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Do Patrol Beat and Police Officer Attributes Predict Citizen Complaint?

Eduardo Guajardo

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DO PATROL BEAT AND POLICE OFFICER

ATTRIBUTES PREDICT CITIZEN COMPLAINT?

A Thesis

by

EDUARDO GUAJARDO III

Submitted to Texas A&M International University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

May 2020

Major Subject: Criminal Justice

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ABSTRACT

Do Patrol Beat and Police Officer Attributes Predict Citizen Complaint? (May 2020)

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Dr. Claudia San Miguel and Dr. Marcus Antonius Ynalvez

Citizen complaints against police officers have been the highlight of national news media and outlets. Complaints of use of force are not the only ones that arise from citizens' complaints; other complaints such as discourtesy and demeanor are issues that police officers face and answer to their internal affair's investigative units. The aim of this study is to examine what ascribed (e.g., age, gender, and marital status) and career-related achieved (e.g., certification, education, experience, and training) characteristics of police officers influence citizens' complaints in terms of type, frequency, and severity. Contextual factors such as patrol beat, used as a moderating factor, is also examined. Data was collected from a police department in a border city along the Texas-Mexico border. A sample of police officer records served as the basis for this study's data and analyses.

A linear regression modeling approach was used to analyze data. The findings demonstrated that age is a consistently significant negative predictor (i.e., older officers generate lower annual rates of complaints) of annual rate of complaints per year and that basic certification has a significant negative impact (i.e., officers with basic certification have a lower severity index score) on the utilized severity score. Understanding the characteristics and nature of these relationships have the potential to improve police interdepartmental policy which would assist officers in forming better community relationships.

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INTRODUCTION

Citizen complaints against police officers present a threat to the legitimacy of the police profession. The legitimacy of the police rests with the citizens they serve. Such legitimacy, however, becomes compromised when the actions of police officers are deemed to be unfair and unjust. Unfair and unjust actions by the police were at the forefront of public riots and demonstrations during the 19th century to the early 20th century (Moore, 2016). Riots such as the Zoot Suit Riots, which were incited by the Los Angeles Police Department due to attacks on Mexican Americans, and the Stone Wall riot ,which was due to New York Police Department's attacks on gay bars, are just some of the examples of demonstrations against actions deemed unfair by citizens (Moore, 2016). More recent examples include riots after the Rodney King case and public outcry after the shooting of Michael Brown in Ferguson, Missouri (Shin, 2017). Although the public can voice their discontent in the form of riots, demonstration, or more recently in the form of outcries on social media (Hickman, 2006), citizens can file a formal complaint against an officer.

A complaint is filed by citizens who feel that they have been treated unfairly by the police regardless of the veracity of the encounter (Harris, 2010). However, Terrill and Paoline (2015) state that those who complain about the police make up only a fraction of the population. Regardless of the number of citizens who file complaints against police, such complaints call into question characteristics of officers that may predispose them to make unfair, unsound or unprofessional actions and decisions (Terrill & Paoline III, 2015). The focus of this study is to

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This thesis follows the model of *International Journal of Police Science and Management*

examine what ascribed (e.g., age, gender, and marital status) and career-related achieved (e.g., certification, education, experience, and training) characteristics of police officers influence citizens to file a complaint against police.

Some of the most common ascribed characteristics discussed in literature regarding factors that influence citizens to file a complaint against police are age and gender. Terrill and Paoline III (2015) found that young inexperienced male officers receive the highest number of citizen complaints. Chapman (2012) found that young officers were more likely to use force or excessive force when effecting an arrest. Schuck (2014) conducted a study in which he introduced gender as a factor to explain citizen complaints. This author noted that female officers tend to be more socially skilled and exhibit more nurturing characteristics than male officers; and therefore, create better police-citizen relationships. Career-related achieved characteristics that appear in scholarly literature include an officer's level of education A series of independent studies shows how education may or may not affect complaints filed against an officer (Manis, Archbold, & Hassell, 2008). Another factor that has been studied is training. Kinnaird (2006) conducted a study on the effects of police training and how it impacts the number of times citizens complain against officers. Harris (2010), on the other hand, conducted a longitudinal study using a cohort of police officers and determined how an officer's experience throughout his/her career influences the complaints filed against the police officer.

Barrett, Haberfeld, and Walker (2008) used area demographics such as urban, suburban, and rural areas to study the perception of police officer from citizens in these areas. Aside from ascribed and achieved characteristics, researchers have studied the influence of demographics or location as a factor that correlates with citizen complaints against officers. Payne and Gainey (2007) also conducted a similar study, which included elements and aspects of disadvantaged

neighborhoods. Payne and Gainey (2007), and Barrett, Haberfeld, and Walker (2008) are of importance to this study because public perception of the police through their work location can influence a citizen to file a police complaint.

While these studies have generated positive insights in identifying officer characteristics that can predict citizen complaints, they lack the ability to look at most if not all of the officers' characteristics (ascribed and achieved). Many of the mentioned studies focus on just one or two aspects of a police officer. One aspect or characteristic that most studies fail to examine is the marital status of a police officer and how it influences citizen complaints. Karaffa, Openshaw, Koch, Clark, Harr, and Stewart (2014) focus on how a marriage is affected when at least one partner is a police officer. This study, however, will examine how marriage and the stress that it may cause, impacts the police officer's performance and the possibility of generating a citizen complaint.

In this study, a synthesis of all five studies (Terrill & Paoline III, 2015; Payne & Gainey, 2007; Kinnaird, 2006; Schuck, 2014; Chapman, 2012) used to explore how officers achieved characteristics such as certification, education, training, and experience play a role in the determination of citizens' complaints. This study also explores if officers' ascribed characteristics such as gender and age increased the likelihood of citizens' complaints. Finally, this study examines whether contextual factors (e.g., patrol beat) directly or indirectly influence the generation of citizen complaint.

The central hypothesis is that career-related achieved characteristics of police officers predict the type, frequency, and severity of citizens' complaints; however, this predictive effect is conditioned by contextual factors. This study has the ability to generate insights as to how a set of ascribed, achieved, and contextual factor influence citizen complaints. By being able to identify

factors that are able to explain and predict citizen complaints, the ability to formulate and implement policies is optimized, which can greatly dampen the number and type of complaints filed against police officers. That same resultant explanatory and predictive model has the potential to not only improve police-citizen relationships but also reduce violence against police officers.

LITERATURE REVIEW

Citizen Complaints

Citizen complaints pose a threat to the legitimacy of, not only the police officer, but also to the police profession itself. The legitimacy of the police rests on the actions that the public deem to be fair and just. A concept used in establishing police legitimacy is procedural justice (Terrill & Paoline III, 2015). Sunshine and Tyler (2003) stated that procedural justice deals with the course of action that a police officer uses during decision-making and while exercising authority. When the public views the police as making unfair, unsound, and unprofessional actions and decisions, they become dissatisfied and file formal or informal complaints (Terrill & Paoline III, 2015). As mentioned, a complaint is filed by citizens who feel that they have been treated unfairly by the police regardless of the veracity of the encounter outcome (Harris, 2010). That is, citizens who feel they have been treated unfairly will complain about police regardless of whether such treatment was unfair, disrespectful, or unjustified. However, Terrill and Paoline (2015) state that those who complain about the police make up only a fraction of the population. Also, Terrill (2016) mentions that only a small fraction of officers generate citizen complaints.

While only a small population of officers are deemed by citizens to be unfair, disrespectful, or unjust, scholars have studied factors or characteristics that correlate with citizen complaints against police. Terrill and Paoline (2015) stated that complaints are filed by citizens who feel that they have been treated unfairly by the police regardless of the encounter outcome. In addition, Harris (2010) also comments that citizens are more likely to complain when they are frustrated due to the officer's unjust behavior. The most common type of citizen complaint is usually an officer being rude or using excessive use of force (Harris, 2010).

Complaints come in many forms. One complaint that an officer will very likely generate

throughout his/her career is excessive use of force. Excessive use of force occurs when an officer uses more force than necessary to effect an arrest (Hickman, 2006). Another type of complaint is discourtesy, which takes place when a citizen feels an officer is rude by way of the officer's language, behavior, or gestures. Bias is yet another type of complaint that is typically filed against an officer. This occurs when a citizen perceives that an officer is taking sides in the conduct of an investigation. A neglect of duty complaint is generated when the officer does not take necessary action as required by law.

A complaint can have five outcomes. The first outcome is when a complaint is found not sustained. This type of outcome arises when a complaint has insufficient evidence to prove the complaint to be true (Hickman, 2006). The second possible outcome of a complaint is when a complaint is unfounded. An unfounded complaint is when the complaint was not based on facts or was a false complaint generated by a citizen. The next outcome is that the officer could be exonerated from the complaint. An exonerated outcome occurs when the allegations against the officer are true; however, the officer acted accordingly and lawful. The fourth outcome is when a complaint is sustained. This happens when there is sufficient evidence that the officer acted inappropriately and requires disciplinary action. Finally, the fifth outcome to a complaint is known as other. This occurs when the complainant withdraws the complaint (Hickman, 2006).

