

A QUANTITATIVE STUDY ON OFFICER PROACTIVITY BEFORE AND AFTER
BODY-WORN CAMERAS USING ARCHIVED DATA

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University

2022

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ABSTRACT

This quantitative study aimed to determine if traffic stops and self-initiated activities for first-line patrol officers, from a large police agency in the Southern United States, decreased after body-worn cameras (BWCs) were issued. Additionally, this study attempted to determine if there was an effect on the crime rate after the cameras were issued. Body-worn cameras have been considered as a device to improve police-citizen relationships. While numerous studies find the cameras useful; some drawbacks regarding the BWCs are beginning to surface. The importance of this study will allow department leaders to make certain that body-worn cameras are adding value and not hindering police performance, as many cities are seeing an uptick in violent crime. The purpose of the study was to determine if officer proactive initiatives declined over time after the BWCs were issued and if this influenced the crime rate. A quantitative analysis using archived data was utilized. The sample consisted of 1,455 first-line patrol officers who worked in a patrol capacity for April-June 2014, 2017, and 2019. The data collected from 2014 was prior to BWCs while the data retrieved in 2017 and 2019 was post BWCs. The study indicated traffic stops and self-initiated activity significantly decreased after BWCs were issued. This contrasts with other studies that have analyzed traffic stops and self-initiated activities specifically. Recommendations for future research include evaluating agencies of equal size for generalizability and conducting a qualitative analysis using officers from this sample to determine precisely why proactive initiatives have decreased significantly.

Keywords: body-worn cameras (BWCs), traffic stops, self-initiated activity, deterrence theory, self-awareness theory, social learning theory, career-stage theory

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Dedication

This dissertation is dedicated to my father, Jesse L. James, who passed away October 21, 1988, when I was 17 years old. It is because of him I chose a career in law enforcement which, in turn, gave me the opportunity to pursue my education and achieve this degree. I will never forget the Sunday mornings at the shooting range or listening to his police scanner all night while he was out patrolling our neighborhood. I know he is watching over me.

Acknowledgments

I would like to acknowledge those who have made this possible starting with my good friend, Shaun Hall. Shaun, had it not been for you pursuing your master's degree and encouraging me to join the journey with you and Chien Nguyen, I probably would have never considered such an undertaking. You were instrumental in finding this degree program at Liberty University. I remember the day I walked into the office, and you had already researched several Universities and said Liberty was the one. Thank you guys for being my cheerleader and continually checking in on my progress. Your encouragement all throughout this means the world to me. Chien, I know you will not miss all my crazy questions. Just know I took your advice often.

I would also like to thank my children, Jacquelynn and Deven Smith. Both of you have been very understanding and supportive. I promise to make up for the times I was unavailable or unable to attend events. One reason I pursued this level of education was to demonstrate that it is never too late to pursue your passions. I hope I inspire you to pursue your passions.

I would like to give special recognition to Dr. Carl Miedich and Dr. Marc Weiss. Dr. Miedich, thank you for taking me under your wing. When I enrolled in your Juvenile Justice class during the second semester, I knew you were a professor and person who really cared about his students. You gave me encouragement and constructive criticism that I carried with me throughout this journey. When it came time to select my Committee Chair, I would not have considered anyone else. You have given me direction and inspiration. You have been there for me when I thought this was becoming impossible. You are more than my Committee Chair; you are my friend, and I cannot thank you enough. Dr. Weiss, thank you for taking me on as a doctoral student. Your feedback and expertise in methodology is much appreciated. Stay safe out there.

Lastly, but not least, I would like to acknowledge everyone who believed in me along the way. Every one of you told me I could do this, and the day has finally come where I can thank you for your immeasurable support. A special thank you to my brothers, Brian and Sean James; my mother, Edna James; Lt. Robert Cantu (for all the questions I threw at you); Lt. Ronald Willkens (who can finally call me Dr. Sgt. Smith); Sgt. Michael Junco (for always making fun of my Ph.D. coffee cup); and Cynthia Vela for constantly telling me “You got this girl!”

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List of Abbreviations

1. BWCs – body-worn cameras
2. OIS – officer-involved shooting
3. NACCD - National Advisory Committee on Civil Disorders
4. FBI - Federal Bureau of Investigation
5. PERF - Police Executive Research Forum
6. CIT - crisis intervention training
7. CCTV - closed-circuit television
8. NCVS - National Crime Victims Survey
9. CAD - computer-aided dispatch
10. IRB - Institutional Review Board
11. RQ – research question

CHAPTER ONE: INTRODUCTION

Overview

Body-worn cameras (BWCs) have become a primary tool for patrol officers across many police agencies in the United States and is considered one of the fastest upgrades in police technology (Schneider, 2018). However, technology can have its drawbacks. This study seeks to examine if BWCs are causing police officers to be reluctant when initiating proactive initiatives such as traffic stops and self-initiated activities, a practice that can avert crime and enhance public safety (Fliss et al., 2020). This chapter will discuss how BWCs came about, the importance of proactive initiatives to society, and a historical lookback into issues involving the police, thus the acquisition of BWCs. Inquiry into four theoretical frameworks will guide the research and aim at determining if there a correlation between police proactive initiatives and the crime rate. Problems surrounding the BWCs, and officer proactive initiatives are addressed. The purpose of the study and its significance are also discussed.

Background

Since 2014, the police profession has been under close examination after numerous officer-involved shooting (OIS) deaths; some considered unwarranted and inexcusable by the public. The August 9, 2014, shooting death of Michael Brown, in Ferguson, Missouri, was a turning point for many police agencies across the nation and one that launched rapid police reform according to Crow and Smykla (2019) and Lum et al. (2019). The OIS involving Michael Brown and many other OIS incidents, in 2014, emitted a call to action that was so loud President Barack Obama developed a task force (President's Task Force on 21st Century Policing, 2015). In December 2014, the President's Task Force on 21st Century Policing was tasked with evaluating and considering current police practices and determining what improvements could be

made. As a result, the task force overwhelmingly supported and promptly implemented tools to reduce OIS encounters and other excessive force claims. President Obama agreed with the task force when they suggested BWCs would help alleviate police misconduct and improve trust between the police and the communities they serve. The expectation is that the BWCs would be instrumental in the solution to improve officer behavior and police-community relationships (Ariel et al., 2016; Bromberg et al., 2018). Ariel et al. further commented that President Obama allotted millions of dollars to fund BWCs for police agencies across the nation. Citizens, politicians, and other stakeholders believed the cameras would lessen the likelihood of officers using unnecessary excessive force, therefore improving police officer accountability and citizen safety (Taylor et al., 2017). There was also a belief that the cameras would alter the officer's behavior as well as the citizen's behavior for a more positive police-citizen interaction (Ariel et al., 2021). However, the camera does not come without some disadvantages.

Numerous studies have been conducted since the implementation of BWCs. Some studies have revealed positive outcomes, such as less use of force complaints, while others have found no change in officer behavior, officer attitude, citizen behavior, and community attitudes (Lum et al., 2019). However, what is alarming is that the BWCs have produced some unintended consequences that are having devastating effects on communities and even police officers (Lum et al., 2017; Wright & Headley, 2021). The BWCs may be precluding police officers from carrying out proactive initiatives, which some studies show to be a crime reducing agent, because officers fear discipline, indictment, and even death (Rosenfeld & Wallman, 2019). This study seeks to discover if there is a reduction in officer proactive initiatives after BWCs were issued. Additionally, this study will strive to determine if there is a correlation to proactive initiatives and the crime rate.

Society-at-Large

Police have used proactive initiatives, such as hot spot policing, broken windows policing, traffic stops, and the stop-question-frisk tactic as hard-hitting approaches addressing low-level crimes to avert the spawning of more serious and violent crimes (Schuck, 2020). Crime is not uniformly diffused across communities, rather there are areas that are a magnet for crime which can produce half of all criminal events in a specified area (Braga et al., 2019). Hot spot initiatives involve flooding high crime areas with police officers who self-initiate contact with citizens (Weisburd et al., 2017). These authors proclaim there is strong evidence to validate that hot spot policing is successful without shifting crime to other areas of the community.

Broken windows policing has been used historically as another means to subdue more serious crimes given that broken windows policing addresses quality of life disorder and decay within communities (Cohen, 2019). He further expands on this matter and asserts quality of life issues include abandoned or deteriorating structures and buildings, and low-level violations such as loitering and urinating in public; all signs that residents are uncaring or unable to maintain their neighborhoods on their own. He also espouses that failure to address such issues invites more ruthless and violent criminals that can cause a neighborhood to spiral out of control.

Traditionally, traffic stops have served as a tactic to curb serious or dangerous crimes and are the most common engagement between officers and citizens (Chenane et al., 2020). Traffic stops prevent drunk driving, automobile crashes that are a result of speeding or running red-lights, the trafficking of drugs and people, reckless driving, road-rage, and many other crimes. Research confirms that “traffic stops promote public safety by reducing dangerous driving practices and non-vehicular crimes” (Fliss et al., 2020, p. 2).

For decades, the stop-question-frisk tactic has been a police practice that is supported by the United States Supreme Court case, *Terry v. Ohio* (Browning & Arrigo, 2021). These authors explain this tactic allows police officers to approach, detain, and pat-down a person they reasonably suspect of being involved in a crime, about to commit a crime, or may be of a danger to others. They further mention that supporters of this tactic espouse this reduces and prevents crime. However, Browning and Arrigo also state those who oppose the tactic do so because they believe minority individuals are targeted and the approach, overall, is futile. Recognizing specific groups disapprove of this tactic, combined with the current climate surrounding officer-involved shootings, that comprise a greater part of minorities, further hampers police initiatives that can reduce crime (Chenane et al., 2020). These authors discovered that almost 90% of police officers questioned, in a recent survey, credit the recorded high-profile shooting incidents between police and African American citizens as the chief reason their jobs more difficult, dangerous, and a primary reason for pulling back on enforcement activity.

Historical Overview

High-profile police incidents are nothing new and they have, by and large, involved social injustices (Todak & James, 2018). In fact, Embrick (2015) states that President Lyndon B. Johnson formed the National Advisory Committee on Civil Disorders (NACCD) in 1968 to assess the riots that stemmed from police brutality in the 1960s. He declared the committee generated the Kerner Report, named after Illinois Governor Otto Kerner, Jr., who chaired the NACCD. The NACCD was tasked with uncovering what happened during the riots, what instigated the riots, and what could be done to prevent such an occurrence in the future (Farley, 2018). Almost fifty years later, Todak and James assert that citizens are still legitimately concerned about how police conduct their duties and how it has become a profound issue

affecting today's society. It was not until the 2014 shooting death of Michael Brown did police agencies overwhelmingly respond by implementing BWCs, for improved transparency and officer accountability, after President Obama facilitated the distribution of thousands of BWCs to police agencies around the country (Ariel et al., 2016; Bromberg et al., 2018; Office of the Press Secretary, 2014). However, since the implementation of BWCs, crime rates have been increasing and some scholars suggest this is in part to officers decreasing proactive initiatives which has been dubbed the "Ferguson Effect" (MacDonald, 2019). The "Ferguson Effect" will be discussed in more detail in the subsequent chapter.

Theoretical Framework

Several theories will be used to guide the research to determine if there is a correlation between BWCs, officer proactive initiatives, and the crime rate. Since 1993, the nation's crime rate steadily decreased for more than two decades, however, the rate has begun to rise once again (Morgan & Oudekerk, 2019). These authors believe this uptick in crime began shortly after the OIS death of Michael Brown along with the implementation of BWCs. This study will consider four different theories in which to determine if BWCs are deterring officers from conducting proactive initiatives. The first theory is the deterrence theory. The BWCs are grounded on the deterrence theory, which aims at deterring what society considers socially unacceptable behavior (Ariel et al., 2017). Are officers fearful that footage from the BWCs may be misconstrued or perceived socially unacceptable, therefore, less traffic stops are conducted to avoid citizen contact?

The second theory to be examined is the learning theory. The learning theory espouses individuals will alter their conduct according to what happens to others and therefore, will avoid certain activities based on the consequences the actions have provoked in the past (Mayes, 2015).

MacDonald (2019) believes the heightened media scrutiny is causing officers to think twice before proactively engaging with people on the street. The third theory being assessed is the self-awareness theory. The self-awareness theory is closely associated to the deterrence theory and the learning theory. The self-awareness theory claims that as individuals recognize they are being observed they will often modify their behavior to align with social norms to escape negative repercussions (Groff et al., 2020; Hughes et al., 2020). Some studies assert the watchful eye of the BWCs are causing officers to burnout at a faster rate due to the public image they feel they must portray for the camera, thus contributing to the decrease in proactive initiatives (Schaible & Six, 2016). Others maintain that officers are avoiding proactive initiatives as a way to preserve their career (Shjarback et al., 2017). Which brings the researcher to the final theory, the career-stage theory. The career-stage theory posits that activity levels naturally decline throughout a person's career which may support the explanation as to why some officers curtail their proactive initiatives as their career progresses over time (Bonkiewicz, 2017).

To summarize, police BWCs have emerged rapidly across the United States in the last several years without much definitive research or consistent results (Bromberg et al., 2018; Lum et al., 2019). In addition, many cities are experiencing a rise in crime (Hyland, 2018; Wallace et al., 2018; Wolfe & Nix, 2016). While it is premature to assume that BWCs are causing crime rates to climb, they may be a contributing factor should it be determined that officers are curtailing their proactive initiatives. Therefore, analyzing proactive initiatives (traffic stops and self-initiated activities) before and after the deployment of BWCs may provide insight that would enable police agencies to develop policies and best practices that would contribute to improving officer-community relations, thus decreasing crime.

Problem Statement

Many police agencies across the country have adopted BWCs and according to media reports, numerous polls infer the public is in support of the cameras (Bromberg et al., 2018). Bromberg and associates also point out there is more coverage from the media regarding BWCs than research, thus the media controls the narrative of what is expected of the BWCs. They further noted the Rialto study, the first controlled experiment analyzing BWCs and officer use of force, was not only the first peer reviewed study, but one that triumphed with positive results. These authors believe that because of these encouraging results, the Rialto study has been extensively defended by the media claiming BWCs are a valuable and beneficial tool for police officers. However, they believe this study to be biased given that Rialto's Chief of Police, William Farrar, co-authored the study; something that is rarely publicized. Shjarback et al. (2017) defends the claim regarding media hype and goes on to state that experimental research has been unable to keep pace with the allegations that officers curtail proactive initiatives following negative law enforcement incidents. Shjarback and colleagues assert much more research examining BWCs and proactive initiatives is needed.

Numerous officer-involved shooting incidents involving unarmed minorities in recent years has shattered trust between police and citizens. The main premise surrounding BWCs is to provide the public with transparency so that trust can be mended (President's Task Force on 21st Century Policing, 2015). Meijer (2013) defines transparency as "the availability of information about an actor that allows other actors to monitor the workings or performance of the first actor" (p. 430). The BWCs are supposed to facilitate this transparency. However, Bromberg et al. (2018) suggests transparency by way of the camera may be hindering trust and contributing to a whole host of other issues that include privacy issues for victims and lack of officer discretion.

Additionally, officers who were equipped with a camera were more likely to be assaulted than those who did not wear one (Ariel et al., 2016). The same study by these authors revealed that the officers who were wearing the BWCs were just as likely to use force than those who did not, yet this is what the camera was expected to reduce. Furthermore, since the deployment of BWCs crime rates have increased across numerous cities leaving some to wonder if the increase in crime is due to a decrease in proactive initiatives and the intense media scrutiny that policing has endured in recent years (Hyland, 2018; Wallace et al., 2018).

A major push in police reform is for officers to be more proactive and prevent crime before it happens (Lum et al., 2020). Traffic stops are just one of many proactive-initiatives officers utilize to avert crashes and crime, thus enhancing public safety. Studies that have analyzed whether or not BWCs promote the decrease of self-initiated activities are not conclusive (Lum et al., 2019). In fact, Lum et al. uncovered only six recent studies that addressed officer proactivity including traffic stops, while other studies focus mainly on officer use of force, citizen complaints, and public opinion of the cameras. In conclusion, the studies analyzing officer proactivity were found to have inconsistent results. The authors indicated that differing methodologies and the type of proactive initiatives assessed contributed to mixed results. However, a study conducted by Shjarback et al. (2017) found that traffic stops throughout the state of Missouri declined significantly in 2015, in comparison to 2014, following the high-profile shooting deaths of Michael Brown and others. Shjarback and colleagues credit this decline to officers conducting more quality traffic stops, although it was not specified in this study if officers were equipped with BWCs. Lum et al. recommends future researchers steer clear of focusing on universal activity increases and decreases and narrow down to the focus to

specific proactive initiatives to determine the effects, if any, the BWCs have on these proactive initiatives.

Lum et al. (2019) suggest some proactive initiatives can be beneficial in reducing crime and improving community relations while other proactive initiatives may be futile and hamper community relations. They believe many studies have grouped proactive initiatives together so no one initiative has been studied in depth, which is problematic. They recommend that future studies target specific officer initiated activities instead of merging all proactive initiatives together. They believe this will offer a better understanding as to why some initiatives have decreased, some have increased, and the impact each initiative may have on communities. This study aims to examine specific officer proactive initiatives before and after the implementation of BWCs to determine if the BWCs are having an impact on officer's willingness to engage with citizens.

Purpose Statement

The purpose of this study is to determine if officer proactive initiatives (traffic stops and self-initiated activities) have declined since the deployment of BWCs using archived data from a large, metropolitan police agency in the Southern United States that services more than one million citizens. Additionally, the study will attempt to determine if there is a correlation between officer proactive initiatives and the crime rate. A quantitative study was chosen to determine if officers are curtailing proactive initiatives subsequent to being equipped with BWCs and if this curtailment is having a negative impact on the crime rate. As previously mentioned, there has not been enough research conducted to determine if BWCs are a factor for officers contemplating traffic enforcement and self-initiated citizen contacts. Furthermore, the researcher

was unable to locate a study that employed archived data. This study will contribute to the body of knowledge and narrow the gap.

Archived data from the participating police agency will be used to determine if BWCs are contributing to a reduction in traffic stops and officer self-initiated activities, thus its impact on the crime rate. The number of traffic stops conducted by each officer will be collected prior and subsequent to the deployment of BWCs using three points in time totalling nine months of data. Additionally, the officer's years of service with the department at the time the data is collected will be factored to determine if the career-stage theory is plausible. Furthermore, crime rates recorded by the participating police agency for the corresponding city will be collected to determine if there is a correlation to the number of proactive initiatives and crimes committed.

Significance of the Study

The lack of research and the mixed results from previous studies indicate that additional studies are critical for stakeholders to understand the full impact BWCs have on crime. The group of studies analyzing police officer behavior by Lum et al. (2019) vary across the board with most failing to focus directly on traffic stops and self-initiated activities before and after BWCs. Furthermore, they admit that many of the studies take place in locations housing 250,000 residents or less. The study by Shjarback et al. (2017), had more definitive results as they studied more than 100 police agencies across the state of Missouri where the 2014 OIS death of Michael Brown occurred. They found a significant reduction in the number of traffic stops after the high-profile OIS death of Michael Brown. However, they failed to indicate if BWCs had been issued to the officers during the study. This current research will focus entirely on archived data pertaining specifically to traffic stops and officer self-initiated activities before and after the deployment of BWCs and the impact the proactive initiatives may have on the crime rate.

Inquiry into this research will provide a better understanding as to whether the BWCs are doing more harm to communities than good. The BWCs were rolled out without much examination when they were pushed out by President Obama and then further supported by the Trump administration (Smith, 2019). He asserts that BWCs are not the technical solution the public had hoped, and that some police agencies have underlying issues a camera cannot fix. Utilizing the four aforementioned theories, this research hopes to provide a more thorough insight into BWCs and their impact on crime rates.

This study will allow police agencies to achieve a better understanding of how the the BWCs affect their agency and the citizens they serve. Moreover, it will allow agencies to develop policies that are beneficial to all concerned as the cameras have been found to have some drawbacks. Adams and Mastracci (2019) found that BWCs contribute to officer burnout. Furthermore, a study conducted by Bierie (2017) showed officers were hesitant in taking necessary action out of fear of how they would be perceived on camera. More studies are warranted as the current police climate is tumultuous and the BWCs may not be meeting the desired expectations in some cities.

