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Neighborhood Disorganization and Police Decision-Making in the New York City Police Department

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NEIGHBORHOOD DISORGANIZATION AND POLICE DECISION-MAKING IN THE
NEW YORK CITY POLICE DEPARTMENT

by

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DEDICATION

I dedicate my dissertation to my family; I could not imagine life without their continual support. I cannot express the gratitude I have for my parents, David and Gayle, who have both provided immense financial and emotional assistance throughout my entire college career. Without them, this degree would not have been possible.

My father has been the backing that every young person deserves. He not only moved me cross-country and provided the financial support to make my dreams come true, but has had faith in me at every step of my degree. He taught me to always keep my head up and aim high, no matter the challenges you may face. Thank you, Dad.

My mother has given me the motivation and reassurance to complete my doctorate degree, expressing her utmost confidence in my abilities. At times, she served as my backbone during my degree, always able to see the light in the most difficult situations. Her words of encouragement comforted me through all stages of my degree and I thank her for being the woman that she is. I hope one day I can provide the same support to my children that my mother has provided me.

Lastly, I would like to dedicate my dissertation to my best friend and husband, Michael. Not only has he given me the confidence to succeed, but he also pushed me to do my best to accomplish goals that I did not think were possible. He was my strength when I was weak and, without his reinforcement, this whole process would have been an uphill battle. Thank you for being you.

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ABSTRACT

This dissertation examines the applicability of criminological theory to police decision-making during police-initiated encounters with suspects. Specifically, how indicators of social disorganization can be used to predict officers' use of coercive action (i.e., frisk, search, use of force, and arrest) during the street stop of suspects. I also investigate whether neighborhood disadvantage, as a moderator, impacts suspects' likelihood of receiving greater levels of coercive action when stopped for reasons listed in the New York City Police Departments' Unified Form 250 (UF-250) reports.

Three theoretical arguments connecting an officer's decision-making in a socially disorganized area are outlined. First, an area with an increased amount of disorganization and crime is believed to have increased levels of police coercive activities, compared to an organized and low crime area, simply based on the amount of police activity occurring in these areas (e.g., Terrill and Reisig, 2003). Second, as a result of the need for police to step in as sources of social control in disorganized areas, police may increase their use of coercive action (e.g., Clear, Rose, Waring, and Scully, 2003). And third, officers' heavy workload and cynicism toward residents in socially disorganized high crime areas leads to *less* police coercion in disorganized and high crime areas (e.g., Klinger, 1997).

Two research questions were examined using data collected from the New York Police Department Stop, Question, and Frisk Database, 2011 combined with neighborhood-level census data:

- (1) Does neighborhood disorganization play a role in an officer's decision to frisk, search, use force against, or arrest a suspect?
- (2) Does concentrated disadvantage strengthen or weaken the relationship between predictors of a stop and an officer's decision to frisk, search, use force against, or arrest a suspect?

Three outcomes measures were created to assess whether the contemporary measures of social disorganization (e.g., concentrated disadvantage, residential instability, and concentrated immigration) can be used to predict officer use of coercive action: (1) as a dichotomy of each coercive response occurring or not occurring during the stop (2) on a continuum of coercive action and (3) using the highest level of coercive action that occurred during the stop.

Results from multilevel analyses of stop incidents nested within neighborhoods confirm that certain indicators of social disorganization (e.g., concentrated immigration) affect officer use of coercive action. However, whether concentrated disadvantage strengthens or weakens the relationship between each stop predictor (e.g., suspect fits a relevant description) and officer coercive action (e.g., use of force), remains unknown in the empirical literature. The dichotomous and coercive action continuum outcomes reveal that neighborhood disadvantage weakens the relationship between the predictors of a stop and the likelihood of coercive action, while the highest level of coercion used outcome reveals that neighborhood disadvantage strengthens the relationship between the predictors of a stop and the likelihood of coercive action. The contradictory findings may indicate inaccuracy of the UF-250 reports or a conscious decision, by officers, to report dissimilarly in disadvantaged versus affluent neighborhoods. Nonetheless, suggestions for future research include a deeper examination into the causes behind these conclusions.

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LIST OF ABBREVIATIONS

| | |
|----------------|---|
| NYPD..... | New York City Police Department |
| PCI | Police-citizen Interaction |
| UF-250 | Unified Form 250 |
| NYPD SQF | New York Police Department Stop, Question, and Frisk Database, 2011 |
| GOLM..... | Generalized Ordered Logit Model |

CHAPTER 1

INTRODUCTION

Police officers have one of the most visible positions of authority in society. An officer's role is to serve and protect, while ensuring safety and wellbeing among citizens. One of the most important aspects of the criminal justice system is police officer decision-making, or his¹ use of discretion. In each stage of an encounter with a citizen, an officer calls upon his discretion or his freedom to decide which action is best for the situation at hand (Wilson, 1978). Wilson (1978) explains that discretion plays a major role in an officer's daily routine, from the moment he responds to a call for service to the point of using deadly force against a suspect. Although the types of encounters police have with citizens vary extensively (e.g., providing directions, attending town hall meetings, arresting a suspect, or becoming engaged in a fire fight), the majority of police research examining an officer's use of discretion focuses on coercive police activities (see e.g., Sun, Payne, and Wu, 2008).

Coercive police activities are those that emphasize an officer's power over citizens and include compliance methods, such as stop and frisk (Tedeschi and Felson, 1994). Stop and frisk, also known as a *Terry* stop, gives an officer the right to stop,

¹ For simplicity, police officers and suspects/citizens are referred to in the masculine sense throughout this paper, even though the points made may also apply to female police officers and/or female suspects/citizens (see e.g., Clear, 2007).

question, and frisk any person they feel is involved in criminal activity, a common method for detecting illegal weapons in New York City (Harris, 1994b). Regardless of the constitutional issues first proposed against the policy (i.e., violation of Fourth Amendment rights), stop and frisk has remained a popular policing strategy in New York City and has become even more widespread over the years. The 1968 Supreme Court ruling *Terry v. Ohio* not only ruled that stop and frisk does not violate Fourth Amendment rights, but also upheld an officer's right to stop a person solely based on reasonable suspicion (*Terry*, 1968).

The New York City Police Department's (NYPD) stop and frisk policy has been one of the most controversial uses of an officer's coercive power. The NYPD's stop and frisk policy was designed to control low-level disorder, however, it is often argued that officers misuse their discretionary authority in these stops. Scholars have recognized the potential for disparities in stops among racial minorities, arguing that minorities make up a significant amount of police stops (e.g., Gelman, Fagan, and Kiss, 2007). Further, scholars have also found a relationship between a neighborhood's level of social and economic disadvantage and an officer's use of coercive activity (e.g., Terrill and Reisig, 2003). Due to the potential inequality in the application of stop and frisks, a common theme among police researchers is to examine the motives that drive an officer's discretion during a police-citizen interaction (PCI).

Researchers argue that several factors influence an officer's discretion during a PCI (see National Research Council, 2004). Specifically, researchers have observed four conceptual frameworks that influence an officer's use of discretion: (1) the situational dynamics of the incident, including the suspect's race and behavior; (2) the officer's

individual traits and personality; (3) the type of organization in which the officer works; and (4) the structural features of the community (e.g., socioeconomics and demographics) in which the officer works (National Research Council, 2004). Community characteristics are thought to be more statistically consistent in explaining an officer's decision to act coercively, compared to the other conceptual frameworks (National Research Council, 2004). Although scholars have attempted to explain an officer's decision-making using the structural components of the community (e.g., concentrated disadvantage), the role of macro-level criminological theory applied to police decision-making remains understudied.

Some scholars have applied criminological theories, normally used to explain crime, to explain an officer's decision-making processes (e.g., Gelman et al., 2007; Kane, 2002). Conflict theory, posits that the dominant group in society creates laws to keep the minority populations powerless (Khruakham and Hoover, 2012). Researchers examining police decision-making from a conflict perspective argue that officers use coercive activities in order to maintain the status of the dominant group in society (Sun et al., 2008). Studies, however, have provided mixed results of the effects of a community's minority population on an officer's use of coercion (e.g., Lee, Jang, Yun, Lim, and Tushaus, 2010; Sun et al., 2008).

Social disorganization theory has also been used to explain an officer's decision-making (Kane, 2002). As a theory predicting criminal behavior, social disorganization theory argues that the structural features of the community create an environment conducive for criminal activity (Shaw and McKay, 1942). The amount of crime within the disorganized community, along with the lack of informal social controls are,

arguably, theoretically connected to an officer's decision-making processes. First, an area with an increased amount of disorganization and crime is believed to have increased levels of police coercive activities, compared to an organized and low crime area (e.g., Terrill and Reisig, 2003). Second, scholars have argued how the lack of informal social controls in a disorganized neighborhood may increase the use of police coercion (e.g., Clear, Rose, Waring, and Scully, 2003). And third, research has also recognized the potential for police to use *less* coercion in disorganized and high crime areas because of their increased workload and cynicism toward residents (e.g., Klinger, 1997).

Over the years, scholars have created contemporary measures that can now be used to test community disorganization (i.e., concentrated disadvantage, immigration concentration, and residential instability) (e.g., Sampson, Raudenbush, and Earls, 1997). Although several studies have addressed how the structural features of the community (e.g., disadvantage) influence police decision-making (see National Research Council, 2004), to date, no study has examined the influence of social disorganization on the relationship between predictors of a stop (e.g., suspect fits a relevant description) and an officer's use of coercion that may occur during a PCI (e.g., frisk, search, use of force, or arrest). That is, how neighborhood disorganization impacts (or moderates) the relationship between the reason for the suspect being stopped and the coercive action the officer uses during the stop, remains unknown.

1.1 Current Gaps in Literature Examining Police Decision-Making

Scholars have long addressed the potential factors that influence an officer's decision-making processes (see Sherman, 1980; National Research Council, 2004). The majority of scholars who have tested these factors, unfortunately, have found mixed

results (National Research Council, 2004). On the one hand, situational factors (e.g., suspect's race), officer characteristics, and organizational factors alone have not proven to significantly impact an officer's discretion in PCIs. On the other hand, community factors (e.g., neighborhood disadvantage) have proven to be stronger predictors of an officer's use of discretion. Further, researchers suggest that where an officer works shapes his discretion in PCIs (Smith, 1986; Terrill and Reisig, 2003).

According to Terrill and Reisig (2003), the amount of literature examining how neighborhood structural features shape police discretion is relatively scant, compared to literature examining the other influencing factors (situational, officer characteristics, and organizational). The authors do, however, recognize an overall theme among the neighborhood context literature; police decision-making is driven by the features of the environment, which "may result in suspects encountered in disadvantaged and high-crime neighborhoods being subjected to higher levels of force. It may also result, however, in less forceful behavior" (p. 297). For example, Terrill and Reisig's (2003) study found that officers were more inclined to use coercion in areas marked by high disadvantage and high crime, while Klinger (1997) argued that areas with higher disadvantage and crime would be subjected to less coercive police action. Other scholars have examined the relationship between community-level features and an officer's decision-making. In his 1986 study, Smith proposed the "neighborhood context hypothesis" and argued that where an officer works shapes his discretion. Specifically, Smith concluded that officers use more coercion in low-income and racially heterogeneous neighborhoods. Contrasting Smith's (1986) propositions, Klinger (1997) developed an ecological theory of police behavior, stating that officers will be more lenient in these areas because crime is more

commonplace; Khruakham and Hoover (2012) confirmed Klinger's ecological theory. What is largely missing from the police literature, however, is an analysis of the applicability of social disorganization, normally used to explain crime, to an officer's decision-making processes.

Kane (2002) observed that social disorganization and conflict theories could be used to explain an officer's behavior. In examining whether police misconduct (e.g., bribery) is shaped by the environment in which he works, Kane (2002) argued that the same factors that shape a resident's decision to act deviant (e.g., neighborhood disadvantage) can be used to explain an officer's malpractice. Kane's research, however, does not fully explain how neighborhood factors shape police decision-making in a PCI. A study has not yet applied the three contemporary measures of social disorganization (concentrated disadvantage, concentrated immigration, and residential instability) to explain an officer's coercive activity during a street encounter (e.g., frisk, search, use force against, or arrest a suspect).

Additionally, research has not examined the possible moderating effects between predictors of a stop and an officer's decision-making. In 2008, Sun et al. analyzed whether neighborhood concentrated disadvantage moderated the relationship between a citizen's behavior and an officer's coercive and noncoercive responses (e.g., providing physical assistance). They found that the relationship between a citizen's irrational behavior and an officer's noncoercive action was strengthened by concentrated disadvantage. That is, an officer was more likely to use noncoercive responses toward irrational citizens encountered in disadvantaged neighborhoods. However, the authors did not find significant results for concentrated disadvantage alone impacting the relationship

between a citizen's demeanor and an officer's coercive action. Sun et al. (2008), though representing a relevant significant step forward in the analysis of social disorganization theory predicting police behavior, still does not uncover the degree that social disorganization strengthens (or weakens) the relationship between the stop predictors and an officer's decision to act coercively in a PCI.

1.2 Research Questions and Plan of the Dissertation

This dissertation aims to provide insight into whether social disorganization theory can predict an officer's decision-making processes. Chapter 2 opens with a brief discussion on the role of a police officer in a contemporary society and how it sets the stage for an officer's responsibilities while serving his community. The chapter then provides a literature review identifying the types of encounters the police may have during interactions with citizens, with a focus on the most common types of coercive police responses (e.g., stop and frisk, search, use of force, and arrest). As a typical coercive action used by the NYPD and its potential for discrimination, the infamous stop and frisk policy is discussed in detail. Reasons behind an officer's decision-making processes during a PCI are then examined and analyzed, using the conceptual frameworks that shape an officer's use of discretion (situational factors, officer characteristics, organizational factors, and community characteristics). Chapter 3 explores the theoretical frameworks used in explaining an officer's decision-making, with a focus on how theories normally used to explain crime can be used to explain police decision-making.

Chapter 4 discusses the proposed data collection and analytic strategy for this research. Among other things, this research will use data collected from the NYPD Stop,

Question, and Frisk database, combined with data from the U.S. Census. There are two primary research questions of interest, described below. Figures 1.1 and 1.2 represent illustrations for each hypothesis.

- (1) Does neighborhood disorganization shape an officer’s decision to frisk, search, use force against, or arrest a suspect?
- (2) Does concentrated disadvantage strengthen or weaken the relationship between the predictors of a stop and an officer’s decision to frisk, search, use force against, or arrest a suspect?

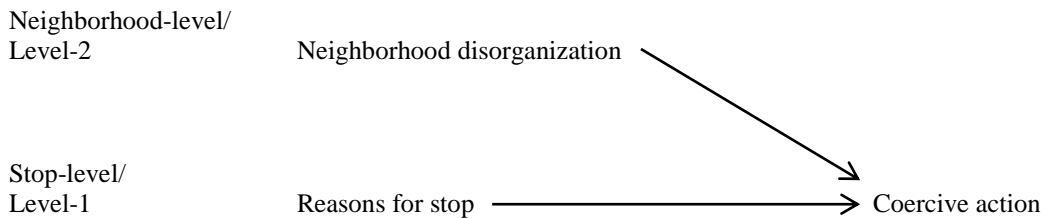


Figure 1.1 Illustration of Hypothesis 1

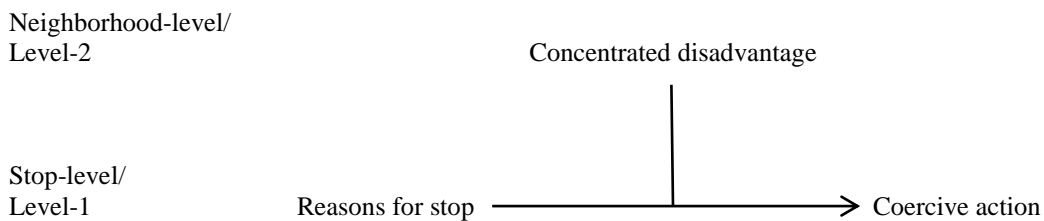


Figure 1.2 Illustration of Hypothesis 2

Analyses will proceed using multi-level modeling and Chapter 5 will discuss the findings reported from the analyses. The dissertation will conclude with Chapter 6 that provides a discussion of the importance of the current research in the broader context of policing.

CHAPTER 2

POLICE-CITIZEN INTERACTIONS AND POLICE USE OF DISCRETION

2.1 A Police Officer's Role

In 1980, Black recognized that police work is a profession with its own subculture, stratification, progress, socialization, and politics. The profession is unlike any other in that an officer dedicates his life to serving the public and protecting people from harm. Not only must he be a leader and enforce the laws but he must also be someone who the public can trust to save lives and apply justice (Black, 1980).

According to Van Maanen (1978b), there are two occupational perspectives that provide insight into a police officer's work life. The outsider perspective focuses on the policeman's position in society. In his uniform, he provides a unique role to the extent that he is constantly under public scrutiny and he may generate anxiety among the public. At the same time, he is protecting himself and others from harm (see also Skolnick's 1966 discussion of police solidarity and social isolation). A second perspective, the survival method, the officer pursues a safe, yet active, routine where he also must learn not to expect much from the job and to play by the rule of law (Van Maanen, 1978b). An officer's working personality is not only based on the balance between the two occupational perspectives, but also incorporates elements of both his authoritative and protective roles in society.

Skolnick (1966) summarizes the development of an officer's working personality, stating, "The police officer's role contains two principle variables, danger and authority, that should be interpreted in the light of a 'constant' pressure to appear efficient" (p. 43). Danger generates the officer's natural suspicion, while authority becomes his means to prevent danger, allowing him to enforce the law when necessary. Muir (1977) and Reuss-Ianni and Ianni (1983) also emphasize that an officer's self-defensive reactions and "gut" feelings play a role in forming his working personality.

The police officer's role encompasses a variety of responsibilities; the National Research Council (2004) reports that 65% of police work is comprised of responding to citizens' calls for service. An officer's main goal, however, is to maintain order within society - to control and prevent citizen behaviors that disturb the peace (e.g., public drunkenness or loud noises). Therefore, both police researchers and the public are most concerned with the interactions the officer has with citizens and exactly how the officer "controls" citizens' behaviors.

2.2 Police-Citizen Interactions

The types of encounters police have with citizens vary extensively. According to the National Research Council (2004), an officer's daily function includes a multitude of actions and engagements with citizens; no two days are the same. An officer's daily responsibilities vary, yet the central element of police authority, managing relationships with citizens while seeking their compliance, is an everyday occurrence (Reiss and Bordua, 1967). When police interact with citizens, Manning (1977) describes that officer behavior should be characterized by "proper emotional tone, proper attitude, control of information, efficacious tactics, and skill in the manipulation and use of objects" (p. 233).

PCIs may be categorized into two types, based on the officer's response to the interaction; coercive and noncoercive police action (Sun et al., 2008).

Noncoercive police action consists of citizen support, such as physical assistance and providing legal advice to citizens (Sun et al., 2008). Researchers have concluded that the majority of PCIs can be categorized as noncoercive action and involve police service situations (Black, 1980; Mastrofski, 1983; Wilson, 1978). However, because of their potential to be harmful and/or discriminatory toward citizens, coercive police action is the focus behind many studies involving PCIs, and is the central element of the current paper.

An essential role of a police officer is to maintain order within society (National Research Council, 2004). In some situations (e.g., dealing with a suspected criminal), an officer has the right to use coercive action to control citizen conduct (Bittner, 1990). Coercive actions may involve frisking or searching a citizen, interrogation, arrest or use of restraints (e.g., handcuffs), and drawing/discharging a weapon (see Sun et al., 2008). Police use coercive actions in order to establish their social identity and protect their role in society, what Tedeschi and Felson (1994) refer to as social interactionism. Social interactionism is a theory of coercive actions that (1) interprets coercive action as social influences (i.e., intended to change the behavior of a person) and (2) emphasizes the social interaction between the officer and the noncompliant citizen (Tedeschi and Felson, 1994).

Types of Coercive Police Actions

In order to serve and protect, an officer must make it a priority to gain citizen compliance, sometimes through coercive police action (Sun et al., 2008). Common

coercive actions police use most often include: stop and frisk, search, an officer's use of force, arrest, and traffic stops (e.g., Ridgeway, 2007). Although traffic stops are one of the most frequent coercive encounters citizens have with police (Ingram, 2007), researchers believe they should be treated separately from street encounters (see Smith and Visher, 1981; Klinger, 1996b).²

Stop and Frisk. In 1964 the New York State legislature adopted a new “stop and frisk” policy that allowed police to stop and question any person in a public space, based on the officer's suspicion of involvement in a crime (Ronayne, 1964). Stop and question occurs when an officer becomes suspicious of a person, stops the person (temporarily detaining them) and questions the person about potential involvement in a crime (e.g., what the person is doing at the time, where the person is headed, etc.) (Spitzer, 1999). The officer may have decided to question the person based on feelings of distrust, initiated by the citizen's furtive movements (e.g., walking between parked cars and looking into their windows), the citizen's inappropriate attire (e.g., wearing a trench coat in the summer), the visible outline of a weapon on the citizen, or any other circumstance that may pose a threat to the well-being of the officer or others; the official stop, however, must be based on lawful circumstances (Spitzer, 1999). For example, an officer may not stop a person based exclusively on his type of clothing, but may decide to stop a

² Unless otherwise noted, the empirical literature referenced throughout this paper includes findings from police-citizen interactions during street encounters (e.g., pedestrian stops) and excludes studies analyzing motor vehicle stops. Note that some studies do not include a detailed description of data. For example, Smith and Klein (1983) state, “police-citizen contacts were observed and recorded by trained civilians riding on 900 patrol shifts” but do not specifically state whether these encounters include or exclude motor vehicle stops (p. 74). Studies without a detailed data description are assumed to be applicable to the current paper.

person because the person is near the scene of a recent crime and fits the description of the suspected criminal.

Since its enactment in 1964, the stop and frisk policy has been scrutinized for its vagueness and potential for unconstitutionality. Sindell (1966) reported, “Already those interested in the preservation of freedom of privacy are pitted against those who clamor for greater police protection and laws to facilitate this end. There are those who feel that the statute dangerously impinges upon their civil liberties and is in violation of the Fourth Amendment” (p.180). Addressing constitutional rights set forth in the Fourth Amendment, the 1968 Supreme Court case *Terry v. Ohio* set the stage for the stop and frisk policy we know today.

In 1967 a Cleveland police officer, McFadden, suspected Terry (the defendant) and two other men of criminal activity, stopped them, frisked them, arrested them, and charged them with carrying concealed weapons (Terry, 1968). Although Officer McFadden’s suspicions of criminal activity were correct, the stop occurred without probable cause, the requirement under the law in 1967. Terry, an African-American man, claimed his constitutional rights had been violated and filed an appeal, which resulted in the case being upheld in the state’s appeals court. Later appealed to the Supreme Court of Ohio in 1968, the conviction of the defendant was affirmed (*Terry*, 1968).

Terry v. Ohio effectively reduced the volume of evidence required of police officers to stop and frisk a citizen. Prior to the 1968 ruling, a stop and frisk required probable cause, or the officer’s belief that the searching officer will uncover evidence of criminal activity (Barrett, 1998). The ruling allowed officers to stop and frisk any person they felt was reasonably suspicious of being involved in criminal activity (*Terry*, 1968).

Several lower court rulings have also addressed who may be frisked and the circumstances that justify a frisk. *Sibron v. New York* was decided the same day as *Terry v. Ohio*. In the case, Sibron (the defendant) was arrested and charged with possession of narcotics. Sibron filed a motion to suppress the narcotics evidence as illegally seized. It was ruled by the trial court that the arresting officer had probable cause to make the arrest; the ruling was upheld by the state appellate court and later by the New York Court of Appeals (*Sibron*, 1968). *Sibron* addressed the circumstances that substantiate a lawful stop and frisk; the case hashed out the difference between an officer's "reasonable suspicion" and an officer's "hunch."

Since *Terry v. Ohio*, courts have heard several cases related to stop and frisk policies (e.g., *Adams v. Williams*, *Ybarra v. Illinois*, *Minnesota v. Dickerson*). Overall, *Terry* permitted certain police actions during encounters with citizens (e.g., right to stop based on reasonable suspicion), while *Sibron* limited police power (e.g., stop cannot be based on a "hunch"). Several case appeals since the 1960's have ensured that officers act in accordance with the law.

In its most basic form, a stop and frisk may be conducted when the officer feels there is reasonable suspicion of criminal activity (*Terry*, 1968). Furthermore, as set forth in *Sibron*, the officer must have reasonable suspicion that a crime has been or will be committed, which includes "specific and articulable facts," not solely "a hunch" (U.S. Commission on Civil Rights, 2013, p.1). For example, the Supreme Court ruling *Illinois v. Wardlow* (2000) ruled that a person fleeing at the sight of police in a high crime area is enough to constitute reasonable suspicion. Once the stop and questioning of the person has occurred, a frisk may (or may not) occur, depending on the officer's suspicion that

the person has been, or will be, involved in criminal activity (Spitzer, 1999). The act of frisking involves “patting down,” or moving the hands quickly over the person’s body in order to detect weapons or other illegal contraband (Harris, 1994a).

The NYPD is well known for its aggressive policing strategies in PCIs, especially for pedestrian stop and frisks (Fagan and Davies, 2000). Many of the NYPD aggressive policing strategies were derived from the theoretical foundations of Wilson and Kelling’s (1982) broken windows theory, where community physical disorder is proposed to lead to an increase in criminal behaviors (see also Spitzer, 1999); New York City police officers often rely on stop and frisks to address low-level disorders. Specifically, the NYPD’s 1994 *Police Strategy No. 5, Reclaiming the Public Spaces of New York* included aggressively targeting minor offenses in order to control more serious violations (Fagan and Davies, 2000). The most famous pursuit of disorder or nuisance was the “squeegee” people in New York City during the late 1990s. The NYPD focused their efforts at eliminating “squeegee” people that disturbed and annoyed law-abiding citizens. As Parks, Mastrofski, DeJong, and Gray (1999) states, “Under Commissioner William Bratton, New York City discontinued the ‘Officer Friendly’ community policing approach of the previous commissioner in favor of a focus on rigorous law enforcement to rid the streets of ‘squeegee men’” (p. 487). Aggressive policing on the squeegee people, however, opened the door for an influx of aggressive policing on many types of public social disorders (e.g., public intoxication, graffiti, and public urination) (Fagan and Davies, 2000).

Another NYPD directive, *Police Strategy No. 1, Getting Guns Off the Streets of New York* focused on seizing illegal firearms in order to reduce gun violence (Fagan and

Davies, 2000). These two initiatives (*No. 5 and No. 1*) gave police ultimate power over citizens, allowing police to stop and frisk any person they felt was suspicious or disorderly, while still acting under the laws outlined by *Terry v. Ohio*. Although this led to multiple arrests for misdemeanor offenses, it also exposed the NYPD to attacks of discrimination. Trone (2010) reported that stop and frisk encounters within the NYPD caused considerable debate as to whether the stops were racially biased and whether the policy worked at reducing crime (see also Harris, 1994a, 1994b).

In situations involving stop and frisk, or more serious coercive police actions (e.g., search, arrest, or use of force), the responding officer must fill out a Unified Form (UF-250) report (Fagan and Davies, 2000). Depending on the circumstances of the incident, the officer may or may not complete the UF-250 report. The NYPD Patrol Guide mandates officers to fill out the report under four specific circumstances (1) person is stopped by use of force (2) person stopped is frisked or frisked and searched (3) person is arrested or (4) person stopped refused to identify himself (Spitzer, 1999). Although non-mandated UF-250 reports make up some of the total reports, it is estimated that mandated UF-250 reports account for approximately 72% of the total reports (Gelman et al., 2007). The UF-250 reports provide details of each stop, on behalf of the police officer involved; the information collected includes, but is not limited to: the officer's reasons for initiating the stop, whether the stop led to an arrest, demographic information for the person stopped, and the suspected criminal involvement. Appendix A provides an image of the front and back of the NYPD's UF-250 report.

One of the first notable studies of NYPD stop and frisk UF-250 reports in 1998 described that the number of reports more than doubled over a span of ten years (Fagan

and Davies, 2000). The dramatic increase in the number of stops in New York City has continued since the original implementation of the policy in the 1960s. In fact, each year the number of stops by New York City police increases (CCR, 2012). The Center for Constitutional Rights (CCR) provides status reports and updates on all statistics and cases dealing with the NYPD's stop and frisk policy. The latest statistical account conveyed that there were 576,394 stops made in 2009 and 685,724 stops made in 2011, a 16% increase over a two-year period (CCR, 2012). Fagan and Davies (2000) discuss the implication of these large number of stops, which are vastly increasing arrest rates for misdemeanors and not following the original propositions set forth by order maintenance policing (to reduce the more serious criminal offenses). Further, as the quality of arrests decline, so does the ability to prosecute under a court of law. From 1993 to 1998, the number of misdemeanor and felony arrests that were dismissed doubled, showing that the "the evidentiary quality of arrests suffered as their [stop and frisk] number rose" (Fagan and Davies, 2000, p.476).

Some researchers explain that the number of stops is actually not as high as it may appear. A Philadelphia Police Commissioner, John Timoney (in Trone, 2010), estimates that if all NYPD officers made one stop a week, the total number of stops would surpass one million, making the 600,000 stops seem more reasonable. Further, Heather Mac Donald (2001), a scholar on police behavior, argues that it is unfair of policy makers and researchers to look simply at raw numbers of stops and they must take into consideration where the police are stopping citizens and what police are doing during the stops. She believes police are being proactive and targeting areas with higher amounts of crime.

Advocates of the stop and frisk policy (e.g., some citizens, police officers, politicians, etc.) believe that police have the right to stop and frisk whomever they feel is suspicious and argue that the policy has positively impacted crime in New York City. The majority of citizens, however, are skeptical of these findings, arguing that statistics reveal that crime rates have been on the decline even before the implementation of the strict stop and frisk policy (see Rose, 2013). For example, Fagan and Davies (2000) point to cyclical changes in rates of violent crime and neighborhood collective efficacy as sources of changes in crime rates. The majority of citizens also believe that the policy violates right to privacy and is unconstitutional.

In a recent federal class action lawsuit, *Floyd, et al. v. City of New York, et al.*, defendants claimed violations of the Fourth Amendment and Fourteenth Amendment protections against unreasonable searches and seizures, racial profiling, and unconstitutional stop and frisks (CCR, 2013a; House, 2013; Rose, 2013). On March 27, 2013, the NYPD included a memo as evidence in the case that instructed officers give a narrative description of every stop, in addition to checking the boxes on the UF-250 form (CCR, 2013b).

On August 12, 2013 U.S. District Judge Shira Scheindlin ruled that the NYPD's stop and frisk policy violated constitutional rights of citizens (CCR, 2013c). Scheindlin (2013) stated, "the public interest in liberty and dignity under the Fourth Amendment, and the public interest in equality under the Fourteenth Amendment, trumps whatever modicum of added safety might theoretically be gained by the NYPD making *unconstitutional* stops and frisks" (p. 5). As a result, the Judge ordered a reform to the policy, which included the appointment of an independent monitor. The monitor is to

oversee the agreed-upon reforms of the policy (e.g., changes to stop and frisk documentation) in the department, including aspects of officer training, supervision, and discipline (CCR, 2013c).

However, these judge-ordered reforms came to a halt when New York City filed appeals. Upon appeals, Judge Scheindlin was subsequently removed from the case, the city arguing that the judge did not act in a fair and impartial manner (CCR, 2013c). In November 2013, New York City adopted a new mayor, de Blasio, as well as a new Police Commissioner, Bratton. In January 2014, de Blasio dropped the appeals and reached an agreement with the Floyd plaintiffs (CCR, 2014). Although Bratton feels strongly that stop, question, and frisk is a basic tool used in the NYPD, the reform process of the policy has begun. Compared to months in the second-half of 2012, stops in the same months in 2013 saw an 80% reduction of police stop and frisks (Long, 2013).

Search. Four years after the rulings of *Terry* and *Sibron*, a case under the *Terry* ruling appeared in Connecticut. In 1972, *Adams v. Williams* was heard by the Court of Appeals. Officer Adams was approached by an informant saying that the defendant, Williams, was in possession of narcotics and an illegal firearm. When Officer Adams approached Williams in his parked car, Williams refused Officer Adams's requests to get out of the car. Upon refusal, Officer Adams reached into the car and took possession of a firearm in Williams's waistband. Subsequent searches also revealed heroin and a machete located in Williams's car. Williams was convicted of possession of a handgun and narcotics. He appealed the ruling on behalf of unlawful search. The Court of Appeals upheld the decision that the right to stop and frisk can be based on information from other people, not solely on behalf of reasonable suspicion by the officer (*Adams*, 1972).

Police officers have the right to search a person they believe he has been involved, or will be involved, in a crime in order to uncover evidence or contraband (Spitzer, 1999). A search occurs when the officer investigates, or combs through, the suspect's possessions or on his person (e.g., his bag or his pant pockets) (Harris, 1994a). The Fourth Amendment protects Americans from illegal searches and seizures by police, stating that a search must be based on probable cause, or if a search warrant has been issued by a judge declaring probable cause for the search (U.S. Const., amend. IV). The Supreme Court's ruling *Terry v. Ohio*, however, allowed a search and seizure without probable cause, but under circumstances of reasonable suspicion.

When discussing the difference between frisks and searches, Harris (1994a) states, "Frisks could not go beyond a pat down of outer clothing to locate a weapon; once the officer knew no weapon was present, further searching was improper" (p. 662). A street encounter often begins with an officer's stop and frisk of a suspect before furthering into a search, however, a search does not have to originate from a frisk (Harris, 1994a). A person that is frisked will not always be searched (e.g., when there is no reasonable suspicion that evidence will be obtained) and a person searched does not first have to be frisked.

Use of force. Bittner (1990) recognizes that the primary activity that sets the police apart from other government agencies is their authority to use force. Force can be defined as the exertion of power to coerce or contain the behaviors of others (Kania and Mackey, 1977). Brown (1981) argues that police are constantly under the unpredictable pressures of violence from citizens stating, "the thought that violence (or the threat of it)

often begets violence” (p.77). A police officer, therefore, must always expect violent behaviors and be prepared to use force to protect himself and others from harm.

Some common forms of police use of force include, but are not limited to: strong verbal cues³, intimidation, compliance methods, physical force, and deadly force (Klinger, 1995). Researchers have different methods for measuring police use of force (dichotomous, ordinal, and continuous measures). The most common method is to place the use of force actions on a continuum based on the level of force used in the encounter, ranging from the least severe to most severe option (see e.g., Klinger, 1995; Paoline and Terrill, 2007; Terrill and Mastrofski, 2002). It is also common practice to examine the highest level of force used during an encounter, which allows researchers to gain an understanding of the type of force police use to gain citizen compliance. To illustrate, Paoline and Terrill’s (2007) study used the highest level of force that occurred in each encounter placed on a continuum, beginning with verbal commands and threats and ending with impact methods, such as hitting, use of baton, or stun gun (because of their interest in citizen compliance, Paoline and Terrill excluded police use of firearms in their study).

Police use of force has long been a central topic of research involving police activity. Two theoretical perspectives are often used to explain an officer’s use of force (1) sociological and (2) psychological (Terrill and Mastrofski, 2002). The sociological perspective explains police use of force in terms of the citizen – who the citizen is and what the citizen does – while the psychological perspective explains police use of force in

³ Following the practices of Terrill and Mastrofski (2002), this discussion includes verbal commands as a type of force (see also Sun and Payne, 2004; Paoline and Terrill, 2005).

terms of the officer's background, personal characteristics, and experiences (Terrill and Mastrofski, 2002).⁴ Research on police use of force has pursued a number of avenues, including excessive use of force (e.g., Adams, 1996; Klinger, 1995; Lee et al., 2010) and deadly force.

A frequently studied type of police use of force is deadly force, which occurs when a suspect is killed because of the officer's use of force (e.g., gunshot) (Geller and Scott, 1992). Police use of deadly force has gone through substantive changes over the years. In order to reduce racial disparities seen in the use of deadly force in the 1960s and 1970s, police departments adopted the "defense of life" rule in the 1970s, where police shootings became limited to situations that pose a threat to life (*Garner*, 1985; Walker, Spohn, and DeLone, 2000). The defense of life rule, as estimated by Fyfe (1978), reduced New York City police officer firearm discharges by almost 30% within a few years. Furthermore, the 1985 Supreme Court case *Tennessee v. Garner* ruled the "fleeing felon rule" unconstitutional, which accelerated the "defense of life" standard in situations involving police use of force.

In 1985 the Supreme Court ruled on a case regarding an officer's use of deadly force, *Tennessee v. Garner*. A Memphis police officer attempted to arrest a young man, Garner, for suspected burglary; the suspect fled the scene and was shot and killed by the officer (*Garner*, 1985). Garner's father (defendant) brought an action in Federal District Court, arguing violation of his son's constitutional rights. The District Court ruled that the officer's actions did not violate Garner's constitutional rights; the Court of Appeals

⁴ For further discussion on factors affecting police coercion, refer to chapter 2.4 of this dissertation.

reversed the lower court's decision (*Garner*, 1985). The Court of Appeals ruled, "such force may not be used unless necessary to prevent the escape and the officer has probable cause to believe that the suspect poses a significant threat of death or serious physical injury to the officer or others" (*Garner*, 1985, p. 7). Although not the topic of the current paper, many researchers have addressed an officer's use of deadly force in PCIs (see e.g., Klinger, 1995), especially in terms of racial disparities (Fyfe, 1982; Geller and Karales, 1981; Jacobs and O'Brien, 1998). Many of the racial disparities found, however, often dissipate when researchers control for at-risk status (e.g., felony suspect) (Geller and Karales, 1981).

