This is to certify that the
thesis entitled

THE IMPACT OF OFFICER CHARACTERISTICS ON POLICE RESPONSIVENESS IN SERVICE ENCOUNTERS

presented by

MICHAEL T. ROSSLER

has been accepted towards fulfillment
of the requirements for the

M.S. degree in Criminal Justice

Major Professor's Signature

5/13/10

Date

THE IMPACT OF OFFICER CHARACTERISTICS ON POLICE RESPONSIVENESS IN SERVICE ENCOUNTERS

By

Michael T. Rossler

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Criminal Justice

2010

ABSTRACT

THE IMPACT OF OFFICER CHARACTERISTICS ON POLICE RESPONSIVENESS IN SERVICE ENCOUNTERS

By

Michael T. Rossler

This thesis examines the impact of officer characteristics (i.e., officer gender, education, race, experience, and assignment) on police responsiveness in service encounters (e.g., compliance with requests for officers to file a report, act on behalf of the citizen with an agency, provide physical assistance, or provide information). Data are drawn from observational research conducted in Indianapolis, Indiana, in 1996, and St. Petersburg, Florida, in 1997. Previous literature on responsiveness has not included service encounters, and previous research on service has not included responsiveness to requests. The results of this analysis indicate that officers are quite responsive, fulfilling 63.3 percent of all service requests. Further, multiple factors were modeled to determine their impact on officer responsiveness (i.e., citizen characteristics and situational attenuators). Multivariate analyses indicate that nonwhite officers and officers in a community policing assignment are both less likely to fulfill a citizen's request than are white officers or officers in a traditional patrol assignment. Additionally, the most influential factor was citizen disrespect. Potential implications of this research, along with directions for future research and policy implications are discussed.

ACKNOWLEDGEMENTS

I owe a great debt of gratitude to a number of people who made this possible. First, I would like to thank the members of my thesis committee (Dr. Timothy Bynum, Dr. Christina DeJong, and Dr. William Terrill) for their direction in this research endeavor. In particular, I would like to thank Dr. Terrill, not only for providing a wonderful policing foundation through coursework, but also for his patience through countless revisions, and always taking the time to explain relevant details and answer a host of questions. I would also like to thank Jason Rydberg for his assistance in the early stages of my thesis, and for offering useful advice on how to proceed with various obstacles. In addition, I would also like to thank my family for their continued support in not only through my academic career, but in all aspects of life.

Table of Contents

List of Tables

Chapter I: Introduction

Policing encompasses a wide variety of tasks, which makes quantifying officer performance a difficult task (Fyfe, 1993). Traditional measures of police work have included arrest (Smith and Visher, 1981; Greenberg, et al., 1979), response time (Spelman and Brown, 1981), and clearance rates (Chaiken et al., 1996). While these measures have useful attributes, they are inadequate in addressing the majority of time and services that police officers contribute during the course of their duties (Skolnick and Fyfe, 1993). Good policing is broader in scope than traditional performance measures indicate, and it is important to consider an officer's response to needs expressed by citizens during the course of their interactions (Fyfe, 1993).

An often overlooked alternative measure of police performance is responsive service. Officer behavior during a police-citizen encounter can significantly influence public satisfaction with the police (Reisig and Parks, 2002). Citizens may actually be more pleased by the effort of an officer to resolve an issue than with the desired outcome (Mastrofski, 1999). Guyot (1991) finds that officers are often judged more by their actions than actual task accomplishment, particularly in cases involving personal harm. Mastrofski (1999) tends to agree that police activity is often judged by the public not through traditional measures of effectiveness, but through the officer's ability to demonstrate responsiveness to the citizen's concern. In addition, responsive service builds connections between the police and the community and increases the legitimacy of the police when implemented (Mastrofski et al., 1996; Mastrofski, 1999).

Examination of responsive police action has been forwarded by Mastrofski et al. (2000) in their work on officer compliance with requests to control citizens. In particular,

they found that various officer characteristics such as gender, experience, and assignment influenced the extent to which officers are willing to comply with citizen requests. The findings indicate that officer based differences do exist, but are complicated by other factors (such as an officer's willingness to control a citizen), rather than simply the officer's willingness to comply with citizen requests.

This thesis will seek to further study officer based determinants of responsive service. Using data from an observational study conducted in two medium-sized cities, this inquiry will examine the impact of officer characteristics on providing service (i.e., filing a report, acting on the citizen's behalf with a government/official agency or private organization, providing physical assistance, or providing information on how to deal with a problem) through officer compliance with citizen requests. Analysis of the impact that officer characteristics have on these "softer" measures of police responsiveness has not been made available in the current body of literature.

This document will begin with a review of the literature to highlight the complexities of police accountability measures, police legitimacy, and officer behavior in service related encounters. The literature review will provide an empirical overview of the impact of officer characteristics (i.e., education, experience, gender, race, community policing proclivity) on service related behaviors. Additionally, the thesis will highlight a conceptual framework, proposed research questions, and a description of the methodology. Following this, descriptive statistics, bivariate distributions, and multivariate analyses will be presented for the dependent variable, along with a subsequent chapter examining the effect of the independent and control variables on willingness to provide an explanation for refusing a request.

Chapter II: Literature Review

Historically, the police mandate has undergone extensive changes moving from the political era, to the reform era, to the community era. Throughout these eras the role of a police officer has been defined by the decisions made by policy makers and police chiefs. The desired outcomes of police activities have changed concurrent with the mandates (Kelling and Moore, 1988) creating a history of various performance measures. Measures of police performance under the professional model are generally identified in the literature as reported crime rates, overall arrests, clearance rates, and response times (Alpert and Moore, 1993). These four measures have become ingrained in policing, politics, and the media as the standards by which to evaluate effective policing on an individual and organizational level. Ostensibly, research has continued to evaluate what actions or outcomes represent quality policing throughout political changes and new mandates. Some scholars believe that professional model measures fail to capture the true essence of policing and are not a good representation of the ways in which officers use their time (Fyfe, 1993; Parks et al., 1999). With respect to the most recent era, community policing research has focused on crime prevention and control, citizen satisfaction, and overall quality of life (Reisig and Parks, 2002). These measures of police performance are necessary, but they simply reflect the outcomes of a community policing intervention *prima facie.*

Use of coercive force to solve human issues has been the presiding framework for understanding the police function (Bittner, 1970). Influential law enforcement leaders have attempted to place police solely in a crime fighting role, while reformers have sought to define departmental successes as responding to the needs of valued community

members. Quantifying the quality and effectiveness of police work has been plagued by the unclear role of officers across communities with differing demographics that require different services and responses. In order to effectively evaluate the quality of police services, some researchers have offered rather unrealistic policies indicating that the police should focus solely on fighting crime while leaving service and order maintenance functions to other organizations (Manning, 1971). A more realistic approach is offered by Mastrofski (1988), whereby officers could be evaluated on a number of less traditional criteria such as the ability to use verbal coercion, protect citizen rights, and impart a sense of fairness into their low-visibility informal decisions. Further along this spectrum are researchers (Guyot, 1991; Muir, 1977) who view officer empathy as a defining trait in determining effective police work, and believe that human interaction compose a larger portion of officer performance.

Officer Performance and Accountability

Quantifying police productivity is a difficult task that originated in the early 1800s with the advent of municipal police departments (Monkkonen, 1981). These early measures reflected the general duties of police work at this incipient stage. Early police measurements sometimes included the number of lost children or drunken citizens returned home (Monkkonen, 1981). Police would serve various functions in this time period including shooting stray dogs, completing boiler inspections, and even participating in census collection (Monkkonen, 1981). Eventually, police departments began to remove themselves from these duties, and measurements of officer performance began shifting to accommodate the change.

By the late 1800s and early 1900s there was a growing awareness concerning police corruption and inefficiency (Maguire and Uchida, 2000). As a result, organizations such as the Bureau of Municipal Statistics in New York began collection and analysis of police data to investigate and combat corruption. While the data and administrative suggestions made by the Bureau had little effect on reforming the department, their actions did establish a practice of collecting accountability measures such as arrests, clearance rates, response times, and even crime rates.

Further reform efforts that sought to professionalize policing cemented the common measures of crime currently in existence. Systematic data collection of crime rates began with the advent of the Uniform Crime Reports (UCR) in the 1930s, which served the purposes of providing information on crime to improve management and operational strategies and to provide empirical evidence that could be used to refute public belief of crime waves. Despite criticisms from scholars that the crime rate is an extremely flawed measurement of police performance (Beattie, 1960; Decker, 1977; Kitsuse and Cicourel, 1963; Maltz, 1977; Robison, 1966; Seidman and Couzens, 1974; Walker, 1992; Wolfgang, 1963), politicians still use these figures to reward or attack police organizations (Maguire and Uchida, 2000).

In addition to criticisms about the reliability of measures such as the crime rate, other traditional measures such as arrest and response time are limited by the scope of the police mandate that they actually encompass (Maguire and Uchida, 2000). Professional measures focus primarily on the law enforcement function of policing, and do not provide a holistic picture of what makes an effective police officer (Klockars, 1999). Movement

away from crime and arrest related data that can be controlled by departmental directives is an important first step in accurately measuring police performance (Klockars, 1999).

Measurement of police activities outside of arrest, response time, and clearance rates has become even more important in the age of community policing (Maguire and Uchida, 2000). Response to lacking information on community policing and the tasks officers engage in through community policing activity has become an important topic in both police accountability and community policing circles. Maguire and Uchida (2000) suggest that the lack of a readily definable "bottom line" in policing coupled with an obsession to intensively measure the crime related features of arrest and crime rate ignore the essential officer-citizen interaction in encounters. In support of this argument they cite Mastrofski's (1999) six elements of "policing for people" (i.e., attentiveness, reliability, responsive service, competence, manners, and fairness) as activities that should be measured to compare police organizations over place and time. These six elements reflect the nature of citizen expectations beyond law enforcement and order maintenance functions. Essentially citizens expect the police to arrive in a timely fashion, know the proper way to address a problem, provide service, be polite, and act in a fair manner. While some of these elements are quite hard to quantify (e.g., fairness) others can be more easily identified and quantified through observable police actions (i.e., responsiveness to citizen requests).

Using inadequate measures of police accountability may have more problematic consequences than not being able to identify the most skilled officers or effective police organizations. Macro-level concerns about using crime rates as a yardstick for police performance have been highlighted by Manning (1971), who believes the practice of

evaluating police departments based on the local crime rate can lead to reduced satisfaction among the populace. Essentially, because police activity has little impact on the crime rate, claiming that police activity will substantially lower the crime rate may provide a situation where citizens will never be satisfied with the ability of police departments to achieve the mandate they have established.

The inability of police organizations to control dynamic outcomes such as the crime rate can influence the perceptions of citizens. To illustrate, Reisig and Chandek (2001) tested the effect that expectancy disconfirmation, a differing level of performance in practice than the level anticipated by the citizen, has on a citizen's specific and global satisfaction with the police. Researchers surveyed citizens who had a recent encounter with police in either a breaking and entering call for service (voluntary) or a traffic stop (involuntary). It was established that disparity between expectations and actual performance was a moderate to strong predictor of citizen satisfaction with the specific encounter. While disconfirmation was not found to be a significant predictor of global satisfaction with the police, officer behavior in these encounters did serve as a predictor of global satisfaction. These findings provide a context for the proposed inquiry, as Reisig and Chandek (2001) indicate that officers and the citizenry must explore the common expectations that they have for officer behavior during an encounter.

Using police-citizen encounters as a framework for evaluating police performance is viewed as a good method of tapping into alternative measures of accountability (Maguire and Uchida, 2000; Mastrofski, 1981). Responsiveness, for example, in the form of complying with citizen requests, is a distinct measure of quality in police behavior during encounters. Once alternative dimensions of policing like responsiveness

can be accurately measured, police organizations may have a device to present police effort and effectiveness to the general public (Alpert and Moore, 1993; Ottemeier and Wycoff, 1994). The general progression from this expression of responsiveness would be that the public could have a greater understanding of the overall services that the police provide, which may improve the legitimacy of police actions.