Research Questions

RQ1: *What is the difference in the number of traffic stops after BWCs were deployed?*

RQ2: *What is the difference in the number of self-initiated activities after BWCs were deployed?*

RQ3: *What is the relationship between traffic stops and the Part I crime rate before and after BWCs were deployed?*

RQ4: *What is the relationship between officer self-initiated activities and the Part I crime rate before and after BWCs were deployed?*

RQ5: *What is the relationship between the number of officer proactive initiatives and their career progression?*

Definitions

1. *Body-worn camera (BWC)* – a small apparatus that affixes to the front of a police officer’s uniform to record sound and video (Schneider, 2018).
2. *Crisis Intervention Training* – training for police officers to help recognize and give aid to those suffering from a mental health crisis (Robinson, 2020).
3. *“Ferguson Effect”* – when police officers intentionally reduce their proactive initiatives potentially causing crime rates to increase (MacDonald, 2019).
4. *Officer-involved shooting (OIS)* – when an officer discharges their firearm at a person (Etheridge & Gibson, 2020). OIS in this paper implies a fatal shooting.
5. *Part I crimes* – crimes deemed as the most serious and frequently committed in the United States by the Federal Bureau of Investigation Uniform Crime Reporting Program, therefore, they are the crimes most likely to be reported to law enforcement (U.S. Department of Justice Federal Bureau of Investigation, 2010).
6. *Police Executive Research Forum (PERF)* – a group of law enforcement executives who conduct research (Police Executive Research Forum, 2016).
7. *Proactivity* – strategies in policing that are successful in preventing crime (National Academies of Sciences, Engineering, and Medicine, 2018).
8. *Transparency* – the ability to monitor the behavior of another (Meijer, 2013).

CHAPTER II: LITERATURE REVIEW

Overview

In Chapter 2, an in-depth literature review was conducted that sought to identify if police officers were pulling away and curtailing their proactive initiatives after being equipped with a body-worn camera and if the activity level correlates to the crime rates. The chapter begins with four theoretical frameworks. Two of the theories, deterrence theory and self-awareness theory, are the foundation and rationale for the deployment of the BWCs. The career-stage theory aims to explore the decrease in officer activity over time and if the camera accelerates this decrease while the social learning theory rationalizes why officers have become apprehensive in carrying out their police duties. The related literature explored the triggers that prompted BWCs, the premise surrounding BWCs, and the unintended consequences that have begun to surface. For example, there has been a rise in the number of line-of-duty deaths and assaults on police officers. Additionally, the literature explored officer burnout and the media's role with the chapter concluding with a discussion about the rising crime rates and curtailed officer activity.

Theoretical Framework

Theories are most often used to explain human behavior and for understanding the human thought process. Theories are especially constructive in the criminal justice field and have long provided explanations for crime and punishment. This research explored four theoretical frameworks to support the explanation of BWCs and the potential the cameras have for inducing the curtailment of officer proactive patrol activities. The four theories underpinning this research are deterrence theory, career-stage theory, social learning theory, and self-awareness theory.

Deterrence Theory

Deterrence theory was first conceived by Cesare Beccaria and Jeremy Bentham in the 18th century (Pickett et al., 2018). Deterrence theory is the foundation behind crime and punishment. Deterrence theory explicates why humans seek pleasure but will avoid procurement of those pleasures should they potentially cause punishment. Deterrence theory rationalizes that if a particular action has a high propensity of producing an undesirable consequence, and that consequence has the likelihood of being promptly imposed, then rational individuals are likely to be disinclined to avoid the repercussions (Lee, 2017).

Likewise, fear is an emotion people experience when visualizing danger which causes them to be reluctant or hesitant when considering an action (Pickett et al., 2018). The authors say fear causes anxiety because the individual recognizes there are consequences that could be incurred. Furthermore, they say the feeling of fear has been hypothesized as a critical component of deterrence. The element of fear is often the rationalization behind why some people are reluctant to engage in criminal activity or activity that could bring unintended consequences as they fear the possibility of repercussions from those of authority. Romans 13:1-5 states:

Everyone must submit to governing authorities. For all authority comes from God, and those in positions of authority have been placed there by God. So anyone who rebels against authority is rebelling against what God has instituted, and they will be punished. For the authorities do not strike fear in people who are doing right, but in those who are doing wrong. Would like to live without fear of the authorities? Do what is right, and they will honor you. The authorities are God's servants, sent for your good. But if you are doing wrong, of course you should be afraid, for they have the power to punish you. They are God's servants, sent for the very purpose of punishing those who do what is

wrong. So you must submit to them, not only to avoid punishment, but also to keep a clear conscience. (New Living Translation)

Although deterrence theory is commonly associated to explain criminal activity and how most rational people will weigh the reward of a deviant act versus the risk, this theory is asserted to explain why some officers will curtail proactive initiatives which is to shirk adverse consequences (Demir et al., 2020). Moreover, the hypothetical instrument behind BWCs is grounded on an expansive and fundamentally substantiated theory of deterrence aimed at controlling deviant behavior on both sides of the camera (Ariel et al., 2017).

Career-Stage Theory

An officer's lack of self-initiative or the curtailment of proactive activities may occur for other reasons. The second theory to be examined is the career-stage theory which was first proposed by Donald Super in 1957 (Johnson & Lafrance, 2016). Career-stage theory proposes there are differing levels of productivity throughout a person's career (Bonkiewicz, 2017). According to Johnson and Lafrance, career-stage theory evaluates the notion that employees advance through different stages, generally distinguished by length of tenure. They claim the career stages are posited as well-defined periods of psychological and behavioral examination, acclimatization, and steadiness in one's employment. Career-stage theory, according to Johnson and Lafrance, shows that most employees will undergo four stages throughout the development of their careers with each stage represented by a 5-year span.

The first stage is the exploration stage. This stage transpires when the newly recruited employee is anxious in discovering the new processes associated with their career interests and their abilities that are the basis in forming their career (Johnson & Lafrance, 2016). They state the second stage, the establishment stage, is the era of time in which the employee concentrates

on fortifying their career by polishing their basic skills. They espouse the maintenance stage, stage three, involves the employee's drive to hold onto career achievements such as their reputation, rank, and other achievements, however, some may even seek to advance further while in this stage. Johnson and Lafrance, say the final stage, otherwise known as the disengagement stage, comes towards the conclusion of an employee's time within their employer and this final stage is where the employee's work energy and work interests diminish and fade, thus work productivity severely decreases.

The career-stage theory provides an explanation of the naturally occurring decrease in proactivity that is often found among many professions. This study seeks to explore if BWCs contribute to a more rapid decrease in officer proactivity as their career progresses. Johnson and Lafrance (2016), believe career-stage theory illustrates an employee's evolution throughout their career with behavior and attitude specific to each stage. They declare most of the career-stage research conducted thus far has analyzed the "relationship between career stage and employee work attitudes, such as job satisfaction, organizational commitment, career commitment, work ethic, and turnover intent" (p. 1581). However, these authors assert there is little proof that illustrates a correlation between actual behavior and career-stage, specifically in the criminal justice profession. This study aims to contribute to this gap in knowledge as this study sought to determine if BWCs contributed to an accelerated decrease in officer proactivity in conjunction with the naturally occurring decrease found in the career-stage theory.

Social Learning Theory

Albert Bandura's social learning theory posits that individuals learn by observing and imitating the behavior of others (Mayes, 2015). They maintain these observers then determine if a particular behavior results in positive or negative consequences. Positive consequences will

often encourage or promote the behavior while negative consequences customarily desist or discourage an individual from engaging in the observed behavior. Former Federal Bureau of Investigation (FBI) Director, James Comey, has indicated that political protests and mass media coverage of several high-profile police shootings, involving minority civilians in recent years, are having a negative impact on police officers, thus deterring them from proactively engaging with people within their community (MacDonald, 2019). The widespread anti-police sentiment reported in the media and demonstrated by various groups such as Black Lives Matter, Campaign Zero, and other social justice groups place officers in fear of generating discipline that could negatively impact their employment or family life (Maguire et al., 2017).

Self-awareness theory

Self-awareness is a psychosocial occurrence that regulates an individual's behavior (Ariel et al., 2018). First evaluated by George Mead in the 1930's, a person becomes conscientious of their behavior when they are aware their behavior may not reflect social norms (Wicklund & Duval, 1971). Ariel et al. argues self-awareness allows an individual to produce a preferred image of oneself. The premise behind self-awareness is that individuals who are aware they are being watched will often modify their behavior and conform to social norms (Ariel et al., 2015; Demir et al., 2020). Job 34:21 reads, "For God watches how people live; he sees everything they do" (New Living Translation). This may explain why some people cooperate with figures of authority and even more so when the authority figure is wearing a camera. Believers in God describe God as a type of social facilitator who observes the thoughts and actions of those on earth, thus making believers feel they are being watched (Gervais & Norenzayan, 2012).

Environmental cues and objects such as mirrors, video and audio recording instruments, an audience, or just being surrounded by other people can arouse self-awareness and encourage

socially acceptable behavior (Braga et al., 2020). Self-awareness theory operates in tandem with the deterrence theory in that being discovered should provoke fear of undesirable consequences, thus curtailing undesirable behavior. The premise behind BWCs is to improve the behavior of police and citizens alike because one's self-awareness would be heightened knowing a camera is recording, thus deterring poor behavior from either party (Groff et al., 2020; Hughes et al., 2020). Therefore, for police officers, BWCs deliver that constraint on an amplified level in that not only is someone witnessing the performance and conduct, but that the scrutinizing entity will penalize those for wrongdoings (Berg et al., 2016; Hedberg et al., 2017).

A study conducted by Groff et al. (2020), confirmed the presumption that the cameras worn by officers elevate one's self-awareness, driving officers to pull back from proactive activities. As a result, BWCs may be triggering a heightened inspection of oneself that is so great that it creates an "over-deterrence" effect in police officers (Ariel et al., 2018). They claim this surplus of deterrence can be a contributing factor for why some officers are more hesitant to use justified force, which in turn results in more assaults on police officers. Furthermore, they say that instead of the officers using the necessary force to restrain combative individuals some officers are discouraged to use any force fearing potential discipline, as it may be construed as inappropriate. Ariel et al. profess this phenomenon illustrates a grim side of self-awareness that was unpredicted and severely under-researched. Why would police officers proactively seek out interactions with potentially recalcitrant individuals knowing they could be the next viral video or worse, be indicted? Officers encounter disorderly and disobedient citizens frequently unbeknownst to them how the encounter will play out. 2 Timothy 2:15 states, "Work hard so you can present yourself to God and receive his approval. Be a good worker, one who does not need to be ashamed and who correctly explains the word of truth" (New Living Translation). Officers

should not be in fear of performing their duties. Do their actions correspond with the morals and beliefs God has instilled in them regardless of wearing a camera? If more people contemplated how God perceives them, BWCs would not be at the forefront of police reform. God created one another to care for one another, not to inflict pain, harm, or distrust.

Numerous studies evaluating self-awareness theory and BWCs frequently report that when BWCs are worn by the police officer the number of use of force incidents and citizens complaints against that officer are reduced (Ariel et al., 2017; Henstock & Ariel, 2017). This decrease has been touted extensively following the highly publicized Rialto, California experiment that was conducted in 2013 (Crow et al., 2017; Schneider, 2018). The Rialto experiment, as it is often referred to, published almost a 90% decrease in complaints and more than a 50% reduction in officers using force (Gaub et al., 2016). However, officer activity levels were not measured throughout this experiment and there are very few scholars who have attempted to identify officer activity levels since the deployment of BWCs (White et al., 2018). An officer's activity level may decrease after implementing BWCs because officers are aware their actions are subject to scrutiny.

The likelihood for intensified scrutiny by police administrators and the public may cause officers to withdraw from self-initiated activities (Groff et al., 2020). In other words, they will continue to answer calls for service but will drastically reduce the number of times they seek out interactions with citizens (Shjarback et al., 2017; Wallace et al., 2018). Shjarback et al. says this newly adopted tactic suggests the officer's need to abate the risk of punishment, public examination, and their own injury or death, should the officer lack self-restraint in language or physical force situations. Moreover, they maintain officers are embarking on avoidance behaviors as a means of self-preservation. This may be a contributing factor for the reduction in

citizen complaints and use of force because the officer is making less contacts with the public.

This research seeks to identify if officer proactivity levels decrease after BWCs are implemented and if there is a correlation to the crime rates.

This study seeks to support the deterrence theory by demonstrating that officers are curtailing proactive initiatives due to the deployment of BWCs that provide an audio and visual narrative of interactions with the public. Recent, high-profile cases such as Sandra Bland, Breonna Taylor, and George Floyd have illustrated how quickly an officer is propelled into the limelight and their world turned upside down from video footage. This study will attempt to associate Bandura's learning theory as a possible explanation for the decrease in officer activity should a decrease be discovered. Major events that have brought shame and embarrassment to the police profession may be causing officers to think twice before initiating a citizen encounter. The career-stage theory will be used to evaluate the officer's proactivity level over time and whether this proactivity level significantly decreases once the BWCs are implemented. Furthermore, should the data show a significant tapering in officer activity both the career-stage and self-awareness theories may be validated as officers become more aware they are being watched. However, a qualitative study would need to be performed to extract the precise reasoning behind the decrease.

Related Literature

Triggers that Prompted BWCs

Since 2014, there has been an upsurge in public disapproval over what many believe is excessive force imposed by police officers and the level to which those officers are held accountable for the outcome of their incident (White et al., 2018). The deaths of Michael Brown in Ferguson, Missouri; Eric Garner in Stanton Island, New York; Tamir Rice in Cleveland, Ohio; Walter Scott in North Charleston, South Carolina; Freddie Gray in Baltimore, Maryland; Samuel Dubose in Cincinnati, Ohio; and Justine Damond and George Floyd (2017 and 2020 respectively) in Minneapolis, Minnesota, have triggered public anger and a demand for change in the police culture (White et al., 2018). Since the events involving the individuals named above along with many others, numerous cities have experienced civil mayhem and riots, marches, protests, extensive media attention, and intensified public examination of the police (Campbell et al., 2017; Engel et al., 2020). Additionally, White et al. believes communities nationwide have commanded police reform to lessen the chance of civil rights violations and citizen-police confrontations.

The highly publicized shooting incident involving Michael Brown and Ferguson, Missouri Police Officer Darren Wilson was a pivotal turning point for police professionals across the country and just one of many cases that spawned the outcry for police reform (Bromberg et al., 2018; Chapman, 2019). These incidents prompted various police leadership groups to re-examine the strategies used by officers such as use of force policies and procedures, de-escalation tactics, and racial profiling; elements that frequently lead to officer-involved shootings (Robinson, 2020).

The Police Executive Research Forum (PERF) is an independent research organization that addresses issues that are imperative to the police profession including community issues, police use of force, and technology to enhance police services. The PERF took the initiative in establishing a robust guide concerning officers and de-escalation techniques which are shown to reduce the need for officers to utilize use of force tactics (Robinson, 2020). More specifically, Robinson claims the de-escalation techniques focus on incidents where individuals suffer from mental issues or who may be under the influence of drugs, as well as those armed with a knife or firearm.

Texas, just one of many states, embraced the PERF's recommendation that all peace officers throughout the state of Texas are now required to undergo 40 hours of Crisis Intervention Training (CIT) with annual updates (Robinson, 2020). Robinson says this education strives to provide officers with more resources so that officers have a reduced propensity to respond with physical or deadly force. Additionally, Robinson claims, the revisions are showing success in that additional training has been implemented in almost 40% of police agencies nationwide (2015-2017) with a 20% decrease in officer-involved shootings during the same time frame.

Issues surrounding police misconduct prompted former President Barack Obama to create a task force to overhaul police practices and address police reform (White et al., 2018). In December 2014, former President Barack Obama assembled the President's Task Force on 21st Century Policing to include a partnership of police chiefs, mayors, community leaders, and other criminal justice professionals from around the country. The President's Task Force on 21st Century Policing set various goals, one being to explore and develop systems in which the police and the public could work collaboratively to fight crime and build relationships instead of

working in opposition of one another. The task force was directed to discover and categorize best practices in policing and then propose suggestions that could deter and reduce crime while promoting and re-establishing the public's trust (Wallace et al., 2018).

One suggestion that was heavily supported by the task force, the public, and other stakeholders as a means to increase trust between the public and the police was the deployment of BWCs (President's Task Force on 21st Century Policing, 2015). The overwhelming consensus drove former President, Barack Obama to initiate a \$75 million match program from the \$263 million projected investment package on police reform to assist police agencies with obtaining BWCs (Ariel et al., 2016; Bromberg et al., 2018). The task force understood the BWCs would not be the magic bullet and would need to be carefully implemented, but that the cameras could be a step in the direction of greater transparency and officer accountability (Office of the Press Secretary, 2014). Since then, the police profession has swiftly implemented change with many agencies stepping up and re-evaluating their policies and procedures (Robinson, 2020). Additionally, he declares numerous agencies have adopted the recommended training in conjunction with the technology of the BWCs.

In 2016, nearly 50% of the eighteen thousand police agencies across the U.S. had implemented BWCs (Hyland, 2018). This is just two years after the shooting death of Michael Brown, the incident that prompted the cameras. As of 2020, 50% of the agencies who do not have BWCs have devised a strategy to implement them (Engel et al., 2020). This rapid implementation shows just how quickly police departments were to jump on the new technology. In addition to improving transparency and officer accountability, police agencies have named many motivations for the adoption of BWCs. More than three-quarters of the agencies who deploy the cameras have indicated they have done so for officer safety reasons, for enhancing

evidence, to reduce citizen complaints, and to cut down on the agency's liability according to Hyland. He says those who have yet to adopt the new technology have cited video storage costs as the primary reason for the delay.

After the string of what has been viewed as unjustified officer-involved shootings across the country, the public is no longer remaining silent and has demonstrated their plea for immediate police reform (Hedberg et al., 2017). Citizen's are demanding that police agencies hold their officers accountable to improve their behavior, transparency, and legitimacy (Ray et al., 2017; Wright & Brown, 2020). Equipping police officers with BWCs is touted by federal and state lawmakers as just one approach at affording citizens more transparency when engaging with police according to Ray et al. Wright and Brown assert the BWCs audibly and visually record an officer's actions that can be verified by others. The President's Task Force on 21st Century Policing (2015) believed that BWCs could potentially aid in building relationships with the public and enhance police practices as they are a tool to reduce the use of force and record interactions (Bureau of Justice Assistance, 2015). However, the BWCs are not the panacea many thought the cameras would be and may even be responsible for negative ramifications (Lum et al., 2017; Rosenfeld & Wallman, 2019). Several studies have indicated that the BWCs have compelled officers to withdraw from proactive initiatives which may be a cause for an uptick in crime (Marier & Fridell, 2020; Wallace et al., 2018).

Premise Surrounding the BWCs

The premise surrounding the commissioning of the BWCs was that of officer and agency transparency, officer accountability, improved behavior by both officers and citizens, and officers using less force after a political spotlight illuminated how several citizens lost their lives at the hands of the police (Ariel et al., 2015; Chapman, 2019; Crow & Smykla, 2019). The

camera is considered a de-escalation tool, thus improving interactions between officers and citizens (NSW Police Department, 2018). Advocates of BWCs espouse the cameras would generate detailed records of police encounters and crime scenes (Christodoulou et al., 2019). They further advocate the BWCs would reduce complications regarding the court process such that investigations would be completed more timely and accurately, appropriate charges would be filed, and the trial process would go more smoothly. In addition to this, supporters of the BWCs assumed the cameras would identify problems in policing or police procedures and that the BWCs would reduce officer paperwork, therefore, allowing officers more time to tend to patrol duties (Ayres, 2014). Scholars have found the cameras to have positive effects such as reduced complaints and less use of force by officers, however, there have been unintended consequences that have surfaced requiring more research to be conducted (Ariel, 2016; Malm, 2019; Mateescu et al., 2016).