The severity of a complaint is not a concrete factor. The severity of a complaint is conceptual. No scale exists when it comes to classifying one complaint as more severe or less severe than another. The severity of a complaint lies within the complainant. The complainant is usually the one requesting punishment for the officer depending on the type of complaint. For example, a citizen filing a use of force complaint against an officer might request suspension, while a citizen filing a discourtesy complaint might request that the officer be verbally counseled.

Career-Related Achieved Characteristics

Level of education is a factor in shaping police behavior. Since the 1900's, an increase in a police officer's education was observed to make a "better" police officer. Shjarback and White (2016) in their study of police professionalism stated how the Law Enforcement Assistance Administration (LEAA) came together to make education more easily available for police officers by reducing the financial burden on the officers. This program is still in effect today. For instance, the State of Texas grants funds for police officers who pursue a criminal justice degree.

It is believed that education allows for better understanding of social behaviors and enable officers to communicate more efficiently with the community and its citizens (Shjarback & White, 2016). Furthermore, Cohen and Chaiken (1972) concluded in a study that officers with more education obtained less complaints. Other studies such as that of Cascio (1977), who used a police force of 940 officers, reported that higher education resulted in fewer complaints. Moreover, studies have indicated that a two-year degree can make a positive impact in generating less complaints (Lersch & Kunzman, 2001).

In contradistinction, Telep (2011) argued that there is little to no empirical evidence as to the enhancing effect of education on police interactional skills. Telep (2011) found that there is evidence to prove that officers with more education are more likely to use reasonable force, but that the level of education does not seem to matter in cases of excessive use of force. This may be the case for such a low requirement of education prior to employment as a police officer. Only about 16% of departments nationwide require college credits, and only about 9% require a two-year degree (Shjarback & White, 2016).

Education as a factor in complaints have resulted in mixed findings. Kane and White (2009) stated that several studies indicate that officers with little to no education are more likely to receive

a complaint. To the contrary, other studies find that no significant difference between degree of education and the complaints that an officer generates (Telep, 2011).

Training is yet another factor in examining the number of complaints that an officer receives. Training and experience are two factors that have been studied and are argued to influence citizen complaints. Shjarback and White (2016), hypothesized that departments who emphasized more training would generate less complaints. However, the authors did not find significant empirical evidence to support this hypothesis in their study. This finding may be explained by White (2007) who argues that training varies considerably across all municipalities. Other studies have found that the number of training hours does in fact have a significant positive impact on the use of force, regarding of lethal or non-lethal force (Smith, 2004). While training has been studied by many, the experience of an officer is said to have an impact on citizen complaints. Harris (2010) stated that problem behaviors that may lead to citizen complaints tend to decline as the officer gains more experience in the field. Scholars believe that a police officer's skill is learned with years on the job rather than learn the trait in a police academy setting (Wilson, 1968).

Ascribed Characteristics

Gender can make a difference in whether or not an officer generates a complaint. A police force is predominantly male with females being the minority in most, if not all, departments (Schuck, 2014). Many studies have been conducted on gender and the role that it plays when a citizen complaint is filed against a police officer. Excessive use of force is the most common type of complaint and is the center focus of most studies (Lersch, 1998). Previous research has shown that men are more prone to receive excessive use of force complaints than women. It is argued that women are more skillful in terms of building better relationships with the community, and when

it comes to police and citizen interactions. Women are believed to be more sympathetic than male officers (Lersch, 1998). Women are deemed better at what is known as emotional labor (Schuck, 2014). Men are viewed as more aggressive in nature and will generally escalate a situation than a female police officer who would rather deescalate a situation (Schuck, 2014). Aggressive behavior is a reason that can determine an increase in complaints among male officers.

Age is another ascribed characteristic that factors in when looking at the amount of citizen complaints an officer can obtain. It was found that young inexperienced male officers receive the highest number of citizen complaints (Terrill & Paoline III, 2015). Chapman (2012) found that young officers were more likely to use force or excessive force when effecting an arrest. It is also worth noting that in this same study, Chapman (2012) found that a young officer was likely to effect more arrests than an older officer. This could be the reason as to why a younger officer receives more complaints vs. an older officer.

A factor that little research has been conducted on pertains to the marital status of an officer. Previous studies considered how the job affects the marriage and the home environment. A police officer's job is extremely stressful and can create problems with his/her spouse. It can create emotional distance between an officer and his/her children (Karaffa et. al, 2014). Most studies that focus on marriage as a factor analyzed the psychological and emotional stress that relationships encounter when at least one partner is a police officer.

Contextual Factors

Contextual factors are physiognomies found in the environment such as the organizational settings of a community. As a context, the patrol beat that a police officer patrols has a spatial aspect. The spatial aspect of a patrol beat can also be a factor in the generation of citizens' complaints. For example, citizens from disadvantaged neighborhoods tend to distrust the police. Disadvantaged

neighborhoods are those neighborhoods in which the social status and income are significantly lower than the median and typically below the poverty line (Payne & Gainey, 2007). These disadvantaged neighborhoods are where crime such as theft and assaults are rife, mainly due to financial deprivation and chronic unemployment. In addition, Michalos (2003) reported that police satisfaction is bound by quality of life. Meaning, living in poor social conditions could lead individuals to file complaints quite frequently to discount police officers' integrity and performance.

METHODOLOGY

In building a framework to explain citizens' complaints of police officers' performance, this study takes the approach of building a *conceptual framework* instead of a *theoretical framework*. A theoretical framework is an explanatory system that takes the form of an existing, integrated, and well-developed theory such as Emile Durkheim's theory of suicide, and Robert Merton's anomie theory (Neuman, 2011). In contrast, a conceptual framework is an explanatory system that accesses and combines assumptions, axioms, concepts, and hypotheses and/or propositions from various scholarly -- theoretical and empirical – works (or various theories) (Neuman, 2011). That said, this study's conceptual framework builds on concepts, propositions, and findings from Payne and Gainey (2007), Manis et al. (2008), and Schuck (2014). The ideas from these studies form the explanatory system that this study applies to explain the social factors that link to citizens' complaints as manifested by frequency, severity, and type of complaints.

The concept of human capital in the form of education along with other forms of credentials is a focal idea derived from Manis et al. (2008). Manis et al. (2008) were intentional at ascertaining whether education and experience influenced the frequency of complaints generated by police officers. This study extends Manis et al.'s (2008) notion of police officers' human capital by accounting for two additional forms of human capital germane to the making of a police officer. These forms of capital are police certification and police training, which in addition to education and professional experience are framed as antecedents to citizens' complaints. These ascribed characteristics can be achieved by a police officer in the following manner:

This study is based on a police department in Texas. An officer may acquire four different types of licenses/ certifications in Texas. The Basic Peace Officer license requires an active peace

officer license and one year of service with a law enforcement agency (TCOLE, 2016). The following is the Intermediate Peace Officer License which requires a combination of 400 training hours plus eight years of service, or 800 training hours plus six years of service, or 1200 training hours plus four years of service, or 2,400 training hours plus two years of service.

An alternative would be an associate's degree plus four years of service or a bachelor's degree or higher plus two years of service (TCOLE, 2016). After this license is awarded a police officer can acquire an Advanced Peace Officer License by meeting any of the following requirements which include, 800 training hours plus 12 years of service, or 1200 training hours plus nine years of service; or 2,400 training hours plus six years of service.

Yet another alternative would be an associate's degree plus 6 years of service or a Bachelor's degree or higher plus five years of service (TCOLE, 2016). The highest level a peace officer can achieve is the Master Peace Officer License. This license requires any of the following combinations; 1,200 training hours plus 20 years of service, or 2,400 training hours plus 15 years of service, or 3,300 training hours plus 12 years of service, or 4,000 training hours plus 10 years of service. An alternative is an associate's degree plus 12 years of service, or a bachelor's degree plus nine years of service, or a master's degree plus seven years of service or a doctorate/JD degree plus five years of service (TCOLE, 2016).

With this framing, this study views certification, experience, education, and training as manifestations of police officers' human capital or career-relevant achieved characteristics. This study's hypothesis is that police officers' career-relevant achieved characteristics link with citizens' complaints filed against them. In other words, this study forwards the one-sided hypothesis that high level of achievement results in low levels of citizens' complaints (i.e., lower frequency, decreased severity).

In addition, although the extant literature mentions a bundle of ascribed characteristics of police officers, this study also focuses on the role of gender. The role of gender in police work and police performance was examined by the Schuck (2014), who reported a direct relationship between citizens' complaints and police officers' gender. Schuck (2014) does this by delving into how acculturation to extreme masculine (hyper-masculinity) values shaped the behavior of police officers in their work and in the field. Of particular interest and inspiration to this study's conceptual framework is the finding that female officers tend to be more socially skilled and exhibit more nurturing characteristics than male officers; and therefore, create better police-citizen relationships. This study extends this idea and forwards the hypothesis that female police officers' socialization experience will generate lesser citizens' complaints and will be an important conditioning factor in their career-relevant achieved characteristics.

Yet, another ascribed characteristic that is of interest to this study is the marital status of a police officer. In this study, the marital status of a police officer is a factor that will be considered and examined. Instead of focusing on how the job as a police officer impacts marriage, this study examines if an officer's marital status impacts citizen's complaint. Marital status -- to the author's knowledge -- as a factor in predicting complaint is under studied. The hypothesis about marital status is whether the stress of a marriage relationship or the lack there of, will have any impact on a police officer's job performance, generating a citizen complaint.