Legitimacy

Confidence in the police is an essential element of officers being able to complete their tasks effectively. Police rely on the populace to alert them to violations of the criminal law, assist in investigations by providing information, and to serve as witnesses in court. A study by Furstenburg and Wellford (1972) used telephone surveys of all citizens who called the police over a one month period to inquire about the performance of officers responding to calls for service. Citizens indicated a much higher satisfaction rate with the police when officers took the time to explain their activities and the actions they would take in handling a citizen's complaint. When the police followed up on a complaint to explain progress, this activity also improved citizen satisfaction. Those satisfied with calls for service indicated they would call the police again in a similar situation. On the whole, Furstenberg and Wellford (1972) indicate that police behaviors during an encounter can increase public confidence in the police.

Effort on the part of police has also been linked to citizen satisfaction that citizens feel with those services. Relying on a telephone survey of Chicago residents, Skogan (2005) distinguished between citizen-initiated and officer-initiated encounters to examine several predictors of citizen satisfaction. Officer helpfulness was determined to be the most important predictor of satisfaction with citizen initiated encounters, followed by

politeness, attentiveness, and response time. Satisfaction with officer initiated encounters was best predicted by officer fairness and politeness. As such, the relationship between officer behavior and citizen satisfaction can have serious implications for the legitimacy of the police.

The evidence presented thus far makes a compelling case for the impact of officer behavior on citizen satisfaction with police services, but this does not directly translate to improved officer behavior enhancing the legitimacy of the police. Fortunately, this connection has received a large amount of empirical support (Lind and Tyler, 1988; Reisig and Lloyd, 2009; Tyler, 1990; Tyler, 1997; Tyler, 2005). A unique opportunity to test the relationship between police actions and legitimacy in pre and post 9/11 New York City was conducted by Sunshine and Tyler (2003) through the use of mail (pre) and telephone (post) surveys. Given that police community relations were less emphasized in pre 9/11 New York than post 9/11, an opportunity to examine a potential impact was presented. The research determined that perceived legitimacy of the police was related to citizen cooperation and compliance with the police. Citizens who perceived the police as legitimate were also more willing to empower the police by giving them more tools to complete their mandates. Police legitimacy in this study was most strongly related to the perception of officer fairness, although the actual activities in which police engaged were not specified. An interesting note by the authors is that process policing was not directly related to cooperation, compliance, or empowerment. Essentially, the actions taken by the public to help the police (report crime, offer information to the police) flows through legitimacy (sense of obligation to obey the police). Police behavior, as construed by the

authors, is an antecedent to police legitimacy. This indicates a link between the way police officers act and the public's willingness to comply with requests.

Testing of the impact that police actions have on the perceived legitimacy of the police has also occurred more recently abroad. Reisig and Lloyd (2009) examined the relationship between police legitimacy and citizen cooperation in Jamaica, a country where the Jamaican Constabulary Force (JCF) is experiencing low levels of perceived legitimacy. Contributing factors are a high rate of violent crime within Jamaica, and a perception the JCF is impolite and disrespectful to citizens. In fact, some citizens have turned to local community leaders (i.e., Dons) for protection. Amid this crisis, the JCF has an extremely difficult time obtaining information or cooperation from citizens. Surveying the local high schools, Reisig and Lloyd (2009) found that procedural considerations (i.e., treating people with respect, taking the time to listen, taking peoples' needs into consideration) predicted police legitimacy (accepting the decisions of the police) and citizen cooperation (i.e., reporting crimes, reporting suspicious activity, and helping the police find a suspect).

Recent research on procedural justice has indicated that not only is the process by which the police handle citizen encounters important from a human rights philosophical standpoint, but it has tangible effects that benefit police agencies willing to put forth the effort (Reisig and Lloyd, 2009). From this standpoint, it is important to move beyond indications that "softer" officer behaviors are important, and determine which officers actually engage in important process-oriented policing. Part of this movement should be determining which officers are willing to comply with citizen requests.

Officer Behavior in Service Encounters

Difficulty often arises when scholars attempt to determine which police actions qualify as service. Wilson states that service results from "client" requests that occur upon a call for service to which the police respond freely to the preferences of individual citizens (Wilson, 1967: 5). Because police services generally result in no perceived direct cost to individual taxpayers, they may be inclined to request services frequently. As such, it becomes the duty of individual officers to ration off services by deciding which requests to fulfill and which to deny. Officers are thereby the responsible gatekeepers of fulfilling needs expressed by citizens, and the reasons citizen requests are fulfilled or denied remains scarcely examined.

Responsiveness, or giving clients what they want, has become the modern definition for the rationing of these services. Mastrofski (1999) believes that officers should fulfill citizen requests when possible, and provide a good-faith effort or explanation when these tasks cannot be completed. Policing should go beyond the rules outlined by bureaucracy. Even if the police do not have the ability to accomplish a law enforcement or order maintenance task, they should still be available to attend to citizens' needs and "pick up the pieces" following a traumatic event (Mastrofski, 1999; 2)

Alpert and colleagues (2001) agree that police performance should be addressed on this measure, featuring officer responsiveness as a measure of quality rather than productivity. In fact, quality is described as "conformance to *customer* needs, a fundamental component of community policing wherein the customer or consumer is the community" (Alpert et al., 2001: 81). An expression of need by citizens can be conceptualized by a direct request of an officer for some form of service.

Extensive examinations of the impact officer characteristics have on officer behavior are present throughout the literature (Sherman, 1980). Research focusing on experience (Bayley and Garofalo, 1989; Mastrofski et al., 2000), education (Finckenauer, 1975; Paoline and Terrill, 2007), race (Terrill and Mastrofski, 2002; Brown and Frank, 2006), and gender (Paoline and Terrill, 2004; Sherman, L.J., 1975) have given some insight into the impacts of officer characteristics on traditionally measured behaviors. However, with respect to service related behavior, Riksheim and Chermak (1993) found that only 17 studies prior to 1980 focused on the relationship between individual level variables and service behaviors. Gender, height, and attitudes were found to have no relationship to service related behaviors, while race and length of service provided mixed findings about the effect that these variables have on officer behaviors. Research between the Sherman (1980) and Riksheim and Chermak (1993) reviews found that only five studies have focused on individual level characteristics and officer behavior. The five studies focused solely on attitudes, and indicated that no relationships exist between attitude and officer behavior.

Non-traditional evaluations of policing have been scantily covered following Mastrofski's (1988) implication that a more holistic assessment of police work should commence. In one such study, using officer determinations of co-workers, Bayley and Garofalo (1989) studied the relationship between colleagues' perception of skill and the ability of officers to minimize violent citizen encounters. In terms of individual level characteristics, skilled officers were identified as being more experienced (having on average 18 months more experience than less skilled officers). The objective of the Bayley and Garofalo (1989) study was not directed at service related behaviors, but

useful tangential findings were provided. In addition to the primary research question, officer sympathy, friendly advice, and advice about legal remedies were also considered. Officers who were determined to be exceptionally skilled by their co-workers were significantly more likely to engage in these three actions than were officers considered to be average. Skilled officers were also more likely to provide a conclusion during an exit rather than absolving themselves by claiming "there was nothing the police could do" (Bayley and Garofalo, 1989; 17). It is important that police express effort in citizen encounters (Skogan, 2005), which is demonstrated more frequently by experienced officers (Bayley and Garofalo, 1989).

Officer Characteristics and Satisfaction in Service Encounters

The paucity of available data on "policing for people" (Mastrofski, 1999) provides for a situation where proxy measures must be used in order to examine differences in officer characteristics, particularly in pre-community policing era research. While Sherman (1980) indicated that only age and education provided directional service in terms of officer service behavior, using citizen satisfaction with officer responses can illustrate tenuous relationships for the purpose of hypothetical development. An early example of this involves retrospective examination of police-citizen encounters. Using telephone surveys, Carlson and Sutton (1979) inquired about citizens' recent experience with an officer from that department (citizens were identified using police logs). Citizens were most satisfied when officers demonstrated rapport, involvement, and success. Further analysis indicated that officer education was positively related to citizen satisfaction, while officer experience was not related to citizen satisfaction. Findings indicate that concentrating on the principles of "policing for people" (Mastrofski, 1999)

can improve citizen satisfaction with police services, and that some officer characteristics (education) may influence these police behaviors.

Officer conversational style, which was examined in response to more calls for service being handled directly by telephone, has been supported as a predictor of citizen satisfaction in police citizen encounters. Using a newly implemented Telephone Response Unit (TRU), Glauser and Tullar (1985) randomly sampled five incoming phone calls per day, providing 60 tapes over a two week study period. People contacting the agency, a large metropolitan police department in the Southeastern United States, through TRU whose calls were selected were called back a short time later, and an appointment was scheduled for the researcher to administer the questionnaire. Citizens were found to be more satisfied with officers who provided more extensive information and gave specific directions on procedural matters. Less satisfaction was found in encounters where the officers questioned citizens or acted in a domineering fashion.

Dorothy Guyot (1991) has long supported police strategies that serve citizens as customers, and non-traditional measures of police work that exhibit officer effort and attentiveness toward the concerns of citizens. A crude measure of officer attentiveness is the amount of time officers spend at a particular call. Guyot (1991: 58) relates this to faulty management directives that "pull officers away from work so that they can resume looking for and waiting for work." Termed "nuisance calls" by police organizations (Alpert and Moore, 1993; 121) officers have been shown to reduce time spent on calls for assistance that were not considered criminal or representing an emergency situation at the direction of supervision (Sparrow et al., 1990). Certainly, crime related or emergency calls should take priority over calls for non-emergency assistance (Guyot, 1991);

however, officers should not forgo an opportunity to interact with and assist a citizen to go in-service and carry out a simple patrol function (Guyot, 1991). The impact of this directive on citizen satisfaction has been reinforced empirically by Coupe and Griffiths (1999) in their study of satisfaction with police response to a burglary and the amount of time officers spent on scene. Satisfied citizens had an officer on scene for an average of 40 minutes while dissatisfied citizens had an officer on scene for an average of 27 minutes. The rate of dissatisfaction grew substantially higher when the officers remained at a call for less than ten minutes. A common explanation for officers spending less than ten minutes at a call is that little or no evidence is available (Coupe and Griffiths, 1999). Citizens were also more satisfied when they received updates from officers, furthering support of effort and attentiveness as the source of citizen satisfaction with their encounter. While Coupe and Griffiths (1999) provide a detailed description of high quality behaviors, they do not provide information about the types of officers most likely to engage in these behaviors.

Further development of service quality and officer characteristics may be inferred from Brown's (2007) examination of differing service functions and the willingness of the citizen in the interaction. Brown (2007) used a municipal services survey to examine citizen satisfaction with voluntary (use of city parks), client (calls regarding refuse disposal), and captive (traffic stop) interactions with city services. Generally, citizens were more satisfied when they had a positive experience, and when the interaction was more voluntary. This adds to the argument that proactive stops may result in lower satisfaction.

Officer Characteristics and Responsiveness

Perhaps the most useful study of responsive service and individual level characteristics is Mastrofski et al.'s (2000) examination of officer compliance with citizen requests to control other citizens. Using data from the Project on Policing Neighborhoods (POPN) the researchers examined the value of a wide variety of officer and situational characteristics. Situational characteristics (legal considerations, requester intoxicated, etc.) were the most useful in predicting the likelihood that when a citizen requested that the officer advise or persuade, warn or threaten, force someone to leave the scene, or arrest another citizen that the officer would take the requested action. In terms of individual level variables, Mastrofski and colleagues (2000) found that female officers were much less likely to comply with the citizen requests to control other citizens at the scene. The authors attributed this phenomenon to the female officers' reluctance to use coercion rather than a reluctance to fulfill requests for service. More experienced officers were also less inclined to fulfill the requests for control of another citizen. This was attributed to the wisdom or cynicism of older officers and/or a possible unwillingness to engage in time consuming work. An officer's proclivity toward community policing had an effect in the expected direction, as these officers were more inclined to fulfill the requests of the citizens. Developing the actual responsiveness of officers and impact of individual level characteristics in a service capacity is limited by the focus on responding to demand for control. While controlling citizens is an integral portion of police work (Bittner, 1970), differences in the rate at which officers use coercion (Paoline and Terrill, 2007) may affect the rates at which they comply with requests that require police action of a coercive nature.