Countless dimensions of research throughout multiple fields of science assert that people will modify their behavior when they are cognizant of being watched, thus deterring undesirable behavior (Ariel et al., 2015). Multiple studies have been conducted on the effects of BWCs and officer-citizen behavior. It has been posited that BWCs seemingly produce a “civilizing effect by improving the behavior of both police officers and citizens” as both parties recognize their interactions on camera are accessible by others and, thus, can be reviewed if necessary (Headley et al., 2017, p. 103). Nevertheless, most of the research that has been conducted is generally concentrated on officer behavior since this is the behavior that has been deemed in need of change and in need of transparency (Braga et al., 2018; Gonzales & Cochran, 2017).

Unintended Consequences of the BWC

According to Hedberg et al. (2017), the initial investment appropriated by the President's Task Force positioned nearly 6,000 BWCs into the hands of numerous police departments across the United States. Bowling and Iyer (2019) suggest there are at least 1.5 million body-worn cameras utilized worldwide with the market responding eagerly to produce thousands more. Arming officers with BWCs has been noted as just one of many reasonable responses to the present police legitimacy calamity currently being demonstrated across many U.S. cities (Demir, 2020). The rapid undertaking of equipping a police officer's uniform with a mobile camera sounds promising (a continuous stream of audio and visual recordings between officers and citizens) and has had some positive outcomes (Mateescu et al., 2016; Malm, 2019). For example, some agencies have seen de-escalation practices increase and officer aggressiveness decrease (Braga et al., 2018). This has resulted in a reduced number of officers using force and citizen complaints, although these results are not generalizable nationwide (Braga et al., 2018).

The Rialto experiment, one of the first experiments launched examining BWCs, showed promising results when the study revealed that officers who did not operate with a camera had twice as many incidents involving the use of force than those who displayed the camera (Ariel, 2016). Some scholars believe there are numerous explanations why the Rialto experiment was so successful, for example, it could have been the small number of officers within the agency or the level of support from the community in which the department is situated (Hughes et al., 2020; Sacca, 2017). Moreover, the Rialto experiment showed much success because officers and citizens alike may have altered their behavior prior to the pretest knowing the cameras were imposed to facilitate more civil interactions (Ariel et al., 2021). They say similar pretest results

have been difficult to mimic hence why the results from the Rialto experiment are difficult to replicate years later.

Sacca (2017) relates BWCs to the police dash cams that were rolled out in the early 2000s and the closed-circuit television (CCTV) that made its start in the United Kingdom. Sacca espouses the cameras may generate an initial improvement in behavior from both sides, but over time the deterrence of the camera fades. Sacca also believes that people's emotions will take over and outweigh rational thoughts during high-stress situations. The early studies conducted involving the Rialto police department and three agencies in Arizona (Phoenix, Tempe, and Mesa) showed a decrease in officer use of force as stated by Sacca. In contrast, they say the study conducted by Pang and Pavlou displayed a 3.6% increase in officer-involved shootings. Sacca credits the small size of the agencies in Arizona and Rialto for the decrease in officer use of force. Concerning the Rialto experiment, Ariel et al. (2021) believe:

early studies in which the treatment (i.e. BWCs) was a 'surprise' detected significant pretest-posttest effects on the outcome measure, the pretest in later studies was contaminated because the change in behaviour already existed prior to the baseline measure. They have already seen the gorilla. (p. 60)

In other words, officers knew the intended outcome was to show more favorable police-citizen interactions so officers assisted in acquiring the desired results by knowingly modifying their behavior. Ariel et al. states the cameras were being employed so that officers would stop exceeding their bounds and have more mutually satisfying interactions with citizens.

Furthermore, research conducted in varying police agencies elsewhere, since the Rialto experiment, indicate outcomes are the inverse or mixed (Lum et al., 2019). Additionally,

potential negative implications have been discovered since employing the rapidly evolving technological tool primarily in part to the lack of rigorous research (Wright & Headley, 2021).

What advocates of the BWCs did not foresee was that wearing a camera, while fulfilling a police officer's mission and responsibilities, has resulted in many adverse effects and unintended consequences (Lum et al., 2017; Wright & Headley, 2021). These adverse effects range from an increase in officers using force, an increase in assaults and ambushes on police officers, officer burnout, curtailed self-initiated activity, and in some cities, there has been an uptick in the violent crime rate and a decrease in arrests (Ariel et al., 2016; Campbell et al., 2017;). Although there is no hard evidence that suggests BWCs are solely responsible for these adverse events, many scholars believe they contribute to it (Adams & Mastracci, 2019; Ariel et al., 2016)

Officers Killed and Assaulted

Every year police officers are killed in the line of duty and thousands more are assaulted while performing their duties. In 2013, the FBI reported 27 police officers were killed in the line of duty, with five being ambushed and six more killed while attempting to arrest the individual (U.S. Department of Justice Federal Bureau of Investigation, 2014). During that same year, the U.S. Department of Justice Federal Bureau of Investigation stated that nearly 11,500 police agencies reported more than 49,800 assaults on police officers. In 2014, the number of police officers killed in the line of duty reached 51, a 47% increase from 2013 (U.S. Department of Justice Federal Bureau of Investigation, 2020). However, 2016 saw the highest number of line-of-duty deaths top out at 66 across the United States with ambushes contributing heavily to this count (Engel et al., 2020).

Police officer safety is a growing concern for police administrators and the officers themselves (Engel et al., 2020; Sierra-Arevalo & Nix, 2020). Some scholars believe segments of the public have declared a “war on cops” subsequent to the killing of Michael Brown (Maguire et al., 2017). For example, Engel et al. recounts that police officers from Dallas, Texas, were ambushed in July 2016, leaving five dead and nine more officers injured. They report that just ten days later, three Baton Rouge, Louisiana, officers were killed in an ambush and three more wounded. In 2019, 2,000 fewer agencies than in 2013, reported assaults that occurred on police officers to the FBI due to voluntary reporting practices according to Sierra-Arevalo and Nix. Even though there was a significant drop in agency reports, the number of officers assaulted jumped to more than 56,000 in 2019 (U.S. Department of Justice Federal Bureau of Investigation, 2020).

Although there are no studies to associate line of duty deaths with BWCs, the increase in line of duty deaths and assaults on police officers is troubling. Moreover, there are numerous studies that suggest BWCs may be a contributing factor in the increase in assaults on police officers due to hesitation, fear of discipline, or because officers feel they lack discretion (Ariel et al., 2016; Wallace et al., 2018). Early studies have suggested that police officers are coming under fire and are being assaulted while attempting an arrest, more so when officers are wearing cameras (Maguire et al., 2017; Moule, 2020). It is believed the unanticipated repercussions stem from officers wearing BWCs and that these types of incidents have increased drastically in recent years (Ariel, et al., 2018; Braga et al., 2018). These repercussions are not generalizable because the increase has only been found in a limited number of studies partly due to the lack of research. In addition, due to the variations in research methodologies scholars have found the severity of

the assaults to differ as some assaults are physical while others are described as officers being threatened by a weapon (Sierra-Arevalo & Nix, 2020).

The theory behind BWCs is that both the police and citizens will demonstrate more civil behavior, hence the self-awareness theory, thus lessening conflict and physical encounters (Demir et al., 2020). However, studies show that other filming devices, such as cell phones and CCTV, have a limited effect on a person's behavior (Welsh & Farrington, 2009). Adams and Mastracci (2019) pulled ten recent scholarly studies and out of the ten studies that examined an officer's use of force, four showed a decrease, one showed an increase, four showed no effect, and one found mixed results. They claim two of the studies that showed no effect on officer use of force did show an increase in assaults on officers. Moreover, they declare this diverse range of results suggests these conclusions are not generalizable and that there are many other factors that are contributing to these outcomes, thus there is still a lot to learn about the impact BWCs have overall in the police profession.

The BWCs would conceivably capture inappropriate behavior as it is affixed most often to the front of an officer's uniform. For most individuals, this would deter inappropriate behavior from both officers and citizens alike. However, Ariel et al. (2016) found a 14% increase in assaults on police officers who wore the camera compared to those who did not display one. They also state the number of assaults on police officers could be higher as these are only the assaults that were reported. This area of concern is understudied, therefore there is no consensus or one element that can pinpoint why officers, who wear BWCs, are vulnerable to being assaulted (Gorner & Dardick, 2016).

There is speculation that many officers fear scrutiny from the media and their police agency; therefore, they hesitate or second guess their actions, which puts them in harms way

(Gorner & Dardick, 2016). Officers are hesitating to take the necessary action to gain control of a person in part on how their actions might be perceived on camera (Bierie, 2017). Bierie believes this hesitation is costly on many levels. First, Bierie says, officers who are attacked may need to be treated for injuries and then they must follow through with the use of force hearings. Secondly, Bierie furthers this by saying there is a disruption in services should the officer be placed on administrative leave. These instances are monetary costs incurred by the taxpayers; however, Bierie believes the greatest loss occurs when there is a breakdown in trust whereby police and community relations become strained. Bierie explains that when an officer uses force to counteract an attack, the media and public are quick to judge and scrutinize, leaving officers second-guessing themselves.

BWCs, Officer Burnout, and the Media

Policing is known to be a dangerous profession as officers experience many unknowns as they are dispatched from call to call. Psalm 106:3 reads, “There is joy for those who deal justly with others and always do what is right” (New Living Translation). It has been difficult for police agencies to maintain a consistent number of officers to do the job as applicants looking to join police agencies has been dwindling in recent years (Clinkinbeard et al., 2021). Agencies have many challenges that hinder them from receiving qualified applicants such as a decrease in public trust stemming from viral videos, officers being attacked and killed on duty, and new social norms such as tattoos and marijuana use according to Clinkinbeard et al. Reform is not just for those on the other side of the badge, but also for those who wear the badge, who want to uphold the laws and continue to protect and serve.

The police profession is one that has come under attack in recent years with higher than normal scrutiny, elevated challenges, and increased demands which is concerning to many police

administrators and officers alike (McCarty et al., 2019; Sierra-Arevalo & Nix, 2020). Those in the police profession succumb to burnout more rapidly than any other profession (Schaible & Six, 2016). Since the surge of BWCs, countless studies have evaluated the camera and its effect on an officer's use of force, the number of external complaints, the likelihood of officers being assaulted, an officer's arrest activity, judicial outcomes, and other topics. However, there are very few studies that examine the connection between officer burnout and BWCs which is alarming since burnout may be contributing to the list of research topics above (Adams & Mastracci, 2019). McCarty et al. says the emotional exhaustion and depersonalization aspect associated with wearing a camera can cause officers to pull back from public interactions, thus inhibiting self-initiated activities.

Adams and Mastracci (2019) found that earlier reports of surveillance in the workplace contributes to burnout and the perception of low organizational support. The BWCs are more encroaching than a fixed surveillance camera as it is affixed to the front of the officer's uniform and goes wherever the officer goes; there is no way to dodge the camera during the shift. Even though many of the cameras are operated manually by the officer, most BWCs record in a loop which enables the camera to record a prescribed set amount of time prior to the officer's manual activation as conveyed in the Milwaukee study (Lawrence & Peterson, 2020). The feeling of being trapped by the camera is real and officer discretion is now made to feel limited (Adams & Mastracci, 2019). Officers sense that every decision needs to be "by the book", officers are to display emotions that are not sincere, or the officer refrains from showing true emotions which also contributes to an increase in stress and burnout (Schaible & Six, 2016). Compound this with officers putting on a front to disguise sadness and disgust when responding and handling traumatic scenes. Adams and Mastracci explain that emotional concealment mars working

memory and intensifies cardiovascular demands, leading to health consequences. Furthermore, they allege gallows humor, often found in first responders' culture as a coping mechanism, can be misinterpreted on the BWCs and seen as ill-mannered, putting officers on the defensive or further into the hotseat.

Adams and Mastracci (2019) espouse that street officers display the highest burnout rate compared to any other profession. They believe BWCs may intensify burnout as police officers attempt to build accountability with those in the community, conform with administrative oversight, and constant observation. BWCs will not be abandoned anytime soon and their use will only increase. They suggest one way to combat burnout and the adverse effects that accompany it is for police administrators to develop policies and practices regarding BWCs that demonstrate care and support. Lum et al. (2019) argue the more organizational justice an officer feels within his department, the more secure they feel about wearing a camera thus, less afraid to make citizen interactions. Additionally, they say the more committed an officer becomes within their department the less skeptical and resistant they are to the BWCs and the repercussions they bring with them.

Media coverage of officer-involved shootings or any other objectionable police behavior caught on camera has shrouded news headlines in recent years. Media coverage is another type of constant observation officers contend with. The news media plays a pivotal role in how the police are perceived and how police choose to conduct their duties (Culhane & Schweitzer, 2017). They have found that media coverage depicting an officer using force will affect a citizen's perception of police overall. The Rialto study was the first controlled experiment assessing BWCs and police use of force (Ariel et al., 2015). This study and its findings have been cited extensively by the media stating that BWCs reduce officer use of force and citizen

complaints, thus steering the public to believe that BWCs are a panacea and should control for undesirable behavior among police officers (Schneider, 2018).

The OIS concerning Michael Brown and officer Darren Wilson sparked national concern and furthered the debate over the use and deployment of BWCs. This incident, in 2014, spurred what many call the “Ferguson Effect”. The “Ferguson Effect” is a rise in the crime rates, consequently in part to the alleged lack of proactive police efforts in the community (MacDonald, 2019). Former FBI Director, James Comey, has stated that officers feel they are being heavily scrutinized by the public and the media, thus inhibiting their willingness to engage in proactive police work according to MacDonald. Some say negative social media attention, civil unrest, and protests are causing police officers to think twice before interacting with the public (Pyrooz et al., 2016).

Media headlines frequently emphasize that officers face heightened levels of hostility and violence towards them which has been spawned by the increase in anti-police sentiment (Intravia et al., 2018). This scrutiny deters officers from performing proactive activities (Chatterjee & Ryan, 2020). Chatterjee and Ryan found the profession of policing to be significantly stigmatized when compared to other occupations and say a stigma this intense has consequences. They believe the police profession is at the forefront of national media topics with profound implications for those who serve as police officers and for those who rely of their services.

Officers who wear BWCs are no longer impervious to examination (Emmeline, 2016). Officers are now subject to having their words and actions scrutinized and dissected should their video footage be reviewed, a complaint generated, a case goes to court, or an incident goes awry (Culhane & Schweitzer, 2017; Koen, Willis, & Mastrofski, 2018). Police officers can have questionable, precarious, and sometimes unflattering encounters throughout their shift. Often

times these encounters are caught on a citizen's cell phone. The unflattering encounters then get played out on numerous media sites across the country and scrutinized frame by frame. This public scrutiny inhibits an officer's willingness to interact with citizens out of fear of the unknown, therefore, causing officers to withdraw from proactive policing (Shjarback et al., 2017). It has been more than five years since BWCs were rapidly introduced and some agencies are finding a mix of undesirable and unintended consequences surfacing (Hughes et al., 2020).

A verse from the book of John encapsulates what it is like to be a police officer who is dedicated to serving his community all the while willing to uphold the law and do what is right stated in John 10:8-15:

All who came before me were thieves and robbers. But the true sheep did not listen to them. Yes, I am the gate. Those who come in through me will be saved. They will come and go freely and will find good pastures. The thief's purpose is to steal and kill and destroy. My purpose is to give them a rich and satisfying life. I am the good shepherd. The good shepherd sacrifices his life for the sheep. A hired hand will run when he sees a wolf coming. He will abandon the sheep because they don't belong to him and he isn't their shepherd. And so the wolf attacks them and scatters the flock. The hired hand runs away because he's working only for the money and doesn't really care about the sheep. I am the good shepherd; I know my own sheep, and they know me, just as my Father knows me and I know the Father. o I sacrifice my life for the sheep" (New Living Translation).

The Rise in Crime

Between 1990 and 1993 the nation endured a spike in crime of epic proportions (Barranco et al., 2018). They claim more than 100,000 homicides took place in this three-year period which is equivalent to more than 270 fully loaded 747 airplanes. The crime rates,

however, began to fall in the mid-1990s largely in part to the stringent increase in the incarceration rate (Lofstrom & Raphael, 2016). Increasing the number of incarcerations meant there were fewer criminals on the streets to commit additional crimes. Other theories that allude to the drastic reduction in crime include the legalization of abortion, decrease in alcohol and crack cocaine use, better wages, the reduction of lead in gasoline, and an aging population (Berg et al., 2016).

In 2015, the nation's violent crime rate had dropped nearly 76% as compared to that of 1993 (Morgan & Oudekerk, 2019). However, they realized beginning in 2015, agencies were beginning to see a statistically significant increase in crime and by 2018 there had been nearly 600,000 more people victimized in the U.S. than years prior to 2015. They say this equates to a 28% increase in violent victimizations in just three years. The National Crime Victims Survey (NCVS) records data gathered from surveys distributed to households each year, taking into consideration victims of crime age 12 and older according to Morgan and Oudekerk. They report that during the same three years victims reported 800,000 more violent incidents suggesting one victim may experience more than one criminal act. In addition to actual crimes committed, the NCVS takes the threat of violence into consideration as well. The surveys indicate that from 2015-2018 threats of violence across the U.S. also increased with 6.1 reported threats of victimization per 1000 individuals in 2015 to an excess of 9.2 threats of victimizations per 1000 just three years later reports Morgan and Oudekerk.

Stakeholders, politicians, and other observers are now coming forward after noticing the spike in crime and speculating the trend may coincide with an increase in de-policing (Rosenfeld & Wallman, 2019). They describe de-policing as officers pulling back from their duties, unwilling to proactively engage individuals out of fear of legal or disciplinary repercussions. De-

policing has also been referred to as the “Ferguson Effect,” a phrase first proposed by Ferguson, Missouri’s police chief, Sam Dotson when discussing the rise in assaults and robberies and the decrease in arrests made by his officers (Gonzales & Cochran, 2017). Rosenfeld and Wallman declare the homicide rates in the U.S. escalated sharply in 2015, after declining uninterruptedly for more than twenty years. These authors also state the “Ferguson Effect” has been blamed for this increase across the country. They espouse the media latched on to the phrase “Ferguson Effect” as a way of suggesting that police officers have separated themselves from proactive law enforcement out of fear of elevated legal liability or exposure to scrutiny on social or conventional media outlets. Moreover, they stated the media furthered this idea by suggesting that officers disengaging from proactive enforcement activities is a direct cause to the increase in crime.

The “Ferguson Effect” has been described as police officers disengaging from proactive police practices due to high-profile, negative use of force incidents that have emanated across various media outlets (Gonzales & Cochran, 2017). These scholars have seen these negative incidents that are widely publicized and bring about criticism to the police profession. Maguire et al. (2017), contend that scholars are discovering that officers work in fear of discipline, in fear of losing their jobs or pensions, and in fear of being prosecuted, or sued. Furthermore, they believe that officers are hesitating to react or actively shying away from taking police action which is putting the officers at significant risk of harm. During the first seven months of 2020, 32 law enforcement officers nationwide were shot to death, a 28% jump over the same time frame as last year (Hutchinson, 2020). The killing of police officers coupled with media and department scrutiny may be a contributing factor to the lack of proactive police work and the possible increase in crime.

Conversely, Pyrooz et al. (2016) do not believe an officer's unwillingness to engage proactively contributes to the high crime rate. In fact, Pyrooz et al. believe citizens are disgruntled at the perceived unfairness, and this unfairness leads to disconformity, crime, and disorder. Another theory that Pyrooz et al. has contemplated is that crime rates have been at an all-time low for decades, so a rise in crime is inevitable. Moreover, Richard Rosenfeld, a professor in St. Louis, Missouri, noticed the increase in homicides, but he too, did not support the "Ferguson Effect" as a contributing factor (Gonzales & Cochran, 2017). Rosenfeld found that homicide rates increased significantly, more than 16%, nationwide in 2015 according to Gonzales and Cochran. Additionally, they claim Rosenfeld discovered the homicide rates for many large cities rose more in one year than they had in the last 50 years. They say that Rosenfeld did not want to contribute the rise in crime to merely the "Ferguson Effect"; he did, however, give three explanations for the uptick (1) urban drug markets were expanding and the heroin and the opioid market was flourishing (2) the prison population was being trimmed down and (3) some rendering of the "Ferguson Effect" was contributing to the rise in homicides.