Even though there are no specific criteria that state what a police officer must do in each situation when it comes to use of force, Bittner (1990) explains three specific restrictions placed on police officers. First, police use of deadly force is limited (e.g., in life-threatening circumstances). Second, police may only use force in performance of their duties. And third, police may not use force maliciously or frivolously (Bittner, 1990). Researchers acknowledge that officers infrequently use physical force in police-citizen encounters and, when they do use force, they more often choose the less physical options (e.g., Klinger, 1995 reported that voice commands were used in 58% of "forceful" cases).

Arrest. Another common tool an officer may use during a PCI is arrest. Terrill and Reisig (2003) define arrest as a physical restraint, where the suspect is handcuffed for the safety of himself and/or others. An official arrest includes taking the suspect to the police department, completing a booking sheet, a property voucher, and other paperwork for processing; an officer's decision to arrest must be based on probable cause (Spitzer,

1999). For example, an officer who searches a person and finds a handgun has the right to arrest the person based on illegal carrying of a concealed weapon (Barrett, 1998).

An officer's decision to arrest is one of many possible alternative coercive actions; he has the authority to arrest and the freedom to not arrest. Black (1980) reports that officers tend to be more lenient and use their power to arrest less frequently than the law would permit. For example, Sun and Payne (2004) reported that only 5% of their PCI sample resulted in arrest, with the other coercive actions (e.g., threats and restraints) having a higher likelihood. A suspect has the highest chance of being arrested (95%) if an officer observes the crime; all other factors (e.g., testimonial evidence and disrespectful suspects) run a 70% chance or less of the suspect being arrested (Mastrofski, Worden, and Snipes, 1995). In every PCI, the officer makes a choice as to which coercive action, if any, will be used to gain citizen compliance.

2.3 Police Use of Discretion in PCIs

Throughout the training process, police officers are taught to identify suspicious persons or behaviors and to recognize those situations that may pose a threat to their well-being (Skolnick, 1994). These identifications and recognitions may stem from what is called the symbolic assailant. The symbolic assailant theory was developed to explain how officers categorize people and differentiate between citizens and suspects, based on what most often relates to criminal activity (e.g., being an African-American young male) (Skolnick, 1994). On top of the officer's distinction between law-abiders and law-breakers, the decision an officer decides to make in a situation is often based on what the officer "feels" is appropriate (Brown, 1981). In every PCI, police have the discretion to respond in a manner they deem fit.

An officer's use of discretion can be distinguished by two characteristics (1) their aggressiveness, or taking initiative in crime fighting and (2) their selectivity, or the increased likelihood to enforce the law (Brown, 1981). According to Brown (1981), these two characteristics come together to form one of four officer operational styles: selective and highly aggressive; selective and less aggressive; non-selective and highly aggressive; and non-selective and less aggressive (p. 224). The officer's predisposition toward aggressiveness and selectivity can help clarify the varying degrees (e.g., decision to arrest versus not arrest) of an officer's use of discretion in each PCI. That is, an officer who is selective and highly aggressive is more likely to seek out suspects and make more arrests, compared to an officer who is non-selective and less aggressive.

Often times, officer decision-making is not only based on the officer's working personality (see Brown, 1981) but also on the "type" of person present during the interaction (Van Maanen, 1978). As stated by Van Maanen (1978), "the asshole is a part of every policeman's world" (p. 221). Of course Van Maanen is not referring to every citizen in PCIs, but is referencing those who are treated harshly simply because of their behavior during the interaction (e.g., the citizen attempts to fight or flee). Mastrofski, Snipes, and Supina (1996) showed that people who were irrational toward police were more likely to be noncompliant with police efforts. "The asshole," compared to the other typologies ("suspicious persons" and "know-nothings") is a higher candidate for street justice, or the officer's use of authority aimed at correcting ill behaviors (Van Maanen, 1978).

In the decision-making process, an officer's use of discretion takes one of two roles - *delegated* or *unauthorized* (Skolnick, 1994). Delegated discretion is that response

which is clearly allowed by the police (e.g., arresting a murder suspect), while unauthorized discretion deals with police actions where they may not have authority (e.g., misuse of force) (Skolnick, 1994). Problems arise when the lines of authority in delegated discretion are unclear; not every person would agree on the correct course of action taken by police officers, which invites scrutiny into an officer's use of discretion (Brooks, 2001; Skolnick, 1994).

Bittner (1990) explained that a police officer's use of discretion is based on keeping the peace and is not founded upon direct compliance with the law. Even with the Fourth Amendment protections against unreasonable searches and seizures, Maclin (1998) believes that *Terry v. Ohio* gave officers an extraordinary amount of discretion. If police have reason to believe the law has been broken they will have authority to stop the person.

Skolnick (1994) recognized that specific laws are purposefully made subjective (e.g., disturbing the peace) in order for the police officer to maintain order. Officers use legal recourse as a tool to control unwanted behaviors by citizens, ensuring that their discretion is in line with the appropriateness of the situation (Black, 1980). For example, officers use less discretion in serious felony offenses and more discretion in misdemeanors (Black and Reiss, 1970). They are also less likely to use legal recourse in situations in which the victim and offender have a relationship (e.g., a family member), whereas incidents involving no victim-offender relationship are more likely to be formally handled by police (Black, 1980). An officer's discretion encompasses the ability to decide which rule(s) to impose on a citizen and the power to decide whether or not to apply the rule(s); *not* doing something may hold as much importance as doing something

(Brooks, 2001). Brown (1981) recognized that an officer uses discretion as a way to implement laws, but also acknowledged that officers are limited in their decision-making because of laws.

From the manner with which they choose to interact with citizens to the decision to invoke the law, police use of discretion is a subject under constant attention by researchers (Novak, Frank, Smith, and Engel, 2002). Wilson (1978) explained that an officer's discretion is based on the perceived costs and benefits from the situation at hand – “the net gain and loss to the suspect, the neighborhood, and the officer himself of various courses of action” (p. 84). An officer's decision-making is based on the “recipe of rules” he has developed through his experiences as an officer. The recipe of rules acts as a guide on how to do the job and what is acceptable to the department, but may not always align with legal or legitimate rules (Manning, 1977).

Because police behavior is shaped by many factors (e.g., recipe of rules, departmental policies, personal values, and social relationships), understanding police use of discretion is a difficult undertaking. While emphasizing that discretion is based on laws and the officer's individual morals and beliefs, Brown (1981) stated, “In the act of discretion, although the decision maker accepts a framework of values and goal, some aspects of the decision process are unspecified or contingent on circumstances and thus up to the judgment of the individual” (p. 25). Brown (1981) explained that a police officer's use of discretion in a PCI is under political control and constant examination as to whether or not the officer acted “accordingly” in each situation. Police are trained to respond to each situation in a manner they deem necessary, which is shaped by many

components, including the factors of the situation, the characteristics of the suspect, the officer's prior experiences, his department's values, and the location of the encounter.

2.4 Conceptual Frameworks Shaping Police Use of Discretion in PCIs

An officer's use of discretion during a PCI is driven by a variety of factors. First and foremost, an officer's use of discretion is heavily dependent upon the legal factors of the situation, including evidence against the suspect, seriousness of the offense, and the presence of a complaint (Sherman, 1980). Police are much more likely to arrest a suspect in situations where police witness the commission of a crime, because the evidence against the suspect is greater (Black, 1971). The seriousness of the offense also shapes an officer's discretion during a PCI. Mastrofski et al. (1995) reported that, compared to minor offenses "the odds of arrest are almost ten fold when the offense is serious" (p. 551).

In some circumstances, however, police decide *not* to invoke formal action (e.g., taking a juvenile home to be punished by his parents, instead taking him to the police station) (Ericson, 1982; Goldstein, 1960). It is when officers decide to stray from the law and not invoke formal action that peaked police researchers' interests. Because officers have the freedom to decide what is "necessary" in every PCI, police discretionary research has become very popular over the years. Researchers have investigated other factors that drive police use of discretion, instead of focusing solely on the legal factors that impact an officer's decision-making.

In 1980, Sherman offered one of the first substantive evaluations of police behavior. In his paper, he uses a framework of five approaches to explain police use of discretion, one being legal, and the other four being extralegal. The extralegal factors

include: situational factors, officer characteristics, organizational factors, and community characteristics. Following Sherman's research, Riksheim and Chermak (1993) and the National Research Council (2004) have also provided a summary of the extralegal factors that shape police use of discretion. Riksheim and Chermak (1993) state that over the years, "our understanding of the causes of police behavior has become more refined" (p. 353).

The substantive points taken from these important reviews of police discretionary literature is that (1) situational factors, officer characteristics, organizational factors, and community characteristics continue to be recognized as driving forces in police use of discretion and (2) the impact of each extralegal factor on police decision-making (i.e. his decision to act more or less coercively) is relatively unknown, with various studies providing mixed results. The current paper, although not an exhaustive review of the literature, examines the four factors that have been commonly attributed to shaping an officer's decision-making processes during a PCI.

Situational Factors

When it comes to police use of discretion, scholars have recognized that police may act differently in each PCI. The first extralegal factor that is recognized to shape police use of discretion is situational factors. Situational factors are the characteristics of the situation that are unique to each PCI; these variables may include the suspect's gender, age, race, social class, and demeanor toward police (see Sun et al., 2008). In their overview of PCI literature, Walker et al. (2000) state, "officer behavior is heavily determined by the contextual or situational variables: location (high-crime versus low-

crime precinct); the perceived criminal involvement of the citizen; the demeanor of the citizen; and in the case of physical force, the social status of the citizen” (p. 99).

Police often use situational characteristics to form judgments of citizens in each PCI; these judgments construct an officer’s decision-making processes (see Berk and Loseke, 1981). Although there have been general statements made regarding the effects of situational characteristics shaping an officer’s use of discretion (e.g., National Research Council, 2004; Sun et al., 2008), each situational factor (e.g., suspect gender, race, demeanor) has been examined separately by researchers. When situational factors are examined separately, evidence of each component shaping police use of discretion becomes less clear. For example, in terms of the suspect’s race, the National Research Council (2004) reported that some scholars found that, compared to whites, racial minorities received *lower* amounts of police coercive action; some reported null effects; and others reported that racial minorities received higher amounts of police coercive action. Overall, situational factors remain an important driving force in police decision-making processes, but the individual components that make up the situational factors have produced mixed statistical conclusions.

Gender. The evidence regarding a suspect’s gender and an officer’s decision-making has been inconclusive. Some scholars have reported that males are more likely to be subjected to coercive police actions, while others reported that females are handled more formally by police. Still others have found no significant difference between the sexes.

Terrill and Reisig (2003), for example, controlled for several encounter-level variables (e.g., suspect characteristics, officer characteristics, and citizen audience) and

found that males are more likely to be on the receiving end of police officer force. Also, Sealock and Simpson (1998) reported that male contacts with police are more likely to result in arrest (61.3%), compared to female contacts (37.1%). In their study, the researchers controlled for legal factors (e.g., offense seriousness, prior police contacts, and whether or not an officer observed the offense). Sealock and Simpson (1998) also examined the significance of offense seriousness in arrest decisions between males and females and concluded that offense seriousness plays a more significant role in female arrests than it does in male arrests (15.53% versus 11.82%), showing that both legal and extralegal factors are at play in shaping an officer's decision-making.

Contrary to these findings, Hindelang (1979) reported that females were actually *over*represented in arrest statistics for robbery and aggravated assault, compared to males. According to Visher's (1983) research, females who exhibit "appropriate gender behaviors and characteristics" are less likely to be arrested, while women who "deviate from stereotypic gender expectations" can be expected to be arrested more frequently (p. 5) (see also Gelsthorpe, 1986).

In the meanwhile, Smith and Visher (1981) examined PCIs from 24 metropolitan police departments and concluded, in terms of arrest and controlling for other factors (e.g., suspect demeanor), "police do not discriminate in favor of women" (p. 174); their research reported that males and females had an equal chance of being arrested. The main point taken from these reports on how a suspect's gender impacts an officer's use of discretion is that an officer's coercive action may or may not be driven by gender; empirical evidence on the subject remains mixed.

Age. Police researchers have also examined the impact of the suspect's age on police coercive action. Brown, Novak, and Frank (2009) examined the impact of age on an officer's decision to arrest. Controlling for the suspect's race, gender, intoxication, demeanor, offense type, and whether the officer witnessed the crime, they found that juveniles (under the age of 18) ran a higher risk of being arrested than adults. These findings, however, did not hold when the location of the encounter was factored in; juveniles encountered in distressed communities were more likely to be arrested, while adults encountered in less distressed communities were more likely to be arrested.

In partial support of Brown et al.'s findings, Terrill and Reisig (2003) found a positive relationship between younger suspects and police coercion (measured as a continuum of force). However, contrary to Brown et al., Terrill and Reisig reported that police use of force was more often applied to younger suspects, regardless of neighborhood context. Likewise, Terrill and Mastrofski's (2002)⁵ study of situational determinants on police use of force (verbal and physical forms) revealed that younger suspects (age measured on an ordinal scale) are more likely to be subjected to higher levels of force, controlling for the suspect's other characteristics (e.g., demeanor), the number of officers and bystanders present during the PCI, the anticipation of violence (through the dispatcher's indication), and whether the PCI occurred in a community-oriented or traditional policing style jurisdiction.

⁵ Terrill and Mastrofski's (2002) study analyzed data from the Project on Policing Neighborhoods (POPEN) that incorporated both street and motor vehicle police-citizen encounters, but it is unclear which type of encounter dominates the analyses.

On the other hand, studies also report a negative, or even insignificant, relationship between the suspect's age and police coercive behaviors. For example, Lundman (1974) found no statistically significant differences between juvenile and adult arrest rates, controlling for citizen race, social class, and the location of the encounter. Similarly, Sun and Payne (2004) reported that youthful suspects (age 18-29 years old) did not impact the officer's decision to use coercive action (measured on a continuum of use of force). Moreover, in their study of NYPD arrest decisions, Khruakham and Hoover (2012) found that older suspects were *more* likely to be arrested than youth, net of other situational-level variables. Similar to literature examining the impact of suspect gender on police decision-making, the impact of the suspect's age on police use of discretion remains inconclusive.

Social Class. Bittner (1990) argued that an officer is not concerned with the connections between economic inequality and criminality and that an officer does not purposefully seek to enforce the laws differently for certain types of people. However, research in this area, more often than not, supports the notion that suspects of low-income status can expect to receive more severe and more punitive police responses (Black, 1976, 1980). Several scholars have provided empirical support for the finding that people in lower socio-economic statuses receive harsher treatment by police.

Terrill and Mastrofski's (2002) study of situational determinants on police use of force (verbal and physical forms) showed that higher levels of force are more often applied to economically poor suspects, net of other factors (e.g., suspect demeanor, anticipation of violence, jurisdiction). Terrill and Reisig (2003) also reported a positive relationship between lower class individuals and rates of arrest, irrespective of other

situational characteristics and neighborhood context. Further, Sun et al.'s (2008) multilevel analysis of factors impacting police behavior revealed that, compared to affluent citizens, poor citizens were more likely to be subjected to police coercive activities (e.g., searching the suspect, police discharging a weapon).

Overall, most research supports the notion that a suspect's social class will factor into an officer's use of discretion, although some studies contradict the consensus that suspects in a lower social class receive more coercive police action. For example, Mastrofski et al. (1995) uncovered that police treated the poor *less* harshly. The authors conveyed their perplexity by stating that officers are "less likely to arrest when the suspect is poor is a puzzle" (p. 555). This seems to reveal that some other extralegal factors are at play; possibly other factors (e.g., community characteristics) have a more influencing impact on shaping an officer's use of discretion.

Race. The majority of empirical evidence examining police use of discretion indicates that minorities receive harsher treatment by police. For example, Smith and Visher (1981) reported that African-Americans are more likely to be arrested, net of other factors (including offense seriousness and suspect demeanor). Also, Sealock and Simpson's (1998) study reported racial bias in arrest practices and stated that African-Americans were more likely to be arrested than whites, while taking other factors into consideration (e.g., offense seriousness). Later, Terrill and Mastrofski's (2002) study of situational determinants on police use of force (verbal and physical forms) showed that racial minorities have a higher chance of being on the receiving end of increased force, controlling for several other predictors (e.g., suspect's demeanor, number of bystanders, and jurisdiction).

Some studies, however, do not follow this pattern. Geller and Karales (1981) examined racial disparities in police shootings and found that when they controlled for at-risk status (defined as forcible felony arrest), whites were subjected to deadly force *more often* than minorities. Further, Mastrofski, Reisig, and McCluskey (2002) examined police officer disrespect towards whites and minority citizens and showed that whites received harsher treatment by police. In their study, police officer disrespect was measured as illegitimate speech and gestures that target the citizen's identity; the authors revealed that in St. Petersburg, whites received more police disrespect than minorities, controlling for neighborhood context. Although police officer disrespect is not considered a specific type of coercive action, per se, it is argued that these findings are applicable to the current review. Mastrofski et al. (2002) noted that some research observers code more serious forms of police misbehavior (e.g., excessive force) as police disrespect. Further, the authors' hypotheses are guided by findings from prior literature examining the effects of situational factors on an officer's use of coercive action (e.g., arrest).⁶

In terms of the suspect's race impacting an officer's use of discretion, some studies have provided null findings. In their study of community policing, Mastrofski, Worden, and Snipes (1995) reported that race had no statistically significant impact on an officer's decision to arrest a suspect. Also, Garner, Maxwell, and Heraux (2002) examined the influence of situational factors on police use of force (verbal commands to

⁶ In forming their hypotheses, Mastrofski et al. (2002) discussed findings from studies reporting on situational factors impacting police use of coercion in order to estimate influences on police disrespect. For example, they hypothesized that police would exhibit higher amounts of disrespect toward minority citizens and they cited Black's (1976) predictions that certain groups of society would be subjected to an increase in punitive action by the criminal justice system.

use of a weapon) from six law enforcement agencies. They reported that the difference in use of force between whites and nonwhites was statistically insignificant, even after controlling for the suspect's resistance. Again, it may be that research on the suspect's race shaping an officer's decision-making is mixed because other extralegal factors that are not the focus of these particular studies (e.g., community characteristics) potentially have a greater impact in shaping an officer's decision-making processes.

Suspect Demeanor. Unlike demographic characteristics, citizen demeanor has proven to be a stronger and more consistent situational predictor of police decision-making during a PCI (e.g., Mastrofski et al. 2002). The majority of research examining situational factors impacting police coercive action concludes that citizens who exhibited disrespectful or irrational behavior toward police were subjected to an increase in police coercive actions (e.g., Reiss, 1968; Sun et al., 2008). Disrespectful or irrational behavior on behalf of the citizen includes discourteous actions directed at police, such as ignoring police commands, displaying obscene gestures, and making derogatory remarks (see e.g., Sun and Payne, 2004).

Reiss (1968) was one of the first scholars to examine data from an observational study of police use of nonlethal force in Chicago, Boston, and Washington, D.C. He concluded that a suspect who acted defiantly had a higher likelihood to be on the receiving end of nonlethal force. Following Reiss's (1968) study, Friedrich (1977) reanalyzed the observational data in a more comprehensive manner (i.e., he examined the relationship between organizational, situational, and individual factors and police behavior). Friedrich (1977) reported that one out of every three suspects arrested

displayed antagonistic behavior toward police, while those whose behavior was civil ran a one out of seven risk of arrest.

The surge of research examining the impact of suspect demeanor on an officer's decision-making also brought skepticism to the validity of findings. In his 1994 article, Klinger criticized prior studies' measurements of suspect demeanor because of their inclusion of both noncriminal and criminal behaviors. Klinger (1994) reported that demeanor, as properly measured (i.e., exclusion of criminal behaviors, e.g., resisting arrest), was not a statistically significant predictor of police behavior (see Fyfe, 1996 and Worden and Shepard, 1996 for further discussion). Contrary to the majority of empirical evidence supporting Reiss (1968) and Friedrich's (1977) findings (e.g., Sun et al., 2008), Terrill and Mastrofski (2002) found that suspect demeanor did not play a role in predicting an officer's use of coercive action (verbal and physical force). They stated, "males, nonwhites, poor suspects, and young suspects were all treated more harshly, irrespective of their behavior" (p. 243). Terrill and Mastrofski's (2002) contradictory findings may possibly have occurred due to measurement deficiencies of suspect demeanor in other studies, what Klinger (1994) had proposed.

Many studies have been reanalyzed due to Klinger's response, yet continued to illustrate that demeanor is a worthy predictor of police coercive actions (see Lundman, 1994; Novak et al., 2002; Worden and Shepard, 1996). Studies have illustrated that the probability of police coercive action increases when the suspect is disrespectful toward police, controlling for other situational factors (e.g., race, age, offense). Myers (2002) found that 26% of disrespectful juvenile suspects were arrested, compared to 10% of respectful juvenile suspects. Further, Garner et al. (2002) reported that the odds of force

(ranging from verbal commands to use of a weapon) directed at suspects who displayed an antagonistic behavior toward police increases by 163%, compared to suspects who displayed a civil demeanor.

Citizens who display a hostile demeanor have an increased risk of police coercion, regardless of the other factors that may shape an officer's use of discretion. Sun et al. (2008) reported that a suspect's disrespectful demeanor was the strongest predictor of police coercive action (on a scale ranging from searching the suspect to police discharging a weapon), compared to all other individual- and officer-level variables in their study (e.g., age, gender, race, evidence strength, officer experience).

Some researchers explained that the influence of a suspect's demeanor on police action is attributable to interaction effects, where multiple factors act together to explain officer decision-making processes (see e.g., Klinger, 1996a). For example, it is thought that compared to any unruly person, a young, minority male with a bad attitude will be subjected to higher amounts of police coercive action. Using recommendations from Klinger's (1994, 1996a) work, Engel, Sobol, and Worden (2000) conducted a study of interaction effects, hypothesizing that a suspect's disrespectful demeanor would raise the probability of his arrest, when combined with other extralegal factors (e.g., individual characteristics). They tested their hypotheses using several interaction dichotomies (suspect's demeanor with age, race, sex, alcohol or drug use, public or private location, number of bystanders, other officers present, and crime suspected) on an officer's decision to arrest. Their findings provided minimal support for their hypotheses, concluding that the interaction effect between "suspect demeanor and drug or alcohol use" and the interaction effect between "suspect demeanor and other officers present"

increased the probability of the suspect's arrest; all other interaction terms were insignificant. The authors noted, "with few exceptions, the effects of demeanor do not appear to be contingent on suspects' characteristics or on other features of police-citizen interactions" (Engel et al., 2000, p. 256), providing evidence that suspect demeanor *alone* is a consistent predictor of officer coercive actions.

Bittner (1990) declares that a police officer should not reduce a man's right to dignity because of his race, age, social status, or even his behavior toward police. However, often times, this becomes embedded within the police officer's daily routine. Researchers recognize several situational factors that may influence an officer's use of discretion; however, evidence for situational factors impacting an officer's decision-making remains mixed. Sun et al., (2008) found that "males, minorities, and poor citizens were more likely to be subjected to coercive activities than were females, non-minorities, and affluent citizens" (p. 29). Similarly, Terrill and Reisig (2003) reported, "male, minority, youthful, and lower income suspects were more likely to be on the receiving end of higher levels of police force" (p.303) (see also De Coster and Heimer, 2006). Several empirical studies, however, have contradicted these general conclusions (e.g., Khruakham and Hoover, 2012; Mastrofski et al., 1995; Mastrofski et al., 2002).

The National Research Council (2004) proposed that mixed results on situational factors impacting police decision-making may be attributed to differences between studies. That is, studies varied in their location or jurisdiction, time period, and measurement techniques used to reach conclusions. For example, in studies examining social class, the National Research Council (2004) recognized that some studies were based on the suspect's physical appearance and speech patterns, while others were based

on suspect surveys of their wealth and occupation. Although situational factors are seen as a driving force of police decision-making, evidence on the impact of each factor remains mixed; other extralegal factors may hold greater weight in shaping an officer's use of discretion.

Officer Characteristics

The impact officer characteristics have on police decision-making in a PCI has also been examined, with researchers describing police use of discretion as being heavily influenced by the officer's values and beliefs (Brown, 1981). Officer characteristics not only include his values and beliefs, but also include his demographics (e.g., race, gender), career experience and education, as well as his personality, opinions, and perceptions (e.g., National Research Council, 2004). Paoline and Terrill (2005) recognized four officer demographic characteristics that "have been identified as dimensions of social differences that permeate contemporary police (and criminal justice) organizations" (p. 105); these include: officer gender, race, level of education (e.g., high school graduate), and experience (in terms of number of years served as a police officer). Researchers have also examined how the officer's personality may shape his decision-making behaviors. Unfortunately, as research regarding situational factors affecting police decision-making revealed, the influence of officer characteristics on an officer's use of discretion is mixed.

Gender. In terms of officer gender, researchers have traditionally assumed that female officers will act less forcefully in PCIs, compared to their male counterparts. To illustrate, Rabe-Hemp's (2008) reanalysis of the widely used Project on Policing Neighborhoods (PPN) data set revealed that female officers were less coercive than male officers in PCIs. While controlling for officer characteristics, situational, and

suspect characteristics (e.g., officer experience, resistance), Rabe-Hemp (2008) stated, “Female officers were over 27 percent less likely than male officers to exhibit extreme controlling behaviors such as threats, physical restraint, searches, and arrest in their interactions with citizens” (p. 429). Some empirical studies, however, have not supported the traditional claim.

Terrill and Mastrofski (2002) and Paoline and Terrill (2005) also used data from POPN to test whether gender impacted an officer’s decision-making in PCIs. Terrill and Mastrofski (2002) reported no significant differences between male and female officers’ level of force (measured on a continuum), controlling for several other factors (e.g., suspect characteristics, bystanders present, jurisdiction). A few years later, Paoline and Terrill (2005) found that the decision to use coercive action (e.g., force) did not differ between males and females, with their analyses also showing statistical insignificance. Differences between male and female officers in their decision to use coercion did not appear until Paoline and Terrill added other influencing factors (e.g., officer experience). For example, the authors reported higher levels of coercive action used by male police officers who also had a lower education level and who were less experienced. They also reported that, compared to female officers, male officers were more likely to apply force to a male suspect. Although these three studies contribute to our knowledge of how officer gender impacts police decision-making, the National Research Council (2004) noted that the literature is too small to draw firm conclusions.

Race. Several scholars have addressed the impact of an officer’s race on his decision-making, with empirical evidence revealing mixed results. In their questionnaire assessing the attitudes of appropriate levels of force, Brooks, Piquero, and Cronin (1993)

reported that white officers rated higher on their disposition to use force, compared to nonwhite officers. In their analysis, Brooks et al. (1993) controlled for the officer's other personal characteristics (e.g., education, age) and experience on the job. Further, Brown and Frank (2006) discovered that white officers were more likely to arrest a citizen, compared to African-American officers, all else equal (i.e., individual, situational, and community characteristics held constant). In their study, the authors explained that African-American officers' arrest decisions were more heavily influenced by other extralegal factors (e.g., suspect age) than their white counterparts.

Contrary to these results, Friedrich's (1977) comparison of PCIs between African-American and white officers suggested a racial difference in use of discretion. He stated, "Out of the nearly 20,000 police-citizen interactions observed, almost 50% involved white officers and black citizens, but only about 2.5% involved black officers and white citizens," (p. 306). A further look at the segregation revealed that African-American officers were one-and-a-half times *more* likely to arrest a citizen than white officers, controlling for the race of the citizen. Also interesting is that Friedrich (1977) found that mixed-race (African-American and white) officers' likelihood of arresting a suspect fell right in-between the two data points of African-American and white officers.

Sun and Payne (2004) also reported a difference in coercive action between white and African-American officers. In their study of interpersonal disputes (both verbal and physical), they found that, compared to white officers, African-American officers responded more forcefully (ranging from verbal command to arrest) to these incidents, controlling for other officer characteristics, citizen characteristics, and community variables. Sun and Payne (2004) also tested interaction terms between officer race and

citizen race and between officer race and racial composition of the neighborhood, both of which failed to achieve statistical significance.

Although some studies have provided statistically significant, yet mixed, results, other have produced null effects of officer race impacting an officer's decision-making. Smith and Klein (1983) reported statistical insignificance in arrest decisions between African-American and white officers, net of other situational- and department-level factors. Later, Terrill and Mastrofski (2002) conveyed statistical insignificance of the effect of officer race on the level of force used, even after controlling for race/citizen combinations (e.g., white officer, African-American citizen).

Empirical evidence on the relationship between an officer's race and his decision-making behavior is extremely varied. It may be that the effect of officer race on his decision-making is explained by additional factors not included in several studies (e.g., community characteristics). For instance, Friedrich (1977) argued that African-American officers have a greater likelihood of coming into contact with African-American citizens, which may explain differences in treatment between African-American and white citizens. Also, Fyfe (1988) argued that African-American officers are more likely to work in high-crime neighborhoods, which may play a role in shaping his use of discretion.

In his 1988 article, Fyfe recanted his 1978 finding that African-American officers were twice as likely to shoot at citizens than white officers, and instead explained that African-American officers live in violent environments more often than white officers and many of the citizen shootings involved off-duty police work. Further, he explained that the differences between African-American and white officer on-duty police shootings were attributable to differences in rank and assignment. "One in six white

NYPD officers (16.5%) held a supervisory or administrative rank (sergeant or above) in which exposure to street-level violence was limited or nil; fewer than one in 20 black officers (4.6%) held such a position” (Fyfe, 1988, p. 196). Whether officer race impacts his use of discretion in a PCI and whether decisions made on behalf of white and African-American police officers are driven by other extralegal factors remains inconclusive.

Education. Researchers have also studied the effect of an officer’s level of education on his use of discretion. Advocates of increased education for police officers believe officer education would be beneficial to police work through improving communication skills, critical thinking, and decision-making processes (Dantzker, 1993). Scholars described that increased education may reduce ethical misconduct and prejudices on behalf of police officers and may increase police legitimacy, tolerance of deviance, and overall job performance (see Baro and Burlingame, 1999; Shernock, 1992; Worden, 1990). Empirical evidence examining the impact of officer education on decision-making, however, remains mixed.

Shernock (1992) examined the relationship between an officer’s education level (measured on an ordinal scale) and an officer’s use of discretion in order maintenance incidents (i.e., disorderly conduct, family disturbance, and noise disturbance). Shernock hypothesized, as prior researchers have, that disorder incidents would be more likely handled informally by more educated officers. Controlling for department size, officer experience, and officer sociodemographic characteristics (e.g., sex, age, income), Shernock (1992) reported that the relationship between an officer’s education and an officer’s discretion in order maintenance incidents was statistically insignificant. That is, officer education did not impact an officer’s decision-making.

Terrill and Mastrofski's (2002) study, however, concluded that an increase in officer education was associated with a decrease in the amount of force used in a PCI, net of other factors. Paoline and Terril (2007) also found that officers who were exposed to higher education (had at least some college) were less likely to rely upon verbal force (e.g., threats) to gain citizen compliance. When it comes to physical force, however, Paoline and Terril (2007) reported that exposure to college did not have an impact; officers who had received their bachelor's degree or higher were significantly less likely to rely upon physical force, compared to their less educated counterparts.

Conversely, Worden (1996)⁷ reported that officers with a four-year college degree had a *higher* likelihood of using "reasonable" physical force that included justifiable restraint, but the effects of education did not have a statistically significant relationship with "improper force" (e.g., misuse of force); Worden (1996) recognized that his analyses overall demonstrated a weak effect. Brooks et al. (1993) reported a positive relationship between an officer's level of education and his disposition to use force (measured through a questionnaire), taking the officer's personal characteristics (e.g., age, race) and experience into consideration. The National Research Council (2004) explained that many of the studies examining the impact of officer education on his decision-making lack proper measurement of both variables in statistical models (e.g., education and coercive action), stating that the quality of education, nor the ability to control for other variables (e.g., performance test, training levels, officer rank), have not

⁷ Worden's (1996) study analyzed data from the Police Services Study (PSS) that incorporated both street and motor vehicle police-citizen encounters, but it is unclear which type of encounter dominates the analyses.

been addressed (see also Fyfe, 1988). Therefore, the committee argued that research on the impact of officer education on his decision-making during a PCI is incomplete (National Research Council, 2004). Furthermore, many of the studies lack any discussion on the possible intervening mechanisms at play (e.g., community-level variables).

Experience. An officer's experience impacting his decision-making has also been a common topic among police researchers. Researchers explain that, compared to less experienced officers, more experienced officers have the necessary knowledge and skills to call upon their coercive powers less frequently and only use them in cases they deem necessary; they are believed to be better able to recognize dangerous situations or those worthy of coercive action (e.g., arrest) (Crawford and Burns, 1998). Therefore, it is often hypothesized that more experienced officers will use coercive action less than officers with less experience.

In 1977, Friedrich noted that the quality of police treatment (e.g., bureaucratic behavior) of a citizen decreased with more experienced officers, yet it is the most experienced officers that gave citizens the highest levels of treatment. He did, report, however, that when dealing with an offender, more experienced officers treated them in a negative manner 38% of the time, compared to less experienced officers who treated them in a negative manner 28% of the time. He stated, "The stereotypes of both the "friendly" and the "tough" old cop, oddly enough, both find some empirical support" (p. 278). When analyzing coercive action, however, Friedrich found that an officer who has served on the police force longer is less likely to take formal action (e.g., written report).

Likewise, Alpert (1989) suggested that less experienced officers tend to use deadly force more often than veteran officers; the hypothesis is only affirmed when all

officer-involved shootings were considered (e.g., including accidental shootings). Moreover, Terrill and Mastrofski (2002) and Paoline and Terrill (2007) reported that higher levels of force were more often used by less experienced officers, compared to more experienced officers. Crawford and Burns (1998) also reported that an increase in time served on the force is associated with a decrease in the amount of force (measured on a continuum) used during an arrest, controlling for other factors (e.g., officer gender, suspect characteristics).

Contrary to these findings, Smith and Klein (1983) reported that the relationship between officer experience and his decision to arrest a suspect was statistically insignificant. Although Alpert's (1989) study confirmed that less experienced officers shoot more frequently than more experienced officers, the hypothesis falls short when a "year-by-year computation of intentional shootings" is examined (p. 487). He claimed "The general hypothesis that younger, less-experienced officers shoot more than older, more experienced officers" cannot be supported (Alpert, 1989, p. 487).

Scholars have suggested that other confounding factors may be contributing to an officer's decision-making, interfering with clear results from the "experience" variable. It is argued that officers with more job experience are less likely to be involved in violent street encounters, compared to the less experienced officers (Worden, 1996). The officers with the most experience (and in this case, education and age) are often those with a higher rank and serve desk jobs instead of routine patrol (Worden, 1996; see also Fyfe, 1988).

Personality. Along with the demographic characteristics of the officer, the influence of the officer's personality on his decision-making has also been studied. A

popular stereotype in society is that officers are more authoritative than the average person. That is, police officers are more conservative, expect the rules to be followed, and adhere to middle-class values, suggesting that police officers will naturally increase their use of coercive behaviors, based on their personality (Balch, 1972; Frenkel-Brunswick, Levinson, and Adorno, 1993). However, evidence does not fully support the “authoritative personality” perspective and instead implies that each person responds differently to each situation (e.g., Balch, 1972).

Muir (1977) quoted a typical officer’s response to his adopted code of conduct, “I use in my job a lot of my upbringing, my religion, my experiences in my own family situation...” (p. 190). Generally speaking, an officer’s personal characteristics (i.e., his gender, race, education, experience, and personality) may or not play a role in shaping his use of discretion during PCIs, depending upon the study examined and the definitions of officer characteristics used for analyses (National Research Council, 2004).

Organizational Factors

Brooks (2001) recognized that police discretion exists at both the individual-level and at the department-level, where the officer’s decision-making is both regulated and encouraged. The third extralegal factor that is seen to influence police use of discretion is organizational factors. In one of the first notable studies on the organizational influences of police behavior, Muir (1977) illustrated that every police officer is affected by the characteristics of the department in which he works (e.g., its history, size, clientele, and even the sergeant’s behavior). Alpert and Fridell (1992) argued that departmental policy regulates an officer’s decision-making in certain situations (e.g., use of deadly force), but also encourages individual-level discretion in others (e.g., decision to stop and frisk a

citizen). The National Research Council (2004) stated that “police culture is a set of widely shared outlooks that are formed as adaptations to a working environment characterized by uncertainty, danger, and coercive authority and that serves to manage the strains that originate in this work environment” (p. 131). Researchers have found that an officer’s use of discretion in a PCI is influenced by both the recognized structure and the informal code consistent with the values of his department (e.g., Brown, 1981; Smith, 1984).