Officer Characteristics and Service

A theme in the current research following Sherman's (1980) examination is a decrease in research directed at service related officer behavior (Riksheim and Chermak, 1993). However, in a recent study, Sun et al., (2008) examined officer differences with respect to coercive (arrest, interrogation, search, threaten to use force, restraint, use of handcuff, pain compliance, incapacitation methods, and draw/discharge weapon) and non-coercive behaviors (providing physical assistance and information on officers' own initiative, providing physical assistance and information requested by citizens, filing an incident report, acting on citizens' behalf, advising citizens to sign complaint, to use legal process, to seek help of other agencies, to seek help of family or friends, to help another), and found significant situational, individual, and neighborhood characteristics using data from the Project on Policing Neighborhoods. In terms of officer characteristics, only the officer unit had a significant impact while all other variables were controlled. Surprisingly, community policing officers were less likely to engage in non-coercive activities than were their patrol counterparts. While this finding provides little support for officer level characteristics in non-coercive behavior, the scale used by Sun et al. (2008) does not distinguish between officer initiated behaviors or officer responsiveness to citizen requests, the true test of Mastrofski's (1999) element of responsiveness as a characteristic of quality policing. While measuring police productivity in non-coercive encounters remains important, focusing on direct requests is a better representation of the *quality* of police responses in cases where the citizen has directly expressed a need.

Limitations

While Mastrofski (1981) generally supports survey research as a method by which to evaluate officer performance during police citizen encounters, social observation data provides a unique opportunity to use rich data in evaluating officer performance in response to citizen requests for service. Social observation data provides a less biased perspective and catalogues the events as they occurred as opposed to relying on an involved party's perception. The POPN source currently available allows for detailed examination of any differences in officer responsiveness to citizen requests.

In addition, prior research to date is limited in two primary ways. First, while recent research has made strides toward examining differences in officer proclivity toward service behavior (i.e., Sun et al., 2008), the scales used in this research do not directly examine the officer's willingness to comply with citizen requests. More specifically, the dependent variables in the Sun et al. study included service (non-coercive) activities that officers engaged in through their own initiative (i.e., proactive service). Additionally Sun and colleagues' (2008) thirteen item scale included whether officer's offered comfort in the encounter. While this scale is an adequate measure of officer non-coercive productivity, greater refinement is necessary to accurately examine officer responsiveness (i.e., restricting cases to those where a citizen makes a specific request).

Second, responsiveness can be accomplished by officers in situations where they cannot or will not comply with a request if they provide a reason for the refusal. Mastrofski (1999: 2) indicates that officers "can be responsive even when they deny a

citizen's request by explaining the denial." Thus, measuring and assessing responsiveness is broader than just simply complying or not complying with requests.

Proposed Thesis Research Questions

Given the limitations identified in the prior literature on police responsiveness, the proposed study involves three primary research questions:

1. What is the frequency with which citizens request service during encounters with the police?
2. How often do the police fulfill citizen requests for service?
3. What characteristics predict officer responsiveness to citizen requests for service?

After examining these three primary questions, a secondary analysis will be conducted based on those cases where officers *do not comply* with citizen requests by asking a fourth research question:

4. What characteristics predict officer willingness to provide an explanation for refusing to comply with a citizen request for service?

Chapter III: Methods

Examination of the proposed inquiry will be provided by the Project on Policing Neighborhoods (POPN). The general impetus for POPN data collection was to allow for researchers to describe policing operations on a daily basis. Two mid-sized cities, Indianapolis, Indiana (Summer 1996) and St. Petersburg, Florida (Summer 1997) served as the study cites for this research (Mastrofski et al., 2000). Data collection focused on citizen encounters, and used systematic observation of officers to catalog behavior in these interactions. Officers were also interviewed to provide information about their attitudes and backgrounds.

Study Sites

Study sites for POPN were evaluated and selected based on several factors. Indianapolis and St. Petersburg were both willing to host research within their departments for the one year study period. Additionally, these cities have diverse demographic and socio-economic populations (Paoline and Terrill, 2007). Community policing initiatives had also been implemented in these departments, prompting an examination of differences between community policing officers and organizations. Indianapolis was the more populous city during the examination, and in turn employed more full time police officers. Considering the cities' similar crime rates, the lower number of sworn police officers in St. Petersburg resulted in a greater work responsibility for their officers. The city of Indianapolis had higher rates of unemployment, minority population, residents in poverty areas, and female headed households (Terrill, 2001).

Indianapolis and St. Petersburg also had several differences that made them compelling departments for study. In terms of the specific number of officers,

Indianapolis employed 416 full time officers while St. Petersburg employed 246 during the study period. The departments' community policing initiatives also differed in commitment and strategies. St. Petersburg committed 60 officers (23%) to community policing, while Indianapolis committed only 25 officers (6%). Community policing in St. Petersburg originated as a distinct program two years before Indianapolis began its program. Deployment of officers in St. Petersburg was on a geographic basis, in an attempt to build a sense of officer responsibility for the problems occurring in their area (Terrill, 2001). Indianapolis focused more on directed patrol in which officers attempted to proactively address low level problems and quality of life issues. Personal interaction, a more common conception of community policing, was also a primary focus of Indianapolis on top of the more aggressive strategies (Paoline, Myers, and Worden, 2000).

Indianapolis and St. Petersburg also differ in measures of traditional professionalism (Shernock, 1992). In terms of the disparity between officers and the general population, Indianapolis officers were more educated than the typical citizen. Thirty-six percent of officers in Indianapolis had a four year degree, while only 26 percent of the citizens also had a four year degree (US Census Bureau, 2000). In St. Petersburg, the margin was much closer with 26 percent of officers and 23 percent of the general population having a four year degree (Terrill, 2001; US Census Bureau, 2000). On another measure of professionalism, Indianapolis officers also required more hours of training (1,392) than St. Petersburg (Terrill, 2001). While training focuses primarily on traditional measures (Traut et al., 2000), officer training may have implications for non-traditional measures as well.

Data

This inquiry will, as previously stated, employ two separate aspects of the POPN data. Systematic observation of police officer's in their field assignments and the personal interviews with those officers to catalog their backgrounds and attitudes. The objective field observations of patrol officers is the most important part of this proposed study, as this information is integral to understanding police citizen encounters.

Observational Data

Observational data on officers were collected through a technique called Systematic Social Observation (SSO) (Mastrofski et al., 1998) as observer participant (Mastrofski et al., 2009). Observer-participants do not make an effort to keep a distance from the individuals they are observing (in this case patrol officers and citizens). Additionally, researchers acting as observer-participants do not try to actively participate in the interactions between officers and citizens (Babbie, 1995). Before the observers began field work, they were required to take a one semester course (at Michigan State University or SUNY Albany) in SSO. Observers also participated in ride-alongs at local departments for additional development of research skills (Terrill and Mastrofski, 2002).

Physical data collection occurred on patrol through a matched sample of beats in each city. Observers, as is directed by SSO, took notes on officer activities and police citizen encounters, providing specific details about the citizens. Encounters between officers and citizens were described as any "face-to-face communication that took place between officers and citizens that took over one minute, involved more than three verbal exchanges between officer and citizen, or involved significant physical contact between the officer and citizen" (Terrill, 2001: 50). Observers transcribed their notes at the end of

each day's field observation, per POPN protocol. Officers were assured that the information observed and transcribed would remain confidential, and were permitted to read the notes taken on their rides, but were not permitted to read the notes taken on rides with other officers (Parks et al., 1999).

Beats were sampled for observation from each city to permit comparisons. Twelve beats were selected from each city, Indianapolis having 50 total beats and St. Petersburg having 48 total beats. An anticipated higher probability of police citizen encounters provided the rationale for POPN researchers to sample data from these more active beats, where a larger number of encounters were likely to occur. Research directors also selected the beats based on a socioeconomic index of the neighborhood conditions. Factors considered included the percent of families with a female head of household, employed adults, and the population living below 50 percent of the poverty level (Terrill, 2001). Indianapolis registered as the more distressed city with socioeconomic index scores for beats ranging between 4 and 76, with a median score of 36. St. Petersburg, the less distressed of the two cities featured an index range of 4 to 103, with a median score of 15. Using these scores, beats were selected from the 2^{nd}, 3^{rd}, and 4^{th} quartiles of the Indianapolis scores, and St. Petersburg beat scores were then selected to match beats within Indianapolis (Terrill, 2001).

Sampling of rides within these beats called for observation of every shift in the selected beats. Rides also included observations from the general patrol officers and community policing officers, and included rides on both high activity and lower activity days. In order to maximize the number of encounters observed, the project directors oversampled the busier shifts generally occurring Thursday through Saturday.

When field observations were completed, Indianapolis observers had collected data on 194 patrol officers and St. Petersburg observers had completed ride-alongs with 128 patrol officers. Indianapolis and St. Petersburg researchers also observed 48 and 37 supervising officers respectively. During 2,800 hours of observation, Indianapolis police engaged in 6,485 citizen encounters, while the St. Petersburg police were observed for 2,900 hours and were witnessed in 5,500 citizen encounters (Paoline and Terrill, 2007).

Interview Data

Interviews were completed by personnel who were trained and employed solely for completing officer interviews. These researchers conducted interviews with the observed officers. Officers were questioned for about 25 minutes using survey forms containing questions about officer's background characteristics and attitudes. Considering the proposed inquiry seeks to specifically compare officer's willingness to comply with citizen requests for service, background characteristics such as experience, education, race, gender, as well as attitudes toward community policing will be of particular interest to this study. The in-person interviews received an excellent response rate, with 95 percent in Indianapolis and 97 percent responding in St. Petersburg.

Variable Descriptions

Dependent Variables

This analysis will examine three dependent outcome measures of officer responsiveness to citizen requests by drawing on the following four specific questions captured by the POPN trained observers: (1) Did the citizen ask police for information on how to deal with a problem? (2) Did the citizen ask police for physical assistance for self

or others? (3) Did the citizen ask the police to file a report? (4) Did the citizen ask police to act on the citizen's behalf with a government official/agency, or private organization?

Based on the approach applied by Mastrofski et al. (2000) these measures will be examined as a dichotomous variable (1 = officer complied, 0 = officer did not comply, officer promised to/partially complied) and as an ordinal variable (0=did not comply, 1=promised to/partially complied, 2=fully complied). Placing the variables into two forms of analysis will allow for an examination of which officers are more likely to show an inclination to provide responsive service.

Additionally, a third dependent variable will examine officer differences in offering explanations of officer denials of citizen requests for service. This variable will also be dichotomous (1 = officer provided an explanation for denying request, 0 = officer did not provide an explanation for denying request). As noted, this third dependent variable has been identified by Mastrofski (1999) as an integral aspect of responsiveness. Separation from the other two variables seems appropriate, as coverage of officer explanation of refusal will employ only cases where officer's denied a citizen's request.

Independent Variables

The primary variables for examination are officer background characteristics. Five major variables (i.e., gender, race, education, experience, and patrol assignment) can be identified as potential predictors of whether officers will comply with requests for service. First, gender differences in compliance with citizen requests have been demonstrated in terms of requests for control of another citizen (Mastrofski et al., 2000), with male officers more likely to comply. Second, race is also an important factor to consider when examining officer behavior. Mastrofski and colleagues hypothesized a

reduction in officer compliance based on mixed race encounters (white officer/nonwhite citizen, nonwhite officer/white citizen), although no significant difference was found. Third, education is also a compelling attribute of officers that could have an impact on their willingness to comply with citizen requests. While some believe that a college education improves police work by sensitizing officers (Finkenauer, 1975), others anticipate that a disparity between well educated officers and a poorly educated public results in a disconnect that would make more educated officers less likely to comply (Mastrofski et al., 2000). This variable can be expressed dichotomously, by examining officers with and without college degrees. Fourth, years of police experience may also impact the way that officers respond to citizens. Mastrofski and colleagues (2000) have found that experience reduces the willingness of officers to comply, either out of cynicism or wisdom. This variable is continuous, as officers in the POPN study ranged in experience from 0-31 years of service (Mastrofski et al., 2000). Finally, officers in the POPN study also varied in their assignments, with some engaged in traditional patrol and 911 response functions while some were assigned solely to community policing duties (Parks et al., 1999). These assignments are easily categorized as a dichotomous variable, and community policing officers are hypothesized to be more willing to comply with citizen requests for service.