This study forwards the argument that although citizens' complaints can be directly impacted by ascribed (especially gender in this case) and achieved characteristics (certification, training, education, and experience) of police officers, there is yet another factor that moderates and/or conditions their impact on citizen's complaints. The work of Payne and Gainey (2007) is especially enlightening and inspirational in this regard. Payne and Gainey (2007) argue that the geographical

area where police officers patrol influences citizens' perceptions of police officers. The authors further contend that in disadvantaged neighborhoods -- areas where citizens are more likely to encounter crimes and violence -- citizens are more likely to have negative view of the police.
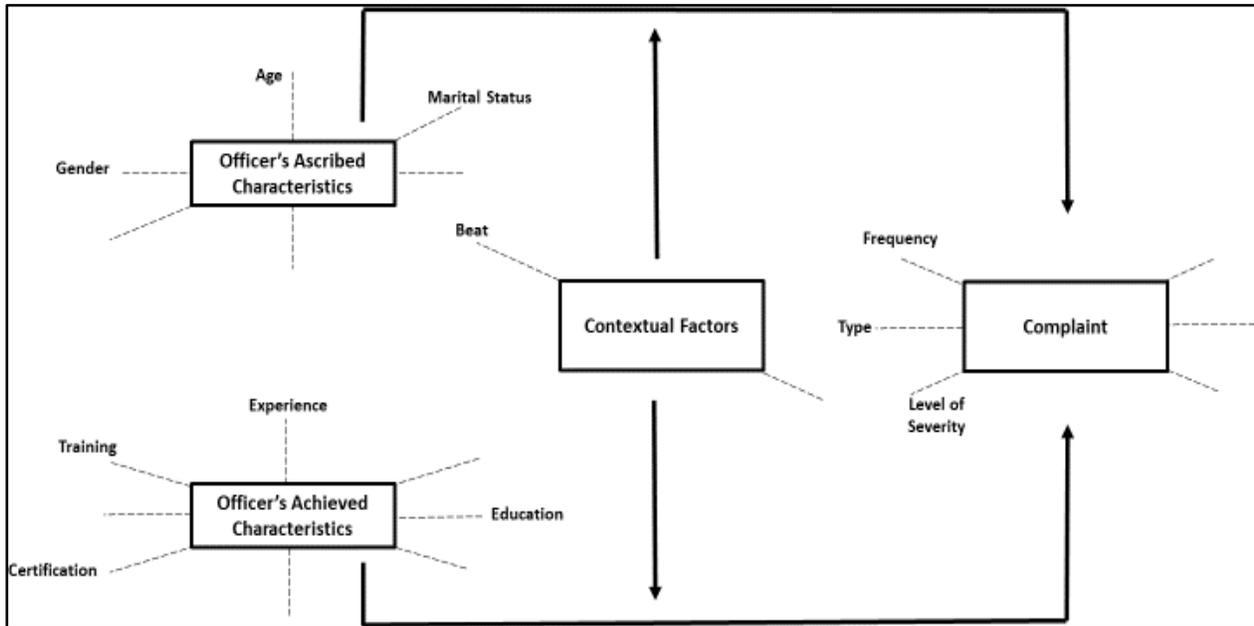
Figure 1: Conceptual Model Depicting Factors that Influence Citizen Complaint.

This study appropriates and capitalizes on previous studies' findings concerning the impact of contextual characteristic on how the police are viewed. The main argument in this study is that the contextual factors such as police officer's patrol beat shapes the citizens' perception of the police. That perception may either trigger or not trigger citizens' complaints of police officers. In an attempt to explain the role of context in the generation of complaints, this study imagines that spatial aspects of context to be deterministic of complaints. It is specifically argued that patrol beat moderates the impact of career-related achievements on the generation of complaints.

CORE HYPOTHESES

In this study, the following core hypotheses are tested. These derive from the propositions articulated in the conceptual model shown in Figure 1. Hypotheses relating to *main effects* of police officer's personal, professional, and patrol beat are the following:

Hypothesis 1

Police officer's ascribed characteristics predict the type, frequency, and severity of citizen's complaint.

Hypothesis 2

Police officer's achieved characteristics predict the type, frequency, and severity of citizen's complaint.

Hypothesis 3

Police officer's patrol beat predict the type, frequency, and severity of citizen's complaint.

Hypotheses relating to moderating effects of context on the relationship between police officer's personal (ascribed) and professional (achieved) characteristics, and citizens' complaints are the following:

Hypothesis 4

Officer's ascribed characteristics predict the type, frequency, and severity of citizen's complaint. This relationship is conditioned by the police officer's patrol beat.

Hypothesis 5

Officer's achieved characteristics predict the type, frequency, and severity of citizen's complaint. This relationship is conditioned by the police officer's patrol beat.

RESEARCH DESIGN

Study Location

This study was conducted in a southern city along the U.S. Mexico Border. Based on the 2015 census as illustrated in Table 1, the border city had a population of 282,143 citizens and covers 90.1 square miles (Texas Population 2015, 2014). The city is predominantly Hispanic with Whites being the minority. In 2015, approximately 96.0% were Hispanics, 3.0% Whites, 0.2% Blacks, and 0.8% Other. In 2010, this border city's population broken down by gender was as follows – females 51.6 % and Males 48.4% (Texas Population 2015, 2014).

Table 1: Border Town Census 2015

	Count	(%)
Population 2015	282,143	
Sex		
Males	136,557	48.4
Females	145,586	51.6
Race/Ethnicity		
Hispanic	270,841	96
Anglo	8,560	3
Black	520	0.2
Other	2,222	0.8
Households (2010-2014)	65,014	
Average Income	$39,408	
Bachelor's Degree	49,657	17.6

Texas Population 2015. (2014). Retrieved from http://dshs.texas.gov/chs/popdat/ST2015.shtm

Data for this study was obtained from the City's Police Department. This department currently has 520 sworn officers that make up the law enforcement community. The department is tasked with protecting the community by responding to calls for service that include but are not limited to assaults, homicides, theft, and vandalism. In 2018, The department effected 6,352 arrest and filed over 26,000 case reports. This department averages between 6,000 to 7,000 arrests per year.

Table 2: Statistics for Crime

	2016		2017		2018	
	Count	(%)	Count	(%)	Count	(%)
Vandalism	1554	12.7	1271	12.5	1163	11.3
Theft	6646	54.2	5430	53.5	5506	53.3
Motor Vehicle Theft	229	1.9	170	1.7	169	1.6
Simple Assault	2888	23.5	2450	24.1	2595	25.1
Aggravated Assault	620	5.1	561	5.5	594	5.8
Sexual Assault	148	1.2	114	1.1	145	1.4
Robbery	160	1.3	154	1.5	141	1.4
Homicides	12	0.1	12	0.1	11	0.1

As of April 2019, the department has 520 sworn police officers ranging in rank from patrol officer to chief of police. The patrol division houses 260 police officers, 42 of which are female officers.

Table 3: City's Department Profile

	Count	(%)
Total Police Force	520	
Rank		
Chief	5	1
Captain	5	1
Lieutenant	19	4
Sergeant	41	8
Investigators	78	15
Directive Patrol	112	21
Patrol Officers	260	50
Female Officers	42	16
Male Officers	218	84

Because of the high levels of interaction that they have with the community and the

research objectives of this study, the focus is on City's Department Patrol Division. Currently, the Patrol Division has N=260 police officers which is the target population of this study.

Data Collection Method and Target Population

This study takes the form of a quantitative non-reactive research. By non-reactive, it means that there will be no direct interaction with members of the target population, thus eliminating respondent reactivity or *Hawthorne effect* (Neuman, 2011). The data collection method is described as a manifest-coded content analysis of police records on citizens' complaints archived at the City Department's Internal Affairs Division (Neuman, 2011). With Institutional Review Board (IRB) oversight, the N=260 patrol officers comprised the target population and the sampled population the n=260 patrol officer records. This study is a case where the target population and the sampled population are the same. The sampling frame was obtained from the City's Department personnel database. The strategy used in obtaining the sampling frame was inspired by the study conducted by Shjarback and White (2016) in which the authors used the list of 100 sworn full time officers as the sampling frame.

For this study, the aim was to have a sample size of n=260 officers' records which encompassed the entire N=260 Patrol Division.[1] This sampling strategy is discussed in detail in the section on sampling. The identity of the officers was kept completely anonymous and confidential to protect their privacy. To ensure that respondents' privacy and rights are protected, this study was reviewed, evaluated, and approved by the IRB.

Data for this study was obtained from police officers' files and records of the City's

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[1] Taking the entire population as the "sample" to derived data from has implications on statistical analysis, in the sense that inferential tests are no longer necessary, as the estimates of statistical techniques are the population values themselves. However, if we treat the n=260 as a temporally bounded sample of the population of the City Police Department police officers, then inferential statistics are meaningful.

Department. Because these information are not in the form of a statistical database, but instead are in the form of original records that the researcher went over, examined, and extracted numeric and quasi-numeric information from; the data collection technique is best described as manifest-coded content analysis (Neuman, 2011). Manifest-coded content analysis is an inexpensive and non-reactive technique (i.e., a non-Hawthorne effect generating strategy) to gather data under the time constraints of this research. In addition, majority of similar studies in the extant literature employs content analysis.