Scholars who have empirically examined the impact of the organization on an officer’s decision-making have uncovered a variety of impacting department-level factors. It is often argued that a department that is more bureaucratic (e.g., a tall rank structure) and professional (e.g., citizen respect and service are emphasized) tends to produce officers who use coercive action more often in PCIs (Smith, 1984). Smith (1984) reported that 11.3% of PCIs that resulted in arrest occurred in departments characterized by more bureaucracy and professionalism, compared to 6.9% of PCIs resulting in arrest occurring in departments characterized by less bureaucracy and less professionalism. Further, Smith and Klein (1984)’s study of interpersonal disputes found that an officer working for a department that is more bureaucratic and professional has a higher probability of arresting a suspect, compared to their counterparts. The authors noted that these two variables individually did not produce significant effects in their study; it is the interaction between bureaucracy and professionalism that impacted an officer’s decision-making. Smith and Klein (1983) did, however, find individual effects from the two variables. In their examination of street-encounters, Smith and Klein (1983) reported that officers in more bureaucratic departments were more likely to arrest suspects, controlling

for situational- and other department-level factors. They also reported that officers working for more professional departments were *less* likely to arrest suspects, net of other factors.

Moreover, large departments and those with close supervision often live up to the stereotype of increased coercion (see e.g., Mastrofski, 1983). Smith and Klein (1983) discussed that larger agencies were more independent from the community, which created a degree of autonomy among the officers and allowed them to act more punitively. They stated, “in smaller police agencies, external community pressure may constrain the degree to which strict and aggressive law enforcement becomes the dominant operating ethic of the police” (p. 71). Unfortunately, it is too difficult to parse out effects of the size of the department on an officer’s decision-making. The majority of empirical analyses that include department size in their study use the variable to create their index of department bureaucratization (see Smith and Klein, 1983). For example, Worden (1996) examined the level of bureaucratization (using the size of the department in his measure) and found that officers working for more bureaucratic agency were more likely to use force, compared to those working for a less bureaucratic agency. Worden (1996) supported his claims by describing that the smaller size of the department may have a direct effect on the officer’s performance because the chief is in a better position to keep an eye on everyday police practices. He claimed, “The chiefs of larger departments are scarcely in a position to take advantage of these sources of information,” which include reading daily reports and listening in on radio calls (p. 45).

In terms of supervisory capacities, Smith and Klein (1983) argued that departments that emphasize a centralization of decision-making (i.e., through a

supervisor) would have an increase in officers that have adopted a more punitive police role (see also Manning, 1977). For example, Smith and Klein (1983) reported a significant increase in the likelihood of arrest when a supervisor was involved in an encounter, compared to encounters where a supervisor was not involved. Also, Engel (2000) examined the latent styles of police supervisor roles (using an additive scale of beliefs and attitudes) and their impact on patrol officer's coercive activities. In her study she controlled for legal factors (e.g., offense type), situational factors (e.g., suspect demeanor, bystanders) and community context. Engel (2002) reported that officers were much more likely to arrest a suspect when in the presence of a supervisor, regardless of the style of supervision. She also found that officers were more likely to use force when the supervisor was more "active," but there was no difference in use of force if the supervisor was present or not. Alpert and MacDonald (2001) also reported that agencies whose supervisors filled out official police forms significantly lowered the use of force rates. Smith and Klein (1984), on the other hand, did not find a statistically significant relationship between the level of supervision (e.g., no supervisor present to supervisor taking charge) and the officer's decision to arrest in interpersonal disputes.

Wilson (1978) proposed that an officer's decision-making is impacted by the policing style (i.e., watchman, legalistic, or service style) adopted by the police department. The watchman style of policing focuses heavily on order maintenance; disruptions to order maintenance (e.g., drunk in public or drawing a crowd) and, of course, serious crimes are most likely to be handled formally in departments that have adopted the watchman style (Wilson, 1978). The legalistic style imposes formal police actions (ticket or arrest) on all ranges of offenses from traffic violations to misdemeanor

offenses. Crank (1990) and Smith (1984) found that police working for departments that have adopted the legalistic style will enforce the full extent of the law, no matter the situation or individual involved. Lastly, the service style of policing combines components of the watchman style and the legalistic style of policing; police will respond to all situations, yet are more likely to handle cases informally. Alpert, MacDonald, and Dunham (2005) reported that police who follow the service style are less likely to arrest for low-level crimes.

In his test of Wilson's theory of political culture present in police departments, Langworthy (1985) corroborated his findings that police behavior in PCIs is shaped by the policing style under which his department operates. However, in 2005 Zhao and Hassell retested Wilson's theory using arrest statistics and found that it cannot be fully supported in contemporary police departments. Reuss-Ianni and Ianni (1983) wrote, "One of the most common findings of the last few decades of organizational research is that it is the immediate work or peer group and not the larger organization that motivates and controls the individual's behavior" (p. 251).

Scholars have also recognized that an officer's decision-making is impacted by the policing strategy (community versus traditional) their department endorses (e.g., Novak et al., 2002). Officers working in departments that follow a traditional style of policing emphasize calls for service and responding to crime, while officers working in departments that have endorsed community policing efforts focus on building relationships with citizens and preventing crime (Dejong, Mastrofski, and Parks, 2001). Mastrofski et al. (1995) noted that officers that support community-style policing relied heavier upon extralegal factors (e.g., suspect characteristics), rather than legal factors

(e.g., evidence) in their decision-making processes; they also reported a lower inclination to arrest. Further, in their comparison of juvenile arrest rates between traditional beat officers and community officers, Novak et al. (2002) reported that community police officers arrested at a lower rate than traditional beat officers, controlling for other situational factors.

Several organization factors have been shown to influence an officer's use of discretion. The formalized rules and structure, along with the values and culture of the organization has been argued to impact an officer's decision-making processes. The police department intentionally manipulates police behavior through its procedures and rules, but also inadvertently molds an officer's belief and communication systems through the department's principles and values (Brown, 1981). Although the department an officer works for is seen to impact his decision-making, the broader context of the officer's community plays an integral role in shaping his discretion.

Community Characteristics

The fourth extralegal factor that is seen to influence police use of discretion is community characteristics, or the structural features of the officer's working environment (e.g., community sociodemographics). Many scholars have predicted the influence of neighborhood characteristics, rather than individual or organizational influences, on police decision-making in PCIs. Terrill and Reisig (2003) illustrated the importance of the environment on police behavior stating, "Police officers come to readily compartmentalize various geographic areas, within which the potential exists to behave in accordance to the environment as opposed to the suspect's characteristics" (p. 296). Empirical evidence supports the idea that the socioeconomic and demographic makeup of

the community shapes an officer's decision-making processes. In his discussion of officer discretion, Brown (1981) stated that patrolmen "expect to behave differently in the raw, turbulent environment of a black, lower-class ghetto than in the placid environs of suburbia" (p.55).

Known as the "neighborhood context hypothesis," researchers agree that where an officer works (i.e., the community) plays a role in shaping the interactions he has with citizens (Smith, 1986). In his 1986 study, Smith analyzed sixty U.S. neighborhoods to test the neighborhood context hypothesis and found that police were more likely to arrest in low-income neighborhoods and were more likely to use coercive authority (i.e., use of force) in racially heterogeneous neighborhoods. Further, in their study of the mediating effects of neighborhood context on the association between suspect sociodemographics and police use of force in officer beats, Terrill and Reisig (2003) reported that police used higher levels of force in neighborhoods marked by disadvantage and high crime, irrespective of suspect behavior and other statistical controls (e.g., citizen audience). Terrill and Reisig's findings corroborated Smith's (1986) findings and supported the neighborhood context hypothesis.

Other researchers have also substantiated the conclusion that officers become more coercive in disadvantaged or low-income neighborhoods. From their analysis of officer UF-250 reports (mandated report for a police-initiated stop of a citizen), Fagan and Davies (2000) found that the NYPD disproportionately targets racial minorities located in neighborhoods marked by poverty and disadvantage. Also, in their multilevel examination of neighborhood effects on police use of arrest and use of force, Sun et al. (2008) concluded that the greatest impact of officer coercion was seen in neighborhoods

marked by concentrated disadvantage, independent of other factors (see also Lee et al., 2010; Smith and Klein, 1984).

Some studies, however, have reported that police are *less* likely to use coercion in disadvantaged and high crime areas. In 1997, Klinger suggested an ecological theory to explain police leniency in high crime areas. Klinger (1997) argued that officers would be less likely to arrest a suspect or write up a report of a crime occurring in a high crime neighborhood because crime incidents are more likely to be viewed as “normal” and better accepted by its residents. He said that an officer who believes an assault is commonplace for a specific community would be less likely to act punitively, compared to an assault occurring in an affluent neighborhood. Klinger’s ecological theory was developed, in part, by Stark’s (1987) explanation that people living in “stigmatized” neighborhoods are less likely to complain about crime and that police “tend to accept the premise that vice will exist *somewhere*” (p. 902). Khruakham and Hoover’s (2012) multi-level analysis confirmed Klinger’s propositions by revealing that police were less likely to make an arrest in areas marked by disadvantage and high crime, controlling for other situational factors (e.g., suspect demeanor, race). However, Sobol, Wu, and Sun (2013) offered a partial test of Klinger’s ecological theory and did not find support for his propositions. Sobol et al. (2013) concluded that higher crime neighborhoods experienced an *increase* in police vigor (on a continuum ranging from no action to arrest) during PCIs, more consistent with propositions set forth by Smith (1986) (see also Johnson and Olschansky, 2010; Lee et al., 2010; Sobol, 2010).

Researchers have also offered culturally-based explanations on the observed relationship between an officer’s coercive action and the characteristics of the

community. Kania and Mackey (1977) proposed that police violence is directly related to the culture of the community, regardless of the structural components of the community. In their study of police use of force, they argued that residents living in a community marked by a higher rate and acceptance of violent behaviors would be subjected to more violent actions by police officers because officers would adopt the culture of the community. From their analyses, Kania and Mackey (1977) determined that police use of force fluctuates with levels of violence within the communities and that the police acted more forcefully in communities more accepting of violent behaviors. They explain these findings by concluding that police behavior in PCIs is generated by the officer's observations and responses he deems appropriate in each situation.

Also, Brown (1981) explained that police behavior is influenced by the relationships police have with the residents in each community and is not impacted by the structural features of the community alone. That is, neighborhoods marked by an increased distance between the values of police officers and the values of the community's residents are at a higher risk of receiving increased police coercive action (see also Bayley and Mendelsohn, 1969). Werthman and Piliavin (1967) see this phenomenon as "ecological contamination," or the view that people who are encountered in a "bad" neighborhood are bad. Terrill and Reisig's (2003) police use of force study supported Werthman and Piliavin's ecological contamination hypothesis.

Macro-level researchers recognize that several interrelated factors create the "undesirable" environment in which an officer works; high-crime areas are related to declining property values and lower socioeconomic status areas, which tend to be also characterized by a greater social distance between police and residents, higher rates of

single-parent households, a higher percentage of minorities, and high residential instability (e.g., Sampson and Wilson, 1995; Stretesky, Schuck, and Hogan, 2004). All of these community-level factors contribute to an officer's decision-making in PCIs, with the majority of research illustrating that police are more punitive in disadvantaged and high crime areas. The underlying causes of exactly what shapes police decision-making in each community, however, still remains a mystery. Some researchers argue that macro-level criminological theories, that are normally used to explain criminal behavior, can also be used to explain police behavior. Specifically, arguments for conflict theory and social disorganization theory shaping an officer's decision-making processes have made their mark in police research.

CHAPTER 3

THEORETICAL FRAMEWORKS OF POLICE USE OF DISCRETION IN PCIS

Researchers have argued that police use of discretion differs across areas and groups and not across specific individuals (Rose and Clear, 1998; Sampson, 2002). Macro-level criminological theories have been used to explain police decision-making processes; specifically, conflict theory and social disorganization theory have been applied to these processes. Over several years, conflict theory has received much attention in police research, with scholars arguing that the demographics of the community shape an officer's use of discretion (e.g., Alpert et al., 2005; Quinney, 1970). Social disorganization theory, compared to conflict theory, has received little consideration among police researchers. Some scholars have recognized the potential for social disorganization theory shaping an officer's use of discretion during a PCI (e.g., Sun et al., 2008); however, reasons behind these claims have not been fully developed.

3.1 Conflict Theory

Conflict theory asserts that the privileged classes (e.g., affluent racial majorities) are threatened by the potential increase in power by the underprivileged (e.g., poor racial minorities) and, therefore, act to keep the underprivileged powerless; laws were specifically made to keep these groups incapable of rising up in society (Quinney, 1970). Black (1976) posited a positive relationship between punitiveness and the less wealthy and those that are culturally distanced from the majority (i.e., minorities). A "social

distance” between officers and citizens exists (Bayley and Mendelsohn, 1969; Black, 1976; Lum, 2011); the greater the difference in culture, ethnicity, and worldviews between officer and citizen creates an increased risk of police responding coercively.

Disparity or Discrimination?

Disparities in crime rates exist across race, gender, age, and social status. It is well known that minorities, males, the young, and the poor are overrepresented in arrest statistics. The United States Department of Justice (2012), for example, reported that whites have a .03% chance of arrest, while African-Americans have a .07% chance of arrest, holding all other factors constant. Scholars agree that police have preferred targets; it is argued that these targets mostly consist of racial and ethnic minorities, juveniles, and those living in disadvantaged neighborhoods (e.g., Sherman, 1980; Walker et al., 2000; see also Silver’s 1967 discussion of the dangerous classes). However, whether these “preferred targets” are chosen through discrimination or are simply a disparity in everyday policing practices is a common subject among police researchers.

Walker et al. (2000) explained that disparity refers simply to a difference. That is, a higher population of minorities in one city will naturally have higher amounts of minority arrests in that city. Discrimination, on the other hand, is a difference based on differential treatment of a group (Walker et al., 2000). An example would be police seeking out and arresting minorities based on their racial or ethnic background. Kennedy (1997) expressed the need for differentiating between officers who use race as a tool to guide their use of discretion and officers who are blatantly discriminatory towards minorities. As Skolnick (1994) reported, the average police officer is not fond of African-Americans; Skolnick proclaimed, “even an officer who admits to hating blacks and who

openly characterize them in the most pejorative terms will usually not admit to being racially biased or prejudiced” (p. 79).

Although targeting racial and ethnic minorities potentially poses a threat to American’s civil liberties and the perceived fairness of the police, some argue that targeting minorities is beneficial to police work. For example, Borooah (2011) noted that police targeting minorities and the young could be efficient since the relationship between race and age is significant with crime, or it could be biased, where police target them simply based on their demographics. Before concluding that police unfairly target types of people, Ridgeway (2007) argued that scholars must incorporate other key factors that influence police decisions (e.g., differences in criminal participation between the races). Likewise, Bittner (1990) stated, “the risks of the kinds of breakdowns that require police action are much more heavily concentrated in the lower classes than in other segments of society, police surveillance is inherently discriminatory” (p. 129). Police often use their knowledge of crime and the “typical offender” to produce their “preferred targets,” or those most deserving of police coercive action (Smith, Makarios, and Alpert, 2006).

Smith et al. (2006) developed a theoretical perspective on police use of discretion, arguing that subconscious suspicion is the foundation of an officer’s decision-making in PCIs. Although their study is based on data from motor vehicle stops, the theoretical foundation behind their examination may also apply to street encounters. The authors stated, “police are more suspicious of those who are disproportionately involved in street crime and that police arrest behavior is driven by those beliefs” (p. 272). In their empirical test of subconscious suspicion, Smith et al. (2006) concluded, “suspicion is a

significant predictor for arrest, net of other factors” (p. 286). In sum, the authors showed that suspect suspicion, caused by disparities in the criminal justice system (e.g., more minorities are arrested than whites), is an influencing factor behind police use of discretion, which is often mistaken for discrimination.

Racial profiling. When discussing racial discrimination versus racial disparity in PCIs, an important topic is racial profiling, a term used to describe the situations in which race is an indicator of criminal propensity (Batton and Kadleck, 2004). Racial profiling potentially violates citizens’ constitutional rights (i.e., Fourth and Fourteenth Amendments), with a fine line between racially motivated coercive action and justified coercive action. The law states that police cannot use coercive action (e.g., frisk) simply based on race or use race as a purpose for harassment (U.S. Const., amend. IV). The law, however, also implies that the use of profiling is based on the officer’s professional judgment and reasonable suspicion (Fagan and Davies, 2000).

Police often use racial profiling as a mechanism of awareness and suspicion of citizens; they recognize that minorities are more often engaged in criminality (e.g., Smith et al., 2006 subconscious suspicion). However, some scholars have argued that police specifically target racial minorities, which accounts for their overrepresentation in the criminal justice system (e.g., Walker et al., 2000). Skolnick (1994), for example, noted that police officers have “come to identify the African-American man with danger” (p. 47). Studies have investigated the use of racial profiling in police coercive actions and attempt to determine whether discrimination exists between whites and minorities in PCIs; the NYPD has been at the forefront of these investigations (Trone, 2010).

The CCR (2012) reported that 84% of police stops made in New York City consisted of racial minorities, who only accounted for about 25% of the population in New York City. Gelman et al. (2007) examined the NYPD's stop and frisk policy among pedestrians and found that officers are 1.5-2.5 times more likely to stop minorities than whites, controlling for differences in population and crime rates. Fagan (2012) also reported that African-Americans and Latinos were significantly more likely to be stopped than whites, controlling for crime rates, social conditions, and police concentration. Even more interesting is that Khruakham and Hoover (2012) reported that the NYPD officers are more likely to arrest Hispanics and Asians, compared to whites and African-Americans. The CCR (2012) specifically reported, "the NYPD engaged in a pattern of unconstitutional stops and the main factor for determining who gets stopped, even after controlling for crime rates, is race" (p.1). The studies provide compelling empirical evidence of racial discrimination within the NYPD. Spitzer (1999) stated, "even when crime data is taken into account, minorities are still 'stopped' at a higher rate than would be predicted by both demographics and crime rates" (p. 89). It is noted, however, that these authors do not make claims of racial discrimination within the NYPD and only provide statistical evidence to test their hypotheses.

Some researchers explain that racial disparities in police use of discretion exist because of the political, social, and economic inequalities within our society (e.g., LaFree, O'Brien, and Baumer, 2006). For instance, there are apparent differences between salaries of whites and African-Americans in the same job, as well as the access to government programs, housing, and education between races (LaFree et al., 2006; Wilson, 1996). In terms of PCIs, researchers suggest that racial discrimination is

imbedded within the application of the law (Chambliss, 1969; Chambliss and Seidman, 1971; see also Knowles and Prewitt's 1969 discussion on institutional racism). That is, police and the laws are naturally discriminatory as a result of social inequality.

As recognized by Bayley and Mendelsohn (1969), a social distance between officers and citizens exists; this may explain an officer's use of coercion towards those in which he does not relate. For example, an officer may act more formally in cases involving domestic violence, because those behaviors are not in line with his values and worldviews. The idea of a social distance has been a common theme in American society for many years, with scholars first acknowledging police control of the so-called "dangerous classes."

Scholars have recognized society's need to protect citizens from the "dangerous classes" and the inequality of institutional practices (e.g., job opportunities) between the privileged and underprivileged (see e.g., Silver, 1967; Knowles and Prewitt, 1969). In explaining police decision-making behaviors, conflict theorists argue that police officers use more coercive activities (e.g., arrest) toward those that are socially or economically underprivileged, in order to maintain the status of the privileged groups (Sun et al., 2008). Moreover, Silver (1967) stated that police were developed in order to control the "dangerous classes" from the "peaceful and propertied classes" (p. 8; see also Jacobs, 1979).

Dangerous Classes

Early sociological scholars have alluded to awareness of the "dangerous classes" in society that require government control to uphold public safety. Tiedeman's (1885) article addressed "the police control of dangerous classes, other than criminal, - persons

whose unrestrained freedom involves elements of danger to the State and society, and yet whose acts do not bring them within the reach of criminal prosecutions” (p. 548). These dangerous classes, as described by Tiedeman include: those with contagious diseases; the insane; drunkards; vagrants and beggars; and habitual offenders, or those known for criminal acts. According to Silver (1967) the image of the dangerous classes is “one of unmanageable, volatile, and convulsively criminal class at the base of society” (p. 3).

Silver (1967) believed crime was the result of mass immigration; immigrants were most likely poor, without employment skills, and accustomed to urban lifestyles, which created a potential for criminal behavior. During the late nineteenth century, the dangerous classes were associated with street misconduct, with police most likely to act informally until criminal actions became violent (Ellickson, 1996). Due to the view that immigrants were associated with crime, American citizens began putting pressure on the police to put an end to these behaviors, especially alcohol-related offenses among immigrants. In their study of police arrest practices in the 1900’s, Brown and Warner (1992) found that police made more arrests for crimes involving alcohol in areas marked by higher rates of foreign-born population. Lea (2000) recognized that police were used to protect the propertied middle class, which involved less crime control efforts and more surveillance of lower class groups.

Silver (1967) further argued that the image of the dangerous classes was reborn in the 1960s as a result of civil rights’ mass rioting among African-Americans. In 1981, Jackson and Carroll tested this premise but their research did not find that riots were related to the amount of police expenditures. In other words, the number of riots occurring within a city did not dictate the resources allocated to policing efforts. Jackson

and Carroll (1981) did, however, report that the amount of police expenditures is directly influenced by the percent African-American population and the level of civil rights mobilization (e.g., boycotts). Jackson (1992) partially supported Jackson and Carroll (1981), but also stated that the impact of minority population on police expenditures dissipated in the late 1970's and that percent of the population that is African-American in a city was no longer a statistically significant predictor of police expenditures. However, in her recent analysis of competing explanations in police force size across cities, Sharp (2006) reported that police force size in each city is, in fact, shaped by America's history of the civil rights movement and the prevalence of racial minorities in today's population.

Police control of the dangerous classes continues today, with researchers recognizing that police decision-making is driven by the amount of minorities within an area (e.g., Sharp, 2006). Long before the civil rights movement, scholars analyzed whether immigration patterns affect police resources that were used to control behaviors deemed criminal by the majority group (e.g., public drunkenness). As a result of the civil rights movement, researchers have also argued that the American majority (i.e., whites) became threatened by the increase in power among minority groups and ended up relying on society's institutional practices to keep minorities powerless.

Institutional Racism

In their 1969 book, *Institutional Racism in America*, Knowles and Prewitt described the difference between individual and institutional racism. They explained that institutions are racist against minorities (i.e., African-Americans) when they use race as a gauge for determining who will receive rewards and who will receive punishments. To

fully understand this concept, it is first important to understand what is meant by the term institution. “Institutions are fairly stable social arrangements and practices through which collective actions are taken;” these include hospitals, businesses, schools, and the law (p. 5). The racial majority in power (i.e., whites) continues, whether intentionally or innocently, to keep racial minorities powerless through institutional practices (Knowles and Prewitt, 1969). Specifically, “Institutional racism refers to accumulated institutional practices that work to the disadvantage of racial minority groups even in the absence of individual prejudice or discrimination” (Link and Phelan, 2001, p. 372). To illustrate their point, Link and Phelan (2001) provided the example of business practices where employers rely upon personal recommendations from current employees to hire job candidates, with the majority of employers, current employees, and future employees all being white.

Lopez (2000) posited that group interaction produces racial institutions, and racial institutions impact individual behavior. Similar to Link and Phelan (2001), Lopez argued that judges would be more inclined to nominate their friends, who are most likely whites, for open roles in the criminal justice system (e.g., grand jurors, police officers). Further, he noted that, “regardless of their decision to rely on or to reject racial considerations, however, every judge on the superior court drew on notions of White superiority at the nonconscious level” (p. 1814).

Knowles and Prewitt (1969) explained that “Legal and political institutions determine what laws regulate our lives, how and by whom they are enforced, and who will be prosecuted for which violations” (p. 5). In their analysis of metropolitan fragmentation, DoHoog, Lowery, and Lyons (1991) noted that suburban governments,

which are run by whites, implement zoning and land control laws that keep the poor blacks in the suburban ghettos. Long (1967) stated, “the suburb is the Northern way to insure separate and unequal” (p. 254).

In terms of policing, researchers have recognized that police services, as a government agency, may be subjected to institutional racism. In their research on quality of police services, DeHoog, Lowery, and Lyons (1991) found that black communities lacked the opportunity to secure higher levels of police services, compared to the white communities. Lea (2000) argued that understanding racism within a police organization is dependent on the types of contacts officers have with citizens. Officers who only have contact with racial minorities in law-enforcement situations (e.g., stop and frisk) are more likely to resent these populations and see them as criminal, compared to officers who have contact with minorities outside the policing context. Lea (2000) also recognized that institutional racism is perpetuated by the operations of the police. For example, young African-Americans males are overrepresented in stop and search statistics (Lea, 2000; see also Spitzer, 1999).

Racial Threat

In 1967, Blalock developed a theory of racial threat where members of the racial majority become vulnerable to the growth of minority populations and, therefore, attempt to reduce their competition. Taylor (1998) analyzed how the racial composition of a neighborhood impacts whites’ attitudes toward racial minorities; she reported that an increase in the local percentage of African-Americans brings an increase in prejudice against them. Interesting is that she did not find these results for Asians or Latinos, which is argued to provide further insight into the position of African-Americans in our society

(Taylor, 1998). Several scholars have reported a positive relationship between the size of the African-American population and social controls imposed upon them. These social controls include police force size, rates of arrest and incarceration, police use of deadly force, the number of executions, etc.

Although there is an apparent consensus in the literature that as African-American population increases so do levels of social controls, researchers continue to debate why African-Americans pose a threat to whites. Three separate hypotheses remain in the racial threat literature: (1) the political threat, (2) the economic threat, and (3) threat of black crime (Eitle, D'Allesio, and Stolzenberg, 2002). The political threat hypothesis states that when African-Americans gain political power, whites use social control mechanisms to reduce their political power (see Blalock's 1967 power threat hypothesis). The economic threat hypothesis claims that as African-Americans become better competitors for jobs and other economic resources, whites will impose increased social controls upon them (see e.g., Jacobs and Wood, 1999). Lastly, the threat of black-on-white crime is believed to influence criminal justice actors (Liska and Chamlin, 1984); social controls are intensified as a result of the increase of black-on-white crime.

Eitle et al. (2002) examined three racial threat hypotheses in order to understand the association between the size of the African-American population and social control. The authors did not find support for the political threat or economic threat hypotheses, but did, however, find support for the threat of black-on-white crime hypothesis. Eitle et al. (2002) found that black-on-white crime has a positive effect on arrest rates among African-Americans, while black-on-black crime does not affect arrest rates.

In 1970, Quinney used conflict theory to explain high crime among minority groups, using concepts mirroring the racial threat thesis; our laws are designed specifically to keep minorities powerless. This is evidenced by the increased imposition of social controls over minorities and the overrepresentation of minorities in the criminal justice system (Lum, 2011). Scholars have consistently reported that police force size is a result of the increased amount of African-American population in an area (see e.g., Jackson and Carroll, 1981; Stults and Baumer, 2007). In 1969 Turk suggested that cultural and racial dissimilarities would result in minorities being disproportionately subjected to higher amounts of police coercion, which is apparent in today's society.

3.2 Empirical Evidence of Conflict Theory Impacting Police Decision-Making

Increases in police coercion are often explained by conflict theory, with police responding coercively to keep minority and underprivileged groups powerless (Sun et al., 2008). According to the propositions of conflict theory, police use of coercive action should be greater in areas where racial and economic inequality is greater (Quinney, 1970). That is, areas marked by increased segregation should display an increase in police use of stops, arrests, etc. Sun et al. (2008) stated, "Support for conflict theory emerges in considering the findings that minorities and poor citizens were more likely to be subjected to coercive activities than were others" (p. 29).

Liska and Chamlin (1984) found that income inequality, percentage nonwhite, and segregation led to increased arrests, independent of reported crime rates; they reported that the strongest effect came from income inequality (not race) on property offense arrests. In the examination of the effects of race on officer decision-making, Smith (1986) found support for the racial threat theory stating, "police act more

coercively toward suspects in nonwhite and racially mixed neighborhoods” (p. 329).

Further, in their study of converging arrest rates between whites and African-Americans, LaFree et al. (2006) found support for racial threat, showing that, as a whole, police treat minorities more punitively.

The applicability of conflict theory in the NYPD has also been examined by researchers, mostly as a result of its stop and frisk policy. Spitzer (1999) found that white-majority communities received less stop and frisks than communities marked by high rates of minorities in New York City precincts. Moreover, Gelman et al. (2007) also showed support for conflict theory and reported that the racial composition of a neighborhood positively predicts the likelihood of a minority being stopped by the NYPD, controlling for crime, other social features, and patrol strength within the community. Fagan’s (2012) later analyses also revealed results paralleling those from earlier NYPD studies.

Although evidence suggests that an increase in the racial minority population leads to an increase in the use of coercive action, some studies do not support this claim. Lee et al. (2010) found that police use of force was *not* related to the community’s percent of African-American population. Also, Kane (2002) reported that the NYPD did not actively target racial minorities based on race alone, contradicting propositions of conflict theory.

Conflict theory remains to be a strong predictor of police behavior, with the majority of research reporting that the racial composition of a community does shape an officer’s use of discretion. Whether or not the police are used to protect the socially and economically privileged, however, is still under examination (see National Research

Council, 2004). Some researchers suggest that the reasons driving police decision-making can be better understood in terms of interaction effects, where the propositions of conflict theory work together with other community-level factors (e.g., community disorganization) to produce certain police responses (Sun et al., 2008). Although conflict theory alone may have the potential to explain an officer's decision-making in a community, another macro-level theory, social disorganization, may also predict an officer's decision-making.

3.3 Social Disorganization Theory

Social disorganization theory is a macro-level theory that explains crime based on the structural features of the community. In 1925, Park and Burgess researched the natural distribution of social groups that occurred in Chicago and noticed that people of the lower classes tended to live in the city center (i.e., business district), while those in the upper classes could afford to live in the commuter zones, farthest from the city center. This phenomenon was coined the concentric zone model, in which urban areas grew from an inner core and worked their way outward, creating clear differences in social problems along the way (Park and Burgess, 1925).

Stemming from work completed by Park and Burgess, Shaw and McKay (1942/1969) introduced the idea of social disorganization theory in order to explain rates of juvenile delinquency. Social organizations such as family, church, and school failed to create a positive environment for youth, which delinquency and criminality often was the result (Shaw and McKay, 1942). "In its purest formulation, social disorganization refers to the inability of local communities to realize the common values of their residents or solve commonly experienced problems" (Bursik, 1988, p. 521). The deficiency in social

organizations decreased capacities for social control and created an environment conducive to criminal activity (see also Bursik and Grasmick, 1993). Several theorists have extended social disorganization theory to help clarify the underlying processes at work; the connection between crime and structural features of the community, as proposed by the tenets of social disorganization theory, are further explained in the following sections of the current paper.

According to social disorganization theory, three community-level components lead to reduced social ties and inefficient social control, which in turn lead to increased crime: poverty, ethnic heterogeneity, and residential instability. Poverty can be defined as the deprived socioeconomic state of the community, most often measured by the percentage of the population below the poverty line or those receiving public assistance income (see e.g., Clear et al., 2003). Due to the lack of resources, Shaw and McKay (1942) explained that a low socioeconomic status community would have a weaker organizational base than an affluent community. Ethnic heterogeneity represents various groups of racial and ethnic backgrounds within the community, which reduces the ability of residents to realize common goals (see also Kornhauser, 1978). And, residential instability occurs when the neighborhood's residents are constantly in flux, or moving in and out of the community, which disrupt social relations (Shaw and McKay, 1942). Varied combinations of these macrostructural processes create a disorganized community, or one that lacks the capacity to regulate residents' illegal behaviors (see also Sampson and Groves, 1989).

Over the years social disorganization theory has gained renewed interest; Sampson and Groves's (1989) research demonstrated that the theory, in fact, has

relevance for explaining variations in community-level crime rates. Lowenkamp, Cullen, and Pratt (2003) later replicated this research and concluded that, “the findings of the initial classic study were not artifactual but illuminated an underlying empirical pattern that has persisted over time” (p. 351) (see also Sun, Triplett, and Gainey, 2004 for support); meaning, the causal processes characterizing a socially disorganized community (i.e., lack of social controls) continue to be relevant in predicting crime rates today. Generally speaking, researchers have concluded that various macrostructural characteristics of communities (e.g., poverty) are associated with higher rates of crime and delinquency (Block, 1979; Pratt and Cullen, 2005). Although basic relationships between structural features of the community and crime rates have been found, theorists have attempted to refine the underlying propositions of social disorganization theory (e.g., Bursik and Grasmick, 1993).

3.4 Extensions to Social Disorganization Theory

It was not until almost forty years after Shaw and McKay that scholars developed a renewed interest in social disorganization theory. The theory fell out of favor because of its perceived lack of explanation of the causal processes at work in determining a community’s crime rates; the traditional theory has been expanded to explain the mediating or intervening factors associated with structural features and crime (Byrne and Sampson, 1986; Kubrin and Weitzer, 2003). A number of researchers have identified various underlying social processes at work in social disorganization theory, which help explain why increased poverty, ethnic heterogeneity, and residential instability lead to increased crime.

Social Control

In 1988, Bursik recognized that recent work in the social disorganization tradition has attempted to clarify the theory through observed processes of formal and informal social controls. Kornhauser (1978) was one of the first scholars to revive the theory; in her research she identified an underlying process of the theory, namely social control. Social control is defined as the perceived rewards or punishments that arise from conformity to societal norms or deviation from the norms. Social controls are important for crime control because they highlight the power (or weakness) of the community to regulate residents' unwanted behaviors.

There are two types of social control; Bursik (1988) identified informal social controls as “the ability of local neighborhoods to supervise the behavior of their residents” (p. 527) and formal controls as “local neighborhood associations with community crime prevention” (p. 528). Although the majority of criminological research focuses on the processes of informal social controls, formal control is also an important concept of social disorganization theory (see e.g., Kubrin and Weitzer, 2003). Rose and Clear (1998) believed that the literature disregards the effects of formal controls on community crime because formal controls are often thought of as responses to crime; however, Bursik and Grasmick's (1993) systemic model suggested that formal social controls are equally as important as informal social controls in explaining the processes of social disorganization theory.

Bursik and Grasmick (1993) developed a systemic model of crime comprised of three elements: (1) the original components of social disorganization theory (2) relational networks of social capital and (3) social control (both informal and formal) in a

community. This model hypothesized that an increase in disorganization leads to a decrease in relational networks, which increases formal controls (e.g., police responses) and decreases informal social controls. Both formal and informal social controls have a negative relationship with crime; a decrease in informal social controls, as a result of community disorganization, leads to an increase in crime (Bursik and Grasmick, 1993; see also Rose and Clear, 1998). Likewise, an increase in formal social controls, as the result of community disorganization, is hypothesized to lead to a decrease in crime. Some scholars, however, have recognized that police responses to crime exacerbate the effects of disorganization. As a result of the increased formal controls, residents of disorganized communities begin to overlook the importance of informal social controls and crime rate increases in these communities (Clear et al., 2003). Kubrin and Weitzer (2003) recognized that formal controls may influence residents' informal control practices.

Formal and informal social control processes have important implications for social disorganization theory. Social controls, as an extension to social disorganization theory, did not only help explain the underlying processes linking a socially disorganized community to crime, but also opened the door for other theoretical extensions.

Broken Windows

Broken windows theory proposes that community deterioration and physical disorder increases the potential for criminal behavior (Wilson and Kelling, 1982); a community's ability to uphold informal social control becomes weakened by physical disorder within the community (Skogan, 1990). Criminals become attracted to areas marked by disorder because of the opportunities they provide; these areas often unwillingly tolerate illegalities such as drug use, prostitution, gambling, and public

drunkenness (Skogan, 1990). The cycle of disorder and crime is further perpetuated by the lack of informal social controls and an increase in community deterioration (e.g., Sampson, 2013).

Gau and Pratt (2008) noted that the primary goal of a police officer is to foster the growth of informal social controls in neighborhoods characterized by disorder, while engaging in eradicating minor disorders. Because minor disorders are theorized to lead to more serious offenses, aggressive policing efforts send the message that disorders will not be tolerated, which allows community residents to come together and forbid criminal offenses through informal social controls (Gau and Pratt, 2008). Empirical evidence, however, has not supported the propositions set forth by broken windows theory.

In their 1999 comprehensive evaluation of the theory, Sampson and Raudenbush used systematic social observations of the streets of Chicago to examine the correlation between disorder and predatory crime. Sampson and Raudenbush (1999) reported, when other neighborhood characteristics (e.g., poverty) were taken into account, no connection between disorder and predatory crime (robbery was an exception). Later, Sampson, Raudenbush, and Earls (2004) examined individual perceptions of disorder; they argued that people's perception of disorder was the foundation behind broken windows theory. The authors reported that social structure was a more important predictor of perceived disorder than actual community disorder, demonstrating a lack of support for broken windows theory. The general consensus is that the physical characteristics of the community alone do not serve as worthy predictors of crime and it may be that other essential factors contribute to shaping people's behaviors within a community.