Control Variables

Certain control variables are needed in the analytic model due to their stated relevance in previous studies (Mastrofski et al., 1996; Mastrofski et al., 2000; Sun et al., 2008). Two sets of variables (i.e., citizen and situational) are needed in the analysis in order to control for alternative explanations of officer behavior.

A common explanation of officer behavior has been the characteristics of the citizen who the officer is encountering. Previous literature reviews (Sherman, 1980; Riksheim and Chermak, 1993) indicate that citizen characteristics have been shown to impact officer behavior across studies in the United States. Citizen demographic characteristics collected during POPN include age, race, gender, and socioeconomic status. These citizen data are limited by the method of collection, where the trained observers collected these data via their own observations, rather than through interviews as the officer data were collected. The citizen's demeanor, alcohol involvement, and evidence of a legal violation will all be included in the analysis as well. These variables are important because officers tend to have less regard for citizens who question their authority, and undesirable citizens who are drunk or may have committed a crime (Muir, 1977; Schafer and Mastrofski, 2005).

A group of variables that describe the setting are also entered in to the model. A variable of particular concern will be the number of officers present at the scene, and the number of citizens present at the scene. In lieu of a specific effect indicated in the literature, it seems logical that officers would be less inclined to provide citizen service in front of fellow officers, as this may make the complying officer appear soft in front of their colleagues. The lack of research as to how the impact of the number of citizens present at an encounter would affect service makes determining results difficult. However, an officer who feels uncomfortable or intimidated with large groups may be less inclined to comply with requests. In addition, whether the encounter was initiated by the officer or the citizen (i.e., proactivity) should also be considered. It is posited that proactive officers would be more likely to comply with citizen requests, as their increased

activity level would increase willingness to serve citizens using discretionary time (Mastrofski et al., 2000). This variable can have an impact on officer and citizen behavior, as has been evidenced by Brown (2007). Study site is also an important consideration, as organizational differences and officer strategies may have an impact on an officer's choice to return to service rather than invest time in a service encounter. In regard to study site, it is hypothesized that officers from St. Petersburg will be more willing to comply with citizen requests, as their policing style is less aggressive and emphasizes a problem solving approach. For a depiction of all variables and their hypothesized effect, see Appendix A.

Data Analysis

The dependent variables in this inquiry are best addressed through logistic regression and ordered logit. Logistic regression is useful when the dependent variable is categorical, but ordered logit allows the dependent variable to be measured by non-compliance, partial compliance/promised compliance and full compliance (Liao, 1994; Long, 1997; McKelvey and Zavoina, 1975). Using these two forms of analysis provides greater detail into the extent to which officers with citizen requests for service, and if not which officers are likely to offer a rationale.

Validity, Reliability, and Generalizability

Systematic social observation (SSO) is the method used to collect the integral pieces of data for this inquiry. This method of field research utilizing trained observers generally produces valid data. Field observation and SSO in particular, allows researchers to capture events or phenomena that may be more difficult to glean from official records or survey data. Reactivity, or a change in the behavior of the observed

due to the presence of a researcher, introduces a threat to validity. This concern is common to field observation (Mastrofski and Parks, 1990) and generally if affected, officer behavior will return to normal after a short period of time (Westley, 1970). To address the potential pitfalls of reactivity POPN protocol used two measures of officer reactivity. In the first measure, ride level reactivity, the observer made an assessment of the officer's reaction to the observer's presence over the course of the shift. The second measure indicated the degree to which an observer believed that the officer altered their behavior during a specific encounter due to the observer's presence (Spano, 2003). Overall, observers indicated only 0.5 percent of all observations may have been altered due to the researcher's presence (Terrill, 2001). Upon deeper analysis of the reactivity issues, Spano (2003) found that signs of reactivity were generally associated with an officer's concern for the observer's safety, particularly if the observer was female. In order to minimize threats to validity occurring from reactivity, project directors promised the confidentiality of officers and allowed them to read the notes collected by their observers (Mastrofski et al., 1998).

In terms of generalization, the POPN observational data is limited due the selection of beats within Indianapolis and St. Petersburg. Beat selection focused on areas particularly affected by economic distress, and may not be representative of the more advantaged beats within the two study cities. However, the POPN data do have advantages over other observational data on officer encounters (Paoline et al., 2000). Previous works have focused on much larger municipalities with large patrol staff and more bureaucratic management structures, making generalization to medium sized cities or rural areas more problematic. St. Petersburg and Indianapolis are more similar to a

larger portion of police organizations nationwide, making POPN data more apt for generalization than larger cities used in previous studies (Terrill, 2001).

Chapter IV: Results

The following chapter contains the statistics, analyses, and findings for the current research questions. First, descriptive statistics (i.e., frequencies) are used to present the distribution of the dependent variable (e.g., compliance with service requests), the independent variables (e.g., officer gender, education, race, experience, and assignment), and the control variables (e.g., citizen race, gender, age, socioeconomic status, demeanor, drug/alcohol influence; number of officers present at the encounter, number of citizens present at the encounter, and whether the encounter was proactive). Second, bivariate distributions of the dependent measure by applicable officer characteristics (experience excluded in bivariate analysis) will be expressed. Finally, this section will employ binary logistic regression for the dependent variable measured dichotomously, and ordered logit for the ordinal level analysis.

Descriptive Statistics

Considering the conceptual framework of this study (i.e., compliance with service requests) the present analysis will include citizens identified by POPN observers as victims, disputants, service recipients, helpless persons, third parties, and witnesses[1]. As shown in Table 4.1, the majority of citizens making a request for service from the police are identified as victims (59.8 percent), followed by service recipients (13.6 percent), witnesses (9.8 percent), third parties (8.7 percent), disputants (7.1 percent), and helpless persons (1.1 percent).

[1] Citizens identified by POPN observers as suspects, quasi-police, non-police service providers, friends, and occupational acquaintances are not included in this analysis.

Table 4.1 Citizen Role

Citizen Role	N	Percent
Victim	622	59.8
Service Recipient	142	13.6
Witness	101	9.7
Third Party	91	8.7
Disputant	74	7.1
Helpless Person	11	1.1
Total	1,041	100.0

The first two questions offered in this inquiry are the frequency with which citizens request services, and the frequency with which officers comply with these requests. To help address these questions, the descriptive statistics for officer compliance with citizen requests are depicted in Table 4.2. As shown, the base rate for full compliance across all requests is 63.3 percent. Citizens were more likely to request that officers provide information than any other service related request, followed by requests that an officer file a report, provide physical help for the requester or another citizen, and that an officer act on their behalf with an official or agency. Officers were most likely to fully comply with requests for information (79.4 percent), followed by requests for physical help (65.2 percent), requests that an officer act with an agency (58.5 percent) and requests that the officer file a report (40.5 percent). The total number of citizens in the dataset is 1,041, indicating several citizens made multiple requests of the officer at a single encounter, as the total number of requests was 1,222.

Table 4.2 Citizens' Requests for Service and the Police Response

Type of Request	# of Requests	% Not fulfilled	% Promised or Partially Fulfilled	% Completely fulfilled
File a Report	402	19.2	40.3	40.5
Act with an Agency	41	22.0	19.5	58.5
Provide Information	549	2.9	17.7	79.4
Provide Physical Help	230	15.2	19.6	65.2
Total	1222	11.2	25.5	63.3

A deeper examination indicates that multiple requests were made in 16.2 percent of cases. In the majority of these cases, officers chose to fulfill or deny all requests made by a citizen, and a split result (complying with at least one request while also not complying with at least one request) occurred in only 18.9 percent of cases where multiple requests were made (3.1 percent of all cases). Due to this complication, and considering the conceptual framework where officer effort is a primary consideration, officers will be credited with their greatest degree of effort in the encounter, and officers in compliance with at least one request will be considered willing to comply with a citizen's request.

Table 4.3 shows the descriptive statistics for officer characteristics. Overall, 83 percent of officers were male, 38 percent had a four year degree, 25 percent were non-white, and 55 percent were in a community policing assignment. Additionally, the average officer has 8.11 years of experience.

Table 4.3 Descriptive Statistics: Officer Characteristics (N=1,041)

Variable	Range	Mean	Std. Dev.
Male*	0-1	.83	.380
Four Year Degree	0-1	.38	.485
Nonwhite	0-1	.25	.431
Experience**	0-31	8.11	6.596
Community Officer	0-1	.55	.498

*35 missing cases
**36 missing cases

Depicted in Table 4.4 are descriptive statistics for the control variables. This includes both citizen characteristics and encounter characteristics. For the citizen variables, slightly less than half of citizens in these encounters were nonwhite (48 percent) and male (45 percent). Additionally, slightly more than half of the citizens involved in request encounters were of middle wealth or above. Few of the citizens were disrespectful (5 percent) or visibly under the influence of a substance (5 percent). Age is defined in terms of need, as was the method used by Mastrofski and colleagues (2000) to include requesters coded as either young or elderly. The reference category (0) includes citizens whom the perceived need would be low (i.e., 13-59 years old) and the study category (1) were citizens where the perceived need would be higher (i.e., preschool to 12 years and 60 years or older). Findings indicate that about 8 percent of citizens fall into a category that could be considered high need.

In terms of the encounter, 10 percent were initiated by the officer. This is not unexpected considering that these are encounters in which the citizen is making a request of the officer. Additionally, on average 1.73 officers were present at each encounter. It should also be noted that 52 percent of encounters involved a single officer. The number of citizens present displays a wide range, from 1-120, with an average of 4.10. Despite

this wide range, 75 percent of all encounters had 4 or less citizens present, and 95 percent of encounters had 11 or fewer citizens present.

Table 4.4 Descriptive Statistics for Control Variables

Variable	Range	Mean	Std. Dev.
Citizen Variables			
Nonwhite	0-1	.48	.500
Male	0-1	.45	.498
Age	0-1	.08	.272
Middle Wealth Plus	0-1	.56	.496
Disrespectful	0-1	.05	.220
Drug/Alcohol Influence	0-1	.05	.210
Encounter Variables			
Proactive Encounter	0-1	.10	.300
Number of Officers*	1-11	1.73	1.144
Number of Citizens*	1-120	4.10	7.192

*denotes 2 missing cases

Bivariate Statistics

The third research question posed in this inquiry seeks to examine relationships between officer characteristics and willingness to comply with requests for service. This portion of the analysis is the first step in examining their potential relationships, through presentation of the data in joint distribution tables and use of the chi-square test of independence. Chi-square tests the relationships between officer gender, education, race, and assignment and the dependent variable (i.e., compliance with requests for officers to file a report, act on behalf of the citizen with an agency, provide physical assistance, or provide information). For this analysis, the chi-square test of independence is useful because it allows testing of the null hypothesis that officer characteristics and compliance with requests for service are distributed independently (Bachman and Paternoster, 2004). An indication of significance in a chi-square test means that the null hypothesis is rejected, and that it is likely that the variables are related in some manner. An additional

statistic provided within the contingency tables is gamma (γ). Gamma is generally used when the variables of interest are measured in an ordinal manner. This statistic indicates the degree to which error in predicting the dependent measure is reduced by knowledge of the independent measure (Bachman and Paternoster, 2004).

Table 4.5 displays the bivariate distribution of officer responsiveness by officer gender. As shown, officer gender and responsiveness are distributed independently (χ^2=2.45, p=.29), and the null hypothesis is assumed. This indicates that when measured as an ordinal variable, there is no relationship between officer gender and willingness to comply with requests for service.