Data was collected from the City's Police Department Training Division. This division holds data that will be essential to collect as these pertain to the independent variables. The director of the Training Division provided the detailed list of each officer's' records which contained officers' age, gender, marital status, experience, training, certification, education and the beat the officer patrols in. No identifiable pieces of information were gathered nor collected.

The second set of data collected is related to the complaint. The n=260 officer's complaint records were obtained from the City's Police Department Internal Affairs Division. The director of Internal Affairs provided the records pertaining to each of the n=260 officers. The records include type, frequency, and disposition. For the purpose of this study, the disposition of the complaint was not used because it is not a focus of this study.

For the purpose of this study, in order to create a scale to measure severity (which is one of the dependent variables) 10 citizens and 10 police officers were surveyed. The survey listed the top 10 most prominent complaints filed against officers in the City's Police Department. 10 random citizens and 10 random police officers were asked to rank the complaints from 1 to 10 in terms of which complaint they deem least to most severe. The sum of the ranks was calculated to

come up with the top 10 complaints.[2]

Variables of the Study

Independent Variables: Data pertaining to the independent variables are the officers' experience (years on the job). The actual years of experience was used, and this has a ratio level of measurement. Officer's educational level was at the ordinal level and was coded as follows: 1 = high school 0 = college. Level of education as a factor was listed as the highest degree in the officer's' record at the time of data collection. Education had high school, associates, bachelor's and master's as categories. Because the frequency distribution among categories were lopsided whereby some categories (e.g., high school) having many responses while some (e.g., masters) having few with many, categories were collapsed in a meaningful manner to allow for larger sample sizes, and more reliable estimation.

The next independent variable was gender and it is at the nominal level and was coded as follows: 1 = male, and 0 = female. Furthermore, marital status is at the nominal level and was coded as follows: 1 = never married and 0 = ever married. This variable was also collapsed. Next, age is at the ratio level and indicates the true age of the officer in years. The next independent variable was number of training hours, which was at the ratio level. It indicated the actual number of training hours the police officer has accumulated. The officer's certification was noted and was transformed into a dummy variable prior to conducting a linear regression analysis. This variable was at the nominal level and was coded as follows: 1= Basic Peace Officer, 0 = Advanced Peace Officer. Certification was also a variable that was collapsed to account for better estimation.

Moderating Variable: The moderating variables will be the police officers' location of the

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[2] Ideally, the sample and composition of the citizens and police officers would have been larger and collected using techniques of clustering and stratification. However, due to logistical and time constraints, this route proved challenging.

beat. Location will be measured at the nominal level and will be coded as follows: 1 = East and 0= West. For the purpose of this study, the border city was divided by geographical area: East and West. The East encompasses all the geographical area east of MacArthur Rd. This sector includes nine police districts which include district 1, 3, 11, 12, 13, 15, 16, 17 and 19. The West encompasses all geographical areas west of MacArthur Rd. The West currently has 11 police districts which include district 2, 4, 5, 6, 7, 8, 9, 10, 14, 18, and 20.

Dependent Variables: The construct citizens' complaint was measured in terms of three separate indicators (or measures) that were treated independently and in a univariate manner within a linear regression framework. The indicators are *type of complaint* (nominal level measure), *frequency of complaint* (a ratio level measure) over the last 10 years to allow for a wide range of years to gather data, *severity of complaint* (ordinal level measure).

For the purpose of this thesis, the above-mentioned measures of citizen's complaints were analyzed and tested separately. In other words, each of these measures of citizens' complaints were treated as independent univariate random variables; not as multivariate random variables, which – given the objectives of this study -- has the potential to unnecessarily complicate analysis. The purpose in using multiple measures to describe and characterize citizen's complaints is to increase measurement content and construct validity, given that each measure is already face valid to begin with (Neuman, 2011).

Upon examination of the empirical distributions of the dependent variables, annual rate of complaints, and total severity index score had to be transformed because their distributions were clearly non-normal (i.e., positively skewed). Toward this end, the *natural log* of rate of complaints per year and the *natural log* of total severity index score were calculated; and were then used as dependent variables in the regression analyses. For each dependent variable, a taxonomy of models

was created whereby independent variables such as ascribed, achieved characteristics of a police office, interactions of these characteristics with patrol beat were sequentially added starting from the baseline model (Model 1 or M1) to the full model (Model 4 or M4).

Sample

The target population comprised N=260 police officers that are at the Patrol Division of the City's Police Department. Due to this characteristically small population, the sample comprised the entire population police officers. This means that sample size and population size will be the same. From the training division, n=218 male officers' records and n=42 female officers' records were obtained. From these records, information pertaining to their gender, age, marital status, training, certification, experience, and education were collected.

From the data collected, the list of 260 names to the City's Police Department Internal Affairs Division to obtain the complaint record for each of the 260 individual officers were submitted. The type, frequency, degree of formality, and disposition were collected from the Internal Affairs record. The data that was recorded goes back 10 years from the year of this study (2019). This allowed sufficient data to be collected in regard to the number of complaints an officer had accumulated. Data were then entered into the *Statistical Packages for the Social Sciences* (SPSS version 25) and then analyzed using *the General Linear Model* (GLM) procedure.

FINDINGS

Table 4 illustrates a list of all the dependent variables that were examined in this study. The natural log of the Total Severity Index Score, the natural log of the Annual Rate of Complaints and the top three complaints (Excessive Use of Force, 204; Discourtesy, 108; and Demeanor, 93) are the five dependent variables used.

Table 4. Descriptive Statistics for Complaints (or depedent variables)

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std.
LN Total Severity Index Score	260	-0.69	4.81	363.73	1.40	1.799
Total Severity Index Score	260	0.0	122.0	3375.0	12.98	17.915
LN Annual Rate of Complaints	242	-0.69	0.92	-75.63	-0.31	0.395
Annual Rate of Complaints	242	0.00	2.00	72.06	0.30	0.378
Excessive Use of Force	260	0	12	204	0.78	1.452
Discourtesy	260	0	7	108	0.42	0.903
Demeanor	260	0	5	93	0.36	0.790
Neglect of Duty	260	0	4	84	0.32	0.636
Assault	260	0	5	20	0.08	0.405
Firearms Discharge	260	0	2	31	0.12	0.359
Illegal Detention	260	0	2	19	0.07	0.289
Illegal Entry	260	0	1	21	0.08	0.273
Illegal Arrest	260	0	3	54	0.21	0.523
Conduct Unbecoming	260	0	3	53	0.20	0.549
Valid N (listwise)	242					

Table 5 presents the independent variables for the regression models. The youngest police officer to date on patrol is 22 years old with 60 being the oldest police officer. The average age for a patrol officer in the City's Police Department is 35. Each patrol officer has a distinct accumulation of training hours. For example, in this current population of patrol officers, the average number of training hours is 1,580. The least amount of training hours accumulated by an officer is 856 with 4,100 being the most amount training hours. The years of service of a patrol officer is noted. The average years of service of a patrol officer is 9 years. The range for years of service for patrol officer in the City's Police Department is 0-36 years.

Table 5. Descriptive Statistics for Ascribed and Achieved Characteristics (or independent variables).

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Frequency	Percent
			Descriptive Stats				
Age	260	22	60	35.66	8.769		
Training Hours	260	856	4100	1580.44	541.508		
Years of Service	260	0	36	9.327	7.9504		
Beat							
East						121	46.5
West						139	53.5
Gender							
Male						218	83.8
Female						42	16.2
Marital Status							
Never-Married						104	40.0
Ever-Married						156	60.0
Certification							
Basic Certification						137	52.7
Advanced Certification						123	47.3
Education							
High School						160	61.5
College						100	38.5

It is worth noting that there were five other independent variables (nominal level) that were used in the latter regression models (i.e. Gender, Beat, Marital Status, Certification and Education). Out of 260 officers, gender has 218 (83.8%) male and 42 (16.2%) female patrol officers. Furthermore, out of the 260 patrol officers, high school graduates who are currently on patrol prevail over college graduates. There are currently 160 (61.5%) officers with a high school diploma and 100 (38.5%) officers who have a college degree. Also, this department currently has 137 (52.7%) of patrol officers with basic certification and 123 (47.3%) of officers with and advanced certification. In addition, officers are divided into East and West sectors. Currently there are 121 (46.5%) East-side officers and there are 139 (53.5%) West Side officers. Finally, this department presently has 104 (40%) officer who have never-married and 156 (60%) officers who were ever-married.

Table 6 shows a taxonomy of regression models for the natural log of annual rate of complaints (LnARC). This taxonomy of models contains four different models (M1, M2, M3, and M4). In M1, variables associated with the ascribed and the achieved characteristics are treated as independent variables. In M2, the following interaction terms are introduced: beat X age, beat X gender, and beat X marital status. M3 is a combination of variables associated with the ascribed and the achieved characteristics of police officers along with the interaction terms: beat X certification, beat X training, and beat X education. M4 uses all the independents from previous models all at the same time.