Collective Efficacy

Sampson et al. (1997) rejected the notion that differences in crime rates across communities were a result of the macrostructural features of the community. Instead, they proposed, “the differential ability of neighborhoods to realize the common values of residents and maintain effective social controls is a major source of neighborhood variation in violence” (p. 918). The authors coined the term collective efficacy, or the neighborhood’s ability to control illegitimate behaviors through informal means. Specifically, it is “the linkage of mutual trust and the willingness to intervene for the common good that defines the neighborhood context of collective efficacy” (Sampson et al. 1997, p. 919).

Kubrin and Weitzer (2003) recognized that communities with low rates of social ties might be able to ward off criminal behaviors, as long as the community was characterized by high rates of collective efficacy. However, Sampson et al. (1997) indicated that collective efficacy depends, in large part, upon the social ties and social controls present in a community. They explained that collective efficacy would most likely perish if residents did not have friendship networks or mutual trust between one another.

It is often argued that collective efficacy is absent in disorganized communities. Sampson et al. (1997) illustrated that social characteristics influence the degree of collective efficacy within a community. That is, residential instability, poverty, family disruption, and racial composition of a community lead to lower rates of collective efficacy. A lack of collective efficacy will allow the community’s residents to become

unruly, which ultimately leads to an increase in crime rates in these areas (Sampson et al., 1997).

Contrary to the primary assumption set forth by Sampson et al. (1997), Patillo (1998) argued that strong social ties may be formed in communities marked by gangs and drugs. In her research, she examined the presence of kinship networks and social controls in poor, crime-ridden, African-American communities. She reported that a criminal minority exists in these communities and, often times provide support to local African-American families. Patillo's (1998) research showed not only that collective efficacy can be present in disorganized areas, but that common goals can be realized through licit and illicit networks.

Overall, however, scholars have empirically supported a negative relationship between levels of community collective efficacy and crime, independent of other factors. For example, Maimon and Browning (2010) found that an increase in community collective efficacy resulted in a 14% reduction in youth violent offending (see also Mazerolle, Wickes, and McBroom, 2010; Morenoff, Sampson, and Raudenbush, 2001). Browning (2002) also found that communities with higher levels of collective efficacy have lower levels of partner violence and women in these communities were more likely to seek social support networks.

Code of the Street

Kornhauser (1978) claimed that social disorganization theory is a mixed model of control (e.g., social controls) and cultural deviance. Cultural deviance proposes that crime and delinquency are caused by the conformation to a deviant subculture (i.e., one with atypical values and norms) (Kornhauser, 1978). Specifically, residents conforming to a

subculture of violence are what predict high levels of crime in a community (Anderson, 1999). Elijah Anderson sets forth his subculture of violence thesis in his 1999 book *Code of the Street* (for an earlier version see Anderson, 1994). Anderson's code of the street provides an underlying explanation as to why socially disorganized communities are associated with high rates of violent crime.

Through his ethnographic research in Philadelphia, Anderson (1999) analyzed communities where residents were inclined to violence (i.e., those with higher rates of violent crime and delinquency). He explained that neighborhood street culture shapes the behavior of its residents and he attributed high crime rates to the violent "code" plaguing the inner-city. According to Anderson (1999), violence prevails as a response to disrespect from another person. He referred to this as "code of the street," where "a set of informal rules governing interpersonal public behavior, particularly violence" (p. 33) guides how the disrespected person should respond. Physical violence is met with physical violence, perpetuating the cycle of violence that characterizes the subculture that these residents have adopted.

Anderson explained that the structural features of the community (e.g., disadvantage and racial composition) contribute to the code of the street, because residents face economic barriers and become isolated from conventional society (see also Sutherland, 2011). Their community becomes marked by high rates of poverty, joblessness, and mistrust of the police (Anderson, 1999). The residents lack the opportunity to display self-worth in conventional ways because of the lack of available economic resources and, as a result, instill a subculture that rejects mainstream values (Brezina, Agnew, Cullen, and Wright, 2004). This subculture emphasizes toughness,

aggression, and revenge, which maintains violent crime in these neighborhoods. Violence becomes the acceptable means in gaining status, respect, and street credibility (Wilkinson, 2003; see also Matsueda, Drakulich, and Kubrin, 2006).

Researchers have recognized the value in Anderson's thesis; the subculture of violence thesis seems to be prevalent in disorganized communities, which may lead to an increase in violent crime. In their quantitative study of the applicability of Anderson's thesis on youth violent crime, Brezina et al. (2004) reported that, consistent with previous studies, youth who prescribe to the code of the street are more likely to engage in acts of violence. Stewart, Schreck, and Simons (2006), however, also reported that youth who adhere to the violent subculture were more likely to be victims of violence.

Stewart and Simons (2010) analyzed the moderating effects of neighborhood street culture on individual-level street code values and violence and reported that neighborhood street culture is a significant predictor of juvenile violence. That is, residents readily accept the code of the street present within the community, regardless of individual-level processes. Moreover, Wilkinson (2001) found that young men committed robberies in an attempt to gain street respect among their peers. Sampson and Bartusch (1998) suggested that youth adhere to the subculture of violence as a result of the effects of the inner-city ghetto (e.g., racial isolation and poverty). The structural features of the community ultimately shape an individual's perception of the code of the street.

Concentrated Disadvantage

In his 1987 seminal book *The Truly Disadvantaged*, William Julius Wilson evaluated the convergence of race and poverty in the inner-city. Wilson's most

contributing concept to the social disorganization tradition was “concentration effects.” Sampson and Wilson (1995) explained that concentration effects are a result of the constraints and lack of opportunity residents of the inner-city face “in terms of access to jobs and job networks, involvement in quality schools, availability of marriageable partners, and exposure to conventional role models” (p. 42). This concentration effect occurred, in part, due to the out-migration of middle-class families, which leaves poor, African-American communities marked by a number of social problems (Wilson, 1987). Wilson (1987) argued that several factors interact to create concentration effects, including: female-headed households with dependent children; the lack of education and available jobs; the outmigration of white, middle class families; the lack of male role models; and the lack of transportation out of the urban inner-city. Sampson and Wilson (1995) stated that patterns of residential inequality faced by African-Americans escalated social isolation and ecological concentration of the “truly disadvantaged.”

Land, McCall, and Cohen (1990) argued that Wilson’s (1987) concentration effects set the stage for the methodological association between community-level social indicators (e.g., family disruption) and economic structure (e.g., poverty) used in predicting rates of crime. In their examination of the structural covariates of homicide, Land et al. (1990) used principal components analysis to identify the elements contained in Wilson’s (1987) concentration effects hypothesis. They concluded that communities with higher levels of resource deprivation were associated with higher rates of homicide. More importantly, Land et al.’s (1990) methodological advances allowed researchers to test the clustering of social and economic elements associated with a disadvantaged

community, which helped researchers understand the influence of a community's macrostructural characteristics on rates of crime.

According to Clear et al. (2003), concentrated disadvantage "is meant to reflect the fact that some urban areas are afflicted by multiple problems that place them at a disadvantage" (p. 43). For example, scholars recognize that with poverty comes a lack of education and employment opportunities, reliance upon government sources of income, and family disruption (Clear et al., 2003). Disadvantage is also concentrated in certain areas, which situates crime in geographic "hot spots" (Sampson, Morenoff, and Gannon-Rowley, 2002). That is, areas with higher levels of disadvantage display higher levels of crime.

Today, researchers often measure concentrated disadvantage in terms of an index of race, class, and other variables (e.g., family disruption and education) (Krivo and Peterson, 1996; Land et al., 1990; Small and Newman, 2001). Although studies have differed in their community-level features that constitute the concentrated disadvantage index, there are a few predictors that are consistent throughout the literature. These include variables associated with economic disadvantage and family disruption (e.g., percent of the population below the poverty line and percent of female-headed households), as well as a measure of racial composition. Because African-Americans often live in disadvantaged neighborhoods, researchers use the percent African-American population as a proxy for determining levels of disadvantage within an area (see e.g., Sampson and Raudenbush, 1999). In their meta-analysis of the predictors of crime, Pratt and Cullen (2005) stated, "Indicators of 'concentrated disadvantage' (e.g., racial heterogeneity, poverty, and family disruption) are among the strongest and most stable

predictors” (p. 373). As a result of Wilson’s research on the macrostructural characteristics that lead to social isolation, measures of community social disorganization often include a measure of concentrated disadvantage.

3.5 Contemporary Status of Social Disorganization Measures

Contemporary scholars modeling the social disorganization framework have turned to concentrated disadvantage as one component, yet have maintained that ethnic heterogeneity and residential instability are important constructs predicting neighborhood crime rates (see e.g., Sampson et al., 1997). Today, ethnic heterogeneity is measured using an index of the percent of the population that is Hispanic with percent of the population that is foreign born; recent literature reports ethnic heterogeneity as “concentrated immigration” (Sampson et al., 1997).

Early scholars testing concentrated immigration hypothesized that an increase in immigrant concentration would be associated with an increase in crime because of the decreased capacity to realize common goals and to achieve informal social controls (Sampson et al., 1997). Furthermore, immigrants often live in areas marked by disadvantage and high crime, where they are subjected to the lack of opportunities in these communities (Bui, 2013). Recently this hypothesis has been rejected and researchers now suggest that neighborhoods marked by higher concentrated immigration tend to produce lower rates of crime because immigrants moving into disorganized communities provide a new sense of organization (Martinez, 2006).

Lee and Martinez (2002) offer an explanation through the immigration revitalization thesis where “new forms of social organization may include ethnically situated informal mechanisms of social control and enclave economies that provide stable

jobs to co-ethnics” (p. 376). Therefore, heavy immigration in one area may strengthen social controls and reduce crime in those areas (Lee and Martinez, 2002, 2006; Martinez, Stowell, and Lee, 2010).

This phenomenon is also apparent in the immigrant paradox literature, where scholars have suggested that first generation immigrants have better social outcomes (i.e., health and education), despite their poor economic situations (Bui, 2013). Suarez-Orozco, Rhodes, and Milburn (2009) reported a decline in academic achievement and aspirations in immigrant youth the longer they stayed in the United States. Likewise, Bui (2013) found the presence of the immigrant paradox in substance use among white, Asian, and Hispanic youth. That is, recent immigrant youth were socially better off than their non-immigrant counterparts.

Although ethnic heterogeneity has changed over the years, residential instability has remained a central component of social disorganization; scholars maintain that collective efficacy and informal social controls are reduced in unstable environments, which leads to crime (see Shaw and McKay, 1942). The contemporary measures of residential instability include an index of the percent of the population living in renter-occupied homes and the percent of recent (last 5 years) movers (Sampson et al., 1997). As Brooks-Gunn, Duncan, Klebanov, and Sealand (1993) explained, residential instability coupled with low rates of home ownership has remained strong correlates of problem behaviors among residents in changing areas. The majority of empirical literature suggests that an increase in residential instability is associated with an increase in crime (e.g., Morenoff et al., 2001; Sampson et al., 1997)

The extensions to social disorganization theory have given rise to a renewed interest in the theory. Scholars agree that several structural dimensions create a setting favorable for disorganization, which helps explain high crime (Shaw and McKay, 1942; Sampson et al., 1997). In terms of examining the structural features that create an environment conducive for crime, Wilson's (1987) contribution provided explanation for a link between the macrostructural characteristics of concentrated disadvantage (e.g., economic distress, family disruption) and crime. Renewed interest in social disorganization theory also encouraged researchers to examine the mediating variables (e.g., social control, collective efficacy) associated with the macrostructural characteristics of a community and their rates of crime (Bursik and Grasmick, 1993; Sampson and Groves, 1989).

Researchers often use measures of the structural characteristics of the community to assess the relationship between a socially disorganized community and crime. For example, Sampson et al. (1997) examined the link between neighborhood stratification (concentrated disadvantage, concentrated immigration, and residential instability) and collective efficacy, in order to predict levels of violence. Using structural measures of social disorganization, they determined that collective efficacy mediated the relationship between concentrated disadvantage and residential instability and crime. Therefore, the structural features of the community created a setting favorable to criminal activity.

Modern testing of social disorganization theory, from a structural standpoint, includes measures of concentrated disadvantage, concentrated immigration, and residential instability (e.g., Clear et al., 2003; Morenoff et al., 2001; Sampson et al., 1997). Together these variables do not necessarily cause a "socially disorganized"

community; nevertheless, they remain important concepts for examining environments conducive to a deficiency in social controls and collective efficacy, leading to increased criminal behaviors (see e.g., Sampson et al., 1997). Furthermore, scholars have also argued that areas of extreme disadvantage suffer greater consequences of disorganization (e.g., higher amounts of crime), because these areas are characterized by severe resource deprivation (Clear et al., 2003). Often times, these contemporary macrostructural components are measured and statistically tested individually; the most common current day hypotheses are that concentrated disadvantage and residential instability have a positive relationship with crime (e.g., Sampson et al., 1997), while concentrated immigration has a negative relationship with crime (e.g., Lee and Martinez, 2002).

3.6 Social Disorganization Theory Applied to an Officer's Use of Discretion

Social disorganization theory was designed by Shaw and McKay (1942) to explain differences in rates of delinquency based on the macrostructural characteristics of the community. The theory predicts that people's behavior (whether criminal or legitimate) become a reflection of the community in which they reside (or spend a large portion of time) (see e.g., Sampson et al., 1997). Sampson (2002) states, "crimes are not randomly distributed in space. Rather, they are disproportionately concentrated in certain neighborhoods" (p. 243). Disorganized neighborhoods are subjected to higher amounts of crime because residents lack the informal social controls necessary to regulate criminal conduct (Bursik, 1988). Researchers have argued that community context not only shapes the residents' behaviors, but may also influence an officer's decision-making behaviors (e.g., Smith, 1986; Terrill and Reisig, 2003). Three theoretical associations between a community's level of social disorganization, normally predicting crime within a

community, and an officer's decision-making can be reasoned (see Kane, 2002; Sun et al., 2008).

The first theoretical connection is grounded in the basic relationship between the macrostructural characteristics (e.g., concentrated disadvantage) of a community and its crime rates. In its simplest form, the structural features that generate a socially disorganized neighborhood lead to higher rates of crime, compared to an affluent neighborhood (Shaw and McKay, 1942). Recent theoretical advances have shown a positive relationship between the amount of concentrated disadvantage and residential instability and crime (Krivo and Peterson, 1996); it is argued that communities with higher levels of disorganization naturally have higher rates of crime (see Wilson, 1987). Police behavior, then, becomes driven by the amount of criminal activity within a community (Terrill and Reising, 2003).

An officer's goal is to maintain order and uphold the law (National Research Council, 2004). As Sampson (2002) claimed, crimes are concentrated in certain areas; so, it can intuitively be argued that police will also be concentrated in certain areas. For example, rates of search and arrest will be more common in a disadvantaged and high crime neighborhood, compared to an affluent neighborhood, simply because of the sheer amount of police activity in those areas (see e.g., Smith, 1986). Police have a greater presence in these communities in order to reduce criminal behaviors; Fagan (2012) reported higher rates of stops in areas with greater police presence, which is expected.

Moreover, in disadvantaged communities, where crime is high, police are (hypothetically) inclined to respond more coercively (e.g., Terrill and Reising, 2003) to protect themselves and others from victimization. Because of the high amount of criminal

activity within a disadvantaged community, an officer is at a greater risk of facing a dangerous situation. An officer's decision-making becomes a product of his perception of risk; an officer is more likely to act coercively toward a suspect (e.g., search) when the risk of danger is greater. Concentrated disadvantage, therefore, makes the relationship between the reason for the stop and the coercive action taken during the stop more meaningful. That is, concentrated disadvantage may encourage the officer to take a more coercive approach when a suspect is stopped. Furthermore, these effects will be pronounced in areas of extreme disadvantage, where crime and the officer's perception of risk are maximized.

Second, scholars have reasoned that a disorganized neighborhood is one marked by inefficient informal social controls used to regulate criminal behavior (Bursik and Grasmick, 1993). In disorganized neighborhoods, or those with a deficiency in friendship networks and collective efficacy (see Sampson et al., 1997), it becomes increasingly more difficult to control criminal behaviors through informal means. In these communities, the police are expected to fill in as representatives of control (Clear et al., 2003). This is what Bursik and Grasmick's (1993) systemic model explained. Their model suggested a negative relationship between relational networks (e.g., family groups) and formal social controls, and a negative relationship between formal controls and crime. That is, in communities where relational networks fail to regulate criminal conduct, formal controls must step in to regulate criminal conduct.

Black (1976) recognizes that the use of the law varies inversely with informal social control. Black explained that when nonlegal authority (e.g., parental control of juveniles) is strong, little formal recourse (e.g., the law) is used. He stated, "Law is

stronger where other social control is weaker” (Black, 1976, p. 107). This would then suggest that officers respond more coercively to crimes occurring in areas with a deficiency in informal social controls. For example, Wilson (1978) stated that police officers were more likely to arrest and use physical force in areas that were believed to have weakened community or familial norms. This link suggests that an officer would be more inclined to act coercively in areas that do not have the means necessary to deal with criminal conduct. As agents of formal social control, the police are expected to act as mechanisms of control in the communities where residents lack the informal social controls necessary to regulate criminal behaviors (see also Rose and Clear, 1998).

Further, Anderson (1999) argued that residents of disadvantaged communities are more likely to adopt a violent subculture because they are isolated from the norms and values of conventional society. In these communities that lack the conventional ways of controlling crime (e.g., informal social controls), police respond coercively to control criminal behaviors. Police use of coercion will be higher in disadvantaged communities, and even more pronounced in areas of extreme disadvantage, whose residents have adopted the subculture of violence; police will be more inclined to respond in a way that is normal to the deviant subculture (e.g., use of force) (Kania and Mackey, 1977).

Through the lack of informal social controls and the residents’ adherence to the subculture of violence, concentrated disadvantage, again, makes the relationship between a suspect being stopped and coercive action more meaningful.

An alternative hypothesis is that officers who work in areas marked by low amounts of informal social controls may be *less* likely to act coercively during a PCI. Khruakham and Hoover (2012), for example, reported that police use less coercion in

disadvantaged and high crime neighborhoods. A deficiency in informal social controls in these areas may, inadvertently, cause a breakdown in formal social controls, which can be explained by Klinger's (1997) ecological theory of police behavior. Only the most serious crimes will be handled coercively because police feel cynical towards residents, officers see deviance as more accepting in these communities, and police are too busy with heavy workloads in these areas to deal with lower level offenses (Klinger, 1997). Police become cynical and desensitized to crime occurring in these areas, often perceiving victims as less deserving (Sobol et al., 2013). In communities marked by low informal social controls police often see their efforts as wasteful and, therefore, reduce their coercive responses to criminal conduct. In this theoretical connection, concentrated disadvantage has a weakening influence on the relationship between a stop and coercive action. That is, concentrated disadvantage may encourage the officer to take a *less* coercive approach when a suspect is stopped, with these effects exacerbated in extremely disadvantaged areas.

In summary, the first theoretical connection lies in the simple link between disadvantage and high crime leading to an increase in police activity and risk of victimization. Areas with greater police activity and a greater risk of danger will naturally have higher amounts of police coercion (e.g., search and arrest rates) (e.g., Terrill and Reisig, 2003). The second and third theoretical connections would argue that police decision-making becomes molded by the intervening mechanisms at play (e.g., informal social controls and subculture) in a socially disorganized community. The second connection is that police use coercion *more* frequently to act as a mechanism of control, where informal social controls fail and a subculture of violence prevails (e.g., Clear et al.,

2003). The third connection is that police use coercion *less* frequently in communities lacking informal social control because police perceive their efforts to be wasteful and victims as less deserving (e.g., Klinger, 1997). Literature examining police decision-making in terms of these theoretical connections, however, remains scarce.

CHAPTER 4

DATA AND METHODS

This dissertation explores the role of neighborhood-level disorganization on police decision-making. In 1997, Klinger proposed an ecological theory to explain police behavior, stating that police decision-making is driven by the features of the community. Social disorganization theory may be used to explain an officer's decision-making within a community, though prior literature is quite scant (for an exception see Kane, 2002). Furthermore, Terrill and Reisig (2003) noted that previous literature examining neighborhood-level factors on police decision-making has relied upon statistical techniques not designed to analyze nested data (i.e., PCIs nested within neighborhoods). Multilevel modeling will provide insight into how contemporary measures of social disorganization theory account for an officer's decision-making during a PCI. Multilevel modeling will also allow for a cross-sectional analysis of the moderating effects of concentrated disadvantage, as well as extreme disadvantage, on the relationship between stop predictors and an officer's use of coercive actions.

A socially disorganized or disadvantaged neighborhood may influence an officer's decision to use coercion during a stop, but there may also be an interaction effect between neighborhoods and the reason for the stop and an officer's decision to act coercively. Prior research has reported that neighborhood disadvantage shapes an officer's use of discretion (e.g., Terrill and Reisig, 2003). Concentrated disadvantage, however, may also make the relationship between a stop and coercive action more

understandable. That is, officers may become more likely to respond in ways consistent with the features of the environment – high crime, lack of informal social controls, and the presence of a violent subculture. These effects are expected to be more pronounced in areas of extreme disadvantage, where concentrated disadvantage and high crime is prominent. Analyses using data from the NYPD will provide answers to two main questions:

- (1) Does neighborhood disorganization play a role in an officer’s decision to frisk, search, use force against, or arrest a suspect?
- (2) Does concentrated disadvantage strengthen or weaken the relationship between predictors of a stop and an officer’s decision to frisk, search, use force against, or arrest a suspect?

4.1 Sample

The data set consists of police recorded stops of people in New York City along with information regarding neighborhood structural and demographic characteristics. The New York Police Department Stop, Question, and Frisk Database, 2011 (NYPD SQF) serves as the foundation of the data set. The NYPD SQF contains all reported street encounters between NYPD officers and citizens resulting in completion of a Unified Form 250 (UF-250) report during 2011.⁸ As previously explained, a UF-250 report gives details of each street stop between an officer and citizen, as recorded by the reporting officer. The measures used from this database are discussed below.

New York City neighborhood (tract) data were obtained from the U.S. Census Bureau, 2010 and was subsequently combined with data from the NYPD SQF database.

⁸ It is important to note that the NYPD SQF does not contain information from traffic stops and only includes stops made during street encounters.

The data collected from the U.S. Census Bureau included information from census tracts, which are frequently used to approximate a neighborhood context. Fagan (2012) explained that census tracts are often used in research examining the effects of small areas on crime and enforcement, and are well-known boundaries for such studies (see also Krivo and Peterson, 1996).

In order for the NYPD SQF database to be combined with census tract structural and demographic characteristics, geocoding procedures had to be utilized. The NYPD SQF database contains individual stop events listed as x, y coordinates. Each stop event was geocoded using ArcGIS version 10.2 to allow the stop incident to be mapped into a New York City census tract boundary (neighborhood). The final sample consists of 654,485 stop incidents nested within 2,114 tracts.⁹

Weaknesses of UF-250 Reports

Although the stop and frisk policy mandates the completion of UF-250 form under certain circumstances of a stop, it cannot be fully verified that the officer followed proper procedures. In the 1999 investigation of the NYPD's use of the stop and frisk policy, the officers selected for interviews reported that even those stops that mandated a completion of a UF-250 report were, at times, not completed; the officers did not provide reasons or the degree of the underreporting (Spitzer, 1999). Although stop and frisk reporting procedures are much more rigorous ten years later, it is possible that officers

⁹ Seven percent of stop incidents were dropped from the data set due to missing x,y coordinates and .26% of the stops did not fall within a New York City census tract. A total of 52 census tracts had no households and 47 of the 52 had no population statistics, which also were dropped from the data set. Further, 7 census tracts had no stops occurring within them, and were therefore not included in the analyses.

still do not follow proper guidelines outlined by the NYPD Patrol Guide. In 2007, Ridgeway questioned NYPD officers about the stop and frisk policy. Ridgeway reported that officers freshly out of the academy (one year or less) seemed to lack knowledge on proper stop and frisk procedures, stating:

While it appears that some of the newest members of the force are uncertain about how to document street encounters properly, this is not entirely surprising. The interviewed are working essentially alone in extremely busy areas and are learning to put their academy training into practice. Officers interviewed who had a year or more on the job knew the policies and the practices well and expressed no confusion on the issue. (p. 3-4).

The NYPD currently has several layers of auditing checks to ensure police officers are properly reporting stops (Ridgeway, 2007). Once the officer fills out the UF-250 report, it is reviewed by a supervisor, then screened by data entry staff, and then is reviewed by the integrity control officer (ICO) to assess any incongruences that may be present between the initial stop and the coercive action taken by the officer, in particular arrests. Lastly, the NYPD's Quality Assurance Division reviews the ICO's audits, randomly collecting UF-250 reports from each command to ensure proper procedures are being followed (Ridgeway, 2007).

Unfortunately there is no auditing process to ensure the officers are filling out the UF-250 report for every mandated PCI. John Timoney (in Trone, 2010) postulated that when an arrest occurs, officers most likely fill out the required arrest forms, but most likely do not fill out the UF-250 documenting the stop, losing the detailed information between the stop and the arrest. However, in one eight-hour shift observation of PCIs and

monitored radio communication, Ridgeway (2007) reported that officers did submit all mandated UF-250 reports.

Although there are audits and quality checks of the UF-250 reports, the officer could have misreported (either accidentally or purposefully) what occurred during the stop, potentially going unnoticed by auditors. For example, the officer could have checked the wrong box that reports the circumstance that lead to the stop or checked the wrong box for the coercive activity that occurred during the stop. The officer could also have not remembered the exact reason for the stop or that he used multiple forms of coercive activity during the stop. If the officer searched the suspect, along with enacting a type of force and arresting the suspect and only checked the boxes for use of force and arrest, then, in this case, would have inaccurately reported.

Further, an officer's use of discretion (e.g., whether or not to arrest the suspect when a small amount of illegal drugs were found on their person) may have interfered with the accuracy of the data. A police sergeant was quoted, "I'm wondering...whether contraband and possibly weapons have been found, but the officer utilizing their discretion has not made an arrest; and whether that's skewing the data somehow" (Trone, 2010, p.8). Regardless of these potential limitations, the UF-250 reports remain the most valuable data source for purposes of the current analysis.

In terms of the amount of stops, Ridgeway (2007) notes that a certain number of officers may be over- or under-representing the number of stops that are occurring in New York City. In RAND's examination of 2006 NYPD stops it was reported that "...the analysis flagged 0.5 percent of the 2,756 NYPD officers most active in pedestrian-stop activity. Those 2,756 most active officers, about 7 percent of the total number of officers,

accounted for 54 percent of the total number of 2006 stops” (Ridgeway, 2007).

Regrettably, the current data does not allow for such an analysis; there is no officer identification number associated with the individual stop events to examine if a few officers are making up the majority of stops.¹⁰ This same phenomenon may also occur on the suspect side. That is, a person may have been stopped several times, but again, the current data do not allow for such an analysis.

Another weakness to the data is the way the UF-250 report is formatted; the variables included in the report are not clearly defined. The data mostly consists of dichotomies (yes and no) and do not provide significant detail into officer responses on the UF-250. For example, the stop predictor *furtive movements* does not specifically explain the type of movements the suspect was performing, only that the officer stopped (or did not stop) the person for this reason. Furtive movements remains one of the most commonly used stop predictor (occurring in 51% of recorded stops) and is argued by Jones-Brown, Gill, and Trone (2010) to be “a term that is highly ambiguous and undefined” (p. 22). A retired NYPD officer was quoted saying, “Is that furtive movements like I’m looking over my shoulder because I don’t want to get mugged in my neighborhood?...Furtive movements right there tells me that cops are out there winging it a bit” (Trone, 2010, p.11).

Furthermore, there are “other” categories on the UF-250 report that offer no detailed description. The outcome variable *use of force* has an “other” category that the

¹⁰ If data permitted, a within-officer examination of stops incidents and the coercive activity used during the stop could have provided insight into officer proactivity within certain neighborhoods.

officer may have marked on the UF-250 report. It is unclear what “other” methods of force the officer may have utilized; only logical inferences may be made. For example, the officer using his hands against the suspect was listed as an option in the UF-250 report, but the officer kicking the suspect was not included in the report. It can be logically inferred that an officer may have chosen the “other” category in these situations. Likewise, the individual-level stop predictors had an “other reasonable suspicion of criminal activity” category that also did not provide explanation for the reason of the stop. Again it can be inferred that an officer may check this box if the reason the officer stopped the suspect was not otherwise listed on the UF-250 report.

Measures

This study uses data collected from the NYPD UF-250 reports and from New York City census tracts. There are five main types of police coercive responses included in the UF-250 reports (no coercive action/stop only, frisk, search, use of force, and arrest). It is unlikely that a single method of estimation will properly capture the full picture behind factors influencing an officer’s decision to use coercion. As such, the outcome variables used in this analysis are measured three ways: (1) as a dichotomy of each coercive response occurring or not occurring during the stop (2) on a continuum of coercive action and (3) using the highest level of coercive action that occurred during the stop (see also Klinger’s 1995 and Garner and Maxwell’s 1999 police use of force measures). Table 4.1 describes the outcome measures used in the current analysis.

Dichotomous outcomes.

The first method that will be employed is analyzing each coercive action as a separate dichotomy (e.g., Garner and Maxwell, 1999). The first outcome, *No Coercive*

Table 4.1 Description of outcome measures

| Variable | Mean | SD | Minimum-Maximum |
|---|------|------|-----------------|
| Dichotomous Outcomes | | | |
| No coercive action/stop only | .42 | -- | 0-1 |
| Frisk | .56 | -- | 0-1 |
| Search | .09 | -- | 0-1 |
| Use of force | .20 | -- | 0-1 |
| Arrest | .06 | -- | 0-1 |
| Coercive Action Continuum | | | |
| | 3.01 | 3.09 | 1-16 |
| 1. No coercive action/stop only | .42 | -- | 0-1 |
| 2. Frisk only | .31 | -- | 0-1 |
| 3. Search only | .00 | -- | 0-1 |
| 4. Frisk and search | .03 | -- | 0-1 |
| 5. Use of force only | .01 | -- | 0-1 |
| 6. Frisk and use of force | .15 | -- | 0-1 |
| 7. Search and use of force | .00 | -- | 0-1 |
| 8. Frisk, search, and use of force | .02 | -- | 0-1 |
| 9. Arrest only | .01 | -- | 0-1 |
| 10. Frisk and arrest | .01 | -- | 0-1 |
| 11. Search and arrest | .00 | -- | 0-1 |
| 12. Frisk, search, and arrest | .02 | -- | 0-1 |
| 13. Use of force and arrest | .00 | -- | 0-1 |
| 14. Frisk, use of force, and arrest | .00 | -- | 0-1 |
| 15. Search, use of force, and arrest | .00 | -- | 0-1 |
| 16. Frisk, search, use of force, and arrest | .01 | -- | 0-1 |
| Highest Level of Coercion Used | | | |
| | 2.15 | 1.30 | 1-5 |
| 1. No coercive action/stop only | .42 | -- | 0-1 |
| 2. Frisk | .31 | -- | 0-1 |
| 3. Search | .03 | -- | 0-1 |
| 4. Use of force | .18 | -- | 0-1 |
| 5. Arrest | .06 | -- | 0-1 |

Action, means that the suspect was stopped only; no other action was taken against the suspect (n=274,463). The second outcome, *Frisk*, represents whether or not the suspect was frisked, which occurs when the officer “pats down” or moves his or her hands quickly over the person’s body in order to detect weapons or other illegal contraband (Harris, 1994a). In 56% of the recorded stops, the suspect was frisked (n=365,206). The third outcome of interest, *Search*, signifies whether or not the officer investigated the suspect’s possessions (e.g., his bag or his pants pockets) (Harris, 1994a). In 9% of recorded stops the suspect was searched (n=55,668). The fourth outcome variable analyzed, *Use of force*, denotes whether or not force was used against the suspect. Use of

force can be defined as the officer's exertion of power to coerce or contain the behaviors of others (Kania and Mackey, 1977).¹¹ The use of force variable was comprised of eight categories that included the officer using his hands against the suspects, putting the suspect on the ground or against a wall, drawing a weapon and/or pointing a weapon at the suspect, using a baton or pepper spray during the stop, and using other methods of force directed at the suspect. In 20% of the recorded stops an officer used force against the suspect (n=132,210).¹² *Arrest*, the fifth outcome variable of interest, was whether or not the suspect was taken to the police department, where a booking sheet, a property voucher, and other paperwork was formally processed (Spitzer, 1999). Officers arrested the suspects in 6% of recorded stops (n=38,985). The frequency of each coercive outcome that occurred during a stop is displayed in figure 4.1.

Coercive action continuum.

The coercive action variables were also categorized into a continuum based on the level of coercion the officer used during the stop. Similar to literature examining police

¹¹ Following practices of Klinger (1995), the use of force variable was originally measured on a continuum based on level of discomfort or potential injury to the suspect, ranging from the least severe to most severe use of force option. The levels of force were operationalized using a combination of the use of force variables available in the NYPD SQF database and included categories of low, moderate, and high force. The multiple levels of force were, however, subsequently combined into a dummy measure of use of force because the number of incidents of moderate and high force was too few (e.g., 184 total incidents of moderate force out of 654,485 total stops).

¹² The majority of use of force incidents involves the officer using his hands against the suspect (92% of all use of force involves the officer using his hands), which may explain why use of force is more common in police stops than searches (20% of stops resulted in use of force, while 9% of stops resulted in a search).

use of force on a continuum (e.g., Klinger, 1995; Terrill and Mastrofski, 2002), the coercive action continuum ranges from the least intrusive coercive action to the most

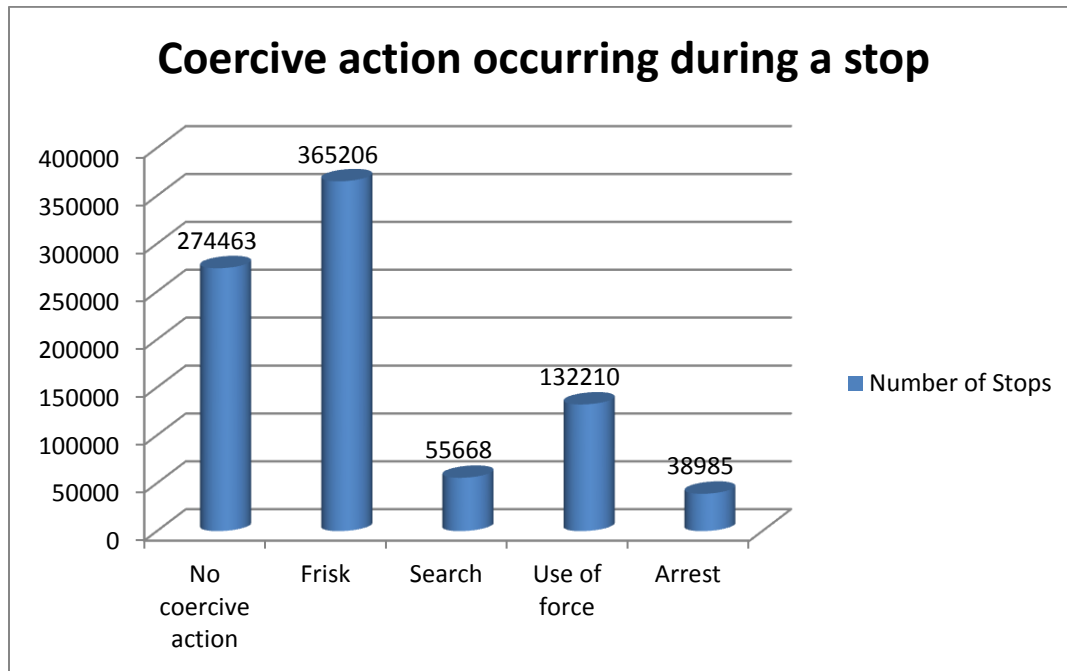


Figure 4.1 Coercive action occurring during a stop

Note: The total number of coercive actions exceeds the total number of stops because officers can check multiple coercive actions for a single stop.

intrusive coercive action (see also Sobol et al.'s 2013 continuum of police vigor). This will provide a deeper look into the various levels of coercive action used by police officers, not simply whether some form of coercive action was used (e.g., Terrill and Mastrofski, 2002). The categories consisted of each coercive response alone (e.g., frisk only), as well as combinations of the coercive responses ranked by degree of intrusiveness experienced by the suspect, ranging from 1-16.

The least intrusive coercive action consisted of the officer only stopping the suspect, which occurred in 42% of all stops (n=274,463). The suspect being only frisked was the next category, which happened in 31% of all stops (n=204,355). The subsequent

category, the suspect was only searched, occurred in .0006% of all stops (n=412). A combination of the suspect being frisked and searched was the next category of intrusiveness, which occurred in 3% of all stops (n=16,789). Following, the officer using force against the suspect happened in 1% of all stops (n=8,240). Frisk combined with use of force (15% of all stops; n=97,443), search combined with use of force (.0002% of all stops; n=128), and frisk combined with search and use of force (2% of all stops; n=13,670) were the next three categories on the continuum.