Table 4.5 Bivariate Distribution of Officer Responsiveness by Officer Gender (N=1,006)

Officer Action	Female n	(%)	Male n	(%)
Did Not Comply	16	(9.1)	76	(9.2)
Promised or Partially Complied	49	(27.8)	186	(22.4)
Fully Complied	111	(63.1)	568	(68.4)
Total	176	(100)	830	(100)

χ^2=2.454, p=.293, γ=.098

The bivariate distribution of officer responsiveness by education is depicted in Table 4.6. Officer education and the willingness to comply with a citizen's request is independently distributed (χ^2=2.90, p=.23), indicating that the null hypothesis should be accepted. This means that no relationship is shown between officer education and willingness to comply with a citizen's request for service.

Table 4.6 Bivariate Distribution of Officer Responsiveness by Officer Education (N=1,041)

Officer Action	<four year degree n	(%)	Four Year Degree+ n	(%)
Did Not Comply	52	(8.0)	43	(11.0)
Promised or Partially Complied	155	(23.8)	85	(21.7)
Fully Complied	443	(68.2)	263	(67.3)
Total	650	(100)	391	(100)

χ^2=2.902, p=.234, γ=-.037

Table 4.7 shows the bivariate distribution of officer responsiveness and officer race. As indicated, the variables are not independently distributed (χ^2=17.43, p=.00). Rejection of the null hypothesis indicates a relationship between officer race and responsiveness to citizen requests for service. However, this relationship is modest (γ=-.27). Interestingly, nonwhite officers were more likely to promise/partially comply, but less likely to fully comply. Overall, nonwhite officers were less likely to comply with a request. This finding is contrary to the hypothesized impact of officer race on compliance with citizen requests.

Table 4.7 Bivariate Distribution of Officer Responsiveness by Officer Race (N=1,041)

Officer Action	White n	(%)	Nonwhite n	(%)
Did Not Comply	59	(7.5)	36	(14.0)
Promised or Partially Complied	168	(21.4)	72	(28.0)
Fully Complied	557	(71.0)	149	(58.0)
Total	784	(99.9)	257	(100)

χ^2=17.429, p=.000, γ=-.270

The bivariate distribution of officer responsiveness by officer assignment is presented in Table 4.8. As shown, officer willingness to comply with a citizen's request for service and officer assignment are not independently distributed (χ^2=6.97, p=.03). As such, the null hypothesis is rejected, and a relationship between officer assignment and

responsiveness is established; however, this relationship is weak (γ=-.156). Community officers are less likely to fully comply with a request (64.7 percent) than are officers not in a community policing assignment (71.5 percent). However, community officers are also more likely to promise/partially comply with a request (24.4 percent) than are other officers (21.4 percent). Overall, community policing officers are more likely not to comply with citizen requests. The exhibited relationship is contrary to the hypothesized effect, as community officers are relieved of a duty to respond to 911 calls, and would hypothetically have more time to invest in resolving issues when a citizen requests their service.

Table 4.8 Bivariate Distribution of Officer Responsiveness by Officer Assignment (N=1,041)

Officer Action	Other Officer n (%)	Community Officer n (%)
Did Not Comply	33 (7.0)	62 (10.9)
Promised or Partially Complied	101 (21.4)	139 (24.4)
Fully Complied	337 (71.5)	369 (64.7)
Total	471 (99.9)	570 (100)

χ^2=6.968, p=.031, γ=-.156

Summary

Examination of four independent variables found that officer race and assignment displayed a relationship to responsiveness, while officer gender and education did not. Nonwhite officers and officers in a community policing assignment are less likely to comply with a citizen's request for service than are their counterparts. The next portion of this inquiry will introduce control variables to clarify relationships through multivariate analysis.

Multivariate Statistics

This inquiry uses binary logistic regression and ordered logit as the method for multivariate analysis. The dependent variable is best expressed dichotomously and categorically, creating a preference for logistic regression and ordered logit over linear regression (McKelvey & Zavoina, 1975; Hosmer and Lemeshow, 1989; Borooah, 2002). The dependent variable in this analysis captures the events in two separate ways, one being dichotomous (officer did or did not fulfill a request) and in an ordinal fashion with ranking, with no specific distance between the actions (i.e., did not fulfill the request, promised/partially fulfilled request, fulfilled request). The utility of these forms of analysis lies in the ability to model the probability of an officer complying with a citizen's request as a function of officer characteristics and several control variables (DeMaris, 1995; Borooah; 2002).

A substantial amount of material exists in the literature surrounding the use of linear regression when modeling a dichotomous dependent variable (McKelvey & Zavoina, 1975; Hanushek & Jackson, 1977; Hosmer and Lemeshow, 1989). Difficulties with linear regression when variables are measured dictotomously typically revolve around the inability to model a dependent variable with a floor of zero and a maximum value of one (Pampel, 2000). In linear regression with a continuous variable, the regression line has the potential to extend beyond zero and up forever, depending on the nature of the slope and the value of the intercept (DeMaris, 1995). Linear regression is also limited in analysis of dichotomous dependent variables that violate the assumptions of normal distributions and homoscedasticity. Assumptions of normality are violated when only two residuals are available for the independent variables, because only two

values are available for the dependent variable (Pampel, 2000). Additionally, assumptions of homoscedasticity, or a constant measure of variance, are violated by a dependent variable with only two possible values, because the variance error may be quite different between independent variables with various values (DeMaris, 1995; Pampel, 2000).

Logistic regression is different from linear regression, which expresses coefficients as the change in a dependent variable resulting from a one unit change in the independent variable (Hosmer and Lemeshow, 1989; Allen, 1997), in that coefficients in logistic regression represent the change in the logged odds of an event occurring relative to a single unit change in the independent variable (Pampel, 2000). These coefficients are displayed as *b*, along with the standard error (SE).

Also displayed in the binary logistic regression table is an exponential beta (Exp. (B)). Also called an odds ratio, calculation of this statistic is completed by taking the antilogarithm of the logged odds to show the impact of the dependent variable on the odds of an event actually occurring. When analyzing an odds ratio, it is important to remember that a value of one would indicate that the independent variable has no impact on the dependent variable, while odds lower than one mean that increasing the independent variable would make the event less likely, and values greater than one would mean a single unit increase in the independent variable would make the event more likely (Liao, 1994).

Variables in a model represent partial logistic coefficients. In order for these single variables to be interpreted meaningfully, the entire model must explain the dependent variable better than a null model (e.g., a model containing only the intercept).

When using a logistic model, the log likelihood of the null model is compared to that of the analytic model. This produces a test of significance similar to the *F* statistic in a linear regression model. Larger disparities between the null value and the examined value indicate a smaller likelihood of the probability that all coefficients are equal to zero throughout the model and the population (DeMaris, 1995). The difference in these log likelihoods can then be considered a chi-square statistic, and depending on the degrees of freedom throughout the model, an indication can be given to determine how likely it is that the results provided are due to chance (Pampel, 2000).

Additionally, a statistic is also available that gives an indication of the variance explained by the model. Considered a pseudo-variance explained measure, the Nagelkerke (1991) R-square utilizes log likelihood values, which do not capture variance in the same way that summing squared deviations would in a linear regression model (Pampel, 2000).

This analysis is presented with all variables entered collectively. This type of presentation is preferred for the present analysis, because despite the valuable conceptual framework, findings are limited in the current literature and the field of responsiveness is relatively exploratory. The inquiry is not interested in monitoring whether the impact of officer characteristics changes when other variables are considered, but whether any variables actually have a demonstrated impact and the direction of their influence.

In terms of the second multivariate analysis, literature indicates that ordered probit and ordered logit are useful analytical tools when the dependent variable is measured ordinally, with direction assumed, but no uniform value between the units (Borooah, 2002; Greene, 2000). When measured in this fashion, categories must also be

mutually exclusive, which is indicative of the compliance variable offered in the current inquiry. The POPN data meet both of these requirements, as several categories were available to coders who could only choose one response, and the ranking in that database along, with rankings in current literature (Mastrofski et al., 2000) that full compliance is more favorable than partial compliance or a promise, which in turn would be more favorable than a refusal.

The fundamental theoretical difference between logit and probit is in the error term distribution, which would be logistic or normal, respectively (Borooah, 2002). In terms of application, scholars often have a difficult time selecting one of these approaches over another with a theoretical justification, as they often produce similar or identical results. Justification for the use of ordered logit in this inquiry results from alleviation of the assumption that the error term has a normal distribution.

Ordered logit is similar to multinomial logit, except that when multinomial logit is used to analyze data the information expressed through the ordered direction of the ordinal level variable is discarded (Borooah, 2002). Ordered logit also differs from multinomial logit, in that it contains the assumption of parallel slopes. For example, application of this assumption to the current inquiry would mean that the effect of an officer being male would have the inverse effect on compliance with requests as an officer not being male. There are no indications that the variables contained within this inquiry violate this assumption, and ordered logit remains a viable method for this analysis.

Ordered logit is interpreted in a fashion quite similar to logistic regression. However, in this analysis, the dependent variable will have a floor of 0 and a ceiling of 2.

Coefficients remain the logged odds of an event occurring, which will be displayed as *b* along with a standard error.

Binary Logistic Regression

Table 4.9 displays the logistic regression model of request fulfillment for officer, requester, and encounter characteristics. As shown, the model is significantly better at predicting officer compliance with citizen requests than a model containing only the intercept (χ^2=50.31, p=.00). This indicates that the variables in the model can be meaningfully interpreted on an individual basis. Officer characteristics found to be significant in the model are officer race (b=-.67, p=.00) and assignment (b=-.31, p=.032. The effect of these two variables was contrary to the hypothesized direction. Officers who are nonwhite, and who are in a community policing assignment are shown to be less likely to fulfill requests for service. For officer race and assignment, this supports findings from the bivariate analysis in the current inquiry. The finding for officer assignment also supports research by Sun et al. (2008), who found officers in a community policing assignment less likely to engage in non-coercive activities.

In terms of citizen characteristic control variables citizen disrespect (b= -1.07, p=.00) shows a significant relationship to fulfillment of requests for service. In previous research (Mastrofski et al., 2000), disrespectful requesters were less likely to have requests fulfilled when seeking control of another citizen. The current finding supports this previous research, as disrespectful citizens requesting services are also less likely to have a request fulfilled. Citizen age, as defined by need (young or elderly requester), also displays a significant relationship to fulfillment of requests (b=.198,

p=.028), although contrary to the hypothesized direction. Finally, none of the encounter control variables were found to be statistically significant.

Table 4.9 Effects of Independent and Control Variables on Police Compliance with Citizen Requests for Service (N=1,006)

Variable (Range)	*b*	S.E.	*p*	Exp(B)
Officer Characteristics				
Male (0-1)	.187	.184	.310	1.206
Bachelor's Degree or Greater (0-1)	-.105	.152	.490	.900
Nonwhite (0-1)	-.674***	.164	.000	.510
Experience (0-31)	-.009	.011	.406	.991
Community Officer (0-1)	-.311*	.145	.032	.733
Citizen Characteristics				
Male (0-1)	-.011	.006	.939	.989
Nonwhite (0-1)	.193	1.804	.179	1.212
Young or Elderly Requester (0-1)	-.534*	4.799	.028	.586
Middle Wealth or Greater (0-1)	.198	1.883	.170	1.618
Citizen Disrespectful (0-1)	-1.068***	12.263	.000	.344
Drug/Alcohol Influence Evident (0-1)	-.289	.783	.376	.749
Encounter Characteristics				
Officers Present (1-11)	.007	.014	.597	1.007
Citizens Present (1-120)	.059	.076	.441	1.061
Proactive Encounter (0-1)	.125	.236	.595	1.134
Intercept	.815	.283	.004	2.258

Model χ^2=50.311, p=.000
-2 Log=1213.885
Nagelkerke R^2=.068

*p≤.05, **p≤.01, ***p≤.001

Summary of Logistic Regression

The preceding analysis modeled officer characteristics and control variables with the dependent variable, officer responsiveness, measured dichotomously. The results indicate that officer race and assignment both impact an officer's willingness to fulfill a citizen's request for service. Nonwhite officers and community policing officers both reduce the odds that a citizen's request will be fulfilled.

Ordered Logit

Table 4.10 displays the ordered logit for officer characteristics and control variables by of officer compliance with citizen requests measured ordinally. The ordered logit model also explains a significant amount of the variance in officer fulfillment of requests (χ^2=58.87, p=.00). As shown, the change in measurement of the dependent variable did not display a large change in impact of the independent variables.