Table 6: Regression Results for Natural Log of Annual Rate of Complaints

	M1			M2			M3			M4			
Parameter	B	SE(B)	P-Value	B	SE(B)	P-Value	B	SE(B)	P-Value	B	SE(B)	P-Value	
Intercept	0.14	0.22	0.535	0.38	0.25	0.121	0.17	0.25	0.492	0.38	0.29	0.195	
Male (1=male, 0=female)	0.01	0.07	0.933	0.01	0.09	0.907	0.01	0.07	0.925	0.01	0.09	0.894	
Never Married (1=never, 0=ever)	-0.06	0.06	0.313	-0.10	0.08	0.226	-0.06	0.06	0.268	-0.09	0.08	0.249	
East (1=East, 0=West)	-0.09	0.05	0.070	**-0.68**	**0.29**	**0.019**	-0.20	0.28	0.478	-0.65	0.44	0.140	
High School (1=HS, 0=College)	-0.02	0.05	0.719	-0.02	0.05	0.712	0.01	0.07	0.942	0.01	0.08	0.907	
Basic Certification(1=BC, 0=AC)	-0.15	0.08	0.062	-0.15	0.08	0.070	-0.09	0.10	0.399	-0.14	0.11	0.225	
Age (In years)	**-0.02**	**0.01**	**0.001** **	**-0.02**	**0.01**	**0.000** **	**-0.02**	**0.01**	**0.002** **	**-0.02**	**0.01**	**0.001** **
Training hours	0.00	0.00	0.017	0.00	0.00	0.027	0.00	0.00	0.299	0.00	0.00	0.231	
East * Age				**0.02**	**0.01**	**0.016**				0.01	0.01	0.171	
Male * East				-0.01	0.14	0.930				-0.01	0.14	0.956	
Never Married * East				0.07	0.11	0.540				0.07	0.12	0.549	
East * Basic Cert							-0.12	0.14	0.402	-0.02	0.16	0.921	
East * Training							0.00	0.00	0.373	0.00	0.00	0.598	
East * High School							-0.04	0.10	0.682	-0.05	0.11	0.618	
adj-R2	0.05			0.06			0.06			0.06			

*=significant at 5%, **=significant at 1%, and *** = significant at 0.1%

It is clear that for M1, M2, M3, and M4, age is a consistently significant negative predictor of annual rate of complaints per year (M1: B = -.016, p =.001; M2: B = -.021, p =.000; M3: B = -.015, p =.002; M4: B = -.020, p =.001), supporting Hypothesis 1. Furthermore, Table 6 shows that terms beat (B = -.68, p =.019) and beat X age (B=.016; p =.016) are significant at the 0.05 level, supporting Hypothesis 4. However, although beat shows significance in M2, it is unstable across all four regression models. It will be noted that all other independent variables show no statistical

significance in predicting LnARC.

This highest adjusted R^2 for the model in Table 6 is 0.06. If the adjusted R^2 measures the goodness of fit of a model, this means that in this model, 94% of the variation in Annual Rate of Complaint is unaccounted for by the set of predictors. Further research will need to be conducted to improve and refine the model.

Table 7: Regression Results for log of Total Severity Index

Parameter	M1			M2			M3			M4		
	B	SE(B)	P-Value	B	SE(B)	P-Value	B	SE(B)	P-Value	B	SE(B)	P-Value
Intercept	1.03	0.98	0.294	1.87	1.10	0.090	1.14	1.09	0.298	1.53	1.35	0.259
Male (1=male, 0=female)	0.30	0.27	0.256	0.39	0.34	0.253	0.29	0.27	0.279	0.41	0.35	0.248
Never Married (1=never, 0=ever)	-0.21	0.22	0.337	-0.33	0.31	0.281	-0.25	0.22	0.269	-0.35	0.32	0.268
East (1=East, 0=West)	-0.32	0.20	0.104	-1.90	1.06	0.074	-0.57	1.10	0.604	-1.23	1.96	0.531
High School (1=HS, 0=College)	-0.23	0.20	0.252	-0.24	0.20	0.245	-0.25	0.28	0.381	-0.27	0.29	0.351
Basic Certification (1=BC, 0=AC)	**-1.07**	**0.34**	**0.002 ****	**-1.06**	**0.34**	**0.002 ****	**-0.90**	**0.45**	**0.047 ***	**-0.93**	**0.46**	**0.046 ***
Age (In years)	-0.02	0.03	0.576	-0.04	0.03	0.196	-0.01	0.03	0.624	-0.03	0.04	0.487
Training hours	**0.00**	**0.00**	**0.001 ****	**0.00**	**0.00**	**0.002 ****	**0.00**	**0.00**	**0.020 ****	**0.00**	**0.00**	**0.028 ***
Years of Service (In # of years)	0.01	0.03	0.797	0.02	0.03	0.645	0.00	0.04	0.999	0.01	0.04	0.825
East * Age (Years)				**0.05**	**0.03**	**0.047 ***				0.03	0.05	0.629
Male * East				-0.25	0.53	0.633				-0.28	0.55	0.602
Never Married * East				0.17	0.43	0.683				0.20	0.44	0.654
East * Basic Cert							-0.24	0.68	0.724	-0.22	0.69	0.753
East * Training Hours							0.00	0.00	0.930	0.00	0.00	0.879
East * Years of Service							0.03	0.05	0.482	0.01	0.07	0.855
East * High School							0.02	0.40	0.959	0.06	0.41	0.882
adj-R2	0.29			0.30			0.29			0.28		

*=significant at 5%, **=significant at 1%, and *** = significant at 0.1%

In Table 7, the taxonomy of regression models for the total severity index score is presented. M1, M2, M3, and M4 consistently show that a basic certification has a significant negative impact on severity score (M1: B = -1.074, p = .002; M2: B = -1.059, p = .002; M3: B = -.903, p = .047; M4: B = -.932, p = -.046), supporting Hypothesis 2. Officers with a basic certification have a lower severity scores for complaints when compared to officers with advance certification. Furthermore, these four models consistently depict that the training hours have a significant positive impact on the severity score (M1: B = .001, p = .001; M2: B = .001, p = .002; M3: B = .001, p = .020; M4: B = .001, p = .046), supporting Hypothesis 2. Meaning, the

more training hours an officer accumulates, the higher the severity score for complaints. This result is intriguing as it is counter intuitive.

However, although a significant positive impact observed for training hours, the regression coefficient observed is rather small -- so diminutive – that it can be construed as not practically impactful in the determination of severity. M2 yields a significant interaction between beat X age (M2: B = .049, p = .047), supporting Hypothesis 4. Although, M2 produced a significant result for beat X age, this result is inconsistent across M2 and M4 and hence is not a robust result. It will be noted that on all four models, no other independent variable shows any significant association with severity.

This highest adjusted R^2 for the model in Table 7 is 0.30. If the adjusted R^2 measures the goodness of fit of a model, this means that in this model, 70% of the variation in Total Severity Index is unaccounted for by the set of predictors. Further research will need to be conducted to improve and refine the model.

In Table 8, the taxonomy of regression models for excessive use of force complaints (EUFC) are presented. M1 through M4 consistently show that training hours had a positive significant impact in predicting the likelihood of receiving an EUFC (M1: B = .001, p =.005; M2: B = .001, p = .007; M3: B = .001, p = .032; M4: B = .001, p = .026), supporting Hypothesis 2. Meaning, the more training hours that an officer has, the more likely that he/she to have an EUFC filed against him/her. No other independent variable had any statistical significance in predicting the likelihood of receiving an EUFC.

This highest adjusted R^2 for the model in Table 8 is 0.12. If the adjusted R^2 measures the goodness of fit of a model, this means that in this model, 88% of the variation in Excessive Use of Force is unaccounted for by the set of predictors. Further research will need to be conducted to

improve and refine the model.

Table 8 : Regression Results for Excessive Use of Force

Parameter	M1				M2				M3			Note	M4			
	B	SE(B)	P-Value		B	SE(B)	P-Value		B	SE(B)	P-Value		B	SE(B)	P-Value	
Intercept	0.51	0.88	0.564		0.50	0.99	0.611		0.38	0.99	0.704		0.87	1.22	0.473	
Male (1=male, 0=female)	0.31	0.24	0.192		0.38	0.31	0.224		0.29	0.24	0.237		0.32	0.32	0.321	
Never Married (1=never, 0=ever)	0.03	0.20	0.866		0.27	0.28	0.321		0.00	0.20	0.996		0.21	0.29	0.461	
East (1=East, 0=West)	-0.11	0.18	0.543		-0.12	0.95	0.902		0.11	0.99	0.914		-0.89	1.76	0.615	
High School (1=HS, 0=College)	0.04	0.18	0.845		0.06	0.18	0.744		-0.16	0.25	0.52		-0.10	0.26	0.704	
Basic Certification (1=BC, 0=AC)	-0.42	0.30	0.164		-0.45	0.30	0.141		-0.17	0.41	0.674		-0.30	0.42	0.474	
Age (In years)	-0.03	0.02	0.194		-0.03	0.03	0.191		-0.03	0.02	0.225		-0.05	0.03	0.111	
Training hours	**0.00**	**0.00**	**0.005**	**	**0.00**	**0.00**	**0.007**	**	**0.00**	**0.00**	**0.032**	*	**0.00**	**0.00**	**0.026**	*
Years of Service (In # of years)	0.03	0.03	0.395		0.03	0.03	0.396		0.03	0.03	0.328		0.05	0.04	0.183	
East * Age (Years)					0.01	0.02	0.631						0.05	0.05	0.28	
Male * East					-0.18	0.48	0.700						-0.09	0.49	0.854	
Never Married * East					-0.51	0.38	0.182						-0.42	0.40	0.289	
East * Basic Cert									-0.46	0.62	0.455		-0.37	0.62	0.555	
East * Training Hours									0.00	0.00	0.946		0.00	0.00	0.817	
East * Years of Service									-0.02	0.04	0.701		-0.07	0.06	0.299	
East * High School									0.39	0.36	0.286		0.29	0.37	0.429	
adj-R2	0.12				0.12				0.11				0.11			