The next category along the continuum consisted of the suspect being only arrested, which occurred in 1% of all stops (n=3,797). Then, the suspect being frisked and arrested (1% of all stops; n=7,054), the suspect being searched and arrested (.002% of all stops; n=1,425), and the suspect being frisked, searched, and arrested (2% of all stops; n=13,979) were the next three categories on the continuum. Following, the suspect having force used against him and being arrested accounted for .0006% of all stops (n=418). The next category was the suspect being frisked, force used against him, and he was arrested, which occurred in .005% of all stops (n=3,047). After this category, the suspect was searched, force was used against him, and he was arrested, which happened in .0006% of all stops (n=396). Lastly, the most intrusive coercive action used, is all types of coercion combined. The suspect was frisked, searched, force was used against him, and he was arrested in this category, which occurred in 1% of all stops (n=8,869). Figure 4.2 displays the frequency of the coercive action continuum categories.

Highest level of coercion used

In Klinger's (1995) observational study of Metropolitan Dade County Police Department he suggested multiple methods for measuring levels of police use of force.

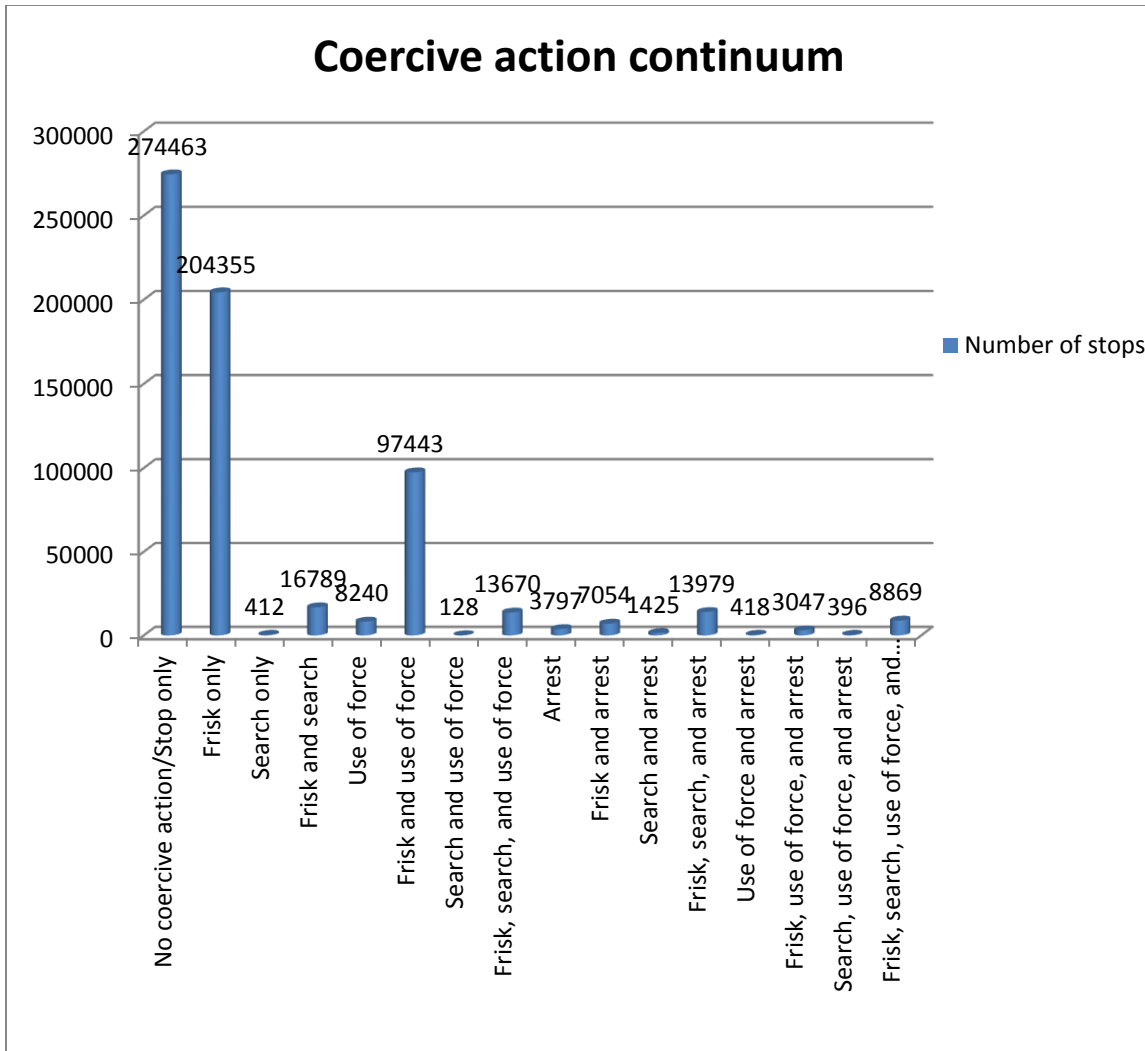


Figure 4.2 Coercive action continuum

Because multiple methods of force may be used in one PCI (e.g., an officer may use verbal commands and his baton), Klinger proposed an examination of the highest level of force used in each incident to explore this dynamic (see also Paoline and Terrill, 2007; Terrill and Reisig, 2003). The data for this dissertation also follow this pattern; an officer may have used multiple forms of coercive action in a stop (e.g., a suspect may have been frisked and arrested). Therefore, I also examine the highest level of coercion used in each stop performed by the NYPD.

To create this ordinal outcome, the five coercive action variables were ranked according to their degree of intrusiveness, from low to high: no coercive action/stop only, frisk, search, use of force, and arrest (Sobol et al., 2013). The outcome ranges from one to five. No coercive action/stop only (one) was the highest level of intrusiveness in 42% of all stops (n=274,462). Frisk (two) was the highest level of intrusiveness in 31% of all stops (n=204,354); search (three) was the highest level of intrusiveness in 3% of all stops (n=17,201); use of force (four) was the highest level of intrusiveness in 18% of all stops (n=119,481); and arrest (five) was the highest level of intrusiveness in 6% of all stops (n=38,985). Figure 4.3 displays the frequency of the highest levels of coercive action used in each stop.

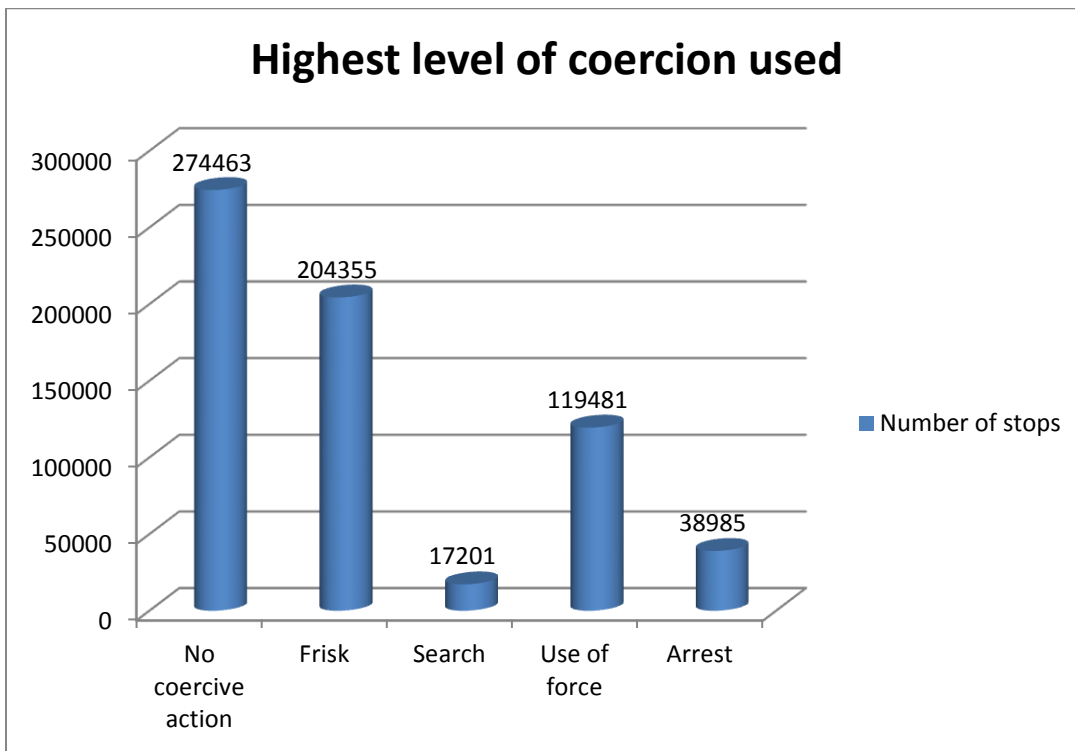


Figure 4.3 Highest level of coercion used in each stop

Individual-Level Measures

The predictor variables included both individual- and neighborhood-level measures and are described in Table 4.2. For the individual-level variables, several stop

Table 4.2 Description of Independent Measures

| Variable | Mean | SD | Minimum-Maximum |
|---|---------|-------|-----------------|
| Stop-level reason for the stop variables | | | |
| Carrying suspicious object | .02 | -- | 0-1 |
| Fits a relevant description | .16 | -- | 0-1 |
| Casing a victim or location | .32 | -- | 0-1 |
| Acting as a lookout | .18 | -- | 0-1 |
| Wearing clothes commonly used in a crime | .05 | -- | 0-1 |
| Actions indicative of a drug transaction | .07 | -- | 0-1 |
| Furtive movements | .51 | -- | 0-1 |
| Actions of engaging in violent crime | .10 | -- | 0-1 |
| Suspicious bulge | .08 | -- | 0-1 |
| Other reasonable suspicion of criminal activity | .17 | -- | 0-1 |
| Stop-level control variables | | | |
| Area under investigation | .14 | -- | 0-1 |
| Area has a high crime incidence | .60 | -- | 0-1 |
| Time of day fits crime incidence | .42 | -- | 0-1 |
| $N_1 =$ | 654,485 | | |
| Neighborhood-level variables | | | |
| Concentrated disadvantage | 0.0 | 1.0 | -1.57 to 6.36 |
| Extreme disadvantage | .10 | .30 | 0 to 1 |
| Concentrated immigration | 0.0 | 1.0 | -2.37 to 4.77 |
| Percent recent movers | 10.95 | 7.19 | 0 to 60.82 |
| Percent renters | 62.48 | 25.96 | 0 to 100 |
| Percent African-American | 26.49 | 31.46 | 0 to 100 |
| Percent Hispanic | 26.22 | 23.20 | 0 to 100 |
| Neighborhood-level control variables | | | |
| Manhattan | .13 | -- | 0 to 1 |
| Bronx | .16 | -- | 0 to 1 |
| Brooklyn | .35 | -- | 0 to 1 |
| Queens | .30 | -- | 0 to 1 |
| Staten Island | .05 | -- | 0 to 1 |
| $N_2 =$ | 2,114 | | |

predictors, or reason the officer stopped the citizen, were included in the analysis. Figure 4.4 displays the frequency of each stop predictor that led to the officer stopping the person; an officer may have checked more than one reason for the stop on the UF-250 report. Carrying a suspicious object represents whether or not the suspect was carrying an object in plain view that could potentially be used in commission of a crime (e.g, slim

jim/pry bar). In 2% of all stops the officer believed the suspect was carrying a suspicious object (n=13,089). Fits a relevant description signifies that the officer believed the suspect fit a description of someone who was previously involved in criminal activity.

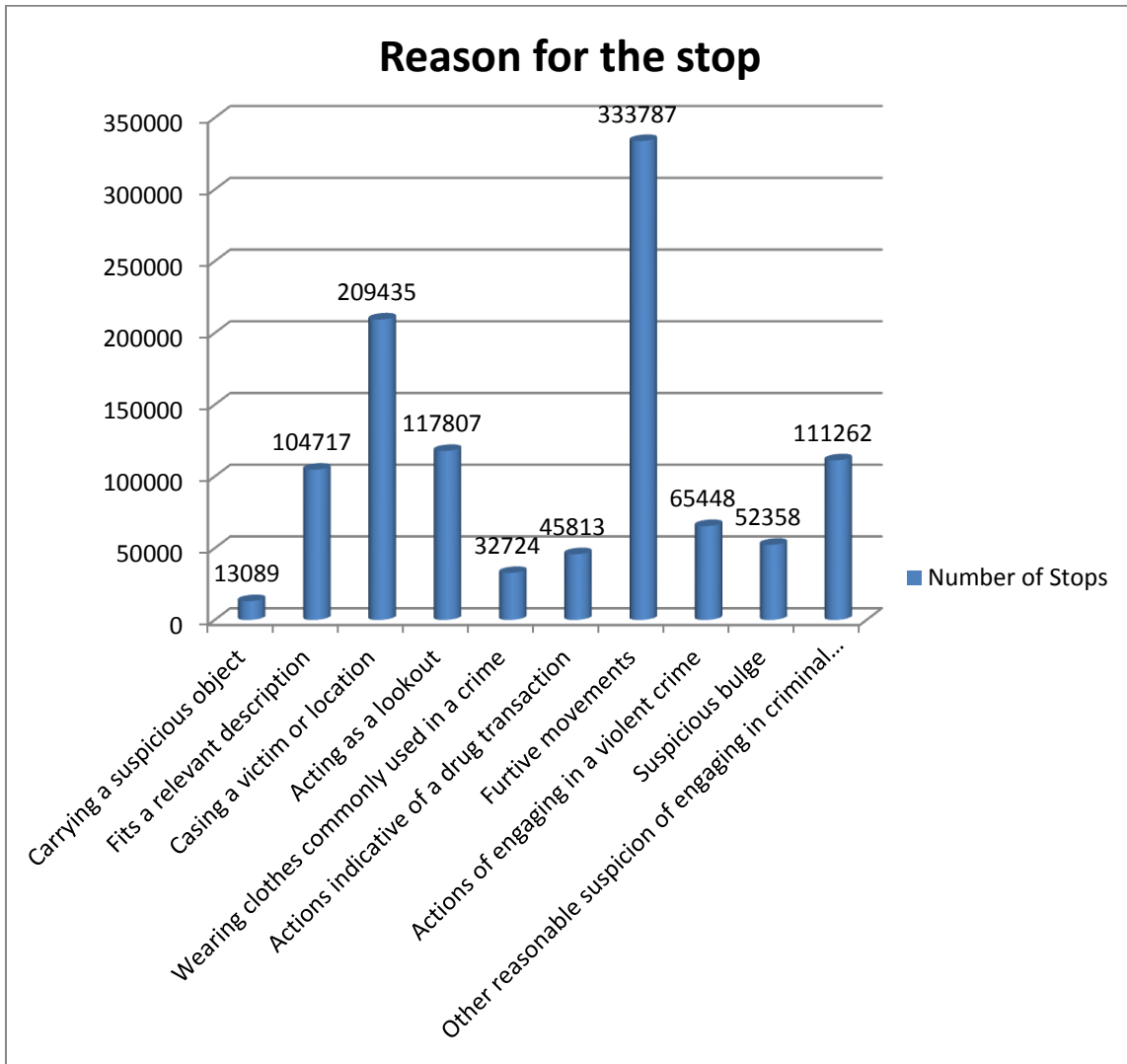


Figure 4.4. Reason for the stop

Note: The total number of reasons for the stop exceeds the total number of stops because officers can check multiple reasons for a single stop.

An officer’s account of the basis for fitting a relevant description is described in Spitzer (1999), “At TPO [time and place of occurrence] male was person who fit description of person wanted for GLA [grand larceny auto] in 072 pct. log...upon approach male

discarded small coin roller which contained 5 bags of alleged crack” (p. 137). The suspect being stopped for fitting a relevant description occurred in 16% of all stops (n=104,717).

Casing a victim or location denotes that the officer believed the suspect displayed actions of casing a victim or location, which occurred in 32% of all stops (n=209,435). *Acting as a lookout* represents that the officer believed the suspect displayed actions of assisting in criminal activity. The suspect being stopped for acting as a lookout occurred in 18% of all stops (n=117,807). *Wearing clothes commonly used in a crime* signifies that the officer believed that the suspect intended to engage in criminal activity, based on his or her attire; this occurred in 5% of all stops (n=32,724). *Actions indicative of a drug transaction* symbolizes that the officer believed the suspect was displaying actions commonly used in drug deals. The officer stopped the person based on these actions in 7% of all recorded stops (n=45,813). *Furtive movements* means that the officer believed the suspect was demonstrating secretive or sneaky movements, which occurred in 51% of the recorded stops (n=333,787). Over the years of collected UF-250 data furtive movements continues to be the most frequently chosen reason for the officer making the stop.

Actions of engaging in a violent crime denotes that the officer believed the suspect was currently involved in violent criminal activity, which was observed in 10% of the recorded stops (n=65,448). *Suspicious bulge* represents that the officer saw a prominent object on the suspect that could potentially be dangerous. An officer’s account stated, “Observed person with large bulge in front right coat, thought to be a weapon” (Spitzer, 1999, p. 138). Suspicious bulge made up 8% of recorded stops (n=52,358).

Lastly, *other reasonable suspicion of engaging in criminal activity* is when the officer believed the suspect was involved in criminal activity not previously listed in the UF-250 report's reasons for the stop; this occurred in 17% of the recorded stops (n=111,262).

Neighborhood-Level Measures

The neighborhood-level variables included measures of disorganization within New York City neighborhoods, all retrieved from the U.S. Census Bureau's American Fact Finder. A principle components analysis of seven neighborhood-level indicators revealed a two factor solution explaining 69% of the variation in the indicators (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .74). The factors represent the structural features of the neighborhood, namely, concentrated disadvantage and concentrated immigration (see e.g., Morenoff et al., 2001; Sampson et al., 1997). *Concentrated disadvantage* (Eigenvalue = 1.66) is comprised of the following: percent of civilian working age population unemployed; percent female-headed households; percent of population receiving public assistance; percent of population age 16-19 who dropped out of high school; and percent of population living in poverty. *Concentrated immigration* (Eigenvalue = 3.15) reflects the percent of population that is Asian and percent of population foreign born. This measure does not follow the usual pattern found in prior literature examining concentrated immigration, which is often comprised of the percent of population that is foreign born and the percent of population that is Hispanic (e.g., Sampson et al., 1997). This concentrated immigration variable may be explained by the

increase in Asian immigration in New York City in the past few years.¹³ According to the U.S. Census Bureau (2011), the sub-groups of all Asian immigrants have progressively inclined from year 2000 to 2010, while sub-groups of Hispanic population have either declined or stayed steady during this time in New York City. For example, from year 2000 to 2010, the Dominican immigrant population changed to a decrease of 11.2%, while the Chinese immigrant population changed to a 34% increase in New York City (U.S. Census Bureau, 2011). This dramatic increase in Asian immigrants in New York City may explain why the percent of the population that is foreign born loads on the same factor as the percent of the population that is Asian.

Variables that were also included in the analysis were *extreme disadvantage*, *percent recent movers*, *percent renters*, *percent African-American*, and *percent Hispanic*. Extreme disadvantage represents the worst off neighborhoods within New York City. Recall that the effects of disorganization and high crime may be exacerbated in areas of extreme disadvantage (Clear et al., 2003), with police potentially more (or less) inclined to respond coercively in these areas. The extreme disadvantage measure was created using the top 10% of the concentrated disadvantage index. Percent recent movers and percent renters are variables used to approximate the residential instability component of social disorganization.¹⁴ In the principal components analysis, percent African-American

¹³ Immigrants from the Dominican Republic made up 12.4% of the foreign born population, while Chinese immigrants made up 11.4% of the foreign born population in New York City (U.S. Census Bureau, 2011).

¹⁴ Residential instability customarily consists of two variables (1) percent of the population that has moved within the past 5 years and (2) percent of households renter-occupied. In New York City, the percent of renter-occupied households does not load with the other measure of residential instability. It seems that because households within

did not load with the variables of concentrated disadvantage, as in prior literature, and is included in the analysis as a separate variable. Likewise, percent Hispanic is also included as a separate variable in analyses.

Finally, control variables were used to help avoid misspecification of the risk of being stopped by the police in a particular neighborhood. These measures were collected from the UF-250 reports and included: *Ongoing investigation*, which denotes that the area is under investigation of crime patterns (e.g., robbery pattern); *Time of day fits crime incidence*, which represents whether or not the time of the day, the day of the week, or the season corresponds to reports of criminal activity; and *area has high crime incidence* signifies that the area has high reports of offenses of the type under investigation.

Another control variable used in the analysis is the New York City *borough* in which the stop occurred. Borough is included as a control to account for variation across boroughs that are not accounted for by census tract data (e.g., differences in rates of crime, department policies, recent political agendas, etc.; see e.g., Fagan, 2012). Staten Island, because of its dissimilar rates of NYPD stops, is used as the reference category in this analysis. In 2011 Staten Island reported 26,310 stops while the other boroughs (Brooklyn, Bronx, Manhattan, and Queens) had over 125,000 stops occurring within their boundaries.¹⁵

New York City are largely renter-occupied, it does not necessarily denote that the neighborhood is marked by transiency. Therefore, percent of the population that has moved in the past one year and percent renters are included separately to represent residential instability. The past one year, as opposed to the past 5 years, was believed to be a better indicator of recent residential instability within a neighborhood.

¹⁵ Brooklyn reported 221,975 stops, Bronx reported 127,608 stops, Manhattan reported 133,929 stops, and Queens reported 144,673 stops.

4.2 Analytic Strategy

Multilevel modeling techniques using HLM 7.01 software were used to accommodate the hierarchical structure of the nested data (individual stop events nested within neighborhoods). First, diagnostic tests for multicollinearity were conducted using linear regression modeling and revealed no issues (all VIFs were ≤ 1.33 and condition index values were ≤ 6.28). In order to adjust for within neighborhood-level clustering, robust standard errors were used. Two distinct models were run, one including the concentrated disadvantage index as a neighborhood-level predictor and the other including the extreme disadvantage measure as a neighborhood-level predictor.

Dichotomous Outcomes

The dichotomous outcomes were analyzed using hierarchical generalized linear modeling with the Bernoulli option. The analyses began with estimating unconditional models. Unconditional models do not have any predictor variables; they are used to assess the amount of variation in the outcomes that lie within and between the aggregates (Raudenbush and Bryk, 2002). Here, unconditional models represent the differences in police coercive responses within and between the neighborhoods. This model is illustrated below¹⁶ and revealed significant variation in each dichotomous outcome across neighborhoods ($p \leq .001$).

¹⁶ All illustrations represent the stop only (no greater coercive action used) dichotomous model. The outcome variable was changed in each model to reflect the outcome being analyzed (i.e., frisk outcome variable was substituted in the next analysis, followed by search, use of force, and arrest); these models are not illustrated in the text.

Level-1 Model (Stop-level)

$$\begin{aligned}\text{Prob}(\text{STOP_ONLY}_{ij}=1|\beta_j) &= \phi_{ij} \\ \log[\phi_{ij}/(1 - \phi_{ij})] &= \eta_{ij} \\ \eta_{ij} &= \beta_{0j}\end{aligned}$$

Level-2 Model (Neighborhood-level)

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

Random coefficient models were then estimated, which do not contain any level-2 predictor variables, but assess the effects of the level-1 measures on each outcome. Random coefficients models in this analysis assessed the effects of the stop predictors (e.g., suspicious bulge) on each police coercive response (e.g., frisk). This model (shown below) revealed that the effects of almost all of the stop predictors for each coercive action were stronger in some neighborhoods versus others ($p \leq .05$).

$$\begin{aligned}\text{Prob}(\text{STOP_ONLY}_{ij}=1|\beta_j) &= \phi_{ij} \\ \log[\phi_{ij}/(1 - \phi_{ij})] &= \eta_{ij} \\ \eta_{ij} &= \beta_{0j} + \beta_{1j}*(AC_INVES_{ij}) + \beta_{2j}*(CS_OBJCS_{ij}) + \beta_{3j}*(CS_DESCR_{ij}) + \\ &\beta_{4j}*(CS_CASNG_{ij}) + \beta_{5j}*(CS_LKOUT_{ij}) + \beta_{6j}*(CS_CLOTH_{ij}) + \beta_{7j}*(CS_DRGTR_{ij}) + \\ &\beta_{8j}*(CS_FURTV_{ij}) + \beta_{9j}*(CS_VCRIM_{ij}) + \beta_{10j}*(CS_BULGE_{ij}) + \beta_{11j}*(CS_OTHER_{ij}) + \\ &\beta_{12j}*(AC_INCID_{ij}) + \beta_{13j}*(AC_TIME_{ij})\end{aligned}$$

All of the level-1 variables were grand-mean centered in order to control for compositional differences in individual stop events across neighborhoods.

For the third step of the analysis, the neighborhood-level predictors (e.g., concentrated disadvantage) were entered into the intercepts-as-outcomes model. This permitted an examination of research question number one, the main effects of neighborhood disorganization on the level-1 (police coercive action) intercepts. This model showed how neighborhood disorganization directly impacts police coercive

activities, while controlling for stop-level effects. The level-1 model (random coefficients) stayed the same, while the level-2 model is illustrated by the following:¹⁷

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(PC_BLACK_j) + \gamma_{02}*(PC_HISPA_j) + \gamma_{03}*(PC_RECEN_j) + \gamma_{04}*(PC_HHREN_j) + \gamma_{05}*(CD_f/WORST_CD_j) + \gamma_{06}*(CI_j) + \gamma_{07}*(MANHATTA_j) + \gamma_{08}*(BRONX_j) + \gamma_{09}*(BROOKLYN_j) + \gamma_{010}*(QUEENS_j) + u_{0j}$$

Lastly, intercepts-and-slopes-as-outcomes models were estimated in order to answer the second research question regarding moderating (cross-level) effects. This model produced analyses examining the impact of neighborhood disadvantage on the relationship between each stop predictor and each police coercive activity, while controlling for the main effects of stop-level and neighborhood-level characteristics. In this model, the level-1 random coefficients model and the level-2 main effects model stayed the same, while the cross-level model took the following form:

$$\begin{aligned} \eta_{ij} = & \gamma_{00} + \gamma_{01}*PC_BLACK_j + \gamma_{02}*PC_HISPA_j + \gamma_{03}*PC_RECEN_j \\ & + \gamma_{04}*PC_HHREN_j + \gamma_{05}*CD_f/WORST_CD_j + \gamma_{06}*CI_j \\ & + \gamma_{10}*AC_INVES_{ij} \\ & + \gamma_{20}*CS_OBJCS_{ij} + \gamma_{21}*CD_f/WORST_CD_j * CS_OBJCS_{ij} \\ & + \gamma_{30}*CS_DESCR_{ij} + \gamma_{31}*CD_f/WORST_CD_j * CS_DESCR_{ij} \\ & + \gamma_{40}*CS_CASNG_{ij} + \gamma_{41}*CD_f/WORST_CD_j * CS_CASNG_{ij} \\ & + \gamma_{50}*CS_LKOUT_{ij} + \gamma_{51}*CD_f/WORST_CD_j * CS_LKOUT_{ij} \\ & + \gamma_{60}*CS_CLOTH_{ij} + \gamma_{61}*CD_f/WORST_CD_j * CS_CLOTH_{ij} \\ & + \gamma_{70}*CS_DRGTR_{ij} + \gamma_{71}*CD_f/WORST_CD_j * CS_DRGTR_{ij} \\ & + \gamma_{80}*CS_FURTV_{ij} + \gamma_{81}*CD_f/WORST_CD_j * CS_FURTV_{ij} \\ & + \gamma_{90}*CS_VCRIM_{ij} + \gamma_{91}*CD_f/WORST_CD_j * CS_VCRIM_{ij} \\ & + \gamma_{100}*CS_BULGE_{ij} + \gamma_{101}*CD_f/WORST_CD_j * CS_BULGE_{ij} \\ & + \gamma_{110}*CS_OTHER_{ij} + \gamma_{111}*CD_f/WORST_CD_j * CS_OTHER_{ij} \\ & + \gamma_{120}*AC_INCID_{ij} \\ & + \gamma_{130}*AC_TIME_{ij} \\ & + u_{0j} + u_{1j}*AC_INVES_{ij} + u_{2j}*CS_OBJCS_{ij} + u_{3j}*CS_DESCR_{ij} \\ & + u_{4j}*CS_CASNG_{ij} + u_{5j}*CS_LKOUT_{ij} + u_{6j}*CS_CLOTH_{ij} + u_{7j}*CS_DRGTR_{ij} \end{aligned}$$

¹⁷ CD/WORST_CD represents the neighborhood-level effects of the two disadvantage models. When running analyses for the concentrated disadvantage model, the variable CD was used and when running analyses for the extreme disadvantage model, WORST_CD replaced CD.

$$+ u_{8j} * CS_FURTV_{ij} + u_{9j} * CS_VCRIM_{ij} + u_{10j} * CS_BULGE_{ij} + u_{11j} * CS_OTHER_{ij} \\ + u_{12j} * AC_INCID_{ij} + u_{13j} * AC_TIME_{ij}$$

Coercive Action Continuum

The next outcome measure consists of the coercive action continuum, which was analyzed using hierarchical linear regression using the continuous outcome option. The same process used for the dichotomous outcomes was used to estimate the linear regression of the coercive action continuum, beginning with the unconditional model. This model revealed significant variation in the coercive action continuum across neighborhoods ($p \leq .001$) and is illustrated by the following:

Level-1 Model

$$COERCION_{ij} = \beta_{0j} + r_{ij}$$

Level-2 Model

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

Succeeding the unconditional model, random coefficients models were run, which assess the effects of the level-1 measures on the coercive action continuum; the model is illustrated as:

$$COERCION_{ij} = \beta_{0j} + \beta_{1j} * (AC_INVES_{ij}) + \beta_{2j} * (CS_OBJCS_{ij}) + \beta_{3j} * (CS_DESCR_{ij}) + \\ \beta_{4j} * (CS_CASNG_{ij}) + \beta_{5j} * (CS_LKOUT_{ij}) + \beta_{6j} * (CS_CLOTH_{ij}) + \beta_{7j} * (CS_DRGTR_{ij}) + \\ \beta_{8j} * (CS_FURTV_{ij}) + \beta_{9j} * (CS_VCRIM_{ij}) + \beta_{10j} * (CS_BULGE_{ij}) + \beta_{11j} * (CS_OTHER_{ij}) + \\ \beta_{12j} * (AC_INCID_{ij}) + \beta_{13j} * (AC_TIME_{ij}) + r_{ij}$$

Next, intercepts-as-outcomes model was represented by the same level-1 random coefficients model, while the level-2 model took the form:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} * (PC_BLACK_j) + \gamma_{02} * (PC_HISPA_j) + \gamma_{03} * (PC_RECEN_j) + \\ \gamma_{04} * (PC_HHREN_j) + \gamma_{05} * (CD_j) + \gamma_{06} * (CI_j) + \gamma_{07} * (MANHATTA_j) + \gamma_{08} * (BRONX_j) + \\ \gamma_{09} * (BROOKLYN_j) + \gamma_{010} * (QUEENS_j) + u_{0j}$$

The final model, intercepts-and-slopes-as-outcomes (below) allows for a more thorough investigation of the research question on moderating effects. The level-1 random coefficients model and the level-2 main effects models stayed the same, while the cross-level model took the following form:

$$\begin{aligned}
COERCION_{ij} = & \gamma_{00} + \gamma_{01} * PC_BLACK_j + \gamma_{02} * PC_HISPA_j + \gamma_{03} * PC_RECEN_j \\
& + \gamma_{04} * PC_HHREN_j + \gamma_{05} * CD_f / WORST_CD_j + \gamma_{06} * CI_j + \gamma_{07} * MANHATTA_j \\
& + \gamma_{08} * BRONX_j + \gamma_{09} * BROOKLYN_j + \gamma_{010} * QUEENS_j \\
& + \gamma_{10} * AC_INVES_{ij} \\
& + \gamma_{20} * CS_OBJCS_{ij} + \gamma_{21} * CD_f / WORST_CD_j * CS_OBJCS_{ij} \\
& + \gamma_{30} * CS_DESCR_{ij} + \gamma_{31} * CD_f / WORST_CD_j * CS_DESCR_{ij} \\
& + \gamma_{40} * CS_CASNG_{ij} + \gamma_{41} * CD_f / WORST_CD_j * CS_CASNG_{ij} \\
& + \gamma_{50} * CS_LKOUT_{ij} + \gamma_{51} * CD_f / WORST_CD_j * CS_LKOUT_{ij} \\
& + \gamma_{60} * CS_CLOTH_{ij} + \gamma_{61} * CD_f / WORST_CD_j * CS_CLOTH_{ij} \\
& + \gamma_{70} * CS_DRGTR_{ij} + \gamma_{71} * CD_f / WORST_CD_j * CS_DRGTR_{ij} \\
& + \gamma_{80} * CS_FURTV_{ij} + \gamma_{81} * CD_f / WORST_CD_j * CS_FURTV_{ij} \\
& + \gamma_{90} * CS_VCRIM_{ij} + \gamma_{91} * CD_f / WORST_CD_j * CS_VCRIM_{ij} \\
& + \gamma_{100} * CS_BULGE_{ij} + \gamma_{101} * CD_f / WORST_CD_j * CS_BULGE_{ij} \\
& + \gamma_{110} * CS_OTHER_{ij} + \gamma_{111} * CD_f / WORST_CD_j * CS_OTHER_{ij} \\
& + \gamma_{120} * AC_INCID_{ij} \\
& + \gamma_{130} * AC_TIME_{ij} \\
& + u_{0j} + u_{1j} * AC_INVES_{ij} + u_{2j} * CS_OBJCS_{ij} + u_{3j} * CS_DESCR_{ij} \\
& + u_{4j} * CS_CASNG_{ij} + u_{5j} * CS_LKOUT_{ij} + u_{6j} * CS_CLOTH_{ij} + u_{7j} * CS_DRGTR_{ij} \\
& + u_{8j} * CS_FURTV_{ij} + u_{9j} * CS_VCRIM_{ij} + u_{10j} * CS_BULGE_{ij} + u_{11j} * CS_OTHER_{ij} \\
& + u_{12j} * AC_INCID_{ij} + u_{13j} * AC_TIME_{ij} + r_{ij}
\end{aligned}$$

Highest Level of Coercion Used

The third outcome measure consists of using the highest level of coercive action enacted during the stop, an ordinal measure ranging from the lowest level of coercion to the highest level of coercion used during the stop, with 5 categories (Stop only, frisk, search, use of force, and arrest). First, to see how the effects of the independent variables vary across the categories of the dependent variable, a generalized ordered logit model

(GOLM) was estimated in Stata version 13.¹⁸ To approximate the HLM model, all level-1, level-2, and interaction variables were included. Unfortunately the model failed to converge. Consequently, a procedure suggested by Long (1997) (i.e., Brant test) was estimated, which is a reasonable approximation to the GOLM (Williams, 2006)¹⁹. The Brant test revealed that the proportional odds assumption was violated ($p \leq .001$). However, as Williams (2006) noted, even trivial violations of this assumption may be statistically significant when the sample size is large. Given that, the sample size of the current study is 654,485, it is likely that the Brant test indicated that the assumption was violated, when in fact, it may not have been. Nonetheless, results should be interpreted with caution.

The highest level of coercion used during the stop was examined using the ordinal option in the basic model specifications of the HLM software and the same step-by-step process outlined above was followed (see also Raudenbush, Bryk, Cheong, Congdon, and du Toit, 2004). Again, the unconditional model revealed significant variation in the ordinal outcome across neighborhoods ($p \leq .001$) and is illustrated by the following:

¹⁸ HLM software does not currently have the capability to test the proportional odds assumption.

¹⁹ Williams (2006) suggested that Long's series of binary logits approximates the GOLM where "the first panel contrasts category 1 with categories 2, 3, and 4; the second panel contrasts categories 1 and 2 with categories 3 and 4; and the third panel contrasts categories 1, 2, and 3 with category 4.2 Hence, positive coefficients indicate that higher values on the explanatory variable make it more likely that the respondent will be in a higher category of Y than the current one, whereas negative coefficients indicate that higher values on the explanatory variable increase the likelihood of being in the current or a lower category" (p. 63).