When measured ordinally (i.e., did not comply, promised/partially complied, fully complied), the significance of the independent variables remained the same, despite the increased categories provided for officer actions. Nonwhite officers were still less likely to be responsive to a citizen's request (b=-.72, p=.00), as were officer's in a community policing assignment (b=-.31, p=.03).

As was true in the binary logistic model, Table 4.10 shows that requesters hypothetically in need based on age (i.e., preschool-12, 60 years or older) were significantly less likely to have a request fulfilled than were those hypothesized to not demonstrate a need (b=-.59, p=.01). Similarly, citizens who were disrespectful (b=-1.17, p=.00) were less likely to have their requests fulfilled than those who did not disrespect officers. Requester gender, race, and wealth did not show a significant to

relationship to officers fulfilling or partially/promising to fulfill a request. Finally, as was true with the binary model, no encounter control variables displayed a significant relationship to partially/promising or fulfilling a request.

Table 4.10 Effects of Independent and Control Variables on Police Compliance with Citizen Requests for Service (N=1,006)

	b	Std. Error	*p*
Officer Characteristics			
Male (0-1)	.144	.180	.424
Bachelor's Degree or Greater (0-1)	-.142	.149	.340
Nonwhite (0-1)	-.718***	.158	.000
Experience (0-31)	.012	.011	.282
Community Officer (0-1)	-.313*	.142	.028
Citizen Characteristics			
Male (0-1)	.023	.138	.868
Nonwhite (0-1)	.188	.140	.180
Young or Elderly Requester (0-1)	-.594*	.233	.011
Middle Wealth or Greater (0-1)	.226	.141	.109
Citizen Disrespectful (0-1)	-1.170***	.281	.000
Drug/Alcohol Influence Evident (0-1)	-.234	.316	.460
Encounter Characteristics			
Officers Present (1-11)	-.037	.075	.616
Citizens Present (1-120)	.008	.013	.552
Proactive Encounter (0-1)	.190	.234	.415
Intercept (0)	-.136	.541	.802
Intercept (1)	1.501	.542	.006

Model χ^2=58.871, p=.000
-2 Log=1550.072
Nagelkerke R^2=.071

*p≤.05, **p≤.01, ***p≤.001

Multivariate Diagnostics

Collinearity tests were assessed on the independent variables and control variables for officer responsiveness. Overall, no problematic covariance was found within the independent and control variables. Most variables displayed a correlation between .02 and .16. The highest value was the correlation between the number of citizens present and the number of officers present at the encounter (.557). This value still falls well below the stringent threshold of .70. Additionally, no problematic variance inflation factors (VIF) were found. Again, the highest values occurred with the maximum number of citizens (1.479) and the maximum number of officers (1.488) at an encounter.

Chapter V: Secondary Analysis

As indicated in Chapter II, responsiveness is more conceptually dynamic than simply indicating whether officers fulfill a request, as it also involves explaining to citizens why the request cannot be fulfilled, if it is in fact denied. Mastrofski (1999) notes that when a citizen makes a request and the request is denied for various reasons, the officer can still be responsive by explaining their refusal. This chapter of the inquiry examines which officer characteristics promote the officer offering an explanation for refusing to fulfill a request. If a request was refused by an officer, POPN observers coded whether the officer provided an explanation for not fulfilling the request. The following will begin by providing univariate statistics for the frequency of officers providing explanations for unfulfilled requests. For bivariate analysis, contingency tables, crosstabs and gamma statistics will be used in this section, as they were in the bivariate statistics portion of Chapter IV. The tables exclude instances where the officer complied (promised/partial or full) with a request, and include all denials.

Univariate Statistics

Table 5.1 displays the frequency of explanations offered by officers in situations where a request was denied. The table indicates that officers provide an explanation in 75.6 percent of situations where a request is denied. Thus, in three of every four denied requests the officer offered some sort of explanation for why the request was not fulfilled.

Table 5.1 Distribution of Explanation Offered by Officers (N=127)

Explanation Offered	Percent
No	24.4
Yes	75.6

Bivariate Statistics

Table 5.2 displays the bivariate distribution of officer gender by willingness to offer an explanation for a denied request. As shown, female officers are more likely to provide an explanation when they deny a request than are their male counterparts (χ^2=7.16, p=.01, γ = -1.00), as no female officers refused to supply an explanation. While these results seem impressive, caution should be exercised, as female officers comprised only 19 cases, an extremely small sample. A zero in the contingency table may also exaggerate the effect of the chi-square and gamma statistics, and even one refusal of an explanation would seriously mitigate the effect.

Table 5.2 Bivariate Distribution of Refusal Explanation by Officer Gender

Explanation Offered	Female n	(%)	Male n	(%)
No	0	(0.0)	30	(28.6)
Yes	19	(100.0)	75	(71.4)
Total	19	(100.0)	105	(100.0)

χ^2=7.161, p=.007, γ = -1.000

Table 5.3 displays the bivariate distribution for offering an explanation by officer education. As shown, officers with a four year degree (χ^2=4.50, p=.03, γ = -.41), were less likely to provide an explanation when a request was denied than were their counterparts with less than a four year degree. This is contrary to the hypothesized direction, as officers with a four year degree were posited to have improved communication skills, and therefore be more adept at explaining why a request must be denied.

Table 5.3 Bivariate Distribution of Refusal Explanation by Officer Education

Explanation Offered	<Four year degree n (%)		Four Year Degree+ n (%)	
No	13	(17.6)	18	(34.0)
Yes	61	(82.4)	35	(66.0)
Total	74	(100.0)	53	(100.0)

χ^2=4.499, p=.034, γ = -.414

Bivariate distribution of officer willingness to provide an explanation for a refused request is presented in Table 5.4. Analysis of the chi-square (χ^2=.20, p=.66) indicates that no significant difference exists between white and nonwhite officers in their willingness to provide citizens with an explanation for denying their request.

Table 5.3 Bivariate Distribution of Refusal Explanation by Officer Race

Explanation Offered	White n	(%)	Nonwhite n	(%)
No	22	(25.6)	9	(22.0)
Yes	64	(74.4)	32	(78.0)
Total	86	(100.0)	41	(100.0)

χ^2=.198, p=.656, γ = .100

Table 5.4 illustrates the bivariate distribution of officer race and providing an explanation for an unfulfilled request. As shown, officer assignment and willingness to offer an explanation for an unfulfilled request are independently distributed (χ^2=.78, p=.38). As such, while community officers may be more reluctant to fulfill a request, they are still as responsive in terms of providing an explanation for leaving a request unfulfilled.

Table 5.4 Bivariate Distribution of Refusal Explanation by Officer Assignment

Explanation Offered	Other Officers n (%)		Community Officers n (%)	
No	12	(29.3)	19	(22.1)
Yes	29	(70.7)	67	(77.9)
Total	41	(100.0)	86	(100.0)

χ^2=.775, p=.379, γ = .187

Multivariate Analysis

This portion of the inquiry also uses binary logistic regression, the same method that was used in chapter IV, as the dependent variable is dichotomous (i.e., did the officer provide an explanation for refusing a request). In order to clarify the relationship between officer characteristics and whether an explanation was offered for not fulfilling a request, multivariate analysis will include the control variables used in chapter IV as well.

Table 5.5 displays the binary logistic regression of officer characteristics (i.e., education, race, experience, and assignment),[2] and control variables (i.e., citizen and encounter characteristics),[3] by officer willingness to provide an explanation when leaving a citizen's request unfulfilled. As shown, officer education (b=-1.980, p=.005) and officer assignment (b=1.32, p=.03) both demonstrate a relationship to providing an explanation for an unfulfilled request. Officers with a four year degree or more were less likely to provide an explanation when the left a request unfulfilled, while officers in a community policing assignment were more likely to offer an explanation.

In terms of citizen characteristics, citizen race and citizen class demonstrated a relationship to officer's willingness to provide an explanation. Nonwhite citizens were more likely to have an explanation provided (b=2.27, p=.00). Citizens who were middle wealth or above were also more likely to receive an explanation from officers (b=1.63, p=.01). These two findings, while based on a small sample size, tend to indicate that

---

[2] Officer gender excluded due to female officers providing an explanation in all encounters

[3] Proactive encounters excluded due to officers in proactive encounters providing an explanation in all encounters

officers choose to explain more to certain citizens (minority and middle wealth), than to other citizens.

Of the encounter level variables, only the number of citizens present at the encounter displayed a relationship to officer's offering a request (b=-.19, p=.01). As the number of citizens at an encounter increased, the officer's willingness to explain the refusal of a request decreased. This finding is in the predicted direction, as an officer may become too busy or uncomfortable in a setting with a large number of citizens, and will forgo the explanation on the action or inaction to which they are engaged.

Table 5.5 Logistic Regression Officer Characteristics, Controls by Explanation (N=124)

Variables	*b*	SE	*p*	Exp(B)
Officer Characteristics				
Bachelor's Degree or Greater	-1.980**	.704	.005	.138
Nonwhite	-.435	.601	.469	.647
Experience	-.045	.039	.249	.956
Community Officer	1.322*	.604	.029	3.753
Citizen Characteristics				
Male	-.134	.571	.815	.875
Nonwhite	2.266***	.676	.001	9.641
Middle Wealth or Greater	1.633**	.626	.009	5.117
Young or Elderly Requester	.232	.948	.806	1.262
Citizen Disrespectful	1.911	1.185	.107	6.762
Drug/Alcohol Influence Evident	-.350	.889	.694	.705
Encounter Characteristics				
Citizens Present	-.192*	.079	.014	.825
Officers Present	.173	.365	.635	1.189
Intercept	.759	1.031	.462	2.137

Model χ^2=36.046, p=.000
-2 Log=101.172
Nagelkerke R^2=.377

*p≤.05, **p≤.01, ***p≤.001

Summary

Officer education and officer assignment both display a relationship to officers providing an explanation for an unfulfilled request. The effect for officer education is contrary to hypothesized direction of this variable, while the direction for community policing assignment is in the hypothesized direction. In terms of citizen characteristics, nonwhite and middle wealth or above citizens were both more likely to receive an explanation when their requests were not fulfilled. Also, when the number of citizens at an encounter increases, the odds of the requester receiving an explanation for their request being unfulfilled are significantly reduced.

Chapter VI: Discussion

The intent of the research presented in this thesis was to examine the relationship between officer characteristics and officer responsiveness to requests for service in police-citizen encounters. Previous examinations related to this area focused primarily on situations where the requests were for the officer to take a coercive action, or were related to service behaviors with little regard for citizen requests. In this inquiry the dependent measure, officer responsiveness to service requests, was modeled as a function of officer characteristics and other controlling variables. Essentially, this analysis allowed for an examination of the impact that officer characteristics have on responsiveness to service requests in over 1,000 police-citizen encounters, in two medium sized cities. Considering the unique nature of the inquiry, the results stand alone in terms of officer responsiveness in service related encounters. In terms of related studies, the results provide support for previous inquiries, but also may have opened new ways of explaining the findings in related research.

Overview of Findings

Overall, the rate of responsiveness for officers was quite high (63.3%). Officers were most willing to comply with requests for information, followed by requests for physical help, acting with an agency, and filing a report. Generally, the impact of officer characteristics on responsiveness was limited to officer race and assignment. The impacts ranged from negligible to modest. Nonwhite officers and community policing officers were less likely to comply with a citizen's request for service than were their counterparts. In terms of community policing assignment, this supports the findings by

Sun and colleagues (2008) that officers in a community policing role will actually be less likely to engage in a service related behavior than other officers.

Additionally, findings in the current inquiry contradict those in previous works. Findings by Mastrofski and colleagues (2000), which demonstrated a relationship between gender and responsiveness, when control of another citizen was requested, were not displayed in the current inquiry, when service was requested. This could be for a host of reasons, which would be difficult to parse out given the available information, and provides an area for further inquiry. Further, the null relationships of officer race and education to non-coercive (i.e., service) behaviors demonstrated by Sun and colleagues (2008) were not exhibited when the call for action was initiated by the citizen. Race and education both exhibited a negative effect on service related behaviors when officer action was driven by service related requests.