NS=not significant, *=significant at 5%, **=significant at 1%, and *** = significant at 0.1%

In Table 9, the taxonomy of regression models for discourtesy complaints is shown. M2 and M4 depict a negative significant impact on the marital status of an officer (M2: B = -.345, p = .040; M4: B = -.377, p = .029), supporting Hypothesis 1. Both models predict that officers, who have never been married, are less likely to receive a discourtesy complaint than officers who have ever married. Another dependent variable that shows consistency across three models (M2, M3, M4) is beat (M2: B = -1.642 p = .005; M3: B = -1.386, p = .021; M4: B = -3.166, p =.003), supporting Hypothesis 3. Beat has a negative significant impact on discourtesy.

In M2 and M4, age appears to have a negative significant impact on discourtesy complaints (M2: B = -.039, p = .013; M4: B = -.045, p = .023), supporting Hypothesis 1. Although not consistent across the model, officers who are older are less likely to receive a discourtesy complaint.

Table 9: Regression Results for Discourtesy

Parameter	M1 B	M1 SE(B)	M1 P-Value	M2 B	M2 SE(B)	M2 P-Value	M3 B	M3 SE(B)	M3 P-Value	M4 B	M4 SE(B)	M4 P-Value
Intercept	0.56	0.54	0.304	1.33	0.60	0.028	1.15	0.60	0.055	2.00	0.73	0.007
Male (1=male, 0=female)	-0.22	0.15	0.132	-0.35	0.19	0.061	-0.19	0.15	0.206	-0.32	0.19	0.093
Never Married (1=never, 0=ever)	-0.15	0.12	0.218	**-0.35**	**0.17**	**0.040** *	-0.15	0.12	0.204	**-0.38**	**0.17**	**0.029** *
East (1=East, 0=West)	-0.03	0.11	0.789	**-1.64**	**0.58**	**0.005** **	**-1.39**	**0.60**	**0.021** *	**-3.17**	**1.06**	**0.003** **
High School (1=HS, 0=College)	-0.10	0.11	0.361	-0.12	0.11	0.270	-0.06	0.15	0.690	-0.10	0.16	0.510
Basic Certification (1=BC, 0=AC)	-0.02	0.18	0.931	0.03	0.18	0.854	-0.18	0.25	0.461	-0.14	0.25	0.575
Age (In years)	-0.02	0.01	0.123	**-0.04**	**0.02**	**0.013** *	-0.02	0.01	0.120	**-0.05**	**0.02**	**0.023** *
Training hours	**0.00**	**0.00**	**0.014** *	**0.00**	**0.00**	**0.020** *	0.00	0.00	0.803	0.00	0.00	0.894
Years of Service (In # of years)	**0.04**	**0.02**	**0.023** *	**0.05**	**0.02**	**0.010** *	0.04	0.02	0.053	**0.06**	**0.02**	**0.010** *
East * Age (Years)				0.03	0.01	0.011 *				0.05	0.03	0.107
Male * East				0.30	0.29	0.296				0.33	0.29	0.271
Never Married * East				0.36	0.23	0.119				0.44	0.24	0.067
East * Basic Cert							0.43	0.37	0.250	0.36	0.37	0.340
East * Training Hours							**0.00**	**0.00**	**0.034** *	**0.00**	**0.00**	**0.018** *
East * Years of Service							0.02	0.03	0.555	-0.03	0.04	0.397
East * High School							-0.03	0.22	0.907	0.01	0.22	0.951
adj-R2	0.15			0.16			0.16			0.17		

NS=not significant, *=significant at 5%, **=significant at 1%, and *** = significant at 0.1%

M2 shows that, beat X age, has a positive impact on discourtesy complaints (M2: B = .034, p =.011), supporting Hypothesis 4. M1 and M2 show that training hours has a significant impact on discourtesy complaints, however this impact is very minimal and is not consistent among the four models (M1: B = .000, p =.014; M2: B = .000, p = .020), supporting Hypothesis 2. M1, M2, and M4 show that years of service has a consistent positive impact on discourtesy complaints (M1: B = .042, p = .023; M2: B = .048, p = .010; M4: B = .061, p = .010), supporting Hypothesis 2. As per this model, the more years of service (experience of the officer) the more discourtesy complaints an officer is likely to receive. This may be attributed to cynicism developed towards the job. Officers may become discourteous when dealing with the same troubled citizens and the same calls throughout their extensive career.

The final important significant finding for Table 9 is the interaction variable between beat X training hours. This interaction term has a positive significant impact on discourtesy complaints.

This is shown on M3 and M4 (M3: B = .001, p =.034; M4: B =.001 p = .018), supporting Hypothesis 5. It is noted that no other variable or interaction variable has any significant impact on discourtesy.

This highest adjusted R^2 for the model in Table 9 is 0.17. If the adjusted R^2 measures the goodness of fit of a model, this means that in this model, 83% of the variation in Discourtesy is unaccounted for by the set of predictors. Further research will need to be conducted to improve and refine the model.

In Table 10, the taxonomy of regression models for demeanor complaints is presented. M2 and M3 clearly show that beat has a significant impact on the possibility of an officer receiving a demeanor complaint (M2: B = -1.358, p = .010; M3: B = -1.621, p = .003), supporting Hypothesis 3. M2 and M3 both indicate that officers who work in the East, are less likely to receive a demeanor complaint versus officers who work in the West. However, this finding is not consistent throughout across models.

Table 10: Regression Results for Variable Demeanor

Parameter	M1			M2			M3			M4		
	B	SE(B)	P-Value	B	SE(B)	P-Value	B	SE(B)	P-Value	B	SE(B)	P-Value
Intercept	0.21	0.49	0.675	0.90	0.54	0.098	0.93	0.53	0.081	0.91	0.65	0.1650
Male (1=male, 0=female)	-0.10	0.13	0.452	-0.11	0.17	0.507	-0.07	0.13	0.608	-0.02	0.17	0.9120
Never Married (1=never, 0=ever)	0.09	0.11	0.396	-0.04	0.15	0.778	0.08	0.11	0.456	-0.06	0.15	0.6910
East (1=East, 0=West)	0.02	0.10	0.854	**-1.36**	**0.52**	**0.01 ***	**-1.62**	**0.53**	**0.003 ****	-1.53	0.95	0.1090
High School (1=HS, 0=College)	-0.02	0.10	0.81	-0.04	0.10	0.729	0.00	0.14	0.978	-0.04	0.14	0.7640
Basic Certification (1=BC, 0=AC)	-0.14	0.17	0.411	-0.11	0.17	0.51	-0.32	0.22	0.152	-0.28	0.23	0.2180
Age (In years)	-0.01	0.01	0.399	**-0.03**	**0.01**	**0.049 ***	-0.01	0.01	0.374	-0.01	0.02	0.6560
Training hours	**0.00**	**0.00**	**0.021 ***	**0.00**	**0.00**	**0.042 ***	0.00	0.00	0.853	0.00	0.00	0.7160
Years of Service (In # of years)	0.02	0.02	0.276	0.02	0.02	0.155	0.01	0.02	0.571	0.01	0.02	0.7460
East * Age (Years)				**0.04**	**0.01**	**0.003 ****				-0.01	0.03	0.7280
Male * East				0.01	0.26	0.964				-0.11	0.26	0.6870
Never Married * East				0.23	0.21	0.275				0.28	0.22	0.2020
East * Basic Cert							0.51	0.33	0.124	0.49	0.34	0.1490
East * Training Hours							**0.00**	**0.00**	**0.013 ***	**0.00**	**0.00**	**0.0080 ****
East * Years of Service							0.03	0.02	0.149	0.04	0.03	0.2000
East * High School							0.02	0.19	0.916	0.08	0.20	0.6870
adj-R2	0.08			0.10			0.13			0.13		

NS=not significant, *=significant at 5%, **=significant at 1%, and *** = significant at 0.1%

In addition, M1 and M2 show that training hours also appears to have a positive significant impact on the likelihood to receive a demeanor complaint (M1: B = .000, p= .021; M2: B = .000, p = .042), supporting Hypothesis 2. However, with training hours being inconsistent across models and B registering a zero, training can be regarded as having minimal and limited impact. M3 and M4 both show that there is a significant interaction with beat X training hours (M3: B = .001, p = .013; M4: B = .001, p = .008), supporting Hypothesis 5. However, the significance is inconsistent across models.