Level-1 Model

$$\begin{aligned}
\text{Prob}[R_{ij} \leq 1|\beta_j] &= \phi_{1ij}^* = \phi_{1ij} \\
\text{Prob}[R_{ij} \leq 2|\beta_j] &= \phi_{2ij}^* = \phi_{1ij} + \phi_{2ij} \\
\text{Prob}[R_{ij} \leq 3|\beta_j] &= \phi_{3ij}^* = \phi_{1ij} + \phi_{2ij} + \phi_{3ij} \\
\text{Prob}[R_{ij} \leq 4|\beta_j] &= \phi_{4ij}^* = \phi_{1ij} + \phi_{2ij} + \phi_{3ij} + \phi_{4ij} \\
\text{Prob}[R_{ij} \leq 5|\beta_j] &= 1.0 \\
\phi_{1ij} &= \text{Prob}[\text{COER_HIGH}(1) = 1|\beta_j] \\
\phi_{2ij} &= \text{Prob}[\text{COER_HIGH}(2) = 1|\beta_j] \\
\phi_{3ij} &= \text{Prob}[\text{COER_HIGH}(3) = 1|\beta_j] \\
\phi_{4ij} &= \text{Prob}[\text{COER_HIGH}(4) = 1|\beta_j] \\
\log[\phi_{1ij}^*/(1 - \phi_{1ij}^*)] &= \beta_{0j} \\
\log[\phi_{2ij}^*/(1 - \phi_{2ij}^*)] &= \beta_{0j} + \delta_2 \\
\log[\phi_{3ij}^*/(1 - \phi_{3ij}^*)] &= \beta_{0j} + \delta_3 \\
\log[\phi_{4ij}^*/(1 - \phi_{4ij}^*)] &= \beta_{0j} + \delta_4
\end{aligned}$$

Level-2 Model

$$\begin{aligned}
\beta_{0j} &= \gamma_{00} + u_{0j} \\
\delta_2 \quad \delta_3 \quad \delta_4 &
\end{aligned}$$

Random coefficients models assess the effects of the level-1 measures on the ordinal outcome, which is modeled as:

$$\begin{aligned}
\text{Prob}[R_{ij} \leq 1|\beta_j] &= \phi_{1ij}^* = \phi_{1ij} \\
\text{Prob}[R_{ij} \leq 2|\beta_j] &= \phi_{2ij}^* = \phi_{1ij} + \phi_{2ij} \\
\text{Prob}[R_{ij} \leq 3|\beta_j] &= \phi_{3ij}^* = \phi_{1ij} + \phi_{2ij} + \phi_{3ij} \\
\text{Prob}[R_{ij} \leq 4|\beta_j] &= \phi_{4ij}^* = \phi_{1ij} + \phi_{2ij} + \phi_{3ij} + \phi_{4ij} \\
\text{Prob}[R_{ij} \leq 5|\beta_j] &= 1.0 \\
\phi_{1ij} &= \text{Prob}[\text{COER_HIGH}(1) = 1|\beta_j] \\
\phi_{2ij} &= \text{Prob}[\text{COER_HIGH}(2) = 1|\beta_j] \\
\phi_{3ij} &= \text{Prob}[\text{COER_HIGH}(3) = 1|\beta_j] \\
\phi_{4ij} &= \text{Prob}[\text{COER_HIGH}(4) = 1|\beta_j] \\
\log[\phi_{1ij}^*/(1 - \phi_{1ij}^*)] &= \beta_{0j} + \beta_{1j}^*(AC_INVES_{ij}) + \beta_{2j}^*(CS_OBJCS_{ij}) + \beta_{3j}^*(CS_DESCR_{ij}) \\
&+ \beta_{4j}^*(CS_CASNG_{ij}) + \beta_{5j}^*(CS_LKOUT_{ij}) + \beta_{6j}^*(CS_CLOTH_{ij}) + \beta_{7j}^*(CS_DRGTR_{ij}) + \\
&\beta_{8j}^*(CS_FURTV_{ij}) + \beta_{9j}^*(CS_VCRIM_{ij}) + \beta_{10j}^*(CS_BULGE_{ij}) + \beta_{11j}^*(CS_OTHER_{ij}) + \\
&\beta_{12j}^*(AC_INCID_{ij}) + \beta_{13j}^*(AC_TIME_{ij}) \\
\log[\phi_{2ij}^*/(1 - \phi_{2ij}^*)] &= \beta_{0j} + \beta_{1j}^*(AC_INVES_{ij}) + \beta_{2j}^*(CS_OBJCS_{ij}) + \beta_{3j}^*(CS_DESCR_{ij}) \\
&+ \beta_{4j}^*(CS_CASNG_{ij}) + \beta_{5j}^*(CS_LKOUT_{ij}) + \beta_{6j}^*(CS_CLOTH_{ij}) + \beta_{7j}^*(CS_DRGTR_{ij}) + \\
&\beta_{8j}^*(CS_FURTV_{ij}) + \beta_{9j}^*(CS_VCRIM_{ij}) + \beta_{10j}^*(CS_BULGE_{ij}) + \beta_{11j}^*(CS_OTHER_{ij}) + \\
&\beta_{12j}^*(AC_INCID_{ij}) + \beta_{13j}^*(AC_TIME_{ij}) + \delta_2 \\
\log[\phi_{3ij}^*/(1 - \phi_{3ij}^*)] &= \beta_{0j} + \beta_{1j}^*(AC_INVES_{ij}) + \beta_{2j}^*(CS_OBJCS_{ij}) + \beta_{3j}^*(CS_DESCR_{ij}) \\
&+ \beta_{4j}^*(CS_CASNG_{ij}) + \beta_{5j}^*(CS_LKOUT_{ij}) + \beta_{6j}^*(CS_CLOTH_{ij}) + \beta_{7j}^*(CS_DRGTR_{ij}) + \\
&\beta_{8j}^*(CS_FURTV_{ij}) + \beta_{9j}^*(CS_VCRIM_{ij}) + \beta_{10j}^*(CS_BULGE_{ij}) + \beta_{11j}^*(CS_OTHER_{ij}) + \\
&\beta_{12j}^*(AC_INCID_{ij}) + \beta_{13j}^*(AC_TIME_{ij}) + \delta_3 \\
\log[\phi_{4ij}^*/(1 - \phi_{4ij}^*)] &= \beta_{0j} + \beta_{1j}^*(AC_INVES_{ij}) + \beta_{2j}^*(CS_OBJCS_{ij}) + \beta_{3j}^*(CS_DESCR_{ij})
\end{aligned}$$

$$\begin{aligned}
& + \beta_{4j}*(CS_CASNG_{ij}) + \beta_{5j}*(CS_LKOUT_{ij}) + \beta_{6j}*(CS_CLOTH_{ij}) + \beta_{7j}*(CS_DRGTR_{ij}) + \\
& \beta_{8j}*(CS_FURTV_{ij}) + \beta_{9j}*(CS_VCRIM_{ij}) + \beta_{10j}*(CS_BULGE_{ij}) + \beta_{11j}*(CS_OTHER_{ij}) + \\
& \beta_{12j}*(AC_INCID_{ij}) + \beta_{13j}*(AC_TIME_{ij}) + \delta_4
\end{aligned}$$

Next, intercepts-as-outcomes was represented by the same level-1 random coefficients model, while the level-2 model took the form:

$$\begin{aligned}
\beta_{0j} = & \gamma_{00} + \gamma_{01}*(PC_BLACK_j) + \gamma_{02}*(PC_HISPA_j) + \gamma_{03}*(PC_RECEN_j) + \\
& \gamma_{04}*(PC_HHREN_j) + \gamma_{05}*(CD_j) + \gamma_{06}*(CI_j) + \gamma_{07}*(MANHATTA_j) + \gamma_{08}*(BRONX_j) + \\
& \gamma_{09}*(BROOKLYN_j) + \gamma_{010}*(QUEENS_j) + u_{0j}
\end{aligned}$$

For the final model, intercepts-and-slopes-as-outcomes, the level-1 random coefficients model and the level-2 main effects model stayed the same, while the cross-level model is illustrated as:

$$\begin{aligned}
\beta_{0j} = & \gamma_{00} + \gamma_{01}*(PC_BLACK_j) + \gamma_{02}*(PC_HISPA_j) + \gamma_{03}*(PC_RECEN_j) + \\
& \gamma_{04}*(PC_HHREN_j) \\
& + \gamma_{05}*(CI_j) + \gamma_{06}*(CD_j/WORST_CD_j) + \gamma_{07}*(MANHATTA_j) + \gamma_{08}*(BRONX_j) \\
& + \gamma_{09}*(BROOKLYN_j) + \gamma_{010}*(QUEENS_j) + u_{0j} \\
\beta_{1j} = & \gamma_{10} + u_{1j} \\
\beta_{2j} = & \gamma_{20} + \gamma_{21}*(CD_j/WORST_CD_j) + u_{2j} \\
\beta_{3j} = & \gamma_{30} + \gamma_{31}*(CD_j/WORST_CD_j) + u_{3j} \\
\beta_{4j} = & \gamma_{40} + \gamma_{41}*(CD_j/WORST_CD_j) + u_{4j} \\
\beta_{5j} = & \gamma_{50} + \gamma_{51}*(CD_j/WORST_CD_j) + u_{5j} \\
\beta_{6j} = & \gamma_{60} + \gamma_{61}*(CD_j/WORST_CD_j) + u_{6j} \\
\beta_{7j} = & \gamma_{70} + \gamma_{71}*(CD_j/WORST_CD_j) + u_{7j} \\
\beta_{8j} = & \gamma_{80} + \gamma_{81}*(CD_j/WORST_CD_j) + u_{8j} \\
\beta_{9j} = & \gamma_{90} + \gamma_{91}*(CD_j/WORST_CD_j) + u_{9j} \\
\beta_{10j} = & \gamma_{100} + \gamma_{101}*(CD_j/WORST_CD_j) + u_{10j} \\
\beta_{11j} = & \gamma_{110} + \gamma_{111}*(CD_j/WORST_CD_j) + u_{11j} \\
\beta_{12j} = & \gamma_{120} + u_{12j} \\
\beta_{13j} = & \gamma_{130} + u_{13j} \\
\delta_2 \quad & \delta_3 \quad \delta_4
\end{aligned}$$

CHAPTER 5

RESULTS

Before delving into the primary findings, it is important to note that the typical stop made by the NYPD consisted of a relatively low level of coercive action used by police. In 42% of stops there was no greater coercive action used (i.e., that suspect was only stopped) and in 56% of stops the suspect was frisked. Higher levels of coercion (i.e., search, use of force, and arrest) occurred at a much lower rate ($\leq 20\%$).

5.1 Dichotomous Outcomes

Officer Stops (no greater coercive action used)

Table 5.1 contains the stop-level effects on officer stops (no greater coercive

Table 5.1 Stop-Level Effects on Officer Stops (no greater coercive action used)

| | Coef. | OR | 95% CI |
|---|----------|-------|---------------|
| Intercept | -.280** | .756 | 0.740 - 0.772 |
| <u>Stop-level Effects</u> | | | |
| Carrying suspicious object | -.101** | .903 | 0.865 - 0.944 |
| Fits a relevant description | -.530** | .589 | 0.575 - 0.602 |
| Casing a victim or location | -.072** | .931 | 0.913 - 0.949 |
| Acting as a lookout | .082** | 1.085 | 1.063 - 1.108 |
| Wearing clothes commonly used in a crime | -.337** | .714 | 0.691 - 0.738 |
| Actions indicative of a drug transaction | -.238** | .789 | 0.758 - 0.819 |
| Furtive movements | -.707** | .493 | 0.484 - 0.502 |
| Actions of engaging in violent crime | -.657** | .518 | 0.505 - 0.532 |
| Suspicious bulge | -1.542** | .214 | 0.208 - 0.220 |
| Other reasonable suspicion of criminal activity | .248** | 1.282 | 1.251 - 1.314 |
| <u>Control variables</u> | | | |
| Area under investigation | -.112** | 0.894 | 0.873 - 0.915 |
| Area has a high crime incidence | .124** | 1.132 | 1.112 - 1.153 |
| Time of day fits crime incidence | -.070** | 0.932 | 0.916 - 0.949 |
| $N_1 = 654,485$ | | | |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

action used). As determined by the random coefficients model, all stop predictors in this model were statistically significant ($p \leq .05$), meaning that the relationship between each stop predictor and being stopped only (no greater coercive action used) varied among neighborhoods. When the suspect was stopped for carrying a suspicious object, fitting a relevant description, casing a victim or location, wearing clothes commonly used in a crime, displaying actions indicative of a drug transaction, furtive movements, actions of engaging in a violent crime, or a suspicious bulge, the odds of receiving no greater coercive action decreased; in other words, the suspect was more likely to experience a greater level of coercion when stopped for these reasons.

Regarding inverse effects, when the suspect was stopped for carrying a suspicious object, the odds of receiving no greater coercive action were .903 lower, compared to not being stopped for carrying a suspicious object. The odds of receiving no greater coercive action when the suspect was stopped for fitting a relevant description were .589 lower, compared to suspects who were stopped for reasons other than fitting relevant description. When the suspect was stopped for casing a victim or location the odds of him receiving greater coercive action were .931 lower than if he was not stopped for casing a victim or location. Likewise, the odds of a suspect receiving greater coercive action were .714 lower when he was stopped for wearing clothes commonly used in a crime.

Compared to suspects not stopped for displaying actions indicative of a drug transaction, suspects who did display these actions had .789 lower odds of receiving no greater coercive action. When the suspect was stopped for furtive movements, the odds of receiving no greater coercive action were .493 lower than if he was stopped for not displaying furtive movements. Similarly, when the suspect was stopped for displaying

actions indicative of a violent crime, the odds of receiving no greater coercive action were .518 lower, compared to being stopped for other reasons. Lastly, the odds of receiving no greater coercive action were .214 lower when the suspect was stopped for a suspicious bulge.

Regarding positive effects, being stopped for acting as a lookout or other reasonable suspicion of criminal activity were both associated with a higher likelihood of being stopped, without greater coercive action used. When the suspect was stopped for acting as a lookout, his odds of receiving no greater coercive action were 1.085 higher, compared to being stopped for another reason. And, when the suspect was stopped for other reasonable suspicion of criminal activity, his odds of receiving no greater coercive action were 1.282 higher, compared to suspects stopped for other reasons.

In terms of control variables, analyses revealed that a suspect who was encountered in a neighborhood that is under investigation (OR = .894) or during time of the day that fit the crime incident (OR = .932) lower the odds of receiving no greater coercive action. Conversely, when the suspect was stopped in a high crime neighborhood, the odds of receiving no greater coercive action were 1.132 higher, compared to suspects stopped in low crime neighborhoods.

Table 5.2 shows the main and moderating effects on officer stops (no greater coercive action used).²⁰ In both the concentrated disadvantage and extreme disadvantage

²⁰ Main effects for the concentrated disadvantage and the extreme disadvantage model most often revealed the same results on all neighborhood-level predictors, except for disadvantage. There were a few cases where the odds ratios for the predictors differed between the models. Unless otherwise noted, the differences in neighborhood-level variables between the models were less than .003.

Table 5.2 Main and Moderating Effects on Officer Stops (no greater coercive action used)

| | <u>Concentrated Disadvantage Model</u> | | | <u>Extreme Disadvantage Model</u> | | |
|---|--|-----------|---------------|-----------------------------------|-----------|---------------|
| | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> |
| <u>Stop-level Main Effects (intercept as outcome)</u> | -.273** | .761 | 0.748 - 0.775 | -.273** | .761 | 0.748 - 0.775 |
| Percent population African-American | -.003** | .996 | 0.996 - 0.997 | -.004** | .996 | 0.996 - 0.997 |
| Percent population Hispanic | -.003** | .997 | 0.996 - 0.998 | -.003** | .997 | 0.996 - 0.998 |
| Percent population recent mover | .003* | 1.002 | 1.000 - 1.006 | .003* | 1.003 | 1.000 - 1.006 |
| Percent population renters | -.002** | .998 | 0.997 - 0.999 | -.002** | .998 | 0.997 - 0.999 |
| Disadvantage | -.023 | .977 | 0.947 - 1.009 | -.085* | .919 | 0.862 - 0.980 |
| Concentrated immigration | -.079** | .924 | 0.905 - 0.945 | -.082** | .921 | 0.902 - 0.942 |
| Control variables | | | | | | |
| Manhattan | -.150** | .861 | 0.789 - 0.939 | -.149** | .861 | 0.790 - 0.939 |
| Bronx | -.355** | .701 | 0.643 - 0.765 | -.345** | .708 | 0.648 - 0.774 |
| Brooklyn | -.023 | .976 | 0.902 - 1.057 | -.024 | .976 | 0.902 - 1.057 |
| Queens | -.419** | .658 | 0.607 - 0.713 | -.412** | .662 | 0.612 - 0.716 |
| $N_2 = 2,114$ | | | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | | | |
| Level-1 Carrying suspicious object Effect | -.113** | .894 | 0.853 - 0.936 | -.100** | .905 | 0.865 - 0.946 |
| x Disadvantage | .093** | 1.098 | 1.055 - 1.142 | .156* | 1.169 | 1.051 - 1.300 |
| Level-1 Fits a relevant description Effect | -.540** | .582 | 0.569 - 0.597 | -.537** | .585 | 0.571 - 0.599 |
| x Disadvantage | .035** | 1.040 | 1.015 - 1.058 | .128** | 1.136 | 1.071 - 1.206 |
| Level-1 Casing a victim or location Effect | -.091** | .913 | 0.895 - 0.931 | -.080** | .923 | 0.905 - 0.941 |
| x Disadvantage | .094** | 1.100 | 1.080 - 1.118 | .176** | 1.192 | 1.133 - 1.255 |
| Level-1 Acting as a lookout Effect | .070** | 1.073 | 1.050 - 1.096 | .079** | 1.082 | 1.060 - 1.105 |
| x Disadvantage | .088** | 1.092 | 1.072 - 1.113 | .169** | 1.184 | 1.123 - 1.247 |
| Level-1 Wearing clothes commonly used in a crime Effect | -.334** | .716 | 0.690 - 0.744 | -.337** | .714 | 0.689 - 0.739 |
| x Disadvantage | -.009 | .991 | 0.962 - 1.020 | .020 | 1.020 | 0.947 - 1.099 |
| Level-1 Actions indicative of a drug transaction Effect | -.261** | .770 | 0.738 - 0.803 | -.240** | .787 | 0.756 - 0.820 |
| x Disadvantage | .157** | 1.170 | 1.131 - 1.211 | .353** | 1.424 | 1.315 - 1.542 |
| Level-1 Furtive movements Effect | -.717** | .488 | 0.479 - 0.497 | -.718** | .488 | 0.479 - 0.497 |
| x Disadvantage | -.005 | .995 | 0.980 - 1.010 | .018 | 1.018 | 0.977 - 1.062 |
| Level-1 Actions of engaging in violent crime Effect | -.676** | .509 | 0.495 - 0.523 | -.671** | .511 | 0.498 - 0.525 |
| x Disadvantage | .034* | 1.034 | 1.011 - 1.059 | .093* | 1.097 | 1.031 - 1.167 |
| Level-1 Suspicious bulge Effect | -1.602** | .202 | 0.195 - 0.208 | -1.575** | .207 | 0.201 - 0.213 |

| | | | | | | |
|--|--------------------|-------|---------------|--------------------|-------|---------------|
| x Disadvantage | .120 ^{**} | 1.128 | 1.099 - 1.157 | .285 ^{**} | 1.329 | 1.247 - 1.417 |
| Level-1 Other reasonable suspicion of criminal activity Effect | .243 ^{**} | 1.274 | 1.242 - 1.308 | .250 ^{**} | 1.284 | 1.252 - 1.317 |
| x Disadvantage | .057 ^{**} | 1.059 | 1.036 - 1.083 | .146 ^{**} | 1.157 | 1.085 - 1.233 |

NOTES: ^{**} $p \leq .01$; ^{*} $p \leq .05$. OR = Odds Ratio

models, results revealed that suspects stopped in neighborhoods with a higher percentage of African-Americans, a higher percentage of Hispanics, a higher percentage of households that are renter-occupied, or higher levels of concentrated immigration were less likely to be stopped with no greater coercive action used. In other words, suspects stopped in neighborhoods with these structural features were more likely to experience higher levels of coercive action.

For the inverse main effects, results revealed that a suspect stopped in a neighborhood characterized by a higher percentage of African-Americans had .996 lower odds of receiving no greater coercive action; in a neighborhood with a higher percentage of Hispanics, the odds of receiving no greater coercive action were about the same (OR = .997). When a suspect was stopped in a neighborhood with a higher percentage of renters, the odds of receiving no greater coercive action was .998 lower, compared to neighborhoods with a higher percentage of home owners. Lastly, suspects stopped in neighborhoods with higher levels of concentrated immigration had .924 lower odds of receiving no greater coercive action.

In both the concentrated disadvantage and extreme disadvantage models, however, the odds of a suspect receiving no greater coercive action were 1.002 higher when the suspect was stopped in a neighborhood with a higher percentage of recent movers. The effect of disadvantage differed between the models. Concentrated disadvantage was not a significant predictor of the suspect receiving no greater coercive action, yet suspects encountered in an extremely disadvantaged neighborhood had .919 lower odds of receiving no greater coercive action. In other words, suspects encountered in extremely disadvantaged neighborhoods were more likely to experience greater levels

of coercive action when stopped, while suspects stopped in concentrated disadvantaged neighborhoods did not impact an officer's use of coercive action.

Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in Manhattan had .861 lower odds of receiving no greater coercive action. Likewise, a suspect stopped in the Bronx had .701 (.708 for extreme disadvantage model) lower odds of receiving no greater coercive action, compared to Staten Island. A suspect who was stopped in Queens had .658 (.662 for extreme disadvantage) lower odds of receiving no greater coercive action, compared to Staten Island. Brooklyn, however, did not show a statistically significant difference from Staten Island.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and a suspect experiencing no greater coercive action was examined. Results revealed significant differences between the concentrated disadvantage model and the extreme disadvantage model.

For the disadvantage model, results revealed that the relationships between being stopped for carrying a suspicious object, fitting a relevant description, casing a victim or location, displaying actions indicative of a drug transaction, displaying actions of engaging in a violent crime, or a suspicious bulge and officer stops with no greater coercive action used were weakened by the effect of concentrated disadvantage. That is, a suspect stopped for these reasons in a disadvantaged neighborhood was more likely to experience greater coercive action, compared to suspects stopped for these reasons in an affluent neighborhood. However, the relationship between the suspect being stopped for acting as a lookout or other reasonable suspicion of criminal activity and no greater

coercive action used against him were strengthened (amplified) by concentrated disadvantage. In other words, when stopped for either of these two reasons in a disadvantaged neighborhood, the suspect had a lower likelihood of having greater coercive action used against him.

The moderating effects for the extremely disadvantaged model revealed that suspects face a higher likelihood of having no greater coercive action used against him when stopped for carrying a suspicious object, fitting a relevant description, casing a victim or location, acting as a lookout, displaying actions indicative of a drug transaction, displaying actions of engaging in a violent crime, a suspicious bulge, or other reasonable suspicion of criminal activity. Suspects stopped for these reasons in extremely disadvantaged neighborhoods were *less* likely to receive greater coercive action, compared to suspects stopped in neighborhoods not characterized by extreme disadvantage. In both models, disadvantage was not a statistically significant predictor of impacting the relationship between a suspect being stopped for wearing clothes commonly used in a crime or for displaying furtive movements and the officer only stopping the suspect, with no greater coercive action used.

Frisk

Table 5.3 contains the stop-level effects on officer frisks. Nine out of ten of the stop predictors in this model were statistically significant ($p \leq .05$), meaning that the relationships between these nine stop predictors and an officer frisking a suspect varied across neighborhoods. When the suspect was stopped for fitting a relevant description, casing a victim or location, wearing clothes commonly used in a crime, displaying

actions indicative of a drug transaction, furtive movements, actions of engaging in a violent crime, or a suspicious bulge, the odds of the suspect being frisked increased.

Table 5.3 Stop-Level Effects on Officer Frisks

| | Coef. | OR | 95% CI |
|---|---------|-------|---------------|
| Intercept | .190** | 1.209 | 1.184 - 1.236 |
| <u>Stop-level Effects</u> | | | |
| Carrying suspicious object | .031 | 1.032 | 0.989 - 1.077 |
| Fits a relevant description | .506** | 1.659 | 1.621 - 1.697 |
| Casing a victim or location | .094** | 1.098 | 1.077 - 1.120 |
| Acting as a lookout | -.067** | .936 | 0.916 - 0.955 |
| Wearing clothes commonly used in a crime | .347** | 1.414 | 1.368 - 1.463 |
| Actions indicative of a drug transaction | .176** | 1.192 | 1.146 - 1.240 |
| Furtive movements | .739** | 2.095 | 2.057 - 2.133 |
| Actions of engaging in violent crime | .666** | 1.947 | 1.898 - 1.998 |
| Suspicious bulge | 1.599** | 4.947 | 4.806 - 5.092 |
| Other reasonable suspicion of criminal activity | -.284** | .753 | 0.734 - 0.772 |
| <u>Control variables</u> | | | |
| Area under investigation | .125** | 1.133 | 1.107 - 1.160 |
| Area has a high crime incidence | -.109** | .897 | 0.881 - 0.913 |
| Time of day fits crime incidence | .086** | 1.090 | 1.071 - 1.109 |

$N_1 = 654,485$

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

Regarding positive effects, when the suspect was stopped for fitting a relevant description, the odds of being frisked were 1.659 higher than suspects who were stopped for other reasons. The odds of being frisked when the suspect was stopped for casing a victim or location 1.098 higher, compared to suspects who were stopped for reasons other than casing a victim or location. When the suspect was stopped for wearing clothes commonly used in a crime the odds of him being frisked were 1.414 higher than if he was not stopped for wearing clothes commonly used in a crime. Likewise, the odds of a suspect being frisked were 1.192 higher when he was stopped for displaying actions indicative of a drug transaction. Compared to suspects not stopped for furtive movements, suspects who did display these actions had 2.095 higher odds of being frisked. When the suspect was stopped for actions of engaging in a violent crime, the odds of being frisked were 1.947 higher than if he was stopped for not displaying these

actions. Similarly, when the suspect was stopped for a suspicious bulge, the odds of being frisked were 4.947 higher, compared to being stopped for other reasons.

Regarding inverse effects, being stopped for acting as a lookout and other reasonable suspicion of criminal activity were both associated with a lower likelihood of being frisked. When the suspect was stopped for acting as a lookout, his odds of being frisked were .936 lower, compared to being stopped for another reason. And, when the suspect was stopped for other reasonable suspicion of criminal activity, his odds of being frisked were .753 lower, compared to suspects stopped for other reasons. The suspect being stopped for carrying a suspicious object did not have a statistically significant effect on officer frisks.

In terms of control variables, analyses revealed that a suspect who was encountered in a neighborhood that is under investigation (OR = 1.133) or during the time of the day that fit the crime incident (OR = 1.090) have higher odds of being frisked. Conversely, when the suspect was stopped in a high crime neighborhood, the odds of being frisked were .897 lower, compared to suspects stopped in low crime neighborhoods.

Table 5.4 shows the main and moderating effects on officer frisks.²¹ In both the concentrated disadvantage and extreme disadvantage models, results revealed that suspects stopped in neighborhoods with a higher percentage of African-Americans, a higher percentage of Hispanics, a higher percentage of households that are renter-

²¹ Unless otherwise noted, the differences in neighborhood-level predictors between the concentrated disadvantage and extreme disadvantage models were less than .002.

Table 5.4 Main and Moderating Effects on Officer Frisks

| | <u>Concentrated Disadvantage Model</u> | | | <u>Extreme Disadvantage Model</u> | | |
|---|--|-----------|---------------|-----------------------------------|-----------|---------------|
| | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> |
| <u>Stop-level Main Effects (intercept as outcome)</u> | .183** | 1.201 | 1.179 - 1.223 | .183** | 1.200 | 1.179 - 1.222 |
| Percent population African-American | .004** | 1.004 | 1.003 - 1.005 | .004** | 1.004 | 1.003 - 1.004 |
| Percent population Hispanic | .004** | 1.004 | 1.003 - 1.005 | .004** | 1.004 | 1.003 - 1.005 |
| Percent population recent movers | -.003* | .997 | 0.994 - 0.999 | -.003* | .997 | 0.994 - 0.999 |
| Percent population renters | .002** | 1.002 | 1.001 - 1.003 | .002** | 1.002 | 1.001 - 1.003 |
| Disadvantage | .009 | 1.010 | 0.978 - 1.042 | .049 | 1.050 | 0.986 - 1.118 |
| Concentrated immigration | .076** | 1.079 | 1.056 - 1.103 | .078** | 1.081 | 1.058 - 1.105 |
| Control variables | | | | | | |
| Manhattan | .060 | 1.062 | 0.974 - 1.158 | .061 | 1.063 | 0.975 - 1.159 |
| Bronx | .313** | 1.367 | 1.253 - 1.491 | .305** | 1.356 | 1.243 - 1.481 |
| Brooklyn | .012 | 1.012 | 0.935 - 1.096 | .013 | 1.013 | 0.936 - 1.097 |
| Queens | .417** | 1.517 | 1.399 - 1.645 | .415** | 1.514 | 1.398 - 1.639 |
| $N_2 = 2,114$ | | | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | | | |
| Level-1 Carrying suspicious object Effect | .044 | 1.045 | 0.999 - 1.094 | .033 | 1.034 | 0.989 - 1.080 |
| x Disadvantage | -.095** | .909 | 0.874 - 0.946 | -.176** | .839 | 0.754 - 0.933 |
| Level-1 Fits a relevant description Effect | .518** | 1.679 | 1.638 - 1.720 | .517** | 1.676 | 1.637 - 1.716 |
| x Disadvantage | -.019 | .982 | 0.962 - 1.002 | -.108** | .898 | 0.846 - 0.953 |
| Level-1 Casing a victim or location Effect | .113** | 1.120 | 1.098 - 1.142 | .102** | 1.108 | 1.086 - 1.130 |
| x Disadvantage | -.095** | .909 | 0.894 - 0.925 | -.176** | .839 | 0.796 - 0.883 |
| Level-1 Acting as a lookout Effect | -.055** | .946 | 0.926 - 0.967 | -.064** | .938 | 0.919 - 0.958 |
| x Disadvantage | -.086** | .918 | 0.901 - 0.935 | -.161** | .851 | 0.808 - 0.896 |
| Level-1 Wearing clothes commonly used in a crime Effect | .346** | 1.413 | 1.361 - 1.468 | .348** | 1.416 | 1.367 - 1.467 |
| x Disadvantage | .009 | 1.009 | 0.979 - 1.040 | -.018 | .982 | 0.909 - 1.061 |
| Level-1 Actions indicative of a drug transaction Effect | .206** | 1.229 | 1.178 - 1.282 | .183** | 1.201 | 1.152 - 1.251 |
| x Disadvantage | -.166** | .847 | 0.818 - 0.877 | -.361** | .697 | 0.643 - 0.756 |
| Level-1 Furtive movements Effect | .753** | 2.124 | 2.083 - 2.164 | .754** | 2.126 | 2.087 - 2.166 |
| x Disadvantage | .015 | 1.015 | 0.999 - 1.030 | .007 | 1.007 | 0.966 - 1.051 |
| Level-1 Actions of engaging in violent crime Effect | .685** | 1.983 | 1.929 - 2.039 | .680** | 1.974 | 1.923 - 2.027 |
| x Disadvantage | -.027* | .974 | 0.951 - 0.997 | -.068* | .934 | 0.876 - 0.997 |
| Level-1 Suspicious bulge Effect | 1.677** | 5.350 | 5.167 - 5.539 | 1.650** | 5.208 | 5.048 - 5.372 |
| x Disadvantage | -.105** | .900 | 0.877 - 0.924 | -.246** | .782 | 0.733 - 0.834 |

| | | | | | | |
|--|---------|------|---------------|---------|------|---------------|
| Level-1 Other reasonable suspicion of criminal activity Effect | -.277** | .758 | 0.739 - 0.778 | -.285** | .752 | 0.733 - 0.772 |
| x Disadvantage | -.065** | .937 | 0.916 - 0.958 | -.164** | .849 | 0.796 - 0.905 |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

occupied, or higher levels of concentrated immigration were more likely to be frisked, compared to suspects stopped in neighborhoods with lower levels of these population. For these positive effects, a suspect stopped in a neighborhood characterized by a higher percentage of African-Americans and Hispanics had 1.004 higher odds of being frisked. When a suspect was stopped in a neighborhood with a higher percentage of renters, the odds of being frisked were 1.002 higher, compared to neighborhoods with a higher percentage of home owners. Lastly, suspects stopped in neighborhoods with higher levels of concentrated immigration had 1.079 higher odds of being frisked.

Regarding the negative effects, in both the concentrated disadvantage and extreme disadvantage models, the odds of a suspect being frisked were .997 lower when the suspect was stopped in a neighborhood with a higher percentage of recent movers. The effect of concentrated disadvantage and extreme disadvantage was not a statistically significant predictor of officer frisks. Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in the Bronx had 1.367 higher odds of being frisked, while suspects stopped in Queens had 1.517 higher odds of being frisked. Manhattan and Brooklyn did not reveal a statistically significant difference in officer frisks from Staten Island.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and a suspect being frisked was examined. Results revealed that the relationship between the suspect being stopped for carrying a suspicious object,

fitting a relevant description,²² casing a victim or location, acting as a lookout, displaying actions indicative of a drug transaction, displaying actions indicative of violent crime, a suspicious bulge, or other reasonable suspicion of criminal activity and being frisked was weakened in disadvantaged and extremely disadvantaged neighborhoods. Neighborhood disadvantage, however, did not impact the relationship between officer frisks and the suspect being stopped for wearing clothes commonly used in a crime or for being stopped for furtive movements.

Search

Table 5.5 contains the stop-level effects on officer searches. All of the stop

Table 5.5 Stop-Level Effects on Officer Searches

| | Coef. | OR | 95% CI |
|---|----------|-------|---------------|
| Intercept | -1.758** | 0.172 | 0.171 - 0.174 |
| Stop-level Effects | | | |
| Carrying suspicious object | .536** | 1.709 | 1.653 - 1.766 |
| Fits a relevant description | .307** | 1.360 | 1.339 - 1.381 |
| Casing a victim or location | -.047** | .954 | 0.943 - 0.966 |
| Acting as a lookout | .018* | 1.018 | 1.005 - 1.031 |
| Wearing clothes commonly used in a crime | .182** | 1.200 | 1.172 - 1.229 |
| Actions indicative of a drug transaction | .406** | 1.501 | 1.463 - 1.539 |
| Furtive movements | .126** | 1.134 | 1.121 - 1.147 |
| Actions of engaging in violent crime | .162** | 1.176 | 1.155 - 1.197 |
| Suspicious bulge | .640** | 1.897 | 1.842 - 1.952 |
| Other reasonable suspicion of criminal activity | .180** | 1.197 | 1.178 - 1.216 |
| Control variables | | | |
| Area under investigation | .121** | 1.129 | 1.112 - 1.146 |
| Area has a high crime incidence | -.055** | .947 | 0.935 - 0.958 |
| Time of day fits crime incidence | -.053** | .948 | 0.938 - 0.959 |
| $N_1 = 654,485$ | | | |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

²² Concentrated disadvantage did not moderate the relationship between the suspect being stopped for fitting a relevant description and being frisked.

predictors in this model were statistically significant ($p \leq .05$), meaning that the relationships between the stop predictors and an officer searching a suspect varied across neighborhoods. When the suspect was stopped for carrying a suspicious object, fitting a relevant description, acting as a lookout, wearing clothes commonly used in a crime, displaying actions indicative of a drug transaction, furtive movements, actions of engaging in a violent crime, a suspicious bulge, or other reasonable suspicion of criminal activity, the odds of the suspect being searched increased.

Regarding positive effects, when the suspect was stopped for carrying a suspicious object, he had 1.709 higher odds of being searched, compared to a suspect stopped for another reason. The suspect being stopped for fitting a relevant description increased the odds of being searched by 1.36. The odds of being searched when the suspect was stopped for acting as a lookout casing was 1.018 higher, compared to suspects who were stopped for reasons other than acting as a lookout. When the suspect was stopped for wearing clothes commonly used in a crime the odds of him being searched were 1.2 higher than if he was stopped for not wearing clothes commonly used in a crime. Likewise, the odds of a suspect being searched were 1.501 higher when he was stopped for displaying actions indicative of a drug transaction. Compared to suspects stopped for not displaying furtive movements, suspects who did display these actions had 1.134 higher odds of being searched. When the suspect was stopped for actions of engaging in a violent crime, the odds of being searched were 1.176 higher than if he was stopped for not displaying these actions. Similarly, when the suspect was stopped for a suspicious bulge, the odds of being searched were 1.897 higher, compared to being stopped for other reasons. Lastly, when the suspect was stopped for other reasonable

suspicion of criminal activity, the odds of being searched were 1.197 higher, compared to being stopped for another reason.

Conversely, inverse effects showed that when the suspect was stopped for casing a victim or location, his odds of being searched were .954 lower, compared to being stopped for another reason. In terms of control variables, analyses revealed that a suspect who was stopped in a neighborhood that is under investigation had 1.129 higher odds of being searched. On the other hand, when the suspect was stopped in a high crime neighborhood (OR = .947) or during the time of the day that fits the crime incident (OR = .948), the odds of being searched lowered.

Table 5.6 shows the main and moderating effects on officer searches.²³ In both the concentrated disadvantage and extreme disadvantage models, results revealed that suspects stopped in a neighborhood with a higher percentage of African-Americans (OR = .999) or a higher percentage of Hispanics (OR = .999) had lower odds of being searched, compared to suspects stopped in neighborhoods with lower levels of these populations. The effect of concentrated disadvantage was not a statistically significant predictor of officer searches, while extreme disadvantage lowered the odds of a suspect being searched (OR = .963). All other neighborhood-level predictors were not statistically significant predictors of officer searches.

Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in Brooklyn had

²³ Main effects for the concentrated disadvantage and the extreme disadvantage model most often revealed the same results on all neighborhood-level predictors, except for disadvantage.