The "Ferguson Effect" has been described as officers withdrawing from their job duties that include self-initiated contact with the public in combination with an increase in crime. Gonzales and Cochran (2017) suggest that the "Ferguson Effect" is not about officers withdrawing from policing, but instead, perhaps it is the African American community's lack of trust in the police every time a controversial police encounter is radiated across media markets. If de-policing is racially motivated then communities of color will suffer profound effects (Oliver, 2017). Gonzales and Cochran maintain the BWCs can provide a review process. They believe this process has proven across many lines that the cameras foster trust, accountability, and transparency.

Initially, Rosenfeld's drug market suggestion appeared reasonable as heroin, and opioid overdoses were particularly on the climb (Bernstein, 2015; Gonzales & Cochran, 2017). The reasonableness behind this explanation was the historical precedence set in the 1980s and 1990s when the crime rate, specifically homicides, rocketed in relation to the cocaine industry and use (Gonzales & Cochran, 2017). However, the increase in overdoses began in 2011 as reported by Gonzales and Cochran. They realize the rise in crime was not apparent until 2015, which leaves people to wonder if the narcotics industry is, in fact, the reason for the increase in homicides and, if so, why was there such a gap in time? Rosenfeld discredited his own theory about the prison population contributing to the rise in crime, stating that "released prisoners are arrested at a rate much greater than the general population" (Gonzales & Cochran, 2017, p. 306). In addition to this known fact, the prison population has dwindled drastically since 2009, thus another lag in time that could not explain the rise in crime that was occurring six years after the fact declares Gonzales and Cochran.

Though reluctant to admit it, Rosenfeld acknowledged some configuration of the "Ferguson Effect" was behind the increase in violent crime (Gonzales & Cochran, 2017). They imagine Rosenfeld does not believe officers are less proactive, pulling back from their duties, or being reluctant, but instead, a loss in the mechanics of policing is contributing to the increased crime rate. They assume numerous viral videos on the internet, citizen cell phone video, and heated confrontations with police are blemishing police departments across the nation. These viral videos raise doubt in the minds of individuals, leaving police officers to second-guess their career paths and fear for their safety as well as the safety of their families (Ariel et al., 2016; Groff et al., 2020).

A recent study conducted by Groff et al. (2020), revealed officers outfitted with BWCs in the Northeastern portion of the U.S. reported 46% fewer self-initiated pedestrian encounters and almost a 40% decrease in the number of arrests when compared to their counterparts who do not employ BWCs while on duty. This study by Groff and others illuminated what many people fear and that is that officers are very aware of the repercussions BWCs pose and they are restricting their proactive initiatives. The study by Groff et al. draws attention to the fact that the cameras may be limiting officer discretion and proactive initiatives and the ramifications this will have on future relationships and crime rates in the communities.

Many advocates of the BWCs believe the cameras would be the panacea to police injustices, close the negative officer-citizen gap, and mend relationships between the police and communities (Lum et al., 2019). Additionally, the cameras are being assumed under the guise that they will improve officer behavior, accountability, and legitimacy according to the longings of the public (Ariel, 2016). The BWCs have not brought about the solidarity many had hoped. In a multi study analysis by Lum et al. variances in officer-citizen behavior and officer-citizen perceptions of the BWCs were evident across multiple police agencies. This analysis suggests BWCs are not accomplishing the intended results and may be contributing to adverse effects.

Curtailed Officer Activity

Recent, high-profile, deadly police shootings led to protests, riots, and a call for police reform to include the addition of BWCs for police accountability and transparency (Crow & Smykla, 2019; Lum et al., 2019). Government funding, national-level politics, and the rapid creation of BWCs also facilitated the rapid deployment of cameras across the nation according to Crow and Smykla. This rapid deployment meant little research had been conducted on the BWCs; therefore, there was no clear understanding of whether the technology could deliver the

expected results (Groff et al., 2020). Lum et al. espouse that if such a significant investment is to be made to direct change, some research should be performed to back up the investment. Furthermore, they maintain that police technology is notorious for not delivering the anticipated outcome. Nonetheless, the cameras have been deployed across thousands of police agencies nationwide and the curtailment of officer activities is being felt with many cities seeing a rise in crime (Hyland, 2018; Wallace et al., 2018; Wolfe & Nix, 2016).

Other scholars have agreed that such technologies have had unintended consequences for everyone involved, including the police officers, their department, and the citizens they serve (Chan et al., 2001; Koper et al., 2015). Lum et al. (2019), assert that most technological outcomes are spawned by human factors, including an officer's acceptance or rejection of the technology, the policy and procedures surrounding the technology, and citizen agreeableness. Koper et al. reiterate that although the technology is available, some devices do not always produce advancements in communication, collaboration, output, job satisfaction, or other effective means of reducing crime or improving police-citizen relationships. They further this and say that with any new technology, there are kinks to work through and refinements to be made, which is done over time. They claim changes that BWCs are expected to bring to policing will not be achieved instantaneously or even as fast as the BWCs were rolled out. Finally, they presume adequate planning and reasonable outcomes, and expectations can only make BWCs successful and beneficial to police departments and communities.

Recent examination suggests officers are curtailing their activity. De-policing was seen after the Rodney King incident, but not to the level the nation has experienced in recent years (Wolfe & Nix, 2016). They say officers are keenly aware of the unconstructive exposure that encompasses their profession when it is viewed by millions on conventional and social media

daily. Officers are cognizant of the possibility their behavior and actions will be filmed, therefore, officers become less enthusiastic to perform their job fearing they, too, will be accused of something that is unjust according to Wolfe and Nix. They speculate officers are pulling back in providing police services, thus resulting in higher crime rates. The tapering of activity may vary per location and is not just officers failing to conduct traffic stops or initiate contact with suspicious persons as there is more that goes into crime reduction (Shjarback et al., 2017; Wallace et al., 2018). Wolfe and Nix understand policing is a partnership with the community to address crime issues and when there is a breakdown, officers are less motivated to work with the public out of fear of public perception.

When the media saturates the headlines with unflattering police-citizen interactions it can cause some officers to pull back in self-initiated activities (Wolfe & Nix, 2016). This recipe ultimately damages the relationship between the police and communities they serve. Prior research on BWCs focused primarily on topics such as the number of arrests, citations issued, use of force incidents, and number of complaints an officer accumulated throughout their career, but not a pattern of behavior (Johnson & Lafrance, 2016). There is no defined metric in which scholars refer when analyzing proactive initiatives with activity and behavior subjective and hard to measure (Bonkiewicz, 2017). Adding BWCs to the mix can make the measurements even more difficult.

Looking back at the career stage theory, Bonkiewicz (2017), revealed a negative correlation in each of the above listed topics across all four stages of an officer's career. Meaning, that officer activity started high and as time progressed the officer's activity level steadily decreased until they reached the end of their career. However, Johnson & Lafrance (2016), found their results to be curvilinear with the productivity on the rise during the first two

stages as the officer's career is ramping up with a decrease in productivity in the last two stages. The bottom line is the results are inconsistent and they do not include BWCs in the analysis. A contributing factor to these inconsistent results rest in how scholars distinguish and define productivity. What these results do not assess is whether the addition of BWCs significantly reduce police activity. This study seeks to examine if there is a significant decline in police proactivity, subsequent the deployment of BWCs.

Bonkiewicz (2017) has found issues among studies when describing the metrics that refer to officer productivity. Bonkiewicz furthers this by stating there are copious amounts of patrol activities that go unaccounted for and categories such as arrests are not weighted. He conceives a felony arrest is more time consuming, thus requiring more investigation, than a traffic stop for a speeding motorist. Moreover, he supposes officers who assist other officers, write more detailed reports, and investigate incidents in full reduce the amount of time that could be used for issuing citations, making misdemeanor arrests, or conducting police work that is deemed proactive. Bonkiewicz concludes that officers who deliver more outputs may not necessarily be more productive officers, they may just be afforded more time for self-initiated activities or proactive undertakings.

Have BWCs constrained officers to the point they are curtailing enforcement, thus allowing the crime rates to increase? This study seeks to discover if officers are in fact curtailing self-initiated activities more after the deployment of BWCs and if this curtailment is contributing to a rise in crime. De-policing is the notion that officers withdraw, retreat, or pull away from law enforcement actions out of fear of scrutiny or discipline (Lum et al., 2019; Oliver, 2017; Wallace et al., 2018). Ferguson's Chief Dotson made the comment during a dialogue regarding an uptick in violent crime since the Michael Brown incident that seemed to correspond with a decrease in

arrests across the city (Gonzales & Cochran, 2017). Though Chief Dotson was not specific, the term, “Ferguson Effect”, implied a reduction in officer self-initiative and the escalation of violence due to the longstanding grievances between police practices and the African American community according to Gonzales and Cochran.

De-policing is nothing new, in fact, it was observed shortly after the Rodney King incident in the 1990s and again in Cincinnati after the 2001 riots involving the shooting death of an unarmed teen (Oliver, 2017). Oliver reveals three months following the Cincinnati riots there was a 50% decrease in arrests and more than a 50% decrease in self-initiated traffic stops. Two years following the riots, Cincinnati experienced a vast increase in crime for the next 24 months according to Oliver. Oliver claims that although de-policing has been around for decades it was first viewed as a positive form of policing as it allowed communities to police themselves and not be overly dependent upon police resources. He reiterates that in recent years de-policing has developed a negative connotation that is proving to be of concern for police management as it has spawned serious repercussions. Those repercussions are reduced police-citizen relationships, a breakdown in trust with community members, lost revenue, and an increase in crime. There have been very few studies conducted to assess officer proactivity and its relationship to BWCs states Oliver. Moreover, Oliver espouses the methodologies that have been exercised are not consistent with one another, therefore the end results have been mixed and are not generalizable.

The National Academies of Sciences, Engineering, and Medicine (2017) defines police proactivity as:

policing strategies that have as one of their goals the prevention and reduction of crime and disorder and are not reactive in terms of focusing on uncovering ongoing crime or on investigating or responding to crimes once they have occurred (p. 30).

Lum et al. (2019) define proactivity as "problem-solving, stop-question-frisk, traffic enforcement, community policing and engagement efforts, directed patrol, or the use of misdemeanor arrests to reduce disorder" (p. 101-102). Traffic stops are considered by many agencies as self-initiated enforcement activities that can reduce speeding on public roadways and reduce traffic accidents that claim the lives of thousands each year (Lum et al., 2020). Other self-initiated initiatives include initiating communication with suspicious persons or making oneself noticeable in high-crime areas which has been found to discourage would-be criminals and increase police-citizen relationships that foster trust (Wu & Lum, 2017; Lum et al., 2020). This lack of proactivity may be caused in part by BWCs because some officers are apprehensive to the possibility of scrutiny; therefore, officers refrain from proactively engaging with any members of the public. A study published in 2019, by Lum et al., found non-defined results from six previous studies that addressed BWCs and officer curtailment. Additionally, they say some of the findings indicated an increase in self-initiated activities, whereas others found no difference in the number of traffic stops initiated. Conversely, Lum and associates claim a study conducted in 2018 found officers initiating citizen inquiries declined over time, but more so for those who displayed a camera.

It is no surprise that many individuals act differently when they know they are on camera or being watched. This is true for even public officials, hence the reason some judges do not allow cameras in the courtroom (Gonzalez & Cochran, 2017). The goal of the camera is to capture police-citizens encounters; however, it does not always provide a full account of the officer's physical actions. Gonzales and Cochran say the BWCs do ascertain what is said between the officer and the citizen and the citizen's reaction to the officer's commands. They further this and state that BWCs record the officer's decisions, which could be why some officers

feel they have lost some of the discretion they once had. Moreover, the public feels the police are more unforgiving, thus issuing more citations and enacting arrests which is contrary to what many scholars have discovered (Lum et al., 2019).

Subjectivity may also be contributing to the phenomenon of de-policing. The BWCs are sometimes referred to as double-edged, capturing only the visual and audible portions of a scene, not the totality of the situation (St. Louis et al., 2019). The premise behind the BWCs is to see how the officer is performing his duties, however, this is not always achieved. The BWCs are typically mounted on a police officer's uniform, either centered on the chest or shoulder (Boivin et al., 2017). This vantage point does not show what the officer is doing most of the time because the lens is facing away from the officer. This perspective conjures up bias, and preconceived notions as the camera cannot identify the events that are evolving or hidden in the peripheral (McKay & Lee, 2020). McKay and Lee believe that unless captured on fellow BWCs, the filming officer is often absent from the scene altogether due to his position behind the camera. They say this contradicts the desire for transparency as the officer in question is behind the camera, not in front of it and this lack of footage can lead to subjective scrutiny. Others, including the public and those in the officer's chain of command, are left to fill in the gaps and postulate what *might* have occurred, leaving the officer feeling untrusted or fearful their word will not be enough (Boivin et al., 2017). The camera is not the all-inclusive tool many speculated it would be and there is still much that remains unknown (Lum et al., 2019; Mirzoeff, 2006).

Perspective, the camera's point of view, a person's morals, values, upbringing, and belief system play a significant role in how the camera's images are perceived (Boivin et al., 2017; Gonzales & Cochran, 2017). The Scott v. Harris experiment is an example of how videos may be viewed, or scrutinized, differently dependent upon the viewer. There were significant differences

of opinion among the participant sample who viewed the video involving the encounter between Officer Scott and Victor Harris, where Officer Scott forced Harris' vehicle from the roadway causing severe bodily injury to Harris (Boivin et al., 2017; Gonzalez & Cochran, 2017).

According to Gonzales and Cochran, the sample consisted of different races, political backgrounds, education, and wage status and what the experiment revealed was that there were significant differences among the sample as to the proposed level of risk Harris presented to the public. This indicates that even though the footage from BWCs may be available to deliver the officer's factual account of events, it still does not guarantee those who decide guilt or innocence will agree. How a person views or interprets the footage will coincide with their perception of law enforcement (Schumm, 2017). Schumm says bias comes with the camera's perspective and those in favor of the police will favor the officer and his camera's perspective. Romans 12:2 proclaims, "Do not be conformed to this world, but be transformed by the renewal of your mind, that by testing you may discern what is the will of God, what is good and acceptable and perfect" (English Standard Version). As Gonzales and Cochran discussed, the study involving Officer Scott and Victor Harris had a mix of responses. Who is there to say there is only one right answer? The door on citizen-police relations is now unlocked and open to conversation. Both the police and the public should welcome suggestions concerning police reform. Romans verse 12:2 reminds us that we should use our minds and ask questions so as not to conform.

The discontent for police across the nation has resulted in acts of violence and violent protests, often rendering police tactics useless (Gonzales & Cochran, 2017). In 2015, Gonzales and Cochran espoused that media headlines across the country were flouting the dramatic rise in violent crime, most notably murder; however, the articles did not relate this rise to a decrease in policing. They said that although officials attributed the increase in crime to emboldened

criminals and the scrutiny officers were facing in the media, several experts in the field debunked this theory. They claim James Comey, former FBI Director, went so far as to suggest that police are pulling back due to the backlash and viral videos spread across multiple media venues.

Summary

Policing has undergone numerous changes since the Michael Brown shooting death in 2014, an incident that was not captured on any BWCs. Citizens demanded change to both the police profession and the police culture. Those with the power to implement change heard the cries from the public and responded swiftly by placing thousands of cameras into the hands of hundreds of police agencies. Many agencies have mandated officers wear BWCs while on duty with the aim that officers will resist the urge to use excessive force and make fair decisions. The cameras were to bring about accountability and legitimacy and improve the public's trust, but they were quickly rolled out without much research. It has been almost seven years since the BWCs have been heavily introduced and the studies surrounding the BWCs are continuing to pour in. Initially, agencies found the cameras useful, reducing use of force incidents, reducing citizen complaints, and reducing arrests which has been touted by numerous scholars and studies. As time has passed, adverse effects of the cameras are beginning to present themselves.

There are studies that have shown officers who wear a camera are more likely to be assaulted than those who do not. Also, officers killed in the line of duty has escalated immensely in recent years. Additionally, the crime rate is rising so fast that some cities are experiencing triple digit homicide rates in a matter of months. Combining these incidents with negative social and conventional media attacks on police and what the nation has is a police force who is pulling back, curtailing enforcement duties caused by the fear of discipline, indictment, and death.

The cameras have provided some positive aspects and have received an abundance of support since their inception; strengthening public trust, permitting citizens to have a police officer's perspective of events, and the cameras have reduced conflict (McKay & Lee, 2020; Taylor et al., 2017). Taylor et al. presumes citizens, various stakeholders, police officers and even suspects have condoned the use of BWCs. However, it has yet to be decided if the positives outweigh the negatives. Are the cameras restricting officers from conducting their duties consequently creating an uptick in crime? Deterrence theory hypothesizes that individuals will contemplate risk with reward to avoid punishment (Demir et al., 2020). Heightened levels of officer scrutiny and the public's demand for the footage to be released has put police officers on the defensive with many officers deterred from initiating any citizen contact (Adams & Mastracci, 2019; Bush, 2020). Another theory behind BWCs is the self-awareness theory. Self-awareness theory espouses that individuals will feel compelled to conform to social norms and exhibit their best behavior when others are watching, however, this is not always the case (Ariel et al., 2018; Demir et al., 2020). Scholars believe the camera has spawned violence on the part of the citizen, especially when drugs or alcohol are involved, or the individual suffers from mental illness (McKay & Lee, 2020). If this is the case, then the camera is only keeping the officer in check.

Romans 12: 17 states, "Never pay back evil with more evil. Do things in such a way that everyone can see you are honorable" (New Living Translation). The solution to the current displeasure with the police is not a camera, nor does the solution lie with additional deaths or crimes, but an open dialogue to discuss concerns and foster relationships. The long-standing injustices, the alleged ill-treatment by police, and discontent felt by many Americans, mainly African Americans, have fueled individuals and groups to lash out and express their

dissatisfaction with the police (Gonzales & Cochran, 2017). Officers are responding to this lashing by pulling back and curtailing proactive initiatives to save their careers.

The learning theory posits that individuals in similar situations will modify their behavior after observing what others experience (Mayes, 2015). The publicity of police officers standing trial, being subjected to murder and manslaughter charges can discourage other officers from initiating contact with those in the community as they do not want to be the next viral video. The career-stage theory attempts to explain the decrease in police proactive initiatives and is a plausible theory in the police profession as it states that as time goes on an officer's activity will decrease, but in today's hostile environment it is believed the decrease will be seen more rapidly.

To date, numerous studies have been conducted on BWCs, but there is still no clear consensus that the cameras are living up to its expectations or providing communities with better policing. This study strives to add to the body of knowledge by analyzing officer proactivity levels before and after the BWCs by narrowing in and establishing a clear definition of officer proactivity as it relates to the definition maintained by The National Academies of Sciences, Engineering, and Medicine. Furthermore, the study will examine the crime rate over the same time period to determine if there is a correlation to officer activity level and the crime rate.

CHAPTER THREE: METHODS

Overview

The summer of 2014 was a turning point for both citizens and the police culture. The officer-involved shooting death of Michael Brown and many other controversial, high-profile incidents involving the police and citizens brought to light the need for change (Wallace et al., 2018). They tout a major investment in BWCs was launched as a tool to improve police legitimacy and build trust between the public and police. However, crime rates have been rising throughout most of the United States after being on a downward trajectory for the last two decades (Gross & Mann, 2017). Gross and other scholars state that recent anti-police protests across the nation may be causing officers to refrain from public interaction, thus giving criminals openings to commit crimes. This phenomenon has been labeled the “Ferguson Effect” that was described in chapter two. The study seeks to determine if officers conducting proactive initiatives have declined since the implementation of BWCs using a quantitative design and archived data. Furthermore, the proposed study will attempt to determine the relationship between officer proactivity levels and the crime rate.

This chapter will present the methodology employed for the study. It will begin with a description of the design, why the planned design is the most appropriate, and the type of data that will be analyzed. It addresses the research questions and the potential outcomes as illustrated in the hypothesis. Additionally, this chapter will discuss the participants and how they will be selected for the study, and the sample size. The chapter will conclude with the instrumentation to be used when collecting the data, the procedures to be employed, including the Institutional Review Board (IRB) process. The rationale behind the statistical analysis will be to determine if

officer proactive initiatives have declined since BWCs were distributed throughout the agency and the correlation to the Part I crime rate.