This taxonomy also generated a negative significant finding for age (M2: B = -.028, p = .049), supporting Hypothesis 1. As per this result, as the officers grows older in age, the likelihood of receiving a demeanor complaint decreases. M2 is the only model that generates this result however age is unstable across all four models. For the purpose of this table, no other independent variable has any significance on demeanor complaints.

This highest adjusted R^2 for the model in Table 10 is 0.13. If the adjusted R^2 measures the goodness of fit of a model, this means that in this model, 87% of the variation in demeanor is unaccounted for by the set of predictors. Further research will need to be conducted to improve and refine the model.

DISCUSSION

The results from this study generate insights that coincide with previous research (see Terrill & Ingram, 2016). After carefully examining the regression results for annual rate of complaints (ARC), it was surprising to see that all but one independent variable had any consistent statistical significance across four models (M1, M2, M3, and M4). Age consistently had a negative impact on the annual rate of complaints that an officer accumulates. According to these results, the older the police officer becomes the more likely that office is to have lower ARC filed against him. In essence, the younger the officer, the more likely that his/her rate of complaints per year increases, which is consistent with what was reported in Terrill and Ingram (2016).

These results are in keeping with those of Terrill and Paoline III (2015). They found that younger more inexperienced officers tend to receive more complaints against them. This observation is also true for the City's Police Department. Although the impact is minimal, age does seem to make a difference in the rate of complaints per year. Why, one might ask? According to the literature provide by Chapman (2012), it is reported that younger officers are more likely to use force when effecting an arrest. Probably, this might be explained by the argument that new officers are more eager or even more "aggressive" than older officer who are more mellowed and complacent about the job. Therefore, new officers are more likely to receive use of force complaints.

In addition, in previous studies such as that of Chapman (2012), it was found that younger officers are far more active than older officers who are more passive due to exposure to the job. This phenomenon could explain the reasons why younger officers have a higher rate of complaints per year. This occurrence is also true for the City's Department. It is in the earlier part of an

officer's career when he/she strives to have a high arrest record (Harris, 2010). It is also the part in

an officer's career where he/she goes through the field training stage. During this stage the officer

effects as many arrests as he/she can, to learn and master the arrest process. Let it be noted that

these officers are not effecting unlawful arrest just for training purposes; however, they take over

other senior officers' cases and become primary to be able to learn the arrest process.

In M2, beat also had significant impact on the rate of complaints per year. Officers working

the East side seem to have a lower rate of complaints per year versus officers working the West

side. The impact of beat registered on higher on this model when compared to age. However, it

was observed to be inconsistent and unstable across models. It is only in M2 that this beat was

significant. It is believed that demographics of a location play a factor in determining the rate of

complaints per year that an officer accumulates. Payne and Gainey (2007) stated that citizens from

disadvantage neighborhoods tend to view police in an unfavorable manner. The negative views of

police cause a negative impact on citizen complaints and thus, citizens tend to file complaints at a

higher rate.

It can be concluded that the East side of this border city has more affluent areas. Based on

this current breakdown of this border city, in this regression model, beat is consistent with Pain

and Gainey's (2007) results. For ARC, no other independent variable had any statistically

significant impact. Gender did not seem to play a role in the ARC. Schuck (2014) stated, that the

differences in gender is in terms of emotional labor. Women are better at empathy and compassion

when dealing with the public. These two factors play an important role in decreasing the number

of complaints that an officer will receive. The fact that no statistical significance was noted could

also be due to the low population of females in the City's Police Department. The disparity in

sample sizes between gender (males: n=218, females: n=42) could be the cause of the non-

significance of gender as a predictor of ARC.

A small number of studies exists regarding the impact of marital status of an officer, and how the police profession impacts martial relationships. However, it appears that how a marriage affects a police officer's performance has yet to be examined. Marital status did not appear to have a significant impact on ARC. The non-significance of marital status is curious given the differences in mindset, behavior, and temperament between ever married and never married individuals. Further research must be conducted to structure a framework on how marriage affects, if any, the police officer's actions at work and how that might have an impact on the rate of complaints per year.

In terms of achieved characteristics of a police officer, Shjarback and White (2016) state that a well-educated officer has a better understanding of social behaviors and has better communication skills, which helps him/her deal and interact more effectively with the public than an officer with limited education. Various studies contend that an officer with a higher degree of education receive less complaints compared to those officers with minimal education (Kane & White, 2009). However, Telep (2011) argued that there is no empirical data for such statement and the results of this study seem to corroborate those of Telep (2011). There was no significant impact on the ARC regarding officers with a high school diploma versus those with a college degree. This may be the case as to why higher education is not a requirement for employment with the City's Police Department. There is insufficient empirical data to state that mandating higher education upon employment will decrease the rate of complaints per year of an officer.

Other aspects of achieved characteristics that were examined are certification and training hours, and there is high correlation between these two aspects. As the accumulation of training hours increase, so does the level of certification. In theory, officers with more training hours should

have more years of service and should have achieved higher police certification level. One would think that highly trained and advanced certified officers would receive fewer complaints than less trained and basic certified. However, the results of this study reveal that neither certification nor training has any significant impact on ARC. These mimic the results of Shjarback and White (2016) who did not find any significant empirical results either. Shjarback and White (2016) suggest that the lack of significance in training and certification is due to the type of training that the academy focus on. In this case, the academy focuses more on officer survival skills than citizen interaction skills. That said, might it be a more comprehensive training and certification curriculum if police academies not only focus on survival skills but also on other softer skills such as interactional skills and impression management.

The amount of training that an officer receives in the academy is minimal and is aimed at officer survival tactics, such as firearms, defensive tactics, driving, etc. There is little to no training on citizen interaction, or civil disturbances which are more likely to result in a complaint. These topics however are being reviewed, and departments along with state officials are changing training mandates to address these issues (TCOLE, 2016). The amount of training hours that an officer accumulates throughout his/her career is basically what the state mandates for higher certification. Once maximum certification is completed, an officer might remain stagnant and not accumulate anymore trainings other than those mandated by the stated to comply, such as law updates.

It will be noted that training along with certification had a significant impact on severity score. This is in contrast to ARC whereby training and certification were not significant predictors; however, these results are counter intuitive. Training showed a positive impact on the TSIS as did certification; the more accumulated training hours or the higher certification level of the officer,

the higher the severity score. How can these results be explained?

If Shjarback and White (2016) stated that the training an officer receives is of no relevance to officer-citizen interaction, then officers may continue to receive complaints. Thus, higher severity scores are associated with advanced certification level. Police culture could also be the cause of this phenomenon. As training hours increase and as the officer reaches higher certification status, they develop a tendency to become stricter and unyielding in enforcing laws; therefore, this may have tended citizens, whom they encounter, to file complaints against the "strict actions" of said police officers.

In the later part of this discussion, the three complaints that are prominent in the City's Police Department are introduced. One of these three complaints had a far higher severity score than the other two. In terms of severity, an officer may acquire one complaint with a severity score of 10 and thus score higher on the TSIS compared to an officer who has six complaints of a severity score of 1 and score lower on the TSIS. One question that begs an answer is, which officer would be deemed more severe in the eyes of the public? The officer with one complaint and a TSIS of 10 or an officer with six complaints and a TSIS of 6. A satisfactory response will require extensive research and the involvement of the public in terms of surveying to answer the former question.

Moving forward, the regression for the excessive use of force complaint was also examined. The results from the EUFC regression model were not as expected. Note that training hours was the only predictor that had any significant impact on how likely an officer is to receive an EUFC. The number of training hours that an officer accumulates has a positive impact on the likelihood that an officer will generate an EUFC. This result is counterintuitive.

From a citizen's perspective, literature states that more training decreases EUFC filed against police officers. The more training an officer has the more restraint an officer will have

from having to use force against an assailant. Shjarback and White (2016) stated that Harris

(2014) found in their study that poor training, at least those officers who did poorly in the

academy, were more likely to receive citizen complaints.

In recent studies, other factors are significant when determining how likely an officer is to

receive a EUFC. Schuck (2014) stated that gender has been used to compare an officer's probability

of obtaining a EUFC. Most studies agree with Schuck (2014) that men are deemed more aggressive

and therefore are more likely to escalate a situation where they will need to use force. Females are

more caring and are better at emotional labor therefore, they will be more inclined to deescalate a

situation to where no force needs to be used (Schuck, 2014). The results of this study do not support

these literature streams. Most perhaps, the non-significant result in relation to gender is due to the

small sample of female officers compared to males.

Researchers believe that officers with higher education have less EUFC filed against them

versus officers with a high school diploma. Shjarback and White (2016) report that education will

more likely develop better officer citizen interactions due to the officer having a more in depth

understanding of society. Telep (2011) found that there is evidence to prove that officers with

more education are more likely to use reasonable force, but that the level of education does not

seem to matter in cases of EUFC. The results of this study support Telep (2011).

Regarding age, it does not impact the likelihood of receiving a EUFC. In theory the older

the officer, the less likely he/she is to engage in conduct that would require him to use force. As

Terrill and Paoline III (2015) stated, younger officers are more likely to engage in effecting arrest.

Therefore, these younger officers would be more subjected to use force facilitating the possibility

of generating an EUFC. Three other variables that did not have any significant impact on EUFC

were years of service, certification, and marital status. Out of these variables it is curious why

experience (years of service) would not be a significant factor.