Further, the conceptual framework includes officer explanations for unfulfilled requests as a form of responsiveness. Officer characteristics, primarily education, have a hypothetical impact on officer communication skills according to some scholars (Carter and Sapp, 1989; Bittner, 1990) indicating that better educated officers would be more responsive, while others indicate that education would not improve the experience of police clientele (Worden, 1990). Findings from the current inquiry show that when certain relevant variables are controlled for, officers with a bachelor's degree or more education are less likely to explain an unfulfilled request. This lends more support toward Mastrofski and colleagues (2000) hypothesis that more educated officers would experience a greater disconnect with citizens, than the argument that improved

communication skills developed at a four year college significantly improve the responsiveness of officers.

In terms of citizen characteristics, citizen disrespect (the most impactful predictor) and citizen age were both significantly related to officer willingness to fulfill a request. Citizen disrespect, as predicted, reduced the likelihood that an officer would fulfill the request. Contrary to the hypothesized direction, youthful or elderly requesters were less likely to have their requests fulfilled. One heartening finding is the lack of a citizen gender, race, and class to predict fulfillment of requests. This means that officers did not withhold service based on these demographic features when other variables are controlled.

Further Questions for Consideration

The current inquiry does not employ a theory *per se*, but more realistically employs a conceptual framework for examining officer responsiveness to citizen requests for service. When invoking control, use of Black's (1976) theory explaining the behavior of law was useful for the examination, but does not adequately address these situations where the focus is not on illegal acts and the direction of coercion, but represent a situation where the requester and the officer are the only two subjects of interest. Similarly, Sun et al. (2008) draw upon an officer's characteristics being somehow related to officer skill. Essentially, a clear theoretical framework is lacking for the explanation of the impact that multiple officer level characteristics have on service related behavior. This is true particularly when considering responsiveness, an even more narrowly defined element of service related behavior.

This illuminates the question, what exactly is the relationship between officer characteristics and the fulfillment of citizen requests for service? Certain conjectures may hold true, in that some officers may experience a disconnect to less educated citizens, or this relationship may be a matter of convenience and not the true explanation for the displayed behavior at all. Similarly, the logic behind assignment of officers as community policing specialists would be to provide them with ample time to address the needs expressed by citizens. Whereas an officer who is call driven may engage in more service related activities (Sun et al., 2008), work environments can often place pressure on officers to get back in service (Guyot, 1991). Patrol officers should hypothetically be more inclined to refuse, as they are not alleviated from responding to calls. However, this is not the trend shown in the current inquiry, as patrol officers are actually more likely to fulfill a request for service.

Unlike problem solving, it does not seem that responsiveness should require any particular skill. Sun et al. (2008) seemed to focus on officer characteristics as a proxy for skill level in completing coercive or non-coercive tasks. Fulfilling a citizen's request for a report, information, physical help, or acting with an agency all seem within the duties and abilities of an officer. Perhaps the skills of responsiveness would be more in the realm of human understanding, where officers do not simply dismiss a request, but offer an explanation for refusing to fulfill the request on any number of grounds (Mastrofski, 1999; Guyot, 1991). The reasons that officers are unwilling to fulfill a request are unclear, but it seems less related to the abilities of the officer than their connections with the citizens.

Mastrofski and colleagues (2000) framework seems to fit the findings slightly better, indicating that the dynamic between the officer and citizen may be more important than the skill of the officer. When measured dichotomously, officers with more education (hypothetically more skilled) were less likely to fulfill a request or provide an explanation. Disrespectful citizens were also less likely to have a request for service fulfilled, but it is unclear whether the citizen was disrespectful before making the request, or if they are disrespectful subsequent to having a request denied. However, this is not reflected in all findings, as community policing officers, who would intuitively have a better relationship with the citizens they encounter, were also less likely to fulfill a citizen's request. These issues should be developed through further research and theoretical direction that adequately addresses the relationship between officer characteristics and fulfillment of citizen requests.

Limitations of the Present Inquiry

First, as previously stated, the primary limitation of this inquiry is the lack of a true theoretical framework. The method in which the variables are tested is more representative of an exploratory study than examining the reasons behind differences in officers based on their characteristics. Future research should utilize a larger set of variables that better capture the officer's decision making process. Potentially, future research in this area would benefit from a more focused theoretical framework, which may include officer decision making processes.

Second, this dataset was designed to capture many aspects of police-citizen encounters, and was limited to four requests for service that commonly occur. If the research was designed specifically to suit request endeavors, and service requests in

particular, a wider array of requests could potentially be captured. Future research should include a greater variety of service requests to capture a larger portion of the officer's responsiveness to service requests.

A third limitation is that this research does not examine the target action for requests that were being made of officers. For example, officers were least likely to fulfill a request for filing a report. This may be due to a reluctance to engage in paperwork by the officer, or it may be due to differences in the importance individual officers attach to a particular problem. Some officers may see filing a report for a dog running loose in the neighborhood as a good use of their time and a community need, while others may view these problems as a low priority. Additionally, citizens may feel more comfortable asking community policing or nonwhite officers for assistance in less serious occasions. While legal factors such as evidence or crime seriousness can serve a proxy for the problem, and show the most influence in terms of impact (Mastrofski et al., 2000), the present inquiry does not have a measure of the importance tied to the requests made by a citizen for service.

Directions for Future Research

A primary concern for future research should be the utilization of an existing theory or creation of a new theory addressing differences in officer responsiveness. Progress of responsiveness to service request research should follow a theoretical framework that can explain officer and situational differences. Intervening factors, such the legitimacy of citizen requests (i.e., seriousness), should be considered in future endeavors concerning this type of research.

Additionally, hypotheses that are directed at specific officer characteristics could help develop the body of research. For example, Mastrofski et al., (2000) indicated a belief that more educated officers would be disconnected from requesters (who would have less education), and therefore would be less likely to fulfill a request. In the present inquiry this was not found to be true when citizens requested service. Further, white officers were more likely to fulfill a request for service, which is contrary to the hypothesized direction. Additionally, community policing officers were less likely to fulfill a request, providing less support for connection to citizens as an intervening factor. The hypothesis could still be relevant if white officers were more connected to citizens than are non-white officers, and perhaps development of a scale measuring attitudes toward requesters could aid in clarifying the stated relationships.

A second area that should be focused on in future research is expanding the types of departments in which the research is carried out. While Indianapolis and St. Petersburg are representative of a variety of departments, the body of research on responsiveness is low, and could be greatly benefited by collecting data from larger or smaller departments, or departments that do not put the same degree of emphasis on community policing. Similarly, departments that structure their community policing efforts differently (i.e., do not place officers in a community policing assignment, but focus on community policing holistically) could also display different dynamics in officer responsiveness.

Policy Implications

As is customary in the criminal justice literature, the current thesis will provide potential policy implications arising from the findings. The findings do not point to any

policy implications concerning recruitment of specific officers based on specific characteristics (i.e., increased recruitment of female, nonwhite, or more highly educated officers), or placement of certain officers in positions where they will experience increased service encounters (i.e., directing community officers or more/less experienced officers toward service encounters). Currently, the body of literature on service requests is so limited that making changes to police recruitment or training would be wholly irresponsible.

One potential area of policy that could be affected in the future is the recruitment of officers with positive attitudes toward citizens. Additionally, an area of policy change that is much easier said than done is developing a more positive connection between officers and citizens. While not thoroughly tested, an officer's connection to citizens (Mastrofski et al., 2000) and their ability to empathize or sympathize with citizens (Muir, 1977; Guyot, 1991) could be the missing link in improving officer responsiveness (even though compliance with requests is quite high). If these hypotheses are supported, it may support programs that build connections between officers and their citizens.

Appendix A

Variable Descriptions and Hypothesized Effects

Variable Name	Hypothesized Effect	Variable Coding
Dependent Variables		
Logistic Compliance		1=Fully complied, 0=All others
Ordinal Compliance		0=Did not fulfill request, 1=Promised/partially fulfilled request, 2=Fully complied with request
Explanation of Non-compliance		1=Officer did explain refusal, 0=Officer did not explain refusal
Independent/Controls		
Officer Characteristics		
Male	+	1=Male, 0=Female
Non-white	+	1=Non-white, 0=White
Education	-	1=Four-year degree+, 0=HS Diploma/Some college
Experience	-	Years of experience (continuous)
Community Officer	+	1=Community police officer, 0=Conventional patrol
Citizen Characteristics		
Male	+	1=Male, 0=Female
Nonwhite	-	1=Nonwhite, 0=White
Young or Elderly Requester	+	1=Young/Elderly Requester, 0=All others
Middle Wealth or Greater	+	1=Middle Wealth or Greater, 0=All others
Citizen Disrespect	-	1=Citizen Disrespectful, 0=All others
Drug/Alcohol Influence Evident	-	1=Suspect behavior indicates drug or alcohol effects, 0=all others
Encounter Characteristics		
Officers Present	-	Number of Officers on Scene
Citizens Present	-	Number of Citizens Observing
Proactive Encounter	+	1=Officer initiates encounter, 0=All others

Literature Cited

Alpert, G.P., Flynn, D., and Piquero, A.R. (2001). Effective community policing performance measures. *Justice Research and Policy, 3(2),* 79-94.

Alpert, G.P. and Moore, M.H. (1993). Measuring police performance in the new paradigm of policing. In DiIulio (ed.) *Performance measures for the criminal justice system.* Washington, DC: US DOJ.

Babbie, E. (1995). *The Practice of Social Research, Seventh Edition.* New York, NY: Wadswoth.

Bachman, R., & Paternoster, R. (2004). *Statistical Methods for Criminology and Criminal Justice.* New York: McGraw Hill.

Bayley, D.H. and Garofalo, J. (1989). The management of violence by police officers. *Criminology, 27(1),* 1-25.

Bayley, D.H. and Mendelsohn, H. (1969). Minorities and the police: Confrontation in America. New York: Free Press.

Beattie, R. (1960). Criminal statistics in the United States. *Journal of Criminal Law, Criminology, and Police Science 51,* 49–51.

Bercal, T.E. (1970) Calls for police assistance: Consumer demands for governmental service. *American Behavioral Scientist, 13(5/6),* 681.

Bittner, E. (1970). The functions of the police in modern society. Cambridge: Oelgeschlager.

Bittner, E. (1990). Some reflections on staffing Problem-Oriented Policing. *American Journal of Police, 9,* 189-196.

Borooah, V.K. (2002). *Logit and Probit: Ordered and multinomial models.* Thousand Oaks, CA: Sage.

Brooks, L.W., Piquero, A., and Cronin, J. (1993). Police attitudes concerning their communities and their roles: A comparison of two suburban police departments. *American Journal of Police, 12(3),* 115-140.

Brown, R.A. and Frank, J. (2006). Race and officer decision making: Examining differences in arrest outcomes between black and white officers. *Justice Quarterly, 23(1),* 96-126.

Brown, T. (2007). Coercion versus choice: Citizen evaluation of public service quality across methods of consumption. *Public Administration Review, 559-572.*

Carlson, H.M. and Sutton, M.S. (1979). Some factors in community evaluation of police street performance. *American Journal of Community Psychology, 7(6),* 583-591.

Carter, D.L. and Sapp, A.D. (1989). The effect of higher education on police liability: Implications for police personnel policy.

Chaiken, J., Greenwood, P., Petersilia, J. (1991). The Rand study of detectives. In C.B. Klockars and S.D. Mastrofski (Eds.), *Thinking about police: contemporary readings* (2nd ed., 170-187). New York: McGraw-Hill.

Coupe, T., and Griffiths, M. (1999). The influence of police actions on victim satisfaction in burglary investigations. *International Journal of Sociology of Law, 27*, 413-431.

E.J. (1989). *Analysis of Binary Data (2nd ed.).* London: Chapman and Hall.

Decker, S. (1981). Alternate measures of police output. *American Journal of Police, (1),* 23–35.

Decker, S.H. (1981). Citizen attitudes toward the police: A review of past findings and suggestions for future policy: *Journal of Police Science and Administration, 9(1),* 80-87.