Table 5.6 Main and Moderating Effects on Officer Searches

| | <u>Concentrated Disadvantage Model</u> | | | <u>Extreme Disadvantage Model</u> | | |
|---|--|-------|---------------|-----------------------------------|-------|---------------|
| | Coef. | OR | 95% CI | Coef. | OR | 95% CI |
| <u>Stop-level Main Effects (intercept as outcome)</u> | -1.796** | .166 | 0.164 - 0.168 | -1.797** | .166 | 0.164 - 0.167 |
| Percent population African-American | -.001** | .999 | 0.999 - 1.000 | -.001** | .999 | 0.998 - 1.000 |
| Percent population Hispanic | -.001* | .999 | 0.999 - 1.000 | -.001* | .999 | 0.999 - 0.999 |
| Percent population recent movers | -.001 | .999 | 0.996 - 1.002 | -.001 | .999 | 0.996 - 1.002 |
| Percent population renters | .002 ¹ | 1.000 | 0.999 - 1.001 | -.001 | .999 | 0.998 - 1.001 |
| Disadvantage | .001 ¹ | 1.000 | 0.963 - 1.039 | -.038* | .963 | 0.928 - 0.998 |
| Concentrated immigration | .010 | 1.010 | 0.980 - 1.021 | .009 | 1.009 | 0.985 - 1.034 |
| Control variables | | | | | | |
| Manhattan | .036 | 1.037 | 0.980 - 1.097 | .030 | 1.030 | 0.974 - 1.090 |
| Bronx | -.032 | .968 | 0.916 - 1.023 | -.025 | .976 | 0.923 - 1.032 |
| Brooklyn | -.132** | .876 | 0.834 - 0.921 | -.136** | .873 | 0.831 - 0.917 |
| Queens | .152** | 1.164 | 1.106 - 1.224 | .149** | 1.160 | 1.103 - 1.220 |
| $N_2 = 2,114$ | | | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | | | |
| Level-1 Carrying suspicious object Effect | .585** | 1.795 | 1.733 - 1.860 | .583** | 1.791 | 1.731 - 1.852 |
| x Disadvantage | -.005 | .995 | 0.964 - 1.028 | .043 | 1.044 | 0.956 - 1.141 |
| Level-1 Fits a relevant description Effect | .338** | 1.402 | 1.378 - 1.425 | .333** | 1.395 | 1.372 - 1.418 |
| x Disadvantage | -.043** | .958 | 0.945 - 0.971 | -.090** | .914 | 0.880 - 0.949 |
| Level-1 Casing a victim or location Effect | -.071** | .931 | 0.919 - 0.943 | -.071** | .932 | 0.920 - 0.943 |
| x Disadvantage | .010 | 1.010 | 0.999 - 1.022 | .044* | 1.045 | 1.013 - 1.078 |
| Level-1 Acting as a lookout Effect | .054** | 1.056 | 1.042 - 1.070 | .051** | 1.053 | 1.039 - 1.067 |
| x Disadvantage | -.009 | .991 | 0.979 - 1.003 | .026 | 1.027 | 0.990 - 1.064 |
| Level-1 Wearing clothes commonly used in a crime Effect | .228** | 1.256 | 1.223 - 1.290 | .223** | 1.250 | 1.219 - 1.282 |
| x Disadvantage | -.035** | .966 | 0.946 - 0.987 | -.128** | .880 | 0.835 - 0.927 |
| Level-1 Actions indicative of a drug transaction Effect | .455** | 1.576 | 1.531 - 1.621 | .452** | 1.572 | 1.531 - 1.614 |
| x Disadvantage | -.016 | .984 | 0.962 - 1.007 | -.054* | .947 | 0.897 - 1.000 |
| Level-1 Furtive movements Effect | .119** | 1.126 | 1.112 - 1.140 | .114** | 1.120 | 1.107 - 1.134 |
| x Disadvantage | -.050** | .952 | 0.941 - 0.962 | -.126** | .881 | 0.857 - 0.906 |
| Level-1 Actions of engaging in violent crime Effect | .211** | 1.235 | 1.211 - 1.260 | .216** | 1.241 | 1.219 - 1.264 |
| x Disadvantage | .026* | 1.026 | 1.009 - 1.043 | .081** | 1.084 | 1.036 - 1.135 |
| Level-1 Suspicious bulge Effect | .759** | 2.136 | 2.057 - 2.218 | .719** | 2.051 | 1.988 - 2.117 |
| x Disadvantage | -.120** | .887 | 0.862 - 0.913 | -.210** | .811 | 0.767 - 0.857 |

| | | | | | | |
|--|--------|-------|---------------|--------|-------|---------------|
| Level-1 Other reasonable suspicion of criminal activity Effect | .212** | 1.236 | 1.214 - 1.257 | .217** | 1.242 | 1.222 - 1.263 |
| x Disadvantage | .034** | 1.035 | 1.020 - 1.050 | .085** | 1.089 | 1.045 - 1.134 |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio; 1 = coefficients have been multiplied by 10.

.876 (.973 for extreme disadvantage model) lower odds of being searched, while suspects stopped in Queens had 1.164 higher odds of being searched. Manhattan and the Bronx did not reveal a statistically significant difference in officer searches from Staten Island.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and a suspect being searched was examined. Results revealed that the relationship between the suspect being stopped for fitting a relevant description, wearing clothes commonly used in a crime, furtive movements, or a suspicious bulge and being searched was weakened in disadvantaged and extremely disadvantaged neighborhoods.

On the contrary, neighborhood disadvantage strengthened the relationship between a suspect being search and a suspect being stopped for casing a victim or location, displaying actions indicative of a violent crime, or other reasonable suspicion of criminal activity. Neighborhood disadvantage, however, did not impact the relationship between officer searches and the suspect being stopped for carrying a suspicious object, acting as a lookout, or displaying actions indicative of a drug transaction.

Use of Force

Table 5.7 contains the stop-level effects on officer use of force. Nine out of ten of the stop predictors in this model were statistically significant ($p \leq .05$), meaning that the relationships between these nine stop predictors and an officer using force against a suspect varied across neighborhoods. When the suspect was stopped for carrying a suspicious object, fitting a relevant description, casing a victim or location, wearing clothes commonly used in a crime, displaying actions indicative of a drug transaction, furtive movements, actions of engaging in a violent crime, a suspicious bulge, or other

Table 5.7 Stop-Level Effects on Officer Use of Force

| | Coef. | OR | 95% CI |
|---|--------------|-----------|---------------|
| Intercept | -1.289** | .276 | 0.271 - 0.281 |
| <u>Stop-level Effects</u> | | | |
| Carrying suspicious object | .152** | 1.164 | 1.127 - 1.203 |
| Fits a relevant description | .306** | 1.358 | 1.334 - 1.383 |
| Casing a victim or location | .058** | 1.059 | 1.043 - 1.076 |
| Acting as a lookout | .003 | 1.003 | 0.988 - 1.018 |
| Wearing clothes commonly used in a crime | .204** | 1.226 | 1.187 - 1.267 |
| Actions indicative of a drug transaction | .156** | 1.169 | 1.138 - 1.201 |
| Furtive movements | .302** | 1.353 | 1.332 - 1.374 |
| Actions of engaging in violent crime | .398** | 1.490 | 1.454 - 1.526 |
| Suspicious bulge | .691** | 1.995 | 1.935 - 2.058 |
| Other reasonable suspicion of criminal activity | .041** | 1.041 | 1.022 - 1.061 |
| <u>Control variables</u> | | | |
| Area under investigation | .123** | 1.130 | 1.107 - 1.154 |
| Area has a high crime incidence | -.042** | .959 | 0.944 - 0.974 |
| Time of day fits crime incidence | -.020* | .980 | 0.965 - 0.996 |
| $N_1 = 654,485$ | | | |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

reasonable suspicion of criminal activity, the odds of the suspect having force used against him increased.

Regarding positive effects, when the suspect was stopped for carrying a suspicious object, the odds of the officer using force against the suspect was 1.164 higher than if he was stopped for another reason. When the suspect was stopped for fitting a relevant description, the odds of having force used against him were 1.358 higher than suspects who were stopped for other reasons. The odds of being the recipient of police use of force when stopped for casing a victim or location were 1.059 higher, compared to suspects who were stopped for reasons other than casing a victim or location. When the suspect was stopped for wearing clothes commonly used in a crime the odds of him having force used against him were 1.226 higher than if he was not stopped for wearing clothes commonly used in a crime. Likewise, the odds of a suspect having force used against him were 1.169 higher when he was stopped for displaying actions indicative of a drug transaction. Compared to suspects not stopped for furtive movements, suspects who

did display these actions had 1.353 higher odds of having force used against him. When the suspect was stopped for actions of engaging in a violent crime, the odds of having force used against him were 1.49 higher than if he was stopped for other reasons.

Compared to suspects not stopped for a suspicious bulge, suspects who did display these actions had 1.995 higher odds of having force used against him. When the suspect was stopped for other reasonable suspicion of criminal activity, the odds of being the recipient of police use of force were 1.041 higher, compared to being stopped for other reasons.

The suspect being stopped for acting as a lookout did not have a statistically significant effect on officer use of force. In terms of control variables, analyses revealed that a suspect who was encountered in a neighborhood that is under investigation have 1.130 higher odds of having force used against him. When the suspect was stopped in a high crime area (.959) or during the time of the day that fit the crime incident (.980) he has lower odds of being the recipient of police use of force.

Table 5.8 shows the main and moderating effects on officer use of force.²⁴ In both the concentrated disadvantage and extreme disadvantage models, results revealed that suspects stopped in neighborhoods with a higher percentage of African-Americans, a higher percentage of Hispanics, or higher levels of concentrated immigration were more likely to have force used against them, compared to suspects stopped in neighborhoods with lower levels of these populations.

²⁴ Main effects for the concentrated disadvantage and the extreme disadvantage model most often revealed the same results on all neighborhood-level predictors, except for disadvantage. There were a few cases where the odds ratios for the predictors differed between the models. Unless otherwise noted, the differences in neighborhood-level variables between the models were less than .002.

Table 5.8 Main and Moderating Effects on Officer Use of Force

| | <u>Concentrated Disadvantage Model</u> | | | <u>Extreme Disadvantage Model</u> | | |
|---|--|-----------|---------------|-----------------------------------|-----------|---------------|
| | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> |
| <u>Stop-level Main Effects (intercept as outcome)</u> | -1.319** | .267 | 0.263 - 0.272 | -1.319** | .267 | 0.263 - 0.272 |
| Percent population African-American | .004** | 1.004 | 1.004 - 1.005 | .004** | 1.004 | 1.003 - 1.005 |
| Percent population Hispanic | .005** | 1.005 | 1.004 - 1.006 | .004** | 1.004 | 1.003 - 1.005 |
| Percent population recent movers | .001 | 1.001 | 0.998 - 1.003 | .001 | 1.001 | 0.999 - 1.004 |
| Percent population renters | -.001 | .999 | 0.998 - 1.000 | -.001* | .999 | 0.998 - 1.000 |
| Disadvantage | -.035* | .966 | 0.935 - 0.998 | .011 | 1.012 | 0.942 - 1.086 |
| Concentrated immigration | .099** | 1.104 | 1.084 - 1.124 | .097** | 1.102 | 1.083 - 1.122 |
| Control variables | | | | | | |
| Manhattan | .217** | 1.242 | 1.152 - 1.339 | .233** | 1.263 | 1.173 - 1.360 |
| Bronx | .293** | 1.340 | 1.238 - 1.452 | .275** | 1.316 | 1.215 - 1.426 |
| Brooklyn | -.104* | .901 | 0.844 - 0.962 | -.095* | .909 | 0.852 - 0.970 |
| Queens | -.044 | .957 | 0.897 - 1.022 | -.025 | .975 | 0.916 - 1.039 |
| $N_2 = 2,114$ | | | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | | | |
| Level-1 Carrying suspicious object Effect | .163** | 1.177 | 1.136 - 1.218 | .157** | 1.170 | 1.132 - 1.210 |
| x Disadvantage | -.038* | .963 | 0.933 - 0.994 | -.093* | .911 | 0.833 - 0.998 |
| Level-1 Fits a relevant description Effect | .321** | 1.378 | 1.352 - 1.405 | .317** | 1.373 | 1.347 - 1.399 |
| x Disadvantage | -.031** | .969 | 0.953 - 0.985 | -.108** | .897 | 0.857 - 0.939 |
| Level-1 Casing a victim or location Effect | .074** | 1.077 | 1.059 - 1.094 | .070** | 1.072 | 1.055 - 1.089 |
| x Disadvantage | -.030** | .970 | 0.956 - 0.985 | -.060* | .942 | 0.899 - 0.987 |
| Level-1 Acting as a lookout Effect | .015 | 1.015 | 0.999 - 1.031 | .012 | 1.012 | 0.996 - 1.027 |
| x Disadvantage | -.021* | .979 | 0.966 - 0.993 | -.025 | .976 | 0.937 - 1.016 |
| Level-1 Wearing clothes commonly used in a crime Effect | .216** | 1.241 | 1.199 - 1.285 | .217** | 1.242 | 1.201 - 1.284 |
| x Disadvantage | -.001 | .999 | 0.971 - 1.028 | .011 | 1.011 | 0.931 - 1.098 |
| Level-1 Actions indicative of a drug transaction Effect | .192** | 1.211 | 1.176 - 1.247 | .180** | 1.197 | 1.164 - 1.231 |
| x Disadvantage | -.076** | .927 | 0.905 - 0.949 | -.187** | .830 | 0.781 - 0.882 |
| Level-1 Furtive movements Effect | .316** | 1.371 | 1.349 - 1.394 | .314** | 1.369 | 1.347 - 1.391 |
| x Disadvantage | -.025** | .975 | 0.961 - 0.990 | -.070** | .933 | 0.896 - 0.971 |
| Level-1 Actions of engaging in violent crime Effect | .395** | 1.484 | 1.447 - 1.522 | .404** | 1.498 | 1.462 - 1.535 |
| x Disadvantage | .042** | 1.043 | 1.020 - 1.067 | .075* | 1.078 | 1.010 - 1.151 |
| Level-1 Suspicious bulge Effect | .721** | 2.057 | 1.982 - 2.136 | .715** | 2.045 | 1.979 - 2.113 |
| x Disadvantage | -.049** | .952 | 0.925 - 0.980 | -.178** | .837 | 0.783 - 0.894 |

| | | | | | | |
|--|--------|-------|---------------|---------|-------|---------------|
| Level-1 Other reasonable suspicion of criminal activity Effect | .030* | 1.030 | 1.010 - 1.051 | .030* | 1.030 | 1.011 - 1.050 |
| x Disadvantage | -.020* | .981 | 0.964 - 0.998 | -.099** | .906 | 0.862 - 0.952 |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

Regarding positive effects, a suspect stopped in a neighborhood characterized by a higher percentage of African-Americans had 1.004 higher odds of being the recipient of force and in a Hispanic neighborhood, the odds were 1.005 higher. When a suspect was stopped in a neighborhood with higher levels of concentrated immigration, his odds of having force used against him increased by 1.104 compared to neighborhoods with lower levels of concentrated immigration. Inverse effects were also apparent. In the concentrated disadvantage model, a suspect stopped in a more disadvantaged area had .966 lower odds of having force used against him, while the effect of was not significant in the extreme disadvantage model. Further, the suspect being stopped in a neighborhood characterized by higher percentages of recent movers or renters did not impact an officer's use of force in either the concentrated disadvantage or extreme disadvantage models.

Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in Manhattan had 1.242 (1.263 for extreme disadvantage model) higher odds of having force used against him, while suspects stopped in the Bronx had 1.34 (1.316 for extreme disadvantage model) higher odds of having force used against him. Suspects stopped in Brooklyn had .901 (.909 in extreme disadvantage model) lower odds of being the recipient of police use of force, compared to Staten Island. Queens did not reveal a statistically significant difference in officer use of force from Staten Island.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and a suspect being the recipient of police use of force was examined. Results revealed that the relationship between the suspect being stopped for

carrying a suspicious object, fitting a relevant description, casing a victim or location, acting as a lookout,²⁵ displaying actions indicative of a drug transaction, or a suspicious bulge and being the recipient of police use of force was weakened in disadvantaged and extremely disadvantaged neighborhoods.

On the contrary, neighborhood disadvantage strengthened the relationship between a suspect being the recipient of police use of force and a suspect being stopped for displaying actions indicative of a violent crime. Neighborhood disadvantage, however, did not impact the relationship between police use of force and the suspect being stopped for wearing clothes commonly used in a crime.

Arrest

Table 5.9 contains the stop-level effects on officer arrests. Eight out of ten of the

Table 5.9 Stop-Level Effects on Officer Arrests

| | Coef. | OR | 95% CI |
|---|----------|-------|---------------|
| Intercept | -1.873** | .154 | (0.152,0.155) |
| <u>Stop-level Effects</u> | | | |
| Carrying suspicious object | .562** | 1.755 | (1.699,1.813) |
| Fits a relevant description | .382** | 1.465 | (1.442,1.488) |
| Casing a victim or location | -.028** | .973 | (0.963,0.982) |
| Acting as a lookout | .008 | 1.008 | (0.999,1.017) |
| Wearing clothes commonly used in a crime | .119** | 1.126 | (1.106,1.147) |
| Actions indicative of a drug transaction | .526** | 1.693 | (1.647,1.740) |
| Furtive movements | -.002 | .998 | (0.989,1.006) |
| Actions of engaging in violent crime | .145** | 1.157 | (1.141,1.173) |
| Suspicious bulge | .132** | 1.142 | (1.123,1.160) |
| Other reasonable suspicion of criminal activity | .238** | 1.269 | (1.251,1.287) |
| <u>Control variables</u> | | | |
| Area under investigation | .061** | 1.063 | (1.050,1.076) |
| Area has a high crime incidence | -.069** | .933 | (0.925,0.941) |
| Time of day fits crime incidence | .012* | 1.012 | (1.003,1.020) |

*N*₁ = 654,485
 NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

²⁵ The relationship between the suspect acting as a lookout and being the recipient of police use of force was not moderated by extreme disadvantage.

stop predictors in this model were statistically significant ($p \leq .05$), meaning that the relationships between these eight stop predictors and an officer arresting a suspect varied across neighborhoods. When the suspect was stopped for carrying a suspicious object, fitting a relevant description, wearing clothes commonly used in a crime, displaying actions indicative of a drug transaction, displaying actions of engaging in a violent crime, a suspicious bulge, or other reasonable suspicion of criminal activity, the odds of the suspect being arrested increased.

Regarding positive effects, when the suspect was stopped for carrying a suspicious object, the odds of being arrested were 1.755 higher than suspects who were stopped for other reasons. The odds of being arrested when the suspect was stopped for fitting a relevant description were 1.465 higher, compared to suspects who were stopped for reasons other than fitting a relevant description. When the suspect was stopped for wearing clothes commonly used in a crime the odds of him being arrested were 1.126 higher than if he was not stopped for wearing clothes commonly used in a crime. Likewise, the odds of a suspect being arrested were 1.693 higher when he was stopped for displaying actions indicative of a drug transaction. When the suspect was stopped for actions of engaging in a violent crime, the odds of being arrested were 1.157 higher than if he was stopped for not displaying these actions. Similarly, when the suspect was stopped for a suspicious bulge, the odds of being arrested were 1.142 higher, compared to being stopped for other reasons. And, the odds of a suspect being arrested were 1.269 higher when he was stopped for other reasonable suspicion of criminal activity.

Conversely, inverse effects showed that when the suspect was stopped for casing a victim or location, his odds of being arrested were .973 lower, compared to being

stopped for reasons other than casing a victim or location. The suspect being stopped for acting as a lookout and furtive movements did not have a statistically significant effect on officer arrests.

In terms of control variables, analyses revealed that a suspect who was encountered in a neighborhood that is under investigation (OR = 1.063) or during the time of the day that fit the crime incident (OR = 1.012) had higher odds of being arrested. However, when the suspect was stopped in a high crime neighborhood, the odds of being arrested were .993 lower, compared to suspects stopped in low crime neighborhoods.

Table 5.10 shows the main and moderating effects on officer arrests. In both the concentrated disadvantage and extreme disadvantage models, results revealed that suspects stopped in a neighborhood with a higher percentage of African-Americans or a higher percentage of Hispanics were *less* likely to be arrested, compared to suspects stopped in a neighborhood with lower levels of these populations. A suspect stopped in a neighborhood characterized by a higher percentage of African-Americans had .999 lower odds of being arrested and suspect stopped in a neighborhood with a higher percentage of Hispanics had .998 lower odds of being arrested. A suspect stopped in neighborhoods with higher percentages of recent movers, renters, or higher levels of concentrated immigration did not significantly impact an officer's decision to arrest.

In the concentrated disadvantage model, disadvantage was a statistically significant predictor of officer arrests; suspects stopped in disadvantaged neighborhoods had 1.030 higher odds of being arrested, compared to suspects stopped in more affluent areas. Extreme disadvantage, however, was not a statistically significant predictor of officer arrests; differences in an officer's decision to arrest a suspect in an extremely

Table 5.10 Main and Moderating Effects on Officer Arrests

| | <u>Concentrated Disadvantage Model</u> | | | <u>Extreme Disadvantage Model</u> | | |
|---|--|-------|---------------|-----------------------------------|-------|---------------|
| | Coef. | OR | 95% CI | Coef. | OR | 95% CI |
| <u>Stop-level Main Effects (intercept as outcome)</u> | -1.919** | .147 | 0.146 - 0.148 | -1.918** | .147 | 0.146 - 0.148 |
| Percent population African-American | -.001** | .999 | 0.998 - 0.999 | -.001** | .999 | 0.999 - 0.999 |
| Percent population Hispanic | -.002** | .998 | 0.997 - 0.999 | -.002** | .998 | 0.998 - 0.999 |
| Percent population recent movers | -.001 | .999 | 0.998 - 1.001 | -.001 | .999 | 0.998 - 1.001 |
| Percent population renters | .004 ¹ | 1.000 | 0.999 - 1.000 | .001 ¹ | 1.000 | 0.999 - 1.000 |
| Disadvantage | .029* | 1.030 | 1.010 - 1.051 | .018 | 1.018 | 0.979 - 1.058 |
| Concentrated immigration | -.009 | .991 | 0.979 - 1.002 | -.008 | .993 | 0.981 - 1.004 |
| Control variables | | | | | | |
| Manhattan | .207** | 1.230 | 1.164 - 1.299 | .193** | 1.213 | 1.149 - 1.281 |
| Bronx | .076* | 1.079 | 1.024 - 1.137 | .083* | 1.087 | 1.031 - 1.146 |
| Brooklyn | -.012 | .988 | 0.943 - 1.034 | -.019 | .981 | 0.938 - 1.027 |
| Queens | .171** | 1.187 | 1.133 - 1.244 | .157** | 1.169 | 1.117 - 1.224 |
| $N_2 = 2,114$ | | | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | | | |
| Level-1 Carrying suspicious object Effect | .610** | 1.841 | 1.780 - 1.905 | .610** | 1.841 | 1.781 - 1.902 |
| x Disadvantage | .029 | 1.029 | 0.997 - 1.062 | .133* | 1.142 | 1.040 - 1.253 |
| Level-1 Fits a relevant description Effect | .427** | 1.533 | 1.508 - 1.558 | .424** | 1.528 | 1.504 - 1.553 |
| x Disadvantage | -.061** | .940 | 0.928 - 0.953 | -.159** | .853 | 0.821 - 0.887 |
| Level-1 Casing a victim or location Effect | -.050** | .951 | 0.941 - 0.962 | -.049** | .952 | 0.942 - 0.962 |
| x Disadvantage | -.004 | .996 | 0.986 - 1.005 | .011 | 1.011 | 0.984 - 1.038 |
| Level-1 Acting as a lookout Effect | .043** | 1.044 | 1.033 - 1.054 | .042** | 1.043 | 1.033 - 1.053 |
| x Disadvantage | -.027** | .973 | 0.965 - 0.982 | -.053** | .948 | 0.924 - 0.973 |
| Level-1 Wearing clothes commonly used in a crime Effect | .159** | 1.172 | 1.148 - 1.197 | .159** | 1.173 | 1.150 - 1.196 |
| x Disadvantage | -.018* | .982 | 0.967 - 0.997 | -.055** | .946 | 0.912 - 0.982 |
| Level-1 Actions indicative of a drug transaction Effect | .591** | 1.806 | 1.753 - 1.861 | .590** | 1.805 | 1.755 - 1.856 |
| x Disadvantage | .009 | 1.009 | 0.985 - 1.033 | .020 | 1.020 | 0.957 - 1.088 |
| Level-1 Furtive movements Effect | -.018** | .982 | 0.973 - 0.991 | -.019** | .981 | 0.973 - 0.990 |
| x Disadvantage | -.033** | .968 | 0.959 - 0.976 | -.070** | .933 | 0.911 - 0.955 |
| Level-1 Actions of engaging in violent crime Effect | .178** | 1.194 | 1.176 - 1.213 | .177** | 1.194 | 1.177 - 1.211 |
| x Disadvantage | -.030** | .970 | 0.958 - 0.983 | -.068** | .934 | 0.904 - 0.965 |
| Level-1 Suspicious bulge Effect | .155** | 1.167 | 1.142 - 1.193 | .141** | 1.151 | 1.130 - 1.173 |
| x Disadvantage | -.084** | .919 | 0.906 - 0.933 | -.178** | .837 | 0.811 - 0.863 |

| | | | | | | |
|--|--------|-------|---------------|--------|-------|---------------|
| Level-1 Other reasonable suspicion of criminal activity Effect | .269** | 1.308 | 1.289 - 1.328 | .282** | 1.326 | 1.307 - 1.345 |
| x Disadvantage | .063** | 1.065 | 1.051 - 1.079 | .143** | 1.153 | 1.108 - 1.201 |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio; 1 = coefficient has been multiplied by 10.

disadvantaged neighborhood and a less disadvantaged neighborhood were not apparent. Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in Manhattan had 1.23 (1.213 for extreme disadvantage model) higher odds of being arrested. Likewise, suspects stopped in the Bronx had 1.079 higher odds of being arrested and suspects stopped in Queens had 1.187 (1.169 for extreme disadvantage model) higher odds of being arrested, compared to suspects stopped in Staten Island. Brooklyn did not reveal a statistically significant difference in officer arrests from Staten Island.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and a suspect being arrested was examined. Results revealed that the relationship between the suspect being stopped for fitting a relevant description, acting as a lookout, wearing clothes commonly used in a crime, furtive movements, displaying action indicative of a violent crime, or a suspicious bulge and being arrested was weakened in disadvantaged and extremely disadvantaged neighborhoods.

On the contrary, neighborhood disadvantage strengthened the relationship between a suspect being arrested and a suspect being stopped for other reasonable suspicion of criminal activity. Also, extreme disadvantage strengthened the relationship between a suspect being arrested and a suspect being stopped for carrying a suspicious object. Concentrated disadvantage did not moderate the relationship between a suspect being arrested and a suspect being stopped for carrying a suspicious object, while neither concentrated disadvantage or extreme disadvantage moderated the relationship between a suspect being arrested and the suspect being stopped for casing a victim or location, or being stopped for displaying actions indicative of a drug transaction.

5.2 Coercive Action Continuum

Table 5.11 contains the stop-level effects on the coercive action continuum. All of

Table 5.11 Stop-Level Effects on Coercive Action Continuum

| | Coef. | (SE) |
|---|---------|-------|
| Intercept | 3.040** | (.01) |
| Stop-level Effects | | (.05) |
| Carrying suspicious object | 1.186** | (.02) |
| Fits a relevant description | 1.022** | (.01) |
| Casing a victim or location | -.116** | (.01) |
| Acting as a lookout | -.156** | (.03) |
| Wearing clothes commonly used in a crime | .278** | (.04) |
| Actions indicative of a drug transaction | 1.017** | (.01) |
| Furtive movements | .525** | (.02) |
| Actions of engaging in violent crime | .639** | (.03) |
| Suspicious bulge | 1.379** | (.02) |
| Other reasonable suspicion of criminal activity | .329** | (.01) |
| Control variables | | |
| Area under investigation | .190** | (.02) |
| Area has a high crime incidence | -.230** | (.01) |
| Time of day fits crime incidence | -.059** | (.01) |
| <i>N</i> ₁ = 654,485 | | |

NOTES: ** $p \leq .01$; * $p \leq .05$

the stop predictors in this model were statistically significant ($p \leq .05$), meaning that the relationships between the stop predictors and an officer's decision to use coercion varied across neighborhoods. When the suspect was stopped for carrying a suspicious object, fitting a relevant description, wearing clothes commonly used in a crime, displaying actions indicative of a drug transaction, furtive movements, displaying actions of engaging in a violent crime, a suspicious bulge, or other reasonable suspicion of criminal activity, his likelihood of receiving higher levels of coercive action increased.

Regarding positive effects, the suspect being stopped for carrying a suspicious object was associated with a 1.19 unit increase in the coercive action used against him. The coercive action used against a suspect when stopped for fitting a relevant description increased by 1.02 units. When the suspect was stopped for wearing clothes commonly

used in a crime, he was .28 units higher on the coercive action continuum. Likewise, the suspect being stopped for displaying actions indicative of a drug transaction was associated with a 1.02 unit increase in the coercive action used against him. The coercive action used against a suspect when stopped for furtive movements increased by .53 units. When the suspect was stopped for displaying actions indicative of violent crime, he was .64 units higher on the coercive action continuum. The suspect being stopped for a suspicious bulge was associated with a 1.38 unit increase in the coercive action used against him. And, when the suspect was stopped for other reasonable suspicion of criminal activity, he was .33 units higher on the coercive action continuum.

Conversely, inverse effects showed that being stopped for casing a victim or location or acting as a lookout was associated with a decrease in the amount of coercive action he received. When the suspect was stopped for casing a victim or location, he was .12 units lower on the coercive action continuum. Lastly, when the suspect was stopped for acting as a lookout, he was .16 units lower on the coercive action continuum.

In terms of control variables, analyses revealed that a suspect who was encountered in a neighborhood that is under investigation has a higher likelihood of receiving greater coercive action (.19 unit increase). However, the suspect being stopped in a high crime neighborhood (-.23) or during the time of the day that fit the crime incident (-.059) was associated with a reduction in the coercive action used against him.

Table 5.12 shows the main and moderating effects on the coercive action continuum. In both the concentrated disadvantage and extreme disadvantage models, results revealed a positive association between suspects being stopped in a neighborhood with a higher percentage of African-Americans, a higher percentage of Hispanics, or

Table 5.12 Main and Moderating Effects on Coercive Action Continuum

| | <u>Concentrated Disadvantage Model</u> | | <u>Extreme Disadvantage Model</u> | |
|---|--|-------------|-----------------------------------|-------------|
| | <u>Coef.</u> | <u>(SE)</u> | <u>Coef.</u> | <u>(SE)</u> |
| <u>Stop-level Main Effects (intercept as outcome)</u> | 3.021** | (.01) | 3.021** | (.01) |
| Percent population African-American | .002** | (.001) | .002** | (.0004) |
| Percent population Hispanic | .002* | (.001) | .002* | (.0006) |
| Percent population recent movers | -.002 | (.002) | -.003 | (.002) |
| Percent population renters | .001 | (.001) | .001 | (.0007) |
| Disadvantage | .036 | (.02) | .181** | (.05) |
| Concentrated immigration | .096** | (.01) | .102** | (.01) |
| Control variables | | | | |
| Manhattan | .328** | (.06) | .331** | (.06) |
| Bronx | .332** | (.06) | .302** | (.06) |
| Brooklyn | -.194** | (.05) | -.191** | (.05) |
| Queens | .236** | (.05) | .226** | (.05) |
| $N_2 = 2,114$ | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | |
| Level-1 Carrying suspicious object Effect | 1.197** | (.05) | 1.193** | (.05) |
| x Disadvantage | .004 | (.05) | .206 | (.14) |
| Level-1 Fits a relevant description Effect | 1.058** | (.02) | 1.044** | (.02) |
| x Disadvantage | -.148** | (.02) | -.398** | (.05) |
| Level-1 Casing a victim or location Effect | -.105** | (.01) | -.113** | (.01) |
| x Disadvantage | -.058** | (.01) | -.095* | (.04) |
| Level-1 Acting as a lookout Effect | -.139** | (.01) | -.151** | (.01) |
| x Disadvantage | -.065** | (.01) | -.078* | (.03) |
| Level-1 Wearing clothes commonly used in a crime Effect | .301** | (.03) | .290** | (.03) |
| x Disadvantage | -.073** | (.02) | -.165** | (.06) |
| Level-1 Actions indicative of a drug transaction Effect | 1.053** | (.04) | 1.037** | (.04) |
| x Disadvantage | -.132** | (.04) | -.313** | (.08) |
| Level-1 Furtive movements Effect | .539** | (.01) | .533** | (.01) |
| x Disadvantage | -.064** | (.01) | -.156** | (.03) |
| Level-1 Actions of engaging in violent crime Effect | .642** | (.02) | .642** | (.02) |
| x Disadvantage | -.016 | (.02) | -.020 | (.05) |
| Level-1 Suspicious bulge Effect | 1.482** | (.04) | 1.420** | (.03) |
| x Disadvantage | -.241** | (.03) | -.553** | (.05) |

| | | | | |
|--|--------|-------|--------|-------|
| Level-1 Other reasonable suspicion of criminal activity Effect | .325** | (.02) | .332** | (.02) |
| x Disadvantage | .053* | (.02) | .078 | (.06) |

NOTES: ** $p \leq .01$; * $p \leq .05$

higher levels of concentrated immigration and greater coercive action. For every one percent increase in African-American population or Hispanic population, the suspect's likelihood of receiving greater levels of coercive action increases by .002 units. Similarly, for every one unit increase in concentrated immigration, the suspect's likelihood of receiving greater levels of coercive action increases by .10 units. In both models, a suspect stopped in neighborhoods with higher percentages of recent movers or renters did not significantly impact an officer's decision to use coercion.

In the concentrated disadvantage model, disadvantage was not a statistically significant predictor of officer use of coercion. However, suspects who were encountered in extremely disadvantage neighborhoods had a higher likelihood of receiving greater levels of coercive action (.18 unit increase). Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in Manhattan was associated with a .33 unit increase in the coercive action continuum; suspects stopped in the Bronx increased the level of coercion by .33 units (.30 for extreme disadvantage model); and suspects stopped in Queens increased the level of coercion by .23 units. Suspects encountered in Brooklyn, however, were associated with a .19 unit decrease in the coercive action continuum. Compared to Staten Island, officers in Brooklyn use less serious forms of coercive action when stopping a suspect.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and the coercive action continuum was examined. Results revealed that the relationship between the suspect being stopped for fitting a relevant description, casing a victim or location, acting as a lookout, wearing clothes commonly

used in a crime, displaying actions indicative of a drug transaction, furtive movements, or a suspicious bulge and receiving greater levels of coercive action was weakened in disadvantaged and extremely disadvantaged neighborhoods.

On the contrary, concentrated disadvantage strengthened the relationship between a suspect receiving greater levels of coercive action and a suspect being stopped for other reasonable suspicion of criminal activity. Neighborhood disadvantage did not moderate the relationship between a suspect receiving greater levels of coercive action and the suspect being stopped for carrying a suspicious object or displaying actions indicative of a violent crime. Further, extreme disadvantage did not moderate the relationship between a suspect receiving greater levels of coercive action and the suspect being stopped for other reasonable suspicion of criminal activity.

5.3 Highest Level of Coercive Action Used

Table 5.13 contains the stop-level effects on the highest level of coercion used outcome. Nine out of ten of the stop predictors in this model were statistically significant ($p \leq .05$), meaning that the relationships between these nine stop predictors and an officer's level of coercion varied across neighborhoods. When the suspect was stopped for carrying a suspicious object, fitting a relevant description, wearing clothes commonly used in a crime, displaying actions indicative of a drug transaction, furtive movements, displaying actions of engaging in a violent crime, or a suspicious bulge, the odds of the suspect being in a higher category of coercive action used against him decreased.

When the suspect was stopped for carrying a suspicious object, the odds of being in a higher category of coercion were .641 lower than suspects who were stopped for other reasons. The odds of being in a higher category of coercion when the suspect was

Table 5.13 Stop-Level Effects on Highest Level of Coercion Used Ordinal Outcome

| | Coef. | OR | 95% CI |
|---|--------------|-----------|-----------------|
| Intercept | -.333** | .717 | 0.698 - 0.736 |
| <u>Stop-level Effects</u> | | | |
| Carrying suspicious object | -.444** | .641 | 0.605 - 0.680 |
| Fits a relevant description | -.658** | .518 | 0.505 - 0.531 |
| Casing a victim or location | -.019 | .981 | 0.962 - 1.001 |
| Acting as a lookout | .102** | 1.107 | 1.084 - 1.131 |
| Wearing clothes commonly used in a crime | -.321** | .725 | 0.701 - 0.750 |
| Actions indicative of a drug transaction | -.491** | .612 | 0.583 - 0.642 |
| Furtive movements | -.648** | .523 | 0.513 - 0.534 |
| Actions of engaging in violent crime | -.626** | .535 | 0.522 - 0.548 |
| Suspicious bulge | -1.288** | .276 | 0.268 - 0.284 |
| Other reasonable suspicion of criminal activity | .123** | 1.131 | 1.099 - 1.164 |
| <u>Control variables</u> | | | |
| Area under investigation | -.138** | .871 | 0.850 - 0.892 |
| Area has a high crime incidence | .163** | 1.177 | 1.154 - 1.200 |
| Time of day fits crime incidence | -.021* | .979 | 0.961 - 0.997 |
| <u>Thresholds</u> | | | |
| δ_2 | 1.570** | 4.808 | 4.660 - 4.961 |
| δ_3 | 1.729** | 5.633 | 5.445 - 5.828 |
| δ_4 | 3.478** | 32.403 | 30.234 - 34.727 |
| $N_1 = 654,485$ | | | |

NOTES: ** $p \leq .01$; * $p \leq .05$. OR = Odds Ratio

stopped for fitting a relevant description were .518 lower, compared to suspects who were stopped for reasons other than fitting a relevant description. When the suspect was stopped for wearing clothes commonly used in a crime the odds of him being in a higher category of coercion were .725 lower than if he was not stopped for wearing clothes commonly used in a crime. Likewise, the odds of a suspect being in a higher category of coercion were .612 lower when he was stopped for displaying actions indicative of a drug transaction. When the suspect was stopped for furtive movements, the odds of him being in a higher category of coercion were .523 lower, compared to being stopped for other reasons. When the suspect was stopped for displaying actions of engaging in a violent crime, the odds of being in a higher category of coercion were .535 lower than if he was stopped for not displaying these actions. Similarly, when the suspect was stopped for a

suspicious bulge, the odds of being in a higher category of coercion were .276 lower, compared to being stopped for other reasons.