Design

This study will examine two objectives. The first objective will be to determine if officer proactivity decreased after BWCs were issued, and the second objective will be to determine if there is a correlation to the Part I crime rate. The design will implement a pre-post nonexperimental quantitative analysis using archived data. Archived data is data that is already in existence before any hypothesis was constructed and, therefore, was not produced by the researcher (Vogt et al., 2012; Weston et al., 2019). Quantitative studies begin with a theory and use numbers and variables to analyze and determine the results (Mohanjan, 2020). Moreover, the chief advantage of a quantitative study is that it measures the responses of many using a limited set of data, thus allowing the researcher to compare and assemble data so that results can be generalizable (Barkman, 2002).

A pre-post nonexperimental quantitative analysis has been chosen to calculate the number of officer self-initiatives before and after BWCs. This analysis will determine if officer proactivity has decreased after BWCs were implemented. The independent variable in this study is the body-worn camera. The study will examine two dependent variables to include officer self-initiated activity and traffic stops. Officer activities are coded in the computer-aided dispatch (CAD) system to show if the call came from dispatch, the officer self-initiated, or the officer conducted a traffic stop. Calls will be coded using a dummy variable 1 for those activities initiated by the officer and 0 for the calls sent by dispatch. The second measure, traffic stops, will be coded using the dummy variable 2.

Additionally, a correlational design will be used to determine the relationship between the volume of officer proactive initiatives and the Part I crime rate. Correlational research designs are used to evaluate two or more variables and the relationship, if any, they have on one another (Seeram, 2019). He goes on to state that “correlational research is a type of nonexperimental research that facilitates prediction and explanation of the relationship among variables” (p. 176). Additionally, he espoused correlational designs can detect both the strength and direction of a relationship which is the purpose of this study. The dependent variables will be officer self-initiated activities and traffic stops.

Randomized controlled trial experiments are the preferred method when determining the impact a program has on the participants and are considered the gold standard in research design (Wong & Steiner, 2018). However, they suggest nonexperimental methods are just as beneficial when determining the effect of an intervention. The terms preexisting data and archived data are sometimes used interchangeably, with both terms indicating the researcher did not obtain the data first-hand (Mohanjan, 2020). He also explains preexisting can mean the data was gathered by another researcher and may have been manipulated. In this study, the data to be obtained is raw data that has not been manipulated. This researcher chose to use the term archived to denote the data being requested was already in existence and has not been altered by any previous studies.

Nonexperimental designs rely on archived data to describe a group of individuals (Salkind, 2010). The most used databases to facilitate such designs include the Bureau of Census, Centers for Disease Control, and the National Center for Educational Statistics (Vogt et al., 2012). Using archived data in a nonexperimental design is most appropriate because it allowed the researcher to gather authentic data. Additionally, this type of data is used when there

are time constraints or the time has passed, prohibiting the researcher from collecting the information first-hand like an experimental study. The purpose is to determine if the volume of officer proactivity declined after BWCs were introduced. Obtaining data at three points in time will give better insight into whether officer proactivity decreased after the BWCs were deployed and, if so, how extensively. This analysis was then compared to the crime rates during the same time frames to determine a correlation.

To demonstrate how this study will be constructed, a study was similarly fashioned by a group of researchers in 2019, using archived data and then determining the correlation of violence against police officers since the Michael Brown shooting death in 2014 (White et al., 2018). They assessed the dangerousness of policing by relying on the number of line-of-duty deaths across the country dating back to 1970 and ending in December 2016. These scholars sought to determine if the current OIS deaths, primarily involving minorities, sparked an increase in officers being killed. They utilized archived data from the Officer Down Memorial Page. They found officer line-of-duty deaths to have decreased dramatically since the 1970s with no significant correlation to line-of-duty deaths and OIS incidents, given the volatile relationship between citizens and police.

There have been few studies that have analyzed police proactivity and the correlation to the crime rate. The phenomenon of the rise in crime across the nation, media scrutiny of the police, and a decrease in police proactivity has been dubbed the “Ferguson Effect” (Shjarback et al., 2017). These scholars analyzed archived data from across the state of Missouri beginning in 2014 and ending in 2015 to determine if police officer productivity decreased after the shooting death of Michael Brown in 2014. They found many police agencies had a noteworthy reduction in traffic stops performed in 2015 than in 2014, while violent crime rose. Consequently, the

authors stated, “something was indeed occurring among Missouri law enforcement agencies that resulted in such a major shift in police behavior, and it appears consistent with the “Ferguson Effect” argument” (p. 47).

Research Questions

The problem with BWCs is that they were rolled out in mass numbers without much research, thus contributing to undesirable results (Ariel et al., 2018; Rowe et al., 2018; Wallace et al., 2018). For example, Ariel uncovered that a study across several agencies found an increase in assaults on police officers who were wearing a camera. They believe BWCs can cause over-deterrence in officers, which is when the camera induces an officer to display more socially acceptable behavior to avoid potential discipline by their agency. They go on to say the officer’s politeness is perceived by the suspect as being weak and feeble. Additionally, many studies have shown that officers say the cameras make them feel like they must do everything by the book and their discretion has been reduced, therefore, officers are making more arrests and issuing more citations (Ariel et al., 2017; Koen et al., 2019; Rowe et al., 2018). This can be a disadvantage to law enforcement as it may breed resentment toward officers for enforcing the law, and in economically troubled communities that have a high level of informal social control trust and legitimacy can be eroded (Hughes et al., 2020).

Examining officer-initiated traffic stops and officer self-initiated activities before and after the implementation of BWCs will provide greater insight into how BWCs impact an officer’s willingness to engage with citizens and how this willingness to interact impacts the crime rate. The purpose of this study is to determine if officer-initiated traffic stops and self-initiated activities have declined since the deployment of BWCs using data from a large metropolitan police agency in the Southern region of the United States. Additionally, the study

will assess a correlation between the volume of officer proactive initiatives and the Part I crime rate. The following questions are addressed in this study.

RQ1: *What is the difference in the number of traffic stops after BWCs were deployed?*

RQ2: *What is the difference in the number of self-initiated activities after BWCs were deployed?*

RQ3: *What is the relationship between traffic stops and the Part I crime rate before and after BWCs were deployed?*

RQ4: *What is the relationship between officer self-initiated activities and the Part I crime rate before and after BWCs were deployed?*

RQ5: *What is the relationship between the number of officer proactive initiatives and their career progression?*

Hypotheses

RQ1: *What is the difference in the number of traffic stops after BWCs were deployed?*

- H₀1: There is no statistically significant difference in the number of traffic stops conducted by first-line patrol officers after implementing BWCs, as shown by the paired sample t-test.
- H_a1: There is a statistically significant difference in the number of traffic stops conducted by first-line patrol officers after implementing BWCs.

RQ2: *What is the difference in the number of self-initiated activities after BWCs were deployed?*

- H₀2: There is no statistically significant difference in the number of self-initiated patrol activities conducted by first-line patrol officers after implementing BWCs, as shown by the paired sample t-test.

- H_{a2}: There is a statistically significant difference in the number of self-initiated patrol activities conducted by first-line patrol officers after implementing BWCs.

RQ3: *What is the relationship between traffic stops and the Part I crime rate before and after BWCs were deployed?*

- H₀₃: There is no correlation between the volume of traffic stops and the crime rate, as shown by Pearson's rho correlation coefficient.
- H_{a3}: There is a significant correlation between the volume of traffic stops and the crime rate.

RQ4: *What is the relationship between officer self-initiated activities and the Part I crime rate before and after BWCs were deployed?*

- H₀₄: There is no correlation between the volume of self-initiated patrol activities and the crime rate, as shown by Pearson's rho correlation coefficient.
- H_{a4}: There is a significant correlation between the volume of self-initiated patrol activities and the crime rate

RQ5: *What is the relationship between the number of officer proactive initiatives and their career progression?*

- H₀₅: There is no statistically significant relationship between the number of officer proactive initiatives and their career progression.
- H_{a5}: There is a statistically significant relationship between the number of officer proactive initiatives and their career progression.

Participants and Setting

The study will garner participants from a non-probability convenience sample of patrol officers from a large police agency located in the Southern region of the United States. The police agency is situated in a culturally diverse metropolitan city home to numerous colleges,

universities, and professional sports teams. This agency provides law enforcement services to more than one million residents. The agency not only provides patrol services but has numerous specialized divisions in which to investigate specific crimes. There are multiple levels in the chain of command. However, only first-line patrol officers, first-line supervisors, and tactical units are mandated to wear BWCs.

This study will analyze data from only those officers assigned to a patrol capacity. Patrol is defined as officers who are assigned marked police vehicles, and their primary duty is to respond to calls for service that are prompted by the public calling 911 or a non-emergency line. Additionally, these officers have the discretion to initiate traffic stops when time and probable cause exist. Furthermore, these officers may self-initiate proactive initiatives during their shift, making contact with individuals to inquire or prevent criminal activity or self-initiate in a specific location to investigate or deter illegal activity.

This study will seek to analyze the proactivity of 1455 patrol officers from a single police agency before and after BWCs were distributed. This sample size significantly exceeds the minimum required for a medium effect size. According to Panter et al. (2011), a sample size of 128 is needed for a medium effect size ($r = .3$) and a statistical power of .8. Additionally, they state a minimum sample size of 128 is necessary when assuming a Type I error rate of .05 (alpha) and when conducting a paired sample t-test. The sample will include officers working various shifts. The data to be acquired for the pre body-worn camera data set will be from April 1-June 30, 2014. Data for the post body-worn camera data set will be April 1-June 30, 2017 and 2019. This agency has five shifts in which an officer can work depending on the district they are assigned.

Instrumentation

The instrumentation for this study is archived data from the selected police agency's work card system showing the work product from a randomly selected group of first-line patrol officers at three points in time. The first point in time being a three-month interval (April 1-June 30) in 2014, before the agency assigned BWCs to all first-line patrol officers. A few pilot programs were conducted throughout the agency in 2014; however, the officers selected had not been issued a camera. The second interval consisted of the same officer's work product from 2017 (April 1-June 30), just weeks after BWCs were fully implemented for all patrol officers throughout the agency. The researcher also collected data from April 1, 2019-June 30, 2019, more than two years after BWCs had been in full operation for first-line patrol officers to determine if a trend existed.

Vogt et al. (2012), explain that archived data is that which has not been manipulated or produced by the current researcher and may come in numerical records. They go on to state that archived data that the researcher has not created can contain flaws such as missing and incomplete data. The data for this study was generated from the officer's work cards. The officer's work card is a handwritten or electronic form that officers, themselves, fill out throughout their shift, documenting their work activity. The work card is then manually entered by a department employee (not the officer). It shows various entries, including the officer's calls for service, self-initiated activity, arrests, number of offense reports written, traffic stops, citations issued, and other various categories.

To determine if officer proactivity declined after the implementation of BWCs, the overall number of proactive initiatives, which included self-initiative and traffic stops, will be counted for each time interval, and compared. Additionally, the officer's self-initiatives and

traffic stops will be analyzed separately for the group to determine if there is a decrease in any one initiative after BWCs were deployed. Furthermore, these findings will be compared to Part I crimes that occurred throughout the agency's patrol area during the same time frames to determine if there is an impact on the crime rate in that area.

Procedures

The researcher will complete the University's Institutional Review Board (IRB) application process before obtaining data. The researcher did not expect to have any ethical concerns as the archived data was sanitized so that the officers could not be identified. Following IRB approval, the researcher sent a request for the data, including the parameters necessary to conduct the study. Using the agency's request for information form, the researcher requested a sample of officers who completed all field training and were no longer considered probationary status. Officers were assigned to patrol during the specified time frames and not issued a camera before 2017. The total number of self-initiated patrol activities, traffic stops, and years of service were requested for each corresponding officer. The agency determined which officers were in patrol without a camera in 2014 and were still assigned as a patrol unit, with a camera, in 2017 and 2019. The officers were coded numerically by the agency and retained the same coded number for each time interval was analyzed.

The data was collected and downloaded into a spreadsheet. Any obvious outliers were discarded. The information was then downloaded into SPSS version 23, and the means and standard deviations were calculated for each time frame. Likewise, Part I crimes were also downloaded into a spreadsheet, and the means for each period were be calculated. The data was compared to determine if officer proactivity declined after BWCs were issued and the correlation to the Part I crime rate for each time interval.

Data Analysis

Initially, this study utilized a paired sample t-test and Pearson's rho correlation coefficient. The paired sampled t-test was selected to determine a difference between the same group of officers at different time intervals. According to Kremelberg (2011), this test is used when determining whether a significant increase or decrease exists within the same group at differing points in time. However, the Wilcoxon Signed Ranks Test for Medians was more appropriate. The purpose of Pearson's rho correlation coefficient is to establish whether there is a meaningful relationship between variables. This study will utilize Pearson's rho correlation coefficient to determine if there is a significant relationship between the average number of officer proactive initiatives and the Part I crimes.

H₀₁: There is no statistically significant difference in the number of traffic stops conducted by first-line patrol officers after implementing BWCs, as shown by the paired sample t-test.

H₀₂: There is no statistically significant difference in the number of self-initiated patrol activities conducted by first-line patrol officers after implementing BWCs, as shown by the paired sample t-test.

H₀₃: There is no correlation between the volume of traffic stops and the crime rate, as shown by Pearson's rho correlation coefficient.

H₀₄: There is no correlation between the volume of self-initiated patrol activities and the crime rate, as shown by Pearson's rho correlation coefficient.

H₀₅: There is no statistically significant relationship between the number of officer proactive initiatives and their career progression.

Summary

Chapter three discussed the methodology to be used to conduct this proposed research study. The proposed research design consists of a non-probability convenience sample of patrol officers from a large police agency located in the Southern region of the United States. Moreover, the research questions and hypotheses were discussed. The data used for this study was archived data, so the researcher anticipated no ethical issues. Additionally, the data was anonymized before collection so that no officer's identity was to be divulged. Lastly, the paired sample t-test and Pearson's rho correlation coefficient analysis was to be used to determine if officer proactivity has declined since the deployment of BWCs over time and the correlation, if any, to Part I crimes. However, the Wilcoxon Signed Ranks Test for Medians was more appropriate due to distributions being skewed.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to determine if officer proactive initiatives, specifically traffic stops and self-initiated activities, have declined significantly since the deployment of BWCs using data from a large, metropolitan police agency in the Southern United States that services more than one million citizens. Additionally, the study sought to assess if there was a significant relationship between officer proactive initiatives and crime rates. Mentioned in previous chapters, there has not been enough research conducted to determine if BWCs are a factor for officers contemplating proactive enforcement and self-initiated citizen contact. This study will contribute to the body of knowledge and narrow the gap.

The research questions and hypotheses were as follows:

RQ1: *What is the difference in the number of traffic stops after BWCs were deployed?*

- H₀1: There is no statistically significant difference in the number of traffic stops conducted by first-line patrol officers after implementing BWCs.
- H_a1: There is a statistically significant difference in the number of traffic stops conducted by first-line patrol officers after implementing BWCs.

RQ2: *What is the difference in the number of self-initiated activities after BWCs were deployed?*

- H₀2: There is no statistically significant difference in the number of self-initiated patrol activities conducted by first-line patrol officers after implementing BWCs.
- H_a2: There is a statistically significant difference in the number of self-initiated patrol activities conducted by first-line patrol officers after implementing BWCs.

RQ3: *What is the relationship between traffic stops and the Part I crime rate before and after BWCs were deployed?*

- H₀₃: There is no correlation between the volume of traffic stops and the crime rate.
- H_{a3}: There is a significant correlation between the volume of traffic stops and the crime rate.

RQ4: *What is the relationship between officer self-initiated activities and the Part I crime rate before and after BWCs were deployed?*

- H₀₄: There is no correlation between the volume of self-initiated patrol activities and the crime rate.
- H_{a4}: There is a significant correlation between the volume of self-initiated patrol activities and the crime rate

RQ5: *What is the relationship between the number of officer proactive initiatives and their career progression?*

- H₀₅: There is no statistically significant relationship between the number of officer proactive initiatives and their career progression.
- H_{a5}: There is a statistically significant relationship between the number of officer proactive initiatives and their career progression.

Chapter four is organized by a discussion of the descriptive statistics, including the sample demographics, and a summary of the results discussing the research question/hypothesis testing that was conducted for each question/hypothesis. The researcher analyzed the data using SPSS 23 for Windows and Microsoft Excel.

Descriptive Statistics

The sample consisted of archived data from April 1– June 30 of 2014, 2017, and 2019 using 1,455 anonymized police officers who were assigned to patrol during the aforementioned

timeframes. The same set of officers were then tracked throughout the study. The sample of 1,455 police officers ranged from ages 21 to 45 ($M = 27.90$, $SD = 4.78$) when they were sworn into the participating agency with a median age of 27.00. Ninety percent of the sample ($n = 1,310$) were males and 10.0% ($n = 145$) were females. In 2014, 40.8% ($n = 593$) of officers had 0-5 years on the force, 27.1% ($n = 394$) had 6-10 years, and 32.1% ($n = 467$) had 11 years or more. Officer tenure range in 2014 is presented in Table 1.

Table 1

Officer Tenure Range in 2014

Tenure Range	<i>N</i>	%	Valid %	Cumulative %
0-5	593	40.8	40.8	40.8
6-10	394	27.1	27.1	67.9
11-15	182	12.5	12.5	80.4
16-20	259	17.8	17.8	98.2
21+	26	1.8	1.8	100.0
Total	1,454	99.9	100.0	
Missing Data	1	0.1		
Total	1,455	100.0		

In 2019, 4.7% ($n = 69$) of the officers had 0-5 years on the force, 36.3% ($n = 528$) had 6-10 years, and 58.9% ($n = 857$) had 11 years or more. Officer tenure range in 2019 is presented in Table 2.

Table 2

Officer Tenure Range in 2019

Tenure Range	<i>N</i>	%	Valid %	Cumulative %
0-5	69	4.7	4.7	4.7
6-10	528	36.3	36.3	41.1
11-15	391	26.9	26.9	68.0
16-20	181	12.4	12.4	80.4
21+	285	19.6	19.6	100.0
Total	1454	99.9	100.0	
Missing Data	1	0.1		
Total	1455	100.0		

The police agency that participated in the study provided Part I Crime data in a summary format. Part I crimes are considered the most serious crimes that are committed frequently throughout the United States according to the FBI's Uniform Crime Reporting Program, therefore, they are the crimes most likely to be reported to law enforcement (U.S. Department of Justice Federal Bureau of Investigation, 2010). These crimes consist of murder, rape, aggravated assault, robbery, motor vehicle theft, and arson. The researcher calculated percentages of specific Type I Crimes for each year and then conducted chi-square goodness of fit tests to determine if significant differences existed for each crime by year. Next, the results were illustrated in a clustered bar graph. The data were limited to April-June of 2014, 2017, and 2019.

These timeframes were significant because the first point in time was a three-month interval (April 1-June 30) in 2014, before the agency assigned BWCs to all first-line patrol officers. A few pilot programs were conducted throughout the agency prior to 2014; however, the officers selected for this study had not been issued a camera until 2017. Additionally, the OIS death of Michael Brown had not yet occurred. The second interval consisted of the same officer's work product from 2017 (April 1-June 30), just weeks after BWCs were fully implemented for all patrol officers throughout the agency. The researcher also collected data from April 1, 2019-June 30, 2019, more than two years after BWCs had been in full operation for first-line patrol officers to determine if a trend existed. Type I Crimes are presented in Table 3.

Table 3*Type I Crimes from April-June*

Crime	2014 (N, %)	2017 (N, %)	2019 (N, %)
Murder and Non-Negligent Manslaughter	54 (0.37)	69 (0.50)	66 (0.47)
Rape	228 (1.6)	365 (2.6)	323 (2.3)
Aggravated Assault	2,865 (19.6)	3,855 (27.8)	3,218 (23.1)
Auto Theft	3,579 (24.5)	2,958 (21.4)	3,562 (25.6)
Burglary	5,573 (38.1)	4,204 (30.4)	4,393 (31.5)
Robbery	2,323 (15.9)	2,395 (17.3)	2,363 (17.0)
Total	14,622 (100)	13,846 (100)	13,925 (100)

Note. Data are from April-June of each year.