DeMaris, A. (1995). A tutorial in logistic regression. *Journal of Marriage and the Family 57,* 956-968.

Finckenauer, J.O. (1975). Higher education and police discretion. *Journal of Police Science and Administration, 3,* 450-57.

Friedrich, R.J. (1977). *The impact of organizational, individual, and situational factors on police behavior.* Unpublished doctoral dissertation, University of Michigan.

Furstenburg, Jr., F.F. and Wellford, C.F. (1973). Calling the police: The evaluation of police service. *Law and Society Review, 7,* 393-406.

Fyfe, J. (1993). Good policing. In B. Forst (Ed.), *The Socio-economics of Crime and Justice* (269-290). Armonk, NY: M.E Sharpe.

Glauser, M.J. and Tullar, W.L. (1985). Citizen satisfaction with police officer/citizen interaction: Implications for the changing role of police organizations. *Journal of Applied Psychology, 70(3),* 514-527.

Greenberg, D.F., Kessler, R.C., and Logan, C.H. (1979). A panel model of crime rates and arrest rates. *American Sociological Review, 44,* 843-850.

Greene, W.H. (2000). *Econometric analysis*. Englewood Cliffs, NJ: Prentice Hall (4th ed.).

Guyot, D. (1991). Policing as though people matter. Temple University Press: Philadelphia.

Hosmer, D.W., and Lemeshow, S. (1989). *Applied Logistic Regression.* New York: Wiley & Sons.

Jacob, H. (1971). Black and white perceptions of justice in the city. *Law and Society Review, 5,* 69-89.

Jacob, H. (1972). Contact with government agencies: A preliminary analysis of the distribution of government services. *Midwest Journal of Political Science, 16,* 123-146.

Liao, T. F. (1994). *Interpreting Probability Models: Logit, Probit, and other Generalized Linear Models.* Thousand Oaks, CA: Sage.

Lind, E.A., and Tyler, T.R.. (1988). *The social psychology of procedural justice.* New York: Plenum.

Long, J.S. (1997). *Regression models for categorical and limited dependent variables.* Thousand Oaks, CA: Sage.

Kelling, G.L. (1978). Police field services and crime: The presumed effects of a capacity. *Crime and Delinquency, 24,* 173-184.

Kelling, G., and Moore M. (1988) The evolving strategy of policing. *Perspectives on Policing* no. 4. National Institute of Justice, John F. Kennedy School of Government, Harvard University.

Kelly, J.M. (2002). Why we should take performance measurement on faith (Facts being hard to come by and not terribly important. *Public Performance & Management Review, 25(4),* 375-380.

Kelly, J. M. (2003). Citizen satisfaction and administrative performance measures: Is there really a link? *Urban Affairs Review, 38,* 855-866.

Kitsuse, John, and Cicourel, A.V. (1963) A note on the uses of official statistics. *Social Problems, 11,* 131–139.

Klockars, C. (1999). Some really cheap ways of measuring what really matters. In *Measuring What Matters: Proceedings from the Policing Research Institute Meetings.* Office of Community Oriented Policing Services, National Institute of Justice: Washington, DC.

Maguire, E.R. and Uchida, C.D. (2000). Explanation in the comparative study of American police organizations. In Duffee, D., McDowell, D., Ostrom, B., Crutchfield, R., Mastrofski, S., Mazerolle, L. (Eds), *Measurement and Analysis of Crime and Justice,4,* U.S. Department of Justice, Washington, DC, 491-558.

Maltz, Ml. (1977). Crime statistics: A historical perspective. *Crime & Delinquency, 23,* 32–40.

Manning, P.K. (1971). The police: Mandate, strategies, and appearances. In Douglas, J.D. (ed.) Crime and justice in American society. Indianapolis, IN: The Bobbs-Merrill Company.

Manning, P.K. (1988). Community policing as a drama of control. In Greene, J.R. and Mastrofski, S.D. (eds.). Community policing: Rhetoric or reality. New York: Praeger.

Mastrofski, S.D. (1981). Surveying clients to assess police performance: Focusing on the police-citizen encounter. *Evaluation Review, 5(3),* 397-408.

Mastrofski, S.D. (1988). Community policing as a reform: A cautionary tale. In Greene, J.R. and Mastrofski, S.D. (eds.). Community policing: Rhetoric or reality. New York: Praeger.

Mastrofski, S.D. and Parks, R.P. (1990). Improving observational studies of police. *Criminology, 28,* 475-496.

Mastrofski, S.D., Snipes, J.B. and Supina, A.E. (1996). Compliance on demand: The public's response to specific police requests. *Journal of Research in Crime and Delinquency, 33(3),* 269-305.

Mastrofski, S.D. Parks, R.B., Reiss, Jr., A.J., Worden, R.E., DeJong, C., Snipes, J.B. and Terrill, W. (1998). *Systematic observation of public police: Applying field research methods to policy issues.* Washington, DC: National Institute of Justice.

Mastrofski, S.D. Parks, R.B. and McCluskey, J.D. (2009). Systematic Social Observation in Criminology. In Piquero, A.R. and Weisburd, D. (eds.) *Handbook of Quantitative Criminology.* Springer Science.

Mastrofski, S.D. (1999). Policing for people. *Ideas in American Policing.* Police Foundation, Washington, DC.

Mastrofski, S.D., Snipes, J.B., and Maxwell, C.D. (2000). The helping hand of the law: Police control of citizens on request. *Criminology, 38(2),* 307-342.

McKelvey, R.D., & Zavoina, W. (1975). A statistical model for the analysis of ordinal level dependent variables. *Journal of Mathematical Sociology 4,* 103-120.

Monkkonen, E.H. (1992). History of urban police. In *Modern policing*, edited by

Tonry, M. and Morris, N. *Crime and justice: A review of research, 15.* Chicago: University of Chicago Press.

Moore, M.H. and Braga, A.A. (2004). Police performance measurement: A normative framework. *Criminal Justice Ethics, 23,* 3-19.

Muir, W.K. (1977). *Police: Streetcorner politicians*. Chicago: University of Chicago Press.

Nagelkerke, N.J.D., A note on a general definition of the coefficient of determination. *Biometrika, 78(3),* 691-692.

Oettmeier, T.N. (1994). Police performance in the nineties: Practitioner perspectives. *American Journal of Police, 13(2),* 21-49.

Oettmeier, T.N., and Wycoff, M.A. (1998). Personnel performance evaluations in the

community policing context. In O'Connor Shelly, T. and Grant, A.C. (eds.) *Problem-oriented policing: Crime-specific patterns, critical issues, and making POP work*

Washington, D.C.: Police Executive Research Forum.

Pampel, F.C. (2000). *Logistic Regression: A Primer*. Thousand Oaks, CA: Sage.

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

Paoline, Eugene A. III and Terrill, W. (2004). Women police officers and the use of coercion, *Women and Criminal Justice, 15 (3/4)*, 97-119.

Paoline III, E.A., and Terrill, W. (2007). Police education, experience, and the use of force. *Criminal Justice and Behavior, 34(2),* 179-196.

Parks, R.B., (1976). Police response to victimization effects on citizen attitudes and perceptions. In *Sample surveys of the victims of crimes*, Skogan, W. (ed.), Cambridge: Bellinger.

Parks, R. B., Mastrofski, S.D., DeJong, C. and Gray, M. K. (1999). How officers spend their time with the community. *Justice Quarterly 16(3),* 483-518.

Reisig, M.D. and Chandek, M.S. (2001). The effects of expectancy disconfirmation on outcome satisfaction in police-citizen encounters. *Policing: An International Journal of Police Strategies and Management, 24(1),* 88-99.

Reisig, M.D. and Parks, R.B. (2002). Satisfaction with police: What matters? USDOJ, Washington, DC.

Reisig, M.D. and Lloyd, C. (2009). Procedural justice, police legitimacy, and helping the police fight crime: Results from a survey of Jamaican adolescents. *Police Quarterly, 12(1),* 42-62.

Reiss, A. (1967). Studies in crime and law enforcement in major metropolitan areas, 1(2), Washington, D.C.: Government printing office.

Riksheim, E.C., and Chermak, S.M. (1993). Causes of police behavior revisited. *Journal of Criminal Justice, 21(4),* 353-382.

Robison, S. (1966) A critical view of the Uniform Crime Reports. *Michigan Law Review 64,* 1031–1054.

Schafer, J.A. and Mastrofski, S.D. (2005). Police leniency in traffic enforcement encounters: Exploratory findings from observations and interviews. *Journal of Criminal Justice, 33,* 225-238.

Seidman, D., and Couzens, M. (1974). Getting the crime rate down: Political pressure and crime reporting. *Law & Society Review 8,* 457–493.

Sherman, L.J. (1975). An evaluation if policewomen on patrol in a suburban police department. *Journal of Police Science and Administration, 3(4),* 434-438.

Sherman, L.W. (1980). Causes of police behavior: The current state of quantitative research. *Journal of Research in Crime and Delinquency, 17,* 69-100.

Shernock, S.K. (1992). The effects of college education on professional attitudes among police. *Journal of Criminal Justice Education 3(1),* 71-92.

Skogan, W.G. (2005). Citizen satisfaction with police encounters. *Police Quarterly, 8(3),* 298-321.

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

Smith, D.A. and Visher, C.A. (1981). Street-level justice: Situational determinants of police arrest decisions. *Social Problems, 29(2),* 167-177.

Spano, R. (2003). Concerns about safety, observer sex, and the decision to arrest: Evidence of reactivity in a large-scale observational study of police. *Criminology 41(3),* 909-932.

Sparrow, M., Moore, M., and Kennedy, D. (1990). Beyond 911: A new era for policing. New York: Basic Books.

Spelman, W.G. and Brown, D.K. (1981). Response time. *Calling the police: A replication of the citizen reporting component of the Kansas City Response Time Analysis.* Washington, DC: PERF.

Sun, I.Y., Payne, B.K., Wu, Y. (2008). The impact of situational factors, officer characteristics, and neighborhood context on police behavior: A multilevel analysis. *Journal of Criminal Justice, 36,* 22-32.

Terrill, W. (2001). *Police coercion: Application of the force continuum.* New York: LFB scholarly publishing.

Terrill, W., & Mastrofski, S. D. (2002). Situational and officer based determinants of police coercion. *Justice Quarterly, 19,* 215-248.

Thibaut, J. and Walker, L. (1975). *Procedural Justice: A psychological analysis.* Hillsdale, NJ: Earlbaum.

Traut, C.A., Feimer, S. Emmert, C.F. and Thom, K. (2000). Law enforcement recruit training at the state level: An evaluation. *Police Quarterly, 3(3),* 294-314.

Tyler, T. (1980). *Why people obey the law.* New Haven: Yale University Press.

Tyler, T.R. (1990). *Why people obey the law.* New Haven, CT: Yale University Press

Tyler, T.R. (1997). Citizen discontent with legal procedures. *American Journal of Comparative Law*45:869-902.

Tyler, T.R. (2005). Policing in Black and White: Ethnic group differences in trust and confidence in the police. *Police Quarterly, 8(3),* 322-342.

Van Maanen, J. (1978). The asshole. In Manning, P.K. and Van Maanen, J. (eds.) *Policing: a view from the street.* Santa Monica, CA: Goodyear.

Walker, M.A. (1992). Do we need a clear-up rate? *Policing and Society, 2,* 293–306.

Walker, S. (2007). Police accountability: Current issues and research needs. Paper presented at the National Institute of Justice (NIJ) Policing Research Workshop: Planning for the Future, Washington, DC, November 28-29, 2006.

Westley, W.A. (1970). *Violence and the Police: A Sociological Study of Law, Custom, and Morality.* Cambridge: MIT Press.

Wolfgang, M. (1963). The Uniform Crime Reports: A critical appraisal. *University of Pennsylvania Law Review,111,*708–738.

Worden, R. E. (1990). A badge and a baccalaureate: Policies, hypotheses, and further evidence. *Justice Quarterly, 7,* 565-592.

Worden, R.E. and Brandl, S.G. (1990). Protocol analysis of police decision-making: Toward a theory of police behavior. *American Journal of Criminal Justice, 14(2),* 297-318.