similar manner to officer injury. It should be noted that officer injury was more often influential for the officer-only sample, and suspect injury was more often significant for the citizen-only sample. Finally, police officers' and citizens' perceptions of force are generally similar with some exceptions. Both groups tended to agree on the outcome, though there may be a difference in the average level of the outcome. For example, the average officer reasonableness score for an officer using a gun against a suspect with a gun is 8.95, while the average citizen reasonableness score for the same encounter is 7.36. Higher numbers in this case indicate higher levels of reasonableness. With both averages above five, both groups agree that the use of a gun against a gun is reasonable. What differs is just how reasonable each group perceived the encounter. Officers found it more reasonable on average, compared to citizens.

There is a great deal of agreement regarding what is important and how it affects perceptions between officers and citizens. This may seem counterintuitive based on the current climate surrounding police use of force. One explanation could be the amount of

information provided. When provided the same information in the same way, officers and citizens had more agreement than not. This demonstrates a need for effective communication between police officers and the community. Often the media play a large role in forming perceptions of police/citizen encounters. Sensationalizing police use-of-force encounters helps ratings but diminishes the relationship that is essential for police work to successfully create a safer community. Knowing that situational factors can affect perceptions of a use-of-force encounter, police departments can release such information in an attempt to overcome media hyperbole and better inform the public. A departmental policy requiring the sharing of situational information about the use-of-force encounter could help the public better understand the situation, while also fostering openness with the community. Providing the situational factors could also potentially lessen the effects of race on perceptions of police force.

Role association resulted in citizens being more influenced by suspect injury and officers being more influenced by officer injury. This suggests a need for greater empathy on the part of both officers and citizens. Community outreach programs could be used to develop better relationships between citizens and officers. Officers might gain a better understanding of citizens in their communities and the unique needs of certain groups. This could also help to increase the general public's knowledge of police training and what constitutes reasonable force. Doing so would go a long way in helping citizens understand the intensity and speed of use-of-force encounters, as well as provide a better understanding of legal outcomes that would otherwise seem surprising. The increased contact would allow officers to perform their job duties better, thereby making the community a safer place to live.

As previously stated, making decisions based on the race of the officer or suspect directly violates legal standards of equality. Officers are not permitted to make decisions about using force based on the race of the suspect. Similarly, citizens are not allowed to use race as a determining factor when serving on a use-of-force case jury. Situational factors alone are supposed to determine whether force is used or an officer is charged with using unreasonable force. Understanding how and which factors affect perceptions of use of force is essential for bridging the divide between officers and citizens.

Limitations

This research was limited in several ways. The first major set of limitations involves the sample of officers and citizens for this study. The sample was partially a convenience sample, though it does have a fairly good national representation of officers and citizens. Only officers taking an ALERRT class during a certain period of time were contacted, making the officer sample limited by their involvement in potentially optional training. The citizen sample is limited by the fact that they had to be contacted by SSRS and agree to participate in future research for inclusion in the sampling pool. These sample limitations can affect the generalizability of this research. Other sample-specific limitations involve the nature of the topic being studied. Many people feel passionately about police use of force. Recent publicized events have decreased police approval overall and created an “us versus them” mentality for both citizens and officers. This could result in straight-lining answers no matter the situation.

The second major group of limitations involves the survey. One potential problem could be the mode of the survey distribution. Though a majority of people have access to the internet, there are still some people with limited or no access, essentially

excluding them from participation. Additionally, online surveys tend to have low response rates, which was true of this study. The nature of a factorial survey can also cause survey fatigue. Respondents may get tired or bored when answering the same questions after reading multiple vignettes that are very similar. Furthermore, respondents might not catch the differences if they do not read each vignette carefully. This could result in answers being straight-lined, vignettes being skipped, or the survey being terminated early. Clumping could also occur because of the response scales used in this research. Though the response variables were measured on a 101-point scale, the scale seen by respondents is 0–10 with decimal places. This is assumed to be continuous. Respondents might be more inclined to choose whole numbers rather than numbers with decimal places, resulting in clumps of responses around 0, 1, 2, ...10. Another limitation is the lack of follow-up questions about why respondents answered the way they did. With more qualitative-based questions attached, a better understanding of what influences perceptions of force could be achieved.

Future Research

There are many potential future projects that could come from this study. The next logical step would be to add more information to test the effects of other situational factors. Then, individual-level characteristics could slowly be inserted into the vignettes to examine their effects on perceptions. Additionally, a study could vary the amount of information given to respondents to test what factors are most important when determining reasonableness. This could be done using vignettes, as this study did, or actual mock news videos could be used to relay the information. A mock newscast would make the transmission of information more realistic. Another study could use

news clips from actual use-of-force encounters and compare those with the police reports for those encounters. This would further move this project toward greater real-world applicability. The media typically sensationalize certain points of use-of-force encounters and leave out many pieces of information that could potentially change the opinions of the viewers. Police reports, on the other hand, tend to have detailed information regarding the encounter.