Murder and Non-Negligent Manslaughter from April-June

For the aforementioned timeframes, there were 189 murders and non-negligent manslaughters. Assuming that there were no significant differences in each year for reported crimes, we would expect that there were 63 incidents per year ($189/3$). In 2014, there were 54 murders and non-negligent manslaughter incidents, in 2017, there were 69, and in 2019, there were 66. These differences were not statistically significant, $X^2(N = 189) = 2.00, p = .368$.

Rape from April-June

There were 916 reported rapes from April-June. Assuming that there were no significant differences in each year for reported rapes, we would expect that there were 305.33 rapes per year ($916/3$). In 2014, there were 228 reported rapes, in 2017, there were 365, and in 2019, there were 323. There was a significant difference in the number of reported rapes relative to each year, $X^2(N = 916) = 45.87, p < .001$.

Aggravated Assault from April-June

There were 9,938 aggravated assaults from April-June. Assuming that there were no significant differences in each year for aggravated assaults, we would expect that there were 3,312.67 aggravated assaults per year ($9,938/3$). In 2014, there were 2,865 aggravated assaults, in

2017, there were 3,855, and in 2019, there were 3,218. There was a significant difference in the number of aggravated assaults relative to each year, $X^2(N = 9,938) = 45.87, p < .001$.

Auto Theft from April-June

There were 10,099 auto thefts from April-June. Assuming that there were no significant differences in each year for auto thefts, we would expect that there were 3,366.33 auto thefts per year (10,099/3). In 2014, there were 3,579 auto thefts, in 2017, there were 2,958, and in 2019, there were 3,562. There was a significant difference in the number of auto thefts relative to each year, $X^2(N = 10,099) = 74.34, p < .001$.

Burglary from April-June

There were 14,170 burglaries from April-June. Assuming that there were no significant differences in each year for burglaries, we would expect that there were 4,723.33 burglaries per year (14,170/3). In 2014, there were 5,573 burglaries, in 2017, there were 4,204, and in 2019, there were 4,393. There was a significant difference in the number of burglaries relative to each year, $X^2(N = 14,170) = 233.05, p < .001$.

Robbery from April-June

There were 7,081 robberies from April-June. Assuming that there were no significant differences in each year for robberies, we would expect that there were 2,360.33 robberies per year (7,081/3). In 2014, there were 2,323 robberies, in 2017, there were 2,395, and in 2019, there were 2,363. There was no significant difference in the number of robberies relative to each year, $X^2(N = 7,081) = 1.10, p = .576$.

Total Part I Crimes from April-June

There were 42,393 total Part I Crimes from April-June. Assuming that there were no significant differences in each year for Part I Crimes, we would expect that there were 14,131

Part I Crimes per year (42,393/3). In 2014, there were 14,622 Part I Crimes, in 2017, there were 13,846, and in 2019, there were 13,925. There was a significant difference in the total number of Part I Crimes relative to each year, $X^2(N = 42,393) = 25.81, p < .001$. Chi-square results are summarized in Table 4.

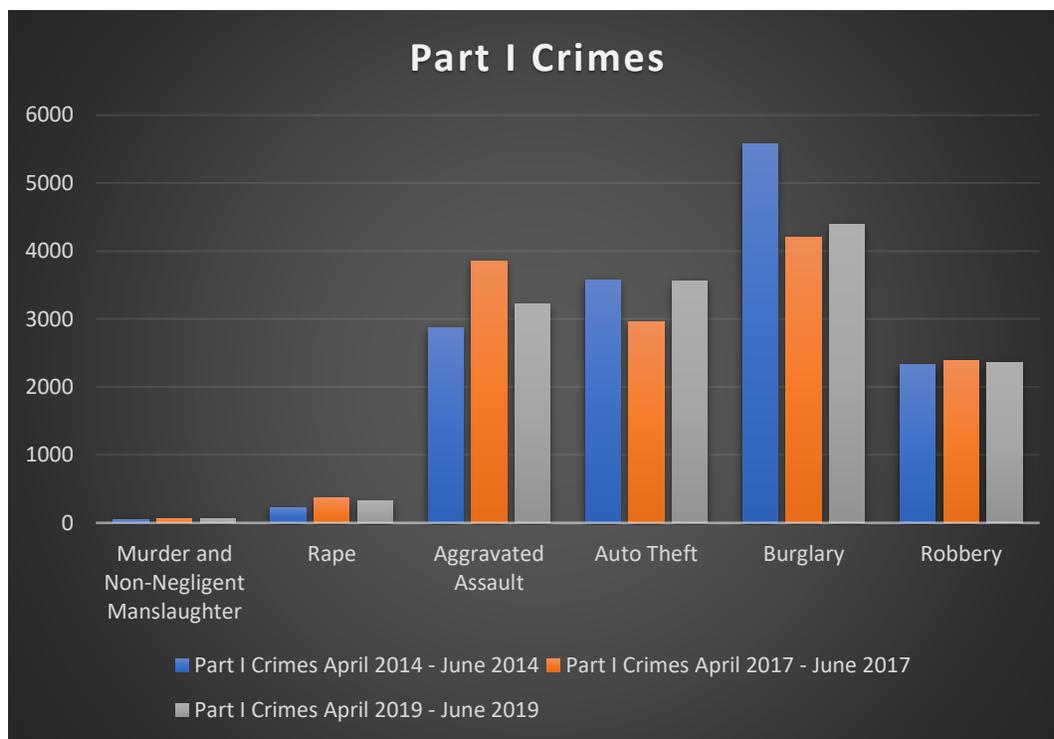
Table 4

Chi-Square Results for Part I Crimes

Crime	2014	2017	2019	X^2 Statistic	Significance
Murder and Non-Negligent Manslaughter	54	69	66	2.00	0.368
Rape	228	365	323	45.87	< .001
Aggravated Assault	2,865	3,855	3,218	151.99	< .001
Auto Theft	3,579	2,958	3,562	74.34	< .001
Burglary	5,573	4,204	4,393	233.05	< .001
Robbery	2,323	2,395	2,363	1.10	0.576
Total				25.81	< .001

Note. Data are from April-June of each year.

A clustered bar graph of these disparities is illustrated in Figure 1.

Figure 1*Part I Crimes*

In 2014, there were 0-515 traffic stops by officers ($M = 30.22$, $SD = 50.09$) with a median of 15.00. In 2017, there were 0-857 traffic stops by officers ($M = 33.45$, $SD = 59.55$) with a median of 14.00. In 2019, there were 0-1,105 traffic stops by officers ($M = 33.80$, $SD = 83.26$) with a median of 8.00. In 2014, there were 0-243 self-initiated activities by officers ($M = 11.10$, $SD = 2.68$) with a median of 5.00. In 2017, there were 0-497 self-initiated activities by officers ($M = 16.15$, $SD = 33.13$) with a median of 6.00. In 2019, there were 0-459 self-initiated activities by officers ($M = 15.22$, $SD = 36.67$) with a median of 4.00. Descriptive statistics are presented in Table 5.

Table 5*Descriptive Statistics*

	Traffic Stops in 2014	Traffic Stops in 2017	Traffic Stops in 2019	Self-Initiated 2014	Self-Initiated 2017	Self-Initiated 2019
<i>Mean</i>	30.22	33.45	33.80	11.10	16.15	15.22
<i>N</i>	1455	1455	1455	1454	1455	1455
<i>SD</i>	50.09	59.55	83.26	20.68	33.13	36.67
<i>Median</i>	15.00	14.00	8.00	5.00	6.00	4.00
<i>Minimum</i>	0	0	0	0	0	0
<i>Maximum</i>	515	857	1105	243	497	459

Note. Data are from April-June of each year.

Results

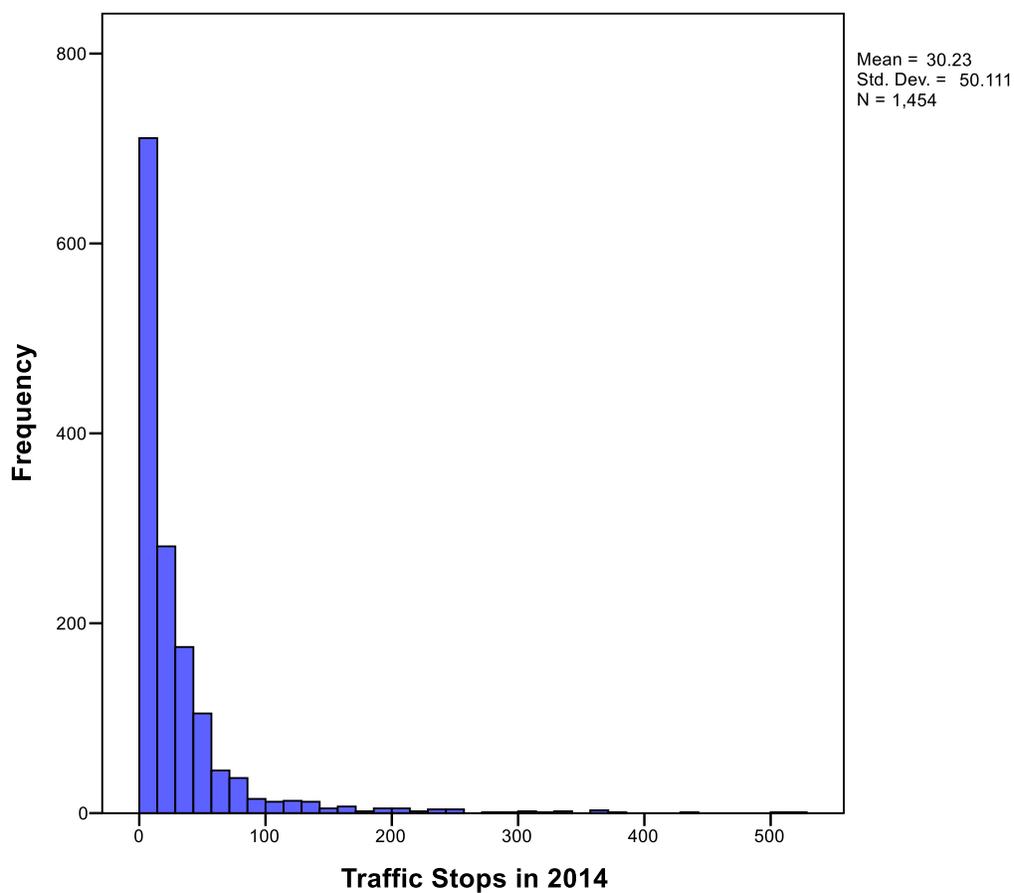
Hypothesis One

Research question one asked, “What is the difference in the number of traffic stops after BWCs were deployed?” It was initially proposed that a paired samples t-test be used to answer this research question. However, based on the descriptive statistics, the distributions of values for traffic stops were not normally distributed. In a normal distribution, the mean and median are approximately equal. The means and medians were not equal for traffic stops in 2014, 2017, and 2019. Therefore, the Wilcoxon Signed Ranks Test for Medians was more appropriate. The Wilcoxon Signed Ranks Test was more appropriate when distributions are skewed. However, for matched pairs, the distributions must be skewed in the same direction. Distribution normality can also be assessed by the skewness and kurtosis statistics. Skewness and kurtosis statistics are presented in Table 6.

Table 6*Skewness and Kurtosis Statistics for Traffic Stops*

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Traffic Stops in 2014	30.22	50.10	4.38	.064	26.19	0.13
Traffic Stops in 2017	33.45	59.55	5.77	.064	54.51	0.13
Traffic Stops in 2019	33.80	83.26	5.86	.064	47.58	0.13

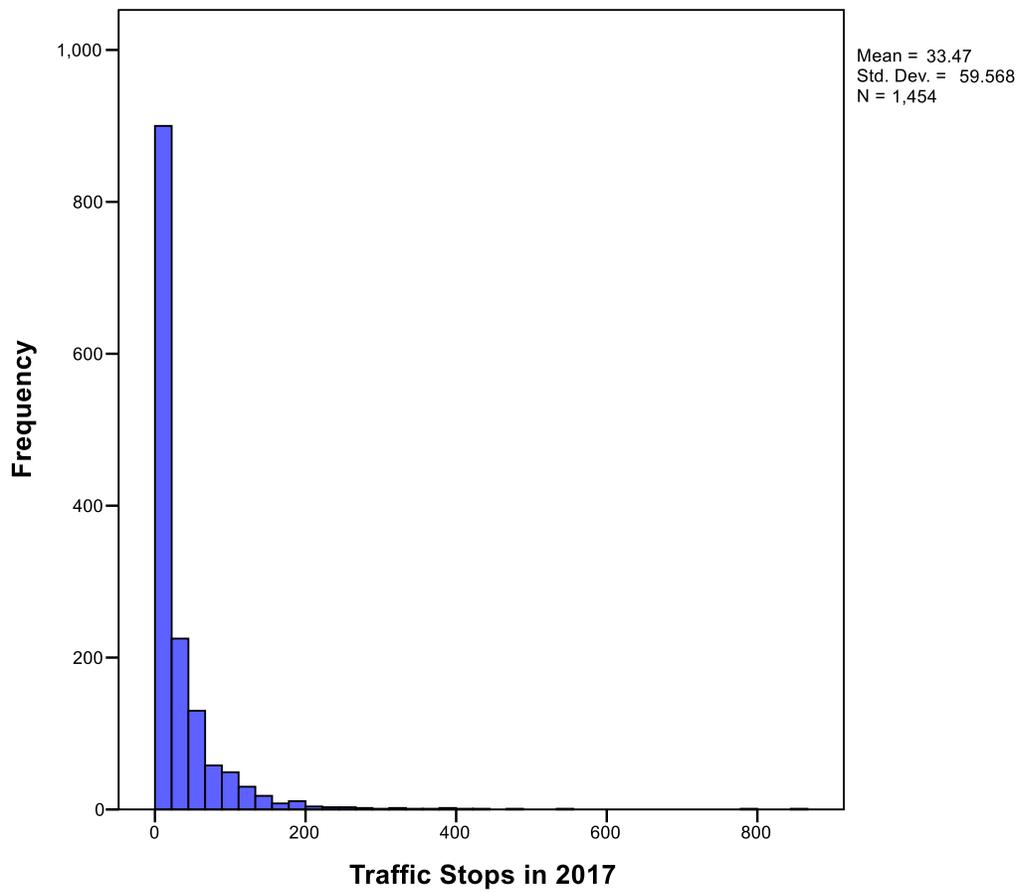
The distribution of traffic stops in 2014 was positively skewed. The skewness was 68.44 times the standard error. The kurtosis was 201.46 times the standard error. The histogram of traffic stops in 2014 is presented in Figure 2.

Figure 2*Histogram of Traffic Stops in 2014*

The distribution of traffic stops in 2017 was positively skewed. The skewness was 90.16 times the standard error. The kurtosis was 419.31 times the standard error. The histogram of traffic stops in 2017 is presented in Figure 3.

Figure 3

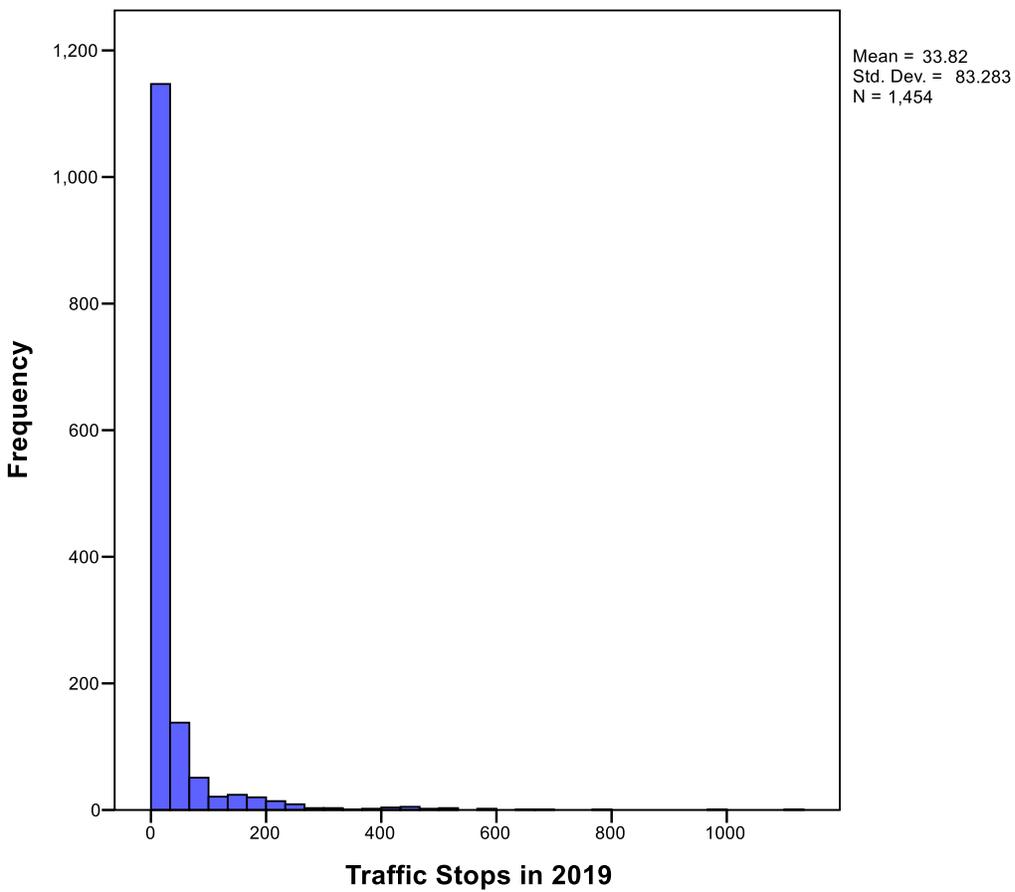
Histogram of Traffic Stops in 2017



The distribution of traffic stops in 2019 was positively skewed. The skewness was 91.56 times the standard error. The kurtosis was 366 times the standard error. The histogram of traffic stops in 2019 is presented in Figure 4.

Figure 4

Histogram of Traffic Stops in 2019



Descriptive statistics for the Wilcoxon Signed Ranks Test are presented in Table 7.

Table 7*Descriptive Statistics for Wilcoxon Signed Ranks Test for Research Question One*

		<i>N</i>	Mean Rank	Sum of Ranks	Median
Traffic Stops in 2017 - Traffic Stops in 2014	Negative Ranks	689 ^a	658.72	453859.00	14.00
	Positive Ranks	672 ^b	703.84	472982.00	15.00
	Ties	94 ^c			
	Total	1455			
Traffic Stops in 2019 - Traffic Stops in 2014	Negative Ranks	804 ^d	674.72	542476.00	8.00
	Positive Ranks	550 ^e	681.56	374859.00	15.00
	Ties	101 ^f			
	Total	1455			
Traffic Stops in 2019 - Traffic Stops in 2017	Negative Ranks	822 ^g	665.73	547226.50	8.00
	Positive Ranks	491 ^h	642.39	315414.50	14.00
	Ties	142 ⁱ			
	Total	1455			

a. Traffic Stops in 2017 < Traffic Stops in 2014

b. Traffic Stops in 2017 > Traffic Stops in 2014

c. Traffic Stops in 2017 = Traffic Stops in 2014

d. Traffic Stops in 2019 < Traffic Stops in 2014

e. Traffic Stops in 2019 > Traffic Stops in 2014

f. Traffic Stops in 2019 = Traffic Stops in 2014

g. Traffic Stops in 2019 < Traffic Stops in 2017

h. Traffic Stops in 2019 > Traffic Stops in 2017

i. Traffic Stops in 2019 = Traffic Stops in 2017

Wilcoxon Signed Ranks test results for Research Question One are presented in Table 8.