Conversely, when the suspect was stopped for acting as a lookout, his odds of being in a higher category of coercion were 1.107 higher, compared to being stopped for reasons other than acting as a lookout. And, the odds of a suspect being in a higher category of coercion were 1.131 higher when he was stopped for other reasonable suspicion of criminal activity. The suspect being stopped for casing a victim or location did not have a statistically significant effect on the ordinal outcome. In terms of control variables, analyses revealed that a suspect who was encountered in a neighborhood that is under investigation (OR = .871) or during the time of the day that fit the crime incident (OR = .979) had lower odds of being in a higher category of coercion. However, when the suspect was stopped in a high crime neighborhood, the odds of being in a higher category of coercion were 1.177 higher, compared to suspects stopped in low crime neighborhoods.

Table 5.14 shows the main and moderating effects on the highest level of coercion used outcome.²⁶ In both the concentrated disadvantage and extreme disadvantage models, results revealed that suspects stopped in a neighborhood with a higher percentage of African-Americans, a higher percentage of Hispanics, or higher levels of concentrated immigration were *less* likely to be in a higher category of coercion, compared to suspects

²⁶ Main effects for the concentrated disadvantage and the extreme disadvantage model most often revealed the same results on all neighborhood-level predictors. There were a few cases where the odds ratios for the predictors differed between the models. Unless otherwise noted, the differences in neighborhood-level variables between the models were less than .001.

Table 5.14 Main and Moderating Effects on Highest Level of Coercion Used Ordinal Outcome

| | <u>Concentrated Disadvantage Model</u> | | | <u>Extreme Disadvantage Model</u> | | |
|---|--|-----------|---------------|-----------------------------------|-----------|---------------|
| | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> | <u>Coef.</u> | <u>OR</u> | <u>95% CI</u> |
| <u>Stop-level Main Effects (intercept as outcome)</u> | | | | | | |
| Percent population African-American | -.317** | .728 | .712 - 0.745 | -.317** | .728 | 0.712 - 0.745 |
| Percent population Hispanic | -.004** | .996 | .995 - 0.997 | -.004** | .996 | 0.996 - 0.997 |
| Percent population recent movers | -.004** | .996 | .995 - 0.997 | -.003** | .997 | 0.996 - 0.998 |
| Percent population renters | .002 | 1.002 | .999 - 1.005 | .002 | 1.002 | 0.999 - 1.004 |
| Disadvantage | -.001 | .999 | .998 - 1.000 | .003 ¹ | 1.000 | 0.999 - 1.001 |
| Concentrated immigration | .027 | 1.028 | .994 - 1.062 | .026 | 1.026 | 0.962 - 1.094 |
| Control variables | | | | | | |
| Manhattan | -.109** | .897 | .877 - 0.917 | -.107** | .898 | 0.879 - 0.919 |
| Manhattan | -.179** | .836 | .757 - 0.924 | -.189** | .827 | 0.750 - 0.913 |
| Bronx | -.276** | .759 | .688 - 0.836 | -.272** | .762 | 0.691 - 0.840 |
| Brooklyn | .148** | 1.159 | 1.061 - 1.266 | .142* | 1.152 | 1.056 - 1.258 |
| Queens | -.203** | .816 | .748 - 0.892 | -.216** | .805 | 0.739 - 0.878 |
| $N_2 = 2,114$ | | | | | | |
| <u>Neighborhood-level Moderating Effects (slopes and intercepts as outcome)</u> | | | | | | |
| Level-1 Carrying suspicious object Effect | -.458** | .633 | 0.595 - 0.673 | -.447** | .640 | 0.603 - 0.679 |
| x Disadvantage | .067* | 1.069 | 1.012 - 1.131 | .031 | 1.031 | 0.884 - 1.203 |
| Level-1 Fits a relevant description Effect | -.672** | .510 | 0.497 - 0.524 | -.663** | .516 | 0.502 - 0.529 |
| x Disadvantage | .082** | 1.086 | 1.061 - 1.111 | .222** | 1.248 | 1.169 - 1.333 |
| Level-1 Casing a victim or location Effect | -.033* | .967 | 0.947 - 0.988 | -.022* | .978 | 0.958 - 0.998 |
| x Disadvantage | .076** | 1.079 | 1.060 - 1.098 | .140** | 1.151 | 1.095 - 1.209 |
| Level-1 Acting as a lookout Effect | .087** | 1.091 | 1.067 - 1.115 | .097** | 1.101 | 1.078 - 1.125 |
| x Disadvantage | .068** | 1.070 | 1.050 - 1.091 | .103** | 1.108 | 1.051 - 1.169 |
| Level-1 Wearing clothes commonly used in a crime Effect | -.321** | .725 | 0.697 - 0.755 | -.323** | .724 | 0.699 - 0.751 |
| x Disadvantage | .026 | 1.026 | 0.996 - 1.057 | .083* | 1.087 | 1.009 - 1.170 |
| Level-1 Actions indicative of a drug transaction Effect | -.519** | .595 | 0.565 - 0.627 | -.500** | .607 | 0.577 - 0.638 |
| x Disadvantage | .150** | 1.162 | 1.114 - 1.213 | .339** | 1.403 | 1.271 - 1.549 |
| Level-1 Furtive movements Effect | -.650** | .522 | 0.511 - 0.533 | -.646** | .524 | 0.513 - 0.535 |
| x Disadvantage | .046** | 1.047 | 1.029 - 1.065 | .134** | 1.143 | 1.090 - 1.199 |
| Level-1 Actions of engaging in violent crime Effect | -.622** | .537 | 0.522 - 0.552 | -.618** | .539 | 0.525 - 0.553 |
| x Disadvantage | .030* | 1.031 | 1.008 - 1.054 | .086* | 1.090 | 1.026 - 1.157 |
| Level-1 Suspicious bulge Effect | -1.321** | .267 | 0.257 - 0.277 | -1.277** | .279 | 0.270 - 0.288 |
| x Disadvantage | .172* | 1.188 | 1.155 - 1.221 | .397** | 1.488 | 1.399 - 1.582 |

| | | | | | | |
|--|--------|-------|---------------|--------|-------|---------------|
| Level-1 Other reasonable suspicion of criminal activity Effect | .118** | 1.125 | 1.092 - 1.160 | .120** | 1.128 | 1.096 - 1.160 |
| x Disadvantage | .007 | 1.007 | 0.982 - 1.033 | .035 | 1.035 | 0.959 - 1.117 |

NOTES: ** $p \leq .01$; * $p \leq .05$; 1 = coefficient has been multiplied by 10.

stopped in a neighborhood with lower levels of these populations. A suspect stopped in a neighborhood characterized by a higher percentage of African-Americans and a higher percentage of Hispanics had .996 lower odds of being in a higher category of coercion. The odds of a suspect being in a higher category of coercion were .897 lower when stopped in neighborhoods marked by higher levels of concentrated immigration. A suspect stopped in neighborhoods with higher percentages of recent movers, renters, or higher levels of disadvantage did not significantly impact an officer's decision to use coercion.

Results for control variables at the neighborhood-level revealed similarities between the two models. Compared to Staten Island, a suspect stopped in Manhattan had .836 (.827 for extreme disadvantage model) lower odds of being in a higher category of coercion. Likewise, suspects stopped in the Bronx had .759 (.762 for extreme disadvantage model) lower odds of being in a higher category of coercion and suspects stopped in Queens had .816 (.805 for extreme disadvantage model) lower odds of being arrested, compared to suspects stopped in Staten Island. On the other hand, suspects stopped in Brooklyn faced a 1.159 (1.152 for extreme disadvantage model) higher odds of being in a higher category of coercion, compared to Staten Island.

Next, moderating effects of neighborhood disadvantage on the relationship between each stop predictor and the highest level of coercion used was examined. Results revealed that the relationship between the suspect being in a higher category of coercive action and being stopped for any of the stop predictors listed in the UF-250 report was strengthened by neighborhood disadvantage. There were a few exceptions: concentrated disadvantage did not moderate the relationship between a suspect being in a higher

category of coercive action and being stopped for wearing clothes commonly used in a crime or a suspicious bulge, while extreme disadvantage did not moderate the relationship between a suspect being in a higher category of coercive action and being stopped for carrying a suspicious object or other reasonable suspicion of criminal activity.

CHAPTER 6

DISCUSSION AND CONCLUSION

6.1 Discussion of Results

Researchers have observed that community characteristics are thought to be more statistically consistent in explaining an officer's decision to act coercively, compared to the other conceptual frameworks (situational factors, officer characteristics, and organizational factors) (National Research Council, 2004). Although researchers have uncovered an important link between the structural features of the community and an officer's decision-making behavior (e.g., Kane, 2002; Sun et al., 2008), the role of neighborhood social disorganization applied to police decision-making during street encounters has been understudied. This study attempts to fill this gap by examining the influence of concentrated disadvantage (and extreme disadvantage) on the relationship between the reason for the stop (e.g., suspect fits a relevant description) and an officer's use of coercion that may occur during a PCI (e.g., frisk, search, use of force, or arrest). Two main hypotheses were tested in this study: (1) how the factors of neighborhood disorganization effect an officer's decision to use coercion (main effects) and (2) how neighborhood disadvantage impacts (or moderates) the relationship between the stop predictors and the coercive action the officer uses during the stop. The analyses revealed several patterns, which are discussed below.

Summary of Main Effects

In order to examine the effects of social disorganization on police use of coercion, the contemporary disorganization measures were used in this analysis. Table 6.1 depicts the summary of the main effects of the social disorganization measures on police use of coercion. One notable finding is that there are apparent similarities in communities marked by a higher percentage of African-Americans, a higher percentage of Hispanics, and a higher rate of concentrated immigration. Generally speaking, suspects stopped in communities with higher levels of these populations were more likely to be frisked, to be the recipient of police use of force, and to be on the more coercive end of the coercive action continuum. They were, however, *less* likely to be searched, arrested, and to be in a higher category of coercive action.²⁷

Although this study did not specifically analyze the individual-level effect of the suspect's race on police use of coercion, it can be seen that police are more active in communities characterized by higher amounts of minority populations. These results seem to provide support for arguments that police may be threatened by increases in minority populations. Some researchers would argue that the components of conflict theory, racial discrimination, racial profiling, institutional racism, and racial threat are apparent in the NYPD, where officers impose increased social controls on minorities in order to keep them powerless (see e.g., Eitle, 2002; Link and Phelan, 2001; Trone, 2010; Walker et al., 2000). Findings from this study are consistent with the findings from past

²⁷ Concentrated immigration was not a statistically significant predictor of officer searches or arrests

Table 6.1 Summary of Main Effects – Likelihood of Receiving Coercive Action

| Predictors | Greater Coer. | | Frisk | | Search | | Use of force | | Arrest | | Continuum | | Highest level | |
|------------|---------------|------|-------|------|--------|------|--------------|------|--------|------|-----------|------|---------------|------|
| | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD |
| % AfrAm. | + | + | + | + | - | - | + | + | - | - | + | + | - | - |
| % Hisp. | + | + | + | + | - | - | + | + | - | - | + | + | - | - |
| % Movers | - | - | - | - | | | | | | | | | | |
| % Renters | + | + | + | + | | | | - | | | | | | |
| Disadvant. | | + | | | | - | - | | + | | | + | | |
| Immigrat. | + | + | + | + | | | + | + | | | + | + | - | - |

NOTES: Predictors' names have been shortened. CD = Concentrated disadvantage model; ExCD = Extreme disadvantage model. - = decreased likelihood of coercive action; + = increased likelihood of coercive action. To keep consistency of the interpretation of the table, the stop only column has been reversed to greater coercive action (i.e., + = the likelihood a suspect received greater coercive action increased).

studies examining racial discrimination within the NYPD, stating that minorities are stopped and frisked at a much higher rate than whites, while controlling for other factors (Fagan, 2012; Gelman et al., 2007); findings also contradict Lee et al.'s conclusions (2010) that police use of force is not related to the community's percent of minority population.

Although suspects stopped in neighborhoods characterized by higher levels of minorities are more likely to be frisked and be the recipients of police use of force, they face lower odds of being searched and arrested. Officers may be more willing to frisk and use force against suspects encountered in these communities, potentially because the laws outlining these actions are less explicit than search and arrest, where the law states a specific need for probable cause. It seems that there may be a point where the law steps in to prevent outright discrimination and avert further punitive action against minorities, what several court rulings (e.g., *Terry v. Ohio*; *Tennessee v. Garner*) were designed to accomplish.

Contrary to the view that NYPD officers are discriminatory toward suspects encountered in areas with higher levels of minorities, some researchers would argue that police are choosing their targets based on patterns of criminal activity and the "typical" offender (Smith et al., 2006). For example, Fagan and Davies (2000) explained that racial profiling is often based on the officer's prior knowledge and reasonable suspicion; therefore, some would argue that results for this study may be explained by officers simply doing their job based on their past experiences and knowledge of crime patterns.

Turning our attention to the residential instability component of social disorganization, recall that scholars often use the community's percentage of recent

movers and the percentage of renters in an index that represents the unstable environment that may be associated with higher levels of criminal activity (Sampson et al., 1997). These two variables were included separately in this analysis because they did not load on the same factor; analyses of these variables revealed contradictory findings. Suspects stopped in neighborhoods marked by a higher percentage of recent movers were *less* likely to be stopped and frisked, while suspects stopped in neighborhoods marked by a higher percentage of renters were *more* likely to be stopped and frisked. It may be that in New York City, moving residences is more commonplace and officers do not see this as an indicator or predictor of problem behaviors or criminal activity, while lower rates of home ownership remains a predictor of problem behaviors (see Brooks-Gunn et al., 1993).

The main focus of this study, neighborhood disadvantage, was used to represent a community's social and economic indicators (see Land et al., 1990). Results revealed that neighborhood disadvantage (and extreme disadvantage) was not a statistically significant predictor of police coercive action in many instances. Although, results did reveal that suspects encountered in disadvantaged areas were less likely to have force used against them and more likely to be arrested, while suspects encountered in extremely disadvantaged areas were less likely to be searched and more likely to be on the higher end of the coercive action continuum. In hindsight it does not seem that neighborhood disadvantage plays a substantial role in predicting an officer's use of coercive action; however, moderating effects tell a different story.

Summary of Moderating Effects

Table 6.2 provides a summary of the effects of concentrated disadvantage and extreme disadvantage on the relationship between each stop predictor and each outcome. Concentrated disadvantage and extreme disadvantage had the same directional impact (e.g., strengthening or weakening) on the relationship between each stop predictor and each outcome. There were a few instances when one of the models had a statistically significant impact (e.g., concentrated disadvantage), yet the other model did not (e.g., extreme disadvantage). Regardless, a few overall patterns emerged.

The general pattern of the moderating effects is that neighborhood disadvantage weakens the positive relationship between the stop predictors and coercive action. In other words, a suspect who is stopped for at least one of the reasons listed on the UF-250 report in a disadvantaged (or extremely disadvantaged) neighborhood faces a lower likelihood of having coercive action used against him. This is a key finding for this study. Although neighborhood disadvantage did not have a substantial main effect on an officer's use of coercive action, the moderating effects show support for the alternative hypothesis that officers who work in disadvantaged areas may be *less* likely to act coercively during a PCI.

This study reasoned three theoretical connections between a community's level of social disorganization, normally predicting crime within a community, and an officer's decision-making. The first and second theoretical connections argued that police would become more coercive in disorganized and disadvantaged neighborhoods as a result of the high amount of crime and lack of formal social controls observed in these areas (e.g., Terrill and Reising, 2003). The third theoretical connection posited that police would

Table 6.2 Summary of Moderating Effects – Likelihood of Receiving Coercive Action in a Disadvantaged Neighborhood

| Predictors | Greater Coer. | | Frisk | | Search | | Use of force | | Arrest | | Continuum | | Highest level | |
|-------------|---------------|------|-------|------|--------|------|--------------|------|--------|------|-----------|------|---------------|------|
| | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD | CD | ExCD |
| Sus. object | - | - | - | - | | | - | - | | + | | | + | |
| Description | - | - | | - | - | - | - | - | - | - | - | - | + | + |
| Casing | - | - | - | - | | + | - | - | | | - | - | + | + |
| Lookout | - | - | - | - | | | - | | - | - | - | - | + | + |
| Clothing | | | | | - | - | | | - | - | - | - | | + |
| Drugs | - | - | - | - | | - | - | - | | | - | - | + | + |
| Movements | | | | | - | - | - | - | - | - | - | - | + | + |
| Viol. crime | - | - | - | - | + | + | + | + | - | - | | | + | + |
| Bulge | - | - | - | - | - | - | - | - | - | - | - | - | + | + |
| Other | - | - | - | - | + | + | - | - | + | + | + | | | |

NOTES: Predictors' names have been shortened. CD = Concentrated disadvantage model; ExCD = Extreme disadvantage model. - = decreased likelihood of coercive action; + = increased likelihood of coercive action. To keep consistency of the interpretation of the table, the stop only column has been reversed to greater coercive action (i.e., + = the likelihood a suspect received greater coercive action increased).

become less coercive in these areas because they are overworked and these areas are more accepting of deviant behaviors (e.g., Klinger, 1997).

Overall, findings from this study support the third theoretical connection that police are less likely to use coercive action against suspects encountered in disadvantaged areas. Main effects of disadvantage on coercive action provided mixed and, often times, statistically insignificant results. However, results from moderating effects provide support for Khruakham and Hoover's (2012) findings that officers use less coercion in disadvantaged neighborhoods. The general pattern is that neighborhood disadvantage acts as a weakening mechanism on the relationship between each stop predictor and the coercive action used during the stop. When a suspect is stopped, his chances of receiving any level of coercive action are reduced, if the stop occurred in a disadvantaged neighborhood.

As a result of the sheer number of stops made in disadvantaged neighborhoods, suspects potentially face lower odds of receiving coercive action. A person may be more likely to be subjected to a stop in a disadvantaged and high crime neighborhood, but the odds of having coercion used against him is lower than if stopped in an affluent neighborhood. For example, if 100 stops were made in a disadvantaged neighborhood a suspect may have a 1/10 chance of having coercive action used against him; if 10 stops were made in an affluent neighborhood, the suspect may face a 1/3 chance of having coercive action used against him. Results from this study should not be interpreted as coercive action occurring less frequently in disadvantaged neighborhoods per se, only that disadvantage has a reduction effect on the coercive action an officer uses in each stop. It very well may be that higher levels of coercive action occur more frequently in

disadvantaged neighborhoods, yet a suspect faces a lower likelihood of receiving greater levels of coercive action in disadvantaged neighborhoods.

Results from this study also lend support to Klinger's (1997) ecological theory of police behavior. Klinger (1997) argued that residents perceive deviance as more accepting in disadvantaged communities and that officers are too busy with heavy workloads, which may cause officers to handle only the most serious offenses formally. This could be the case for NYPD stops made in 2011, which explains why neighborhood disadvantage reduces the chances of a suspect receiving greater levels of coercive action when stopped. When low-level criminal behavior (e.g., simple drug possession) is tolerated in disadvantage communities and occurs frequently, suspects face a lower risk of receiving higher levels of coercive action. Further, because police resources are slim and low-level criminal behavior is tolerated in these areas, a suspect stopped in a disadvantaged neighborhood has a lower likelihood of having coercive action used against him. If this same scenario played out in an affluent neighborhood, where police resources are abundant enough to apply coercion to low-level crimes, a suspect stopped would face a higher likelihood of having coercive action used against him.

There are, however, a few exceptions to the general pattern found in the data analyses. Extreme disadvantage *increases* the likelihood a suspect will be searched when he is stopped for casing a victim or location. And, extreme disadvantage *increases* the likelihood a suspect will be arrested when he is stopped for carrying a suspicious object. Further, the stop predictors displaying actions indicative of a violent crime and other reasonable suspicion of criminal activity often behave dissimilar to the general pattern.

When a suspect is stopped for displaying actions indicative of a violent crime, he is *more* likely to be subjected to a search or police use of force when stopped in a disadvantaged neighborhood. It may be that when an officer believes a suspect is involved in committing a violent offense, the officer's feelings to protect himself increases because of his perception of harm (Brown, 1981). The perception of harm would then lead to a greater likelihood of the suspect experiencing a search or police use of force.

In terms of the suspect being stopped for other reasonable suspicion of criminal activity in a disadvantaged neighborhood, he is *more* likely to be searched, arrested, and to receive higher levels of coercive action (as determined by the coercive action continuum). Suspects stopped for other reasonable suspicion of criminal activity may encompass a wide variety of potential criminal conduct not outlined in the UF-250 report, making it difficult to speculate as to why this relationship occurs. Further, it may be that individual-level factors not included in this analysis are having an impact on this relationship. For example, scholars have reasoned that the amount of coercive action used by police may be attributed to the behavior of the suspect (Sun and Payne, 2004; Sun et al., 2008). These individual-level factors, however, are not included in this study, but may potentially help explain some of the dissimilar relationships to the general pattern.

Another noteworthy finding is that the highest level of coercion used outcome provides results contrary to the general pattern. For this outcome, the relationship between each stop predictor and a suspect being in a higher category of coercive action is *strengthened* by neighborhood disadvantage. This could potentially be explained by the differences in measures between the two outcomes. Recall that the coercive action

continuum considered all possible combinations of police coercive action, while the ordinal measure only accounted for the highest coercive action imposed on the suspect. For example, if a suspect was frisked, searched, and arrested, the ordinal measure would only account for the arrest, while the coercive action continuum accounted for all coercive actions that occurred during the stop. For the ordinal measure, the highest level of coercive action was arrest. For the coercive action continuum, however, arrest fell midway on the continuum; arrest combined with other coercive actions was believed to be more intrusive and these measures were placed higher on the coercive action continuum. It could be that suspects were less likely to fall higher on the coercive action continuum because of the scale used in the continuum (e.g., coercive actions measured above arrest on the continuum included arrest combined with other types of coercion); results obtained from the continuum do not reveal exactly where the suspect fell on the continuum, only that he is less likely to fall “higher” on the continuum in a disadvantaged neighborhood.

On the other hand, it can be argued that overall results dispute Klinger’s (1997) propositions. Klinger (1997) argued that officers are too busy with heavy workloads and police resources are slim in disadvantage and high crime areas, which may be a cause behind their leniency in these areas. The general pattern provides support for Klinger’s arguments, but results for the ordinal outcome produced conflicting conclusions – officers are *more* coercive in disadvantaged neighborhoods. A few possible explanations to these findings emerge.

First, as Klinger noted, officers are busy with heavy workloads and resources are slim in disadvantaged neighborhoods. So, it can be deduced that officers may actually be

employing these types of coercive action during a stop, but are not taking the already strained amount of time to fill out the UF-250 report accurately (i.e. checking the required boxes on the report). Further, officers may be more likely to ensure the accuracy of UF-250 reports in affluent neighborhoods in order to cover their tracks. In affluent neighborhoods, police chiefs have a higher likelihood of taking a citizen complaint of improper police behavior seriously (see e.g., Brunson, 2007). An officer may be more compelled to fill out the UF-250 to the best of his ability in case these reports do get filed. In a disadvantaged area, where UF-250 reports are abundant, the probability of having a complaint filed against the officer (and it being taken seriously) is low.

If these scenarios are occurring, the data for the dichotomous and linear outcomes naturally become misleading. Lower levels of coercive action an officer used during a stop may (or may not) be reported on the UF-250, but it is expected that the highest level of coercion the officer used during the stop was accurately reported. It may be that this outcome is actually providing a more accurate picture of the type of coercive action a suspect is likely to endure, and how neighborhood disadvantage impacts that relationship. Meaning, suspects encountered in disadvantaged neighborhoods face a *higher* likelihood of coercive action being used against them.

Based on prior evidence, the majority of police researchers would argue that a suspect's risk of coercive action is higher in disadvantaged neighborhoods (Terrill and Reisig, 2003), yet only results for the ordinal outcome provide support for this speculation. There may be a deeper question of what takes place in these communities. It may not be that officers are more lenient in these areas, but that their reporting procedures differ between neighborhoods. This is a significant direction for this research

and should be explored further. Whether the possible misreporting occurs on accident (because of the heavy workload and slim police resources as explained by Klinger) or that officers are consciously making the decision to be more accurate on reports in an affluent neighborhood is a topic yet to be uncovered in police research.

6.2 Limitations and Future Directions

Limitations

This study has provided an examination of the impact of neighborhood disadvantage on police use of coercive action; it is, however, not without limitations. The specific weaknesses of using the mandated UF-250 reports were previously discussed, yet more general limitations regarding the data may also pose threats to the overall conclusions acquired by this study.

Although three outcome measures were used to capture the full story of what occurs during an officer-initiated stop, these measures may have potential drawbacks. First, the dichotomous outcomes (e.g., stop only, frisk, search, use of force, and arrest) are not mutually exclusive categories. That is, an officer may have checked more than one box on the UF-250 report, illustrating the type(s) of coercive action used during the stop. This could be problematic because the dichotomous measures are not depicting the entire picture of what occurred during a stop. For example, if an officer frisked and searched a person during a stop, the frisk dichotomy will only show that the person was frisked (or not frisked); it does not take the other coercive actions into account. As an attempt to reduce this limitation, the coercive action continuum was created. The coercive action continuum provides a deeper look into all types of coercive actions used in a single stop; in the example above, the continuum would reveal that the suspect was both frisked

and searched, which is something the dichotomous outcomes cannot accomplish.

However, this outcome also has its flaws.

The categories included in the coercive action continuum outcome were created by following practices of police use of force continuums. Literature utilizing the police use of force continuum derives their categories from police department policies (e.g., Klinger, 1995; Garner and Maxwell, 1999), yet there is no departmental policy regarding the ranking of police officer coercive action. Here, the coercive action continuum is based on the “natural rankings” of intrusiveness a suspect may face (e.g., a frisk is perceived to be less intrusive than a search).

Another potential limitation concerning the coercive action continuum and to the highest level of coercion used outcome is that the categories included in the measures do not meet the assumption of equal distance. For example, the distance between a suspect being stopped only and frisked only is assumed to be equivalent as a suspect being frisked only and searched only (see also Garner and Maxwell, 1999). The Brant test of proportional odds revealed the data do violate the assumption, yet this test is very sensitive to large sample sizes. Again, these outcomes may be an inadequate way of examining the effects of the social disorganization on officer decision-making.

There is an obvious discrepancy in the conclusions made by the outcome measures used in this study. The coercive action continuum ranks all possible categories of coercive action that may occur during a stop (e.g., a frisk and use of force), while the highest level of coercive action used outcome only includes the most intrusive coercive action occurring during the stop (e.g., use of force). When filling out the UF-250 report, an officer may only find it necessary to report the highest level of coercion used (e.g.,

only reported the force), which could explain why these results differ from the coercive action continuum. The accuracy of the UF-250 reports, however, is unknown and may help explain why the findings are contradictory.

Another drawback is the lack of actual crime data included in this study. This study used the officer's perception of crime in the area as a control variable, which is included in the UF-250 report. However, this measure relied upon the officer checking the designated box (area has a high crime incidence) and is, therefore, based on the officer's belief that the area is marked by a high amount of criminal activity, and not on the actual amount of crime in the area. This could introduce biases, since every person's perceptions differ.

Future Directions

The current study prompted several directions for future research. First and foremost, the contradictory findings reported by the different outcome measures need further exploration. One possible explanation as to why this finding occurred is that officers' reporting procedures differ between affluent and disadvantaged neighborhoods. Officers may be less likely to check the box on the UF-250 report for every type of coercive action used during the stop, and this may be more likely to occur in disadvantaged neighborhoods where police resources are already strained. It may not be that officers' use of coercive action differs between neighborhoods, but that their reporting procedures differ. Future research should examine the accuracy of UF-250 reports to determine whether officers reporting procedures differ between neighborhoods or whether officers, in fact, do implement the types of coercive action during a stop based on the characteristics of the neighborhood.

Another direction for future research involves further examination of the variables included in the study. As addressed in the weaknesses of the UF-250 reports, the stop predictor “other reasonable suspicion of criminal activity” is undefined. This category comprises 17% of all the reasons for the stop in this analysis, which is a substantial number. Further, the use of force measure also includes an “other” category, which is also undefined. It is unclear exactly what these “other” categories are consisting of and whether or not they impact the conclusions drawn from this study.

As previously discussed, the coercive action continuum and the highest level of coercion used outcomes rely on the ordering of categories based on natural rankings of intrusiveness. Preliminary tests (ordinal logistic regression) examined the coercive action continuum, originally a linear measure, on an ordinal scale. Results for stop-level predictors mirrored results from the highest level of coercion used outcome, showing that the method of operationalization is very important in drawing conclusions from analyses.

In terms of control variables, future research should intend on including suspect characteristics and official crime data in analyses. Prior research has shown that the suspect’s behavior, race, gender, and socioeconomic status may influence officer decision-making processes (National Research Council, 2004), which the current research does not account for. Also, the amount of neighborhood crime in which the stop occurred may also influence an officer’s decision-making (Terrill and Reisig, 2003), and should be included as a control variable. Using the officer’s perception of the amount of crime in a neighborhood to explain officer decision-making is adequate, but may be biased; one officer may check the box “area has a high crime incidence” based solely on his experiences in that neighborhood, while another officer does not perceive that area to

have a high crime incidence. Future research should make an effort to collect and include these types of data as control variables.

Future directions for this research also include an examination of the latest data to determine whether results remain applicable to future years. Due to policy changes within the NYPD, the number of stops drastically decreased over the past few years. A total of 694,000 stops were made in the NYPD in 2011; this number dropped to 194,000 stops made in 2013 (Tracy, 2014). With these recent changes in the NYPD, would current data provide a more accurate explanation to the findings reported in this study? Future research should account for the current limitations to this study and pay particular attention to the conceptualization and operationalization of the measures used, in order to uncover the role of neighborhood disorganization on police use of coercion during an officer-initiated stop of a suspect.

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APPENDIX A – UF-250 REPORT

| (COMPLETE ALL CAPTIONS) | | |
|---|--|-------------------------------|
|  | STOP, QUESTION AND FRISK REPORT WORKSHEET <small>PD344-151A (Rev. 11-02)</small> | |
| | Pct. Serial No. | |
| | Date | Pct. Of Occ. |
| Time Of Stop | Period Of Observation Prior To Stop | Radio Run/Sprint # |
| Address/Intersection Or Cross Streets Of Stop | | |
| <input type="checkbox"/> Inside | <input type="checkbox"/> Transit | Type Of Location |
| <input type="checkbox"/> Outside | <input type="checkbox"/> Housing | Describe: |
| Specify Which Felony/P.L. Misdemeanor Suspected | | Duration Of Stop |
| What Were Circumstances Which Led To Stop? (MUST CHECK AT LEAST ONE BOX) | | |
| <input type="checkbox"/> Carrying Objects In Plain View Used In Commission Of Crime e.g., Slim Jim/Pry Bar, etc. <input type="checkbox"/> Fits Description. <input type="checkbox"/> Actions Indicative Of "Casing" Victim Or Location. <input type="checkbox"/> Actions Indicative Of Acting As A Lookout. <input type="checkbox"/> Suspicious Bulge/Object (Describe) <input type="checkbox"/> Other Reasonable Suspicion Of Criminal Activity (Specify) | | |
| <input type="checkbox"/> Actions Indicative Of Engaging In Drug Transaction. <input type="checkbox"/> Furtive Movements. <input type="checkbox"/> Actions Indicative Of Engaging In Violent Crimes. <input type="checkbox"/> Wearing Clothes/Disguises Commonly Used In Commission Of Crime. | | |
| Name Of Person Stopped | Nickname/ Street Name | Date Of Birth |
| Address | | Apt. No. Tel. No. |
| Identification: <input type="checkbox"/> Verbal <input type="checkbox"/> Photo I.D. <input type="checkbox"/> Refused <input type="checkbox"/> Other (Specify) | | |
| Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female Race: <input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> White Hispanic <input type="checkbox"/> Black Hispanic <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> American Indian/Alaskan Native | | |
| Age | Height | Weight |
| | | Hair |
| | | Eyes |
| | | Build |
| Other (Scars, Tattoos, Etc.) | | |
| Did Officer Explain Reason For Stop | If No, Explain: | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Were Other Persons Stopped/ Questioned/Frisked? | <input type="checkbox"/> Yes <input type="checkbox"/> No | If Yes, List Pct. Serial Nos. |
| If Physical Force Was Used, Indicate Type: | | |
| <input type="checkbox"/> Hands On Suspect <input type="checkbox"/> Drawing Firearm <input type="checkbox"/> Suspect On Ground <input type="checkbox"/> Baton <input type="checkbox"/> Pointing Firearm At Suspect <input type="checkbox"/> Pepper Spray <input type="checkbox"/> Handcuffing Suspect <input type="checkbox"/> Other (Describe) <input type="checkbox"/> Suspect Against Wall/Car | | |
| Was Suspect Arrested? | Offense | Arrest No. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Was Summons Issued? | Offense | Summons No. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Officer In Uniform? | If No, How Identified? <input type="checkbox"/> Shield <input type="checkbox"/> I.D. Card | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Verbal | |

Was Person Frisked? Yes No **IF YES, MUST CHECK AT LEAST ONE BOX**

| | | |
|---|---|--|
| <input type="checkbox"/> Inappropriate Attire - Possibly Concealing Weapon | <input type="checkbox"/> Furtive Movements | <input type="checkbox"/> Refusal To Comply With Officer's Direction(s) Leading To Reasonable Fear For Safety |
| <input type="checkbox"/> Verbal Threats Of Violence By Suspect | <input type="checkbox"/> Actions Indicative Of Engaging In Violent Crimes | <input type="checkbox"/> Violent Crime Suspected |
| <input type="checkbox"/> Knowledge Of Suspects Prior Criminal Violent Behavior/Use Of Force/Use Of Weapon | | <input type="checkbox"/> Suspicious Bulge/Object (Describe) |
| <input type="checkbox"/> Other Reasonable Suspicion of Weapons (Specify) | | |

Was Person Searched? Yes No **IF YES, MUST CHECK AT LEAST ONE BOX** Hard Object Admission Of Weapons Possession

Outline Of Weapon Other Reasonable Suspicion of Weapons (Specify)

Was Weapon Found? Yes No If Yes, Describe: Pistol/Revolver Rifle/Shotgun Assault Weapon Knife/Cutting Instrument

Machine Gun Other (Describe)

Was Other Contraband Found? Yes No If Yes, Describe Contraband And Location _____

Demeanor Of Person After Being Stopped _____

Remarks Made By Person Stopped _____

Additional Circumstances/Factors: (Check All That Apply)

- | | |
|---|--|
| <input type="checkbox"/> Report From Victim/Witness | <input type="checkbox"/> Evasive, False Or Inconsistent Response To Officer's Questions |
| <input type="checkbox"/> Area Has High Incidence Of Reported Offense Of Type Under Investigation | <input type="checkbox"/> Changing Direction At Sight Of Officer/Flight |
| <input type="checkbox"/> Time Of Day, Day Of Week, Season Corresponding To Reports Of Criminal Activity | <input type="checkbox"/> Ongoing Investigations, e.g., Robbery Pattern |
| <input type="checkbox"/> Suspect Is Associating With Persons Known For Their Criminal Activity | <input type="checkbox"/> Sights And Sounds Of Criminal Activity, e.g., Bloodstains, Ringing Alarms |
| <input type="checkbox"/> Proximity To Crime Location | |
| <input type="checkbox"/> Other (Describe) | |

Pct. Serial No. _____ Additional Reports Prepared: Complaint Rpt.No. _____ Juvenile Rpt. No. _____ Aided Rpt. No. _____ Other Rpt. (Specify) _____

| | | | |
|---|---------------|---|---------------|
| REPORTED BY: Rank, Name (Last, First, M.I.) | | REVIEWED BY: Rank, Name (Last, First, M.I.) | |
| Print _____ | Tax# _____ | Print _____ | Tax# _____ |
| Signature _____ | Command _____ | Signature _____ | Command _____ |