APPENDIX SECTION

APPENDIX A: ALL POSSIBLE VIGNETTES

1-111111

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

2--111112

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

3-111121

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

4-111122

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

5-111211

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

6-111212

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

7-111221

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

8-111222

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

9-111311

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

10-111312

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

11-111321

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

12-111322

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

13-112111

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged

the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

14-112112

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

15-112121

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

16-112122

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

17-112211

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

18-112212

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

19-112221

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

20-112222

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

21-112311

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

22-112312

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

23-112321

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

24-112322

An officer responding to a disturbance with no backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

25-121111

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

26-121112

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old

male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

27-121121

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

28-121122

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

29-121211

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

30-121212

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31-121221

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

32-121222

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

33-121311

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

34-121312

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

35-121321

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36-121322

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

37-122111

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

38-122112

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

39-122121

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male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

40-122122

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

41-122211

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

42-122212

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43-122221

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44-122222

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

45-122311

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

46-122312

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47-122321

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48-122322

An officer responding to a disturbance with no backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

49-131111

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

50-131112

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51-131121

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52-131122

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male.

As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

53-131211

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

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56-131222

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57-131311

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58-131312

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59-131321

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60-131322

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

61-132111

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

62-132112

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

63-132121

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

64-132122

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65-132211

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67-132221

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68-132222

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

69-132311

An officer responding to a disturbance with no backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

70-132312

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71-132321

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72-132322

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73-211111

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

74-211112

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

75-211121

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

76-211122

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

77-211211

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

78-211212

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer

engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

79-211221

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

80-211222

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

81-211311

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

82-211312

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

83-211321

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

84-211322

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

85-212111

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

86-212112

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

87-212121

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

88-212122

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

89-212211

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

90-212212

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

91-212221

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer

engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

92-212222

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

93-212311

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

94-212312

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95-212321

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96-212322

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97-221111

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

98-221112

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

99-221121

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

100-221122

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

101-221211

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

102-221212

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

103-221221

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

104-221222

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the

25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

105-221311

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

106-221312

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107-221321

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108-221322

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109-222111

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

110-222112

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

111-222121

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

112-222122

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

113-222211

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

114-222212

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

115-222221

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

116-222222

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117-222311

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-

year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

118-222312

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

119-222321

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

120-222322

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

121-231111

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

122-231112

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

123-231121

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

124-231122

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

125-231211

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

126-231212

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

127-231221

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

128-231222

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

129-231311

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

130-231312

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131-231321

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

132-231322

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

133-232111

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

134-232112

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

135-232121

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

136-232122

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

137-232211

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

138-232212

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

139-232221

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

140-232222

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

141-232311

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

142-232312

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

143-232321

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-

year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

144-232322

An officer responding to a disturbance with one other officer as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

145-311111

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

146-311112

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

147-311121

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148-311122

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

149-311211

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

150-311212

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

151-311221

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

152-311222

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

153-311311

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

154-311312

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

155-311321

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

156-311322

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer

engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

157-312111

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

158-312112

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

159-312121

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

160-312122

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

161-312211

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

162-312212

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163-312221

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164-312222

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165-312311

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with nothing in his hands. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

166-312312

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167-312321

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168-312322

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169-321111

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engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

170-321112

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171-321121

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172-321122

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

173-321211

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174-321212

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175-321221

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

176-321222

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

177-321311

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

178-321312

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179-321321

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180-321322

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181-322111

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

182-322112

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer

engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

183-322121

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

184-322122

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

185-322211

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

186-322212

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187-322221

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

188-322222

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

189-322311

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

190-322312

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191-322321

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

192-322322

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a knife. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

193-331111

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

194-331112

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

195-331121

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was standing about 20 feet away. Using bare hands, the officer engaged

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196-331122

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197-331211

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198-331212

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199-331221

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200-331222

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201-331311

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202-331312

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203-331321

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204-331322

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205-332111

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206-332112

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207-332121

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208-332122

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using bare hands, the officer engaged

the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

209-332211

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

210-332212

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

211-332221

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

212-332222

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a taser, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

213-332311

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained minor injuries.

214-332312

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained minor injuries and the 25-year-old male sustained major injuries.

215-332321

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained minor injuries.

216-332322

An officer responding to a disturbance with two other officers as backup encountered a 25-year-old male with a gun. After exiting the patrol vehicle, the officer saw that the 25-year-old male was moving quickly towards him. Using a gun, the officer engaged the 25-year-old male. As a result of the encounter, the police officer sustained major injuries and the 25-year-old male sustained major injuries.

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