Based on inside knowledge and experience, it is safe to say that from a law enforcement perspective, it becomes unpredictable as to when an officer would be required to use force. Law enforcement officers are faced with volatile situations daily and must react according. Therefore, if the need to use force arises, the officer will have to follow the use of force continuum and use force regardless of his years of experience.

Further examination of the regression analyses for discourtesy complaints (see Table 9) revealed that not one independent variable had any consistent impact across models. Beat and years of service were the only two variables that were consistently significant across models. Beat indicated that police officers who work the East are less likely to receive discourtesy complaints versus officers who work the West. The result concerning the significance of locational context is supported by the work of Payne and Gainey (2007). The East side of this border city has more affluent areas and in terms of income one can make an educated assumption that west has more disadvantaged neighborhoods. City- Data.com (2019) confirms that the west side of this border city has a higher percentage (40-60%) of citizens living with incomes below poverty. As per Payne and Gainey (2007) citizens from disadvantage neighborhoods are more inclined to file complaints against police officers due to their ill image of the police force.

Terrill and Paoline III (2015) reported that the experience of an officer is key in reducing citizen complaints. They stated that younger inexperienced officers are more likely to have citizen complaints filed against them. This study shows the opposite of these findings. Experience has a positive impact on discourteous complaints; meaning, the more years of service on the police force, the more discourteous complaints an officer will have.

This finding is interesting on a professional level. In police culture, many police officers

who spent a long career on patrol can or may develop cynicism towards the job and/or public. This comes from handling the same types of calls or even dealing with the same citizens on a daily basis throughout their career. Due to the possible development of cynical behavior, citizens may file discourtesy complaints against these types of officers. Although unstable (only showing statistical significance in M2), it is worth noting that age is consistent with the findings of Chapman (2012) who states that younger officers, due to their high activity level, have more complaints than older officers.

One variable of interest was the marital status of a police officer and how it impacted job performance. No literature was found regarding how the marital status of an officer impacts the job performance. M2 and M4 (in Table 9) generated a significant result for marital status. Police officers who have never been married show less discourtesy complaints versus officer who have been ever married. It is possible that this finding is due to the additional strain that a marriage can place on an individual, even an officer in this case. The possibility that a married officer can be dealing with marital issues at home, may cause an officer to act discourteous when dealing with the public. There are studies in which they note that a police officer's job can cause strain on a relationship due to the stress that the officer deals with at work. The results of this study showed an inverse effect. Further studies will need to be conducted to further validate this hypothesis.

The final variable that showed any significance was training hours. Although the results yielded a high significance level, the impact that this variable has on discourtesy complaints is zero. Shjarback and White (2016) indicated that police departments who maximize training for their officers have less complaints in general. However, after analyzing over 500 different municipalities, no empirical data support the prediction that training reduces complaints on any one officer. As Shjarback and White (2016) stated, one factor that must be looked at is the type of

training that is being provided to the officers to combat citizen complaints.

Upon examining the results of the regression analyses for demeanor complaints (see Table 10), beat, was the only variable with any notable significance. Beat indicated that police officers who work the East are less likely to receive demeanor complaints versus officers who work the West. The result of this data is once again supported by study of Payne and Gainey (2007). Their study concluded that disadvantage neighborhoods are more likely to have citizens that will be more inclined to file complaints against police officers due to their ill image of the police force. The East side of this border city has more prominent areas. In terms of income below the poverty level, we can make an educated assumption, that the West has more disadvantaged neighborhoods (City-Data.com, 2019). Current data confirms that the West side of this border city has a higher percentage (40-60%) of citizens living with incomes below poverty (City- Data.com, 2019).

Limitations

This study has a number of limitations that the reader must be cognizant of before making any conclusions from its results. This study focused on the border town City's Police Department, and only analyzed existing archival information within its host municipality. Therefore, a threat to external validity exists regarding the findings (Neuman, 2011). That is, its findings cannot be generalized to other municipalities and therefore can only be extended to the host municipality itself.

Another limitation of this study is the validity of the measures of citizen complaints. The representative reliability of the measures of citizens' complaint can have many factors affecting the complaint itself. For example, departmental policies can vary from agency to agency, thus making the construction of measures far from standardized and uniform across police departments. Due

to policy and procedures, a complaint can vary (if and) when that complaint is filed. Various departments can receive complaints and file these even if these are illegitimate. The reader is reminded that this study does not focus on the disposition of the complaint, which could prove necessary in addressing the reliability and validity of the results.

Furthermore, the data collected represents the current achieved and ascribed characteristics of police officers. It is difficult to determine the officer's educational level, number of training hours, or certification level at the time he/she received a complaint. Officers' characteristics are continually evolving as they seek professional development throughout their career; and not to mention, the profession is one that requires continuing education (or trainings) for licensing.

In addition, while the creation and introduction of a scale to measure complaint severity is a novel and a notable outcome of this study, the reader should keep in mind that this newly created scale has yet to be further validated in different populations and contexts in order to establish its measurement reliability and reproducibility (Neuman, 2011). Due to time constraints, this scale was developed over a short period time and with a limited sample size. The validity of this scale may also need to be improved given that measurement scheme used may have not fully addressed the issues of content and construct validity.

Finally, another limitation of this study pertains to the goodness of fit (i.e., model adjusted R^2) for the taxonomies of models that were generated from the data and from the specification of the independent, moderating, and dependent variables. The adjusted R^2 for the taxonomies of models ranged from 0.05 to 0.30. Except for severity (TSIS), all the other dependent variables yielded adjusted R^2 that were less than 0.20, which is outside of the typical range of what would be considered a good fitted model in the social sciences. The low adjusted R^2 values is construed as a limitation since it is means that much of the variations in Rate of Annual Complaints, Total

Severity Index, Excessive Use of Force, Discourtesy and Demeanor are   unaccounted for by the

taxonomies of models examined and tested in this study.

Policy Implications

The results of this study have the potential to further improve departmental policy aimed

at enriching officer/citizen relationships with the outcome being, decreasing the number of

complaints filed by citizens. These policies can be implemented during the hiring process of a

recruit to the police force, or during the professional career of an officer in order to minimize

citizen complaints. This study suggests that different factors must be taken in consideration when

attempting to reduce complaints filed against an officer.

Because age is consistently a negative predictor (i.e., older officers generate lower annual

rates of complaints) of annual rate of complaints, and basic certification has a significant negative

impact (i.e., officers with basic certification have a lower severity index score) on the severity

index score , it is recommended that younger officers in the City's Police Department be the focus

of basic training. Yet, another recommendation is to have officers remain under basic certification

for a longer period of time; that is, either more years of service be required, more training hours

be required, or both before advancing to the next certification level.

Due to the fact that training and education of a police office did not turn out to be significant

and important factors in reducing and in minimizing complaints (both in its severity and rate),

there is a need to have the City's Police Department review and rethink its police training

curriculum and the educational requirements for acceptance of applicants to the police force.

Without a systematic curriculum review and evaluation of selection criteria to the police force, it

will seem that the resources (financial and time) are wasted if they do not impact, improve or better

police performance and reduce complaints. It also highlights the need to rethink what mindset

and skills such training should instill and develop. These suggestions lean towards training and education that enhance and optimize officer citizen interaction and relationship.

Although there are contradictory findings in different populations and contexts about the Community-Oriented Policing Services program (COPS), it will be prudent to try a similar program inspired by COPS. COPS could also be an efficacious way to reduce citizen complaints because patrol beat seems to appear as an impactful factor in almost every analysis that was performed. That same program could have the potential to build better rapport with the community; thus, could influence officers to act more professionally, and use less force when dealing with the citizens within their assigned beat.

CONCLUSION

This study examined and characterized the relationship of officer's education, gender, age, experience, training, and work beat, with type, frequency, and severity of citizens' complaints generated from officer- citizen interaction. Using both a manifest-coded content analysis method and an existing statistics method on police officers' files and records, the relationships among independent, moderating, and dependent variables were examined using a linear regression approach. It explored which individual (micro) and contextual (macro) level factors contribute to the generation of citizen complaints.

With respect to the set of hypotheses tested. the following can be said: Hypothesis 1 (age) was supported in the regression results for the annual rate of complaints. Hypothesis 3 and 4 (beat and beat X age) were also supported by the regression results for the annual rate of complaints. In the regression results for the total severity index, Hypothesis 2 (certification, training hours) were supported by this regression. Hypothesis 2 (training hours) was again supported by the regression results for excessive use of force. Table 9, the regression results for discourtesy, supported Hypotheses 1, 2, 3, 4 and 5 (marital status, age, training, experience, beat, beat x age, and beat x training hours). Finally, the regression results for demeanor, also supported Hypothesis 1, 2, 3, 4 and 5 (age, training hours, beat, beat X age, and beat X training).

This study also aimed to describe the relationship among these factors in terms of direct effects (main effects) and moderating effects (interaction effects) on citizens' complaints. Understanding the characteristics and nature of these relationships among the individual-level and contextual-level factors has the potential to improve police interdepartmental policy that would assist officers in forming better community relationships. Improving the relationship between the

police and the community will further help in legitimizing the career and role of the police officer today. It will also help minimize the impact of anti-police groups, which have emerged and become deadly because of several police brutality news that have pervaded in mass media and national news outlets.

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