Table 8*Wilcoxon Signed Ranks Tests for Research Question One*

	Traffic Stops in 2017 - Traffic Stops in 2014	Traffic Stops in 2019 - Traffic Stops in 2014	Traffic Stops in 2019 - Traffic Stops in 2017
<i>Z</i>	-0.66 ^b	-5.82 ^c	-8.44 ^c
Asymp. Sig. (2- tailed)	.510	.000	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

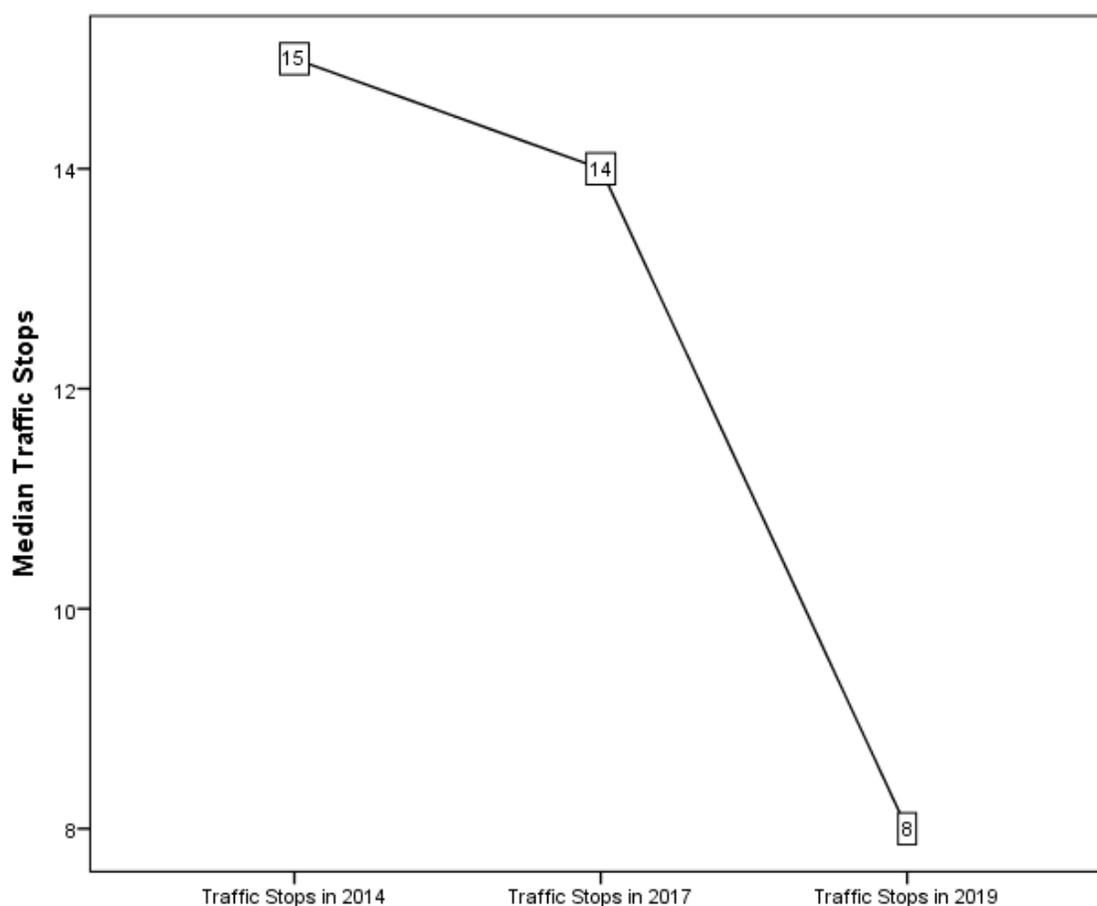
c. Based on positive ranks.

There was no significant difference in the median traffic stops in 2014 (15.00) and 2017 (14.00), $Z = -0.66$, $p = .510$. However, there was a significant difference in median traffic stops in 2019 (8.00) and 2014 (15.00), $Z = -5.82$, $p < .001$. There was also a significant difference in

median traffic stops in 2019 (8.00) and 2017 (14.00), $Z = -8.44$, $p < .001$. This is illustrated in Figure 5.

Figure 5

Median Traffic Stops in 2014, 2017, and 2019



H₀₁ stated that there is no statistically significant difference in the number of traffic stops conducted by first-line patrol officers after implementing BWCs. Three paired samples Wilcoxon Signed Ranks Test for Medians were conducted. One was not significant ($p = .510$) and two were significant ($p < .001$). Therefore, the null hypothesis was rejected. Median traffic stops did not differ significantly between 2014 and 2017. However, median traffic stops decreased significantly between 2014 and 2019 and between 2017 and 2019.

Hypothesis Two

Research Question Two asked, “What is the difference in the number of self-initiated activities after BWCs were deployed?” It was initially proposed that a paired samples t-test be used to answer this research question. However, based on the descriptive statistics, the distributions of values for self-initiated activities were not normally distributed. In a normal distribution, the mean and median are approximately equal. The means and medians were not equal for self-initiated activities in 2014, 2017, and 2019. Therefore, the Wilcoxon Signed Ranks Test for Medians was more appropriate. The Wilcoxon Signed Ranks Test is appropriate when distributions are skewed. However, for matched pairs, the distributions must be skewed in the same direction. Distribution normality can also be assessed by the skewness and kurtosis statistics. Distributions are normal when the absolute values of their skewness and kurtosis statistics is less than 2 times their standard errors. Skewness and kurtosis statistics are presented in Table 9.

Table 9

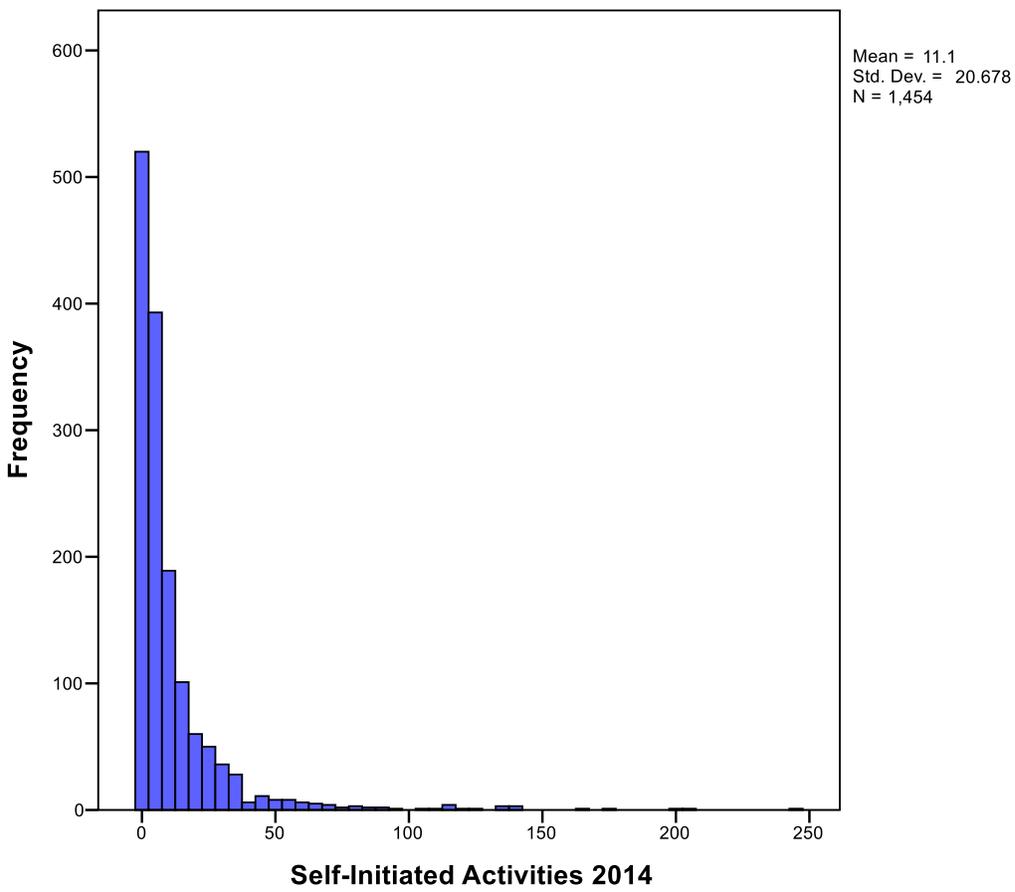
Skewness and Kurtosis Statistics for Self-Initiated Activities

	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
Self-Initiated 2014	11.10	20.68	5.01	0.06	34.68	0.13
Self-Initiated 2017	16.15	33.13	6.20	0.06	60.03	0.13
Self-Initiated 2019	15.22	36.67	5.03	0.06	33.12	0.13

The distribution of self-initiated activities in 2014 was positively skewed. The skewness was 83.50 times the standard error. The kurtosis was 266.77 times the standard error. The histogram of self-initiated activities in 2014 is presented in Figure 6.

Figure 6

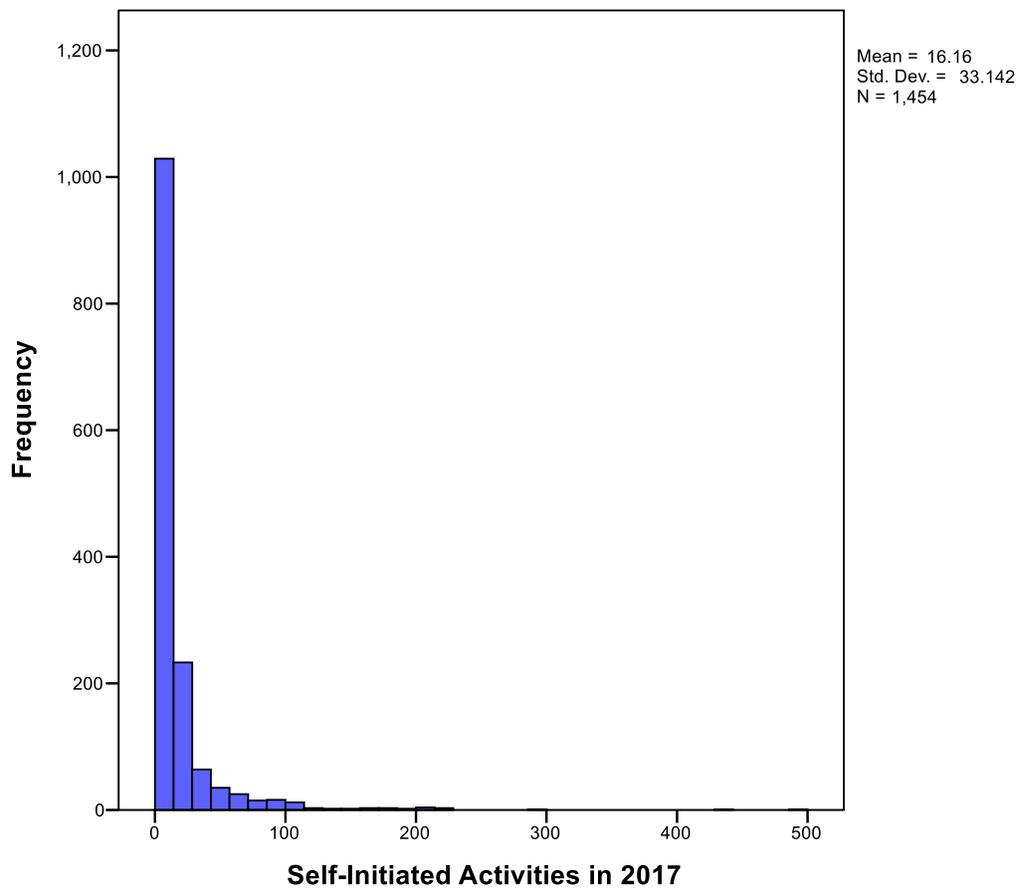
Histogram of Self-Initiated Activities in 2014



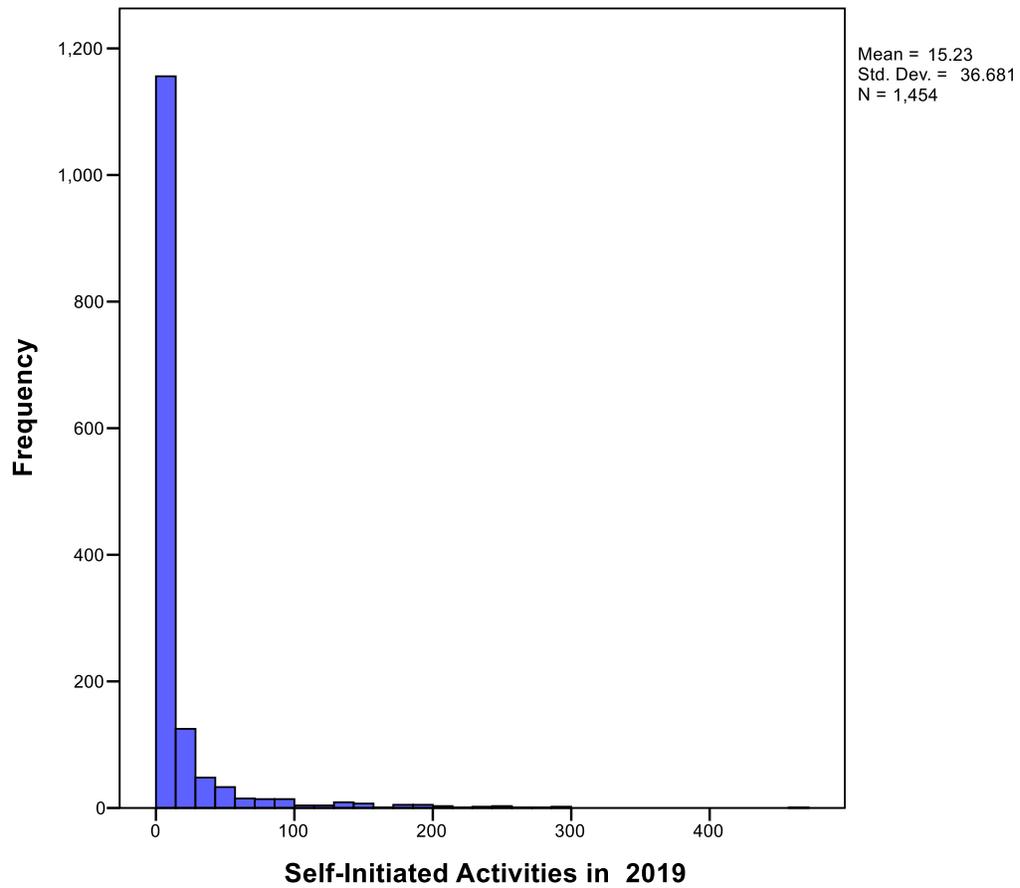
The distribution of self-initiated activities in 2017 was positively skewed. The skewness was 103.33 times the standard error. The kurtosis was 461.77 times the standard error. The histogram of self-initiated activities in 2017 is presented in Figure 7.

Figure 7

Histogram of Self-Initiated Activities in 2017



The distribution of self-initiated activities in 2019 was positively skewed. The skewness was 83.83 times the standard error. The kurtosis was 254.77 times the standard error. The histogram of self-initiated activities in 2019 is presented in Figure 8.

Figure 8*Histogram of Self-Initiated Activities in 2019*

Descriptive statistics for the Wilcoxon Signed Ranks Test are presented in Table 10.

Table 10*Descriptive Statistics for Wilcoxon Signed Ranks Test for Research Question Two*

		<i>N</i>	Mean Rank	Sum of Ranks	Median
Self-Initiated 2017 -	Negative Ranks	576 ^a	601.06	346209.00	6
Self-Initiated 2014	Positive Ranks	732 ^b	696.55	509877.00	5
	Ties	146 ^c			
	Total	1454			
Self-Initiated 2019 -	Negative Ranks	667 ^d	625.27	417052.00	4
Self-Initiated 2014	Positive Ranks	627 ^e	671.15	420813.00	5
	Ties	160 ^f			
	Total	1454			
Self-Initiated 2019 -	Negative Ranks	754 ^g	627.87	473417.00	4
Self-Initiated 2017	Positive Ranks	492 ^h	616.80	303464.00	6
	Ties	209 ⁱ			
	Total	1455			

a. Self-Initiated 2017 < Self-Initiated 2014

b. Self-Initiated 2017 > Self-Initiated 2014

c. Self-Initiated 2017 = Self-Initiated 2014

d. Self-Initiated 2019 < Self-Initiated 2014

e. Self-Initiated 2019 > Self-Initiated 2014

f. Self-Initiated 2019 = Self-Initiated 2014

g. Self-Initiated 2019 < Self-Initiated 2017

h. Self-Initiated 2019 > Self-Initiated 2017

i. Self-Initiated 2019 = Self-Initiated 2017

Wilcoxon Signed Ranks test results for Research Question Two are presented in Table 11.

Table 11*Wilcoxon Signed Ranks Tests for Research Question Two*

	Self-Initiated 2017 - Self-Initiated 2014	Self-Initiated 2019 - Self-Initiated 2014	Self-Initiated 2019 - Self-Initiated 2017
<i>Z</i>	-5.99 ^b	-0.14 ^b	-6.69 ^c
Asymp. Sig. (2-tailed)	.000	.889	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

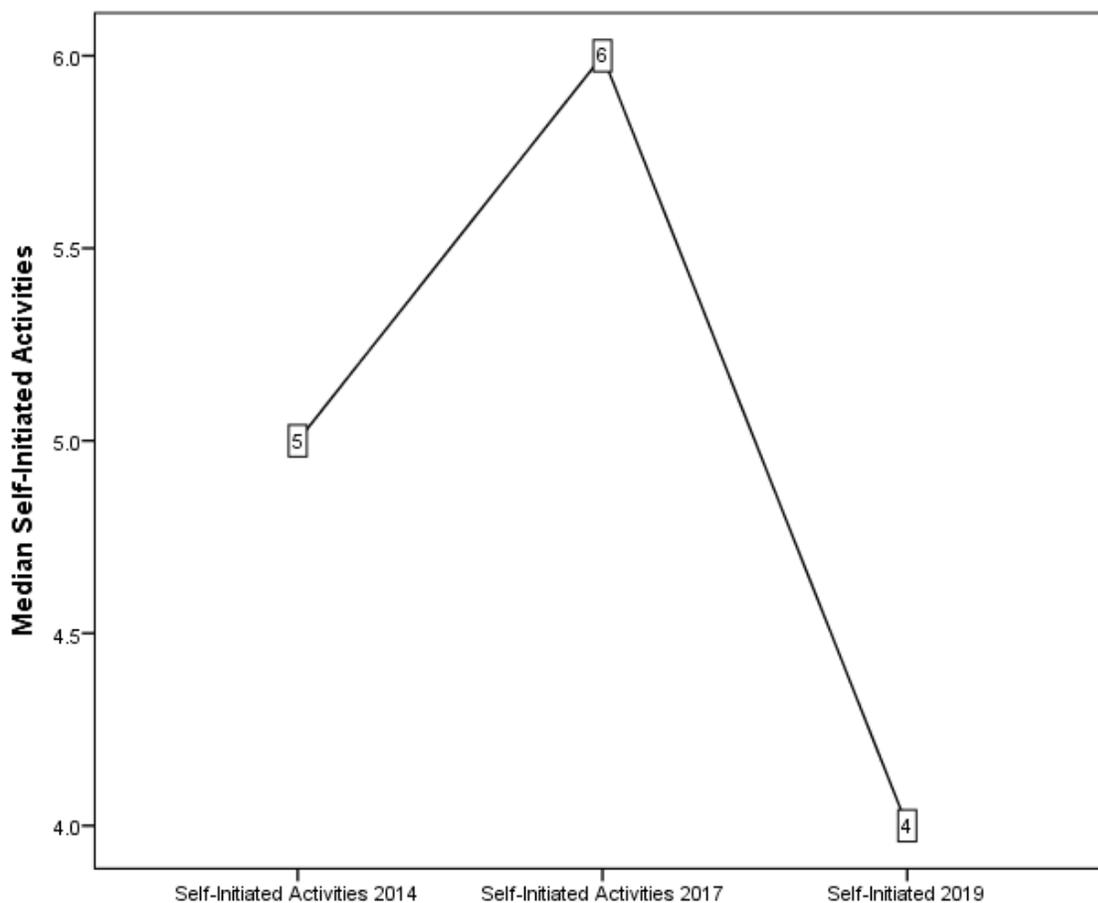
c. Based on positive ranks.

There was a significant difference in the median self-initiated activities in 2014 (5.00) and 2017 (6.00), $Z = -5.99$, $p < .001$. However, there was no significant difference in median self-initiated activities in 2019 (4.00) and 2014 (5.00), $Z = -0.14$, $p = .889$. There was also a

significant difference in self-initiated activities in 2019 (4.00) and 2017 (6.00), $Z = -6.69$, $p < .001$. This is illustrated in Figure 9.

Figure 9

Median Self-Initiated Activities in 2014, 2017, and 2019



H₀₂ stated that there is no statistically significant difference in the number of self-initiated patrol activities conducted by first-line patrol officers after implementing BWCs. Three paired samples Wilcoxon Signed Ranks Test for Medians were conducted. One was not significant ($p = .889$) and two were significant ($p < .001$). Therefore, the null hypothesis was rejected. Median self-initiated patrol activities increased significantly between 2014 and 2017.

However, median self-initiated patrol activities did not decrease significantly between 2014 and 2019 but did decrease significantly between 2017 and 2019.

Hypothesis Three

Research Question Three asked, “What is the relationship between traffic stops and the Part I crime rate before and after BWCs were deployed?” It was initially proposed that this research question be answered with the Pearson rho. However, research Question Three could not be tested with the data. The total number of crimes were provided for a specified timeframe for each corresponding year. However, this number was a constant and therefore, it did not change. In other words, if the total crimes reported for 2014 was 14,622 between April and June of that year, that value was the same for each patrol officer case entry and did not vary.

Hypothesis Four

Research Question Four asked, “What is the relationship between officer self-initiated activities and the Part I crime rate before and after BWCs were deployed?” It was initially proposed that this research question be answered with the Pearson rho. However, research Question Three could not be tested with the data. The total number of crimes were provided for a specified timeframe for each corresponding year. However, this number was a constant and therefore, it did not change. In other words, if the total crimes reported for 2014 was 14,622 between April and June of that year, that value was the same for each patrol officer case entry and did not vary.

Hypothesis Five

Research Question Five asked, “What is the relationship between the number of officer proactive initiatives and their career progression?” This research question was tested with the Spearman’s rho correlation. The predictor variable was the officer’s career progression as

measured by their tenure range in 2014 and 2019. Officer tenure was an ordinal variable with five levels (0-5 years, 6-10 years, 11-15 years, 16-20 years, and 21 or more years). The criterion variable was proactive initiatives. The variable, proactive initiatives, was computed by adding the number of traffic stops to the number of self-initiated patrol activities for two years (2014, 2019). A correlation matrix for Research Question Five is presented in Table 12.

Table 12

Spearman's Rho Correlation Matrix

	Officer's Tenure Range 2014	Officer's Tenure Range 2019	Proactive Initiatives in 2014	Proactive Initiatives in 2019	<i>n</i>	<i>M</i>	<i>SD</i>
Officer's Tenure Range 2014	—				1454		
Officer's Tenure Range 2019	.985***	—			1454		
Proactive Initiatives in 2014	-.203***	-.147***	—		1455	41.43	63.28
Proactive Initiatives in 2019	-.117***	-.121***	.289***	—	1455	49.02	107.43

Note. *** $p < .001$, two-tailed.

There was a weak, but significant, negative relationship between the officer's career progression in 2014 and their proactive initiatives in 2014, $r_{rho}(1452) = -.20, p < .001$, two tailed. As career progression increased in 2014, proactive initiatives decreased in 2014. There was also a weak, but significant, negative relationship between the officer's career progression in 2019 and their proactive initiatives in 2019, $r_{rho}(1452) = -.12, p < .001$, two tailed. As career progression increased in 2019, proactive initiatives decreased in 2019.

H₀₅ stated that there is no statistically significant relationship between the number of officer proactive initiatives and their career progression. There was a weak, but significant, negative relationship between the officer's career progression in 2014 and their proactive

initiatives in 2014, $r_{rho}(1452) = -.20, p < .001$, two tailed. There was also a weak, but significant, negative relationship between the officer's career progression in 2019 and their proactive initiatives in 2019, $r_{rho}(1452) = -.12, p < .001$, two tailed. Therefore, the null hypothesis was rejected. Hypotheses and outcomes are summarized in Table 13.

Table 13

Hypothesis Summary and Outcomes

Hypothesis	Statistical Test	Significance	Supported or Not Supported
H ₁ : There is a statistically significant difference in the number of traffic stops conducted by patrol officers after implementing BWCs.	Wilcoxon Signed Ranks Test	$p < .001$	Supported
H ₂ : There is a statistically significant difference in the number of self-initiated patrol activities conducted by patrol officers after implementing BWCs.	Wilcoxon Signed Ranks Test	$p < .001$	Supported
H ₃ : There is a significant correlation between the volume of traffic stops and the crime rate.	Unable to Test	N/A	N/A
H ₄ : There is a significant correlation between the volume of self-initiated patrol activities and the crime rate	Unable to Test	N/A	N/A
H ₅ : There is a statistically significant relationship between the number of officer proactive initiatives and their career progression.	Spearman's Rho	$p < .001$	Supported

Summary

The purpose of this study was to determine if officer proactive initiatives, specifically traffic stops and self-initiated activities, have declined significantly since the deployment of body worn cameras (BWCs) using data from a large, metropolitan police agency in the Southern United States that services more than one million citizens. There was a significant difference in the total number of Part I Crimes relative to each year in question (2017, 2018, and 2019). There

was an overall decrease in the number of reported crimes from 2014 to 2017, however, crimes remained relatively static from 2017 to 2019. There was no significant difference in murders and non-negligent manslaughters. There was a significant difference in the number of reported rapes relative to each year. The number of rapes reported increased from 2014 to 2017 but remained relatively constant between 2017 and 2019. There was a significant difference in the number of aggravated assaults relative to each year. Aggravated assaults increased from 2014 to 2017 but decreased from 2017 to 2019. There was a significant difference in the number of auto thefts relative to each year. Reported auto thefts decreased from 2014 to 2017 but increased from to the 2014 level in 2019. There was a significant difference in the number of burglaries relative to each year. Burglaries decreased from 2014 to 2017 and increased slightly from 2017 to 2019. However, there was no significant difference in the number of robberies reported relative to each year.

Research Question One

Five research questions and associated hypotheses were formulated for investigation. It was determined that there was no significant difference in the median traffic stops in 2014 (15.00) and 2017 (14.00). However, there was a significant difference in median traffic stops in 2019 (8.00) and 2014 (15.00). There was also a significant difference in median traffic stops in 2019 (8.00) and 2017 (14.00).

Research Question Two

There was a significant difference in the median self-initiated activities in 2014 (5.00) and 2017 (6.00). However, there was no significant difference in median self-initiated activities in 2019 (4.00) and 2014 (5.00). There was also a significant difference in self-initiated activities in 2019 (4.00) and 2017 (6.00).

Research Questions Three and Four

Research Questions Three and Four could not be tested due to the nature of the data and the conceptualization of the research questions and required analyses.

Research Question Five

There was a weak, but significant, negative relationship between the officer's career progression and their proactive initiatives. As career progression increased proactive initiatives decreased. This was consistent throughout the three aforementioned time periods. Implications and recommendations will be discussed in Chapter Five.

CHAPTER FIVE: CONCLUSIONS

Overview

Since the officer-involved shooting death of Michael Brown in 2014 and several other high-profile cases that have made nationwide media headlines, many police agencies across the nation have adopted BWCs as a tool to reduce police use of force, reduce citizen complaints, and to be more transparent to the public (Schneider, 2018). This call to action came as a result of President Obama's Task Force that was assembled in December 2014 (President's Task Force on 21st Century Policing, 2015). Though there are numerous studies that have been conducted on BWCs since their inception, most of the studies focus on citizen complaints, citizen perspective, and officer's perception (Lum et al., 2019). While there are very few studies in which officer proactive initiatives are evaluated, these studies do not include agencies comparable in size to the agency used in this study. This study evaluated proactive initiatives for 1,455 officers. This study sought to contribute to the body of knowledge and narrow the gap in existing research. Chapter five is organized by a discussion of each research question, implications of the study, limitations, and recommendations for future research.

Discussion

The purpose of this quantitative study was to determine if officer proactive initiatives, specifically traffic stops and self-initiated activities, declined significantly since the deployment of BWCs and if this played a roll in the crime rate. The OIS concerning Michael Brown and Officer Darren Wilson sparked national concern in 2014 and furthered the debate over the use and deployment of BWCs. This OIS incident spurred what many call the "Ferguson Effect". The "Ferguson Effect" is a rise in the crime rates, consequently in part to the alleged lack of proactive police efforts throughout communities (MacDonald, 2019). The phrase, "Ferguson Effect," was

first proposed by Ferguson, Missouri's police chief, Sam Dotson when discussing the rise in violent crimes and the decrease in the number of arrests made by his officers (Gonzales & Cochran, 2017). This study found a significant decrease in proactive initiatives for patrol officers after BWCs were deployed. However, it was undetermined if this decrease had any affect on the crime rate. Each research question will be discussed in light of the results, the theory behind the results, and the corresponding literature.

Research question one asked, "What is the difference in the number of traffic stops after BWCs were deployed?" The results showed the median number of traffic stops, by first-line patrol officers, began to decline shortly after BWCs were implemented, but this was not significant. However, there was a significant decrease in the number of traffic stops conducted during the same time period two years after the cameras were fully employed by first-line officers. Mentioned previously, studies on BWCs have only begun to increase in recent years, and there are very few studies specifically analyzing BWCs and traffic stops (Lawrence et al., 2020). Lum et al. (2019) published a study in February 2019 analyzing nearly 70 research studies pertaining to various BWCs matters. They found six of the studies focused on BWCs and officer proactive initiatives with indeterminate results, however, only two of the 70 studies specifically addressed traffic stops and BWCs. The first was conducted by Headley et al. (2017) and the second by Lawrence et al. Lum et al. concluded the authors of one study to claim there was "no significant impact of BWCs on the levels of traffic stops by officers" (p. 102). This is in contrast to what this researcher uncovered during this study.

The studies conducted by Headley et al. (2017) and Lawrence et al. (2020) analyzed 51 and 504 officers respectively. The study conducted by Headley et al. analyzed a variety of concerns and grouped traffic stops within the field contacts category which saw no significant

difference pre and post BWCs. The other categories included the number of arrests made, complaints, citations, assaults on officers, non-violent resistance, and use of force incidents. Although their consensus leaned favorably towards BWCs, this was in part to the totality of all areas researched. Again, traffic stops were grouped together with field contacts. Even though there was an increase in field contacts for officers who were equipped with BWCs the results were not significant, and the same held true for number of citations issued in the study by Headley et al.

The research conducted by Lawrence et al. (2020) did separate out traffic stops from other officer proactive initiatives. They found that traffic stops increased ever so slightly for both the treatment and control groups after BWCs were issued, but the increase was not significant. These authors utilized a randomized control study where one group was issued a camera while the control group was without a camera. They mentioned the results may have been somewhat skewed since some officers riding together were not both equipped with a camera, but they did not believe this to be significant.

Body-worn cameras were founded on the deterrence theory and this theory is also the foundation behind crime and punishment (Ariel et al., 2017). Deterrence theory rationalizes that if a particular action has a high propensity of producing an undesirable consequence, and that consequence has the likelihood of being promptly imposed, then rational individuals are likely to be disinclined to avoid the repercussions (Lee, 2017). Moreover, the feeling of fear has been hypothesized as a critical component of deterrence (Pickett et al., 2018). These authors explain that fear is an emotion people experience when visualizing danger which causes them to be reluctant or hesitant when considering an action. Additionally, they say fear causes anxiety because the individual recognizes there are consequences that could be incurred.

This current study analyzed 1,455 first-line patrol officers and found that traffic stops significantly decreased within two years after BWCs were issued. It is reasonable to believe these observed changes are, in part, a result of BWCs as the cameras could be deterring officers from initiating traffic stops due to fear. Deterrence theory has been used to explain why officers curtail proactive initiatives which is to shirk the adverse consequences that can accompany them (Demir et al., 2020).

Research shows that traffic stops enhance the safety of the public by reducing unsafe driving practices and other crimes (Fliss et al., 2020). Wallace et al. (2018) believes that public scrutiny has increased since BWCs and this has led officers to pull back in proactive initiatives such as traffic stops. This author further stated the former Director of the FBI, James Comey, agrees and has publicly stated that officers have reduced their proactivity to prevent being the next viral video. Furthermore, the video footage from the BWCs can be viewed by others including supervisors, the public, and the media making officers less enthusiastic to proactively make contact with citizens because it can result in discipline, demotion, public disgust, or injury (Lawrence et al., 2020; Shjarback et al., 2017; Wallace et al., 2018).

Research question two asked, “What is the difference in the number of self-initiated activities after BWCs were deployed?” The results showed the median number of self-initiated activities, by first-line patrol officers, increased shortly after BWCs were implemented, and the increase was found to be significant. However, there was a significant decrease in the number of self-initiated activities during the same time period two years (2019) after the cameras were fully employed. It would be reasonable to believe the same factors deterring officers in conducting traffic stops are the same when making voluntary contact with citizens. Lawrence et al. (2020) states their “results suggest that BWC-wearing officers may be less likely to engage in proactive

activities that are highly discretionary and that could potentially lead to confrontations with community members” (p. 481).

Moreover, BWCs were rolled out without much examination (Smith, 2019). The cameras have been found to have some unintended consequences. These adverse effects range from an increase in officers using force, an increase in assaults and ambushes on police officers, officer burnout, curtailed self-initiated activity, and in some cities, there has been an uptick in the violent crime rate and a decrease in arrests (Campbell et al., 2017; Lum et al., 2017; Wright & Headley, 2021). Although there is no hard evidence to suggest BWCs are solely responsible for these adverse events, many scholars believe the cameras contribute to it (Adams & Mastracci, 2019; Braga et al., 2020; Lum et al., 2019).

In 2013, 11,500 police agencies reported more than 49,800 assaults on police officers (U.S. Department of Justice Federal Bureau of Investigation, 2014). Most police agencies were not equipped with BWCs at this time. In 2019, 2,000 fewer agencies than in 2013, reported assaults that occurred on police officers to the FBI (Sierra-Arevalo & Nix, 2020; U.S. Department of Justice Federal Bureau of Investigation, 2020). Even though there was a significant drop in reporting agencies, the U.S. Department of Justice Federal Bureau of Investigation, reports the number of officers assaulted soared to more than 56,000 in 2019. There are numerous studies that suggest BWCs may be a contributing factor in the increase in assaults on police officers due to hesitation, fear of discipline, or because officers feel they lack discretion (Ariel et al., 2016; Campbell et al., 2017). Some early studies have suggested that police officers, who are equipped with a camera versus those who are not, are coming under fire more often and are being assaulted while attempting an arrest (Maguire et al., 2017; Moule, 2020).

This suggests that the social learning theory and self-awareness theory, two other theories used to frame this study, may be correlated to the officer's reduction in proactive initiatives.

Albert Bandura's social learning theory suggests that individuals learn by observing and imitating the behavior of others (Mayes, 2015). Mayes believes, these observers (the officers) determine if a particular behavior results in positive or negative consequences. Furthermore, he espouses positive consequences will often encourage or promote a particular behavior while negative consequences customarily desist or discourage an individual from engaging in the observed behavior. The widespread anti-police sentiment conveyed in the media and demonstrated by various groups such as Black Lives Matter, Campaign Zero, and other social justice groups place officers in fear of generating discipline that could negatively impact their employment or family life (Maguire et al., 2017).

Equally, self-awareness is a psychosocial occurrence that regulates an individual's behavior (Ariel et al., 2018). First evaluated by George Mead in the 1930's, a person becomes conscientious of their behavior when they are aware their behavior may not reflect social norms (Wicklund & Duval, 1971). Self-awareness theory operates in conjunction with the deterrence theory, in that should undesirable behavior be discovered, fear of consequences shall follow, thus reducing the undesirable behavior. The premise behind BWCs is to improve the behavior of police and citizens alike because one's self-awareness would be heightened knowing a camera is recording, thus deterring poor behavior from either party (Groff et al., 2020; Hughes et al., 2020). Therefore, for police officers, BWCs deliver that constraint on an amplified level in that not only is someone witnessing the performance and conduct, but that the scrutinizing entity will penalize those for wrongdoings (Berg et al., 2016; Hedberg et al., 2017).

The likelihood for intensified scrutiny by police administrators and the public may be causing first-line officers to withdraw from proactive initiatives such as traffic stops and other self-initiated activities (Groff et al., 2020). In other words, they say the officers will continue to answer calls for service, but they will drastically reduce the number of times they seek out interactions with citizens. These authors declare this newly adopted tactic of disengagement suggests that officers need to abate the risk of punishment, public examination, and their own injury or death, should they lack self-restraint in language or physical force situations.

A study conducted by Groff et al. (2020), confirmed the presumption that the cameras worn by officers elevate one's self-awareness, driving officers to pull back from proactive activities. As a result, BWCs may be triggering a heightened inspection of oneself that is so great that it creates an "over-deterrence" effect in police officers (Ariel et al., 2018). This surplus of deterrence can be a contributing factor for why some officers are more hesitant to carry out proactive initiatives. Ariel et al., also discovered this "over-deterrence" has resulted in officers being more cautious in using justified force, which in turn results in more assaults on the officers. Moreover, they suggest that instead of the officers using the necessary force to restrain combative individuals, some officers are discouraged to use any force, fearing potential discipline, as it may be construed as inappropriate. They believe this phenomenon illustrates a grim side of self-awareness that was unpredicted and has been under researched.

Research question three asked, "What is the relationship between traffic stops and the Part I crime rate before and after BWCs were deployed?" There is clearly a lack of research that analyzes the relationship between BWCs and crime rates (Wright & Headley, 2021). This question could not be tested with the acquired data. The total number of crimes provided for a specified timeframe for each corresponding year were constant and therefore, did not change. A

relationship between the number of traffic stops conducted and Part I crimes (crimes considered to be the most violent) before and after BWCs could not be determined. However, after analyzing the summary of Part I crimes from the agency this area services there was a 5.3% decrease in overall Part I crimes in 2017 (after BWCs) when compared to 2014 (before BWCs). Part I crimes did begin to increase slightly in 2019, with a mere 0.56% increase over 2017.

Research question four asked, “What is the relationship between self-initiated activities and the Part I crime rate before and after BWCs were deployed?” Again, this question could not be tested with the acquired data. A relationship between the number of self-initiated activities and Part I crimes before and after BWCs could not be determined. In 2015, the nation’s violent crime rate had dropped nearly 76% when compared to twenty years prior, however, in 2015, agencies were beginning to see a statistically significant increase in crime (Morgan & Ouderkerk, 2019). Likewise, they state that by 2018, there had been nearly 600,000 more people victimized in the U.S. than years prior to 2015. They say this equates to a 28% nationwide increase in violent victimizations in just three years. Pyrooz et al. (2016), states studies that investigate de-policing and crime have mixed results and de-policing, overall, is difficult to measure due to mixed methods and inconsistent analyses. However, they suggest that if guardianship is reduced (officers de-policing) this may trigger an increase in crime. Again, Part I crime rates dropped for the area in this study which goes against the nationwide spike in crime.

Nonetheless, stakeholders, politicians, and other observers are now coming forward after noticing the overall spike in crime, from coast-to-coast, and speculating the trend may coincide with an increase in de-policing (Rosenfeld & Wallman, 2019). They describe de-policing as officers pulling back from their duties, unwilling to proactively engage individuals out of fear of legal or disciplinary repercussions. They also say that stakeholders and politicians should

seriously examine de-policing as a reason why homicide rates in the U.S. escalated sharply in 2015, after declining uninterruptedly for more than twenty years. These authors state the “Ferguson Effect” has been blamed for this increase across the country. They espouse the media latched on to the phrase “Ferguson Effect” as a way of suggesting that police officers have separated themselves from proactive law enforcement out of fear of elevated legal liability or exposure to scrutiny on social or conventional media outlets. Moreover, they stated the media promoted this idea by suggesting that officers disengaging from proactive enforcement activities is a direct cause to the increase in crime. Maguire et al. (2017), contend that scholars are discovering that officers work in fear of discipline, in fear of losing their jobs or pensions, and in fear of being prosecuted or sued. Recall, Pickett et al. (2018) stated the feeling of fear has been hypothesized as a critical component of deterrence. Furthermore, it has been discovered that officers are hesitating to react or actively shying away from taking police action which is putting the officers at significant risk of harm (Ariel et al., 2018). Officials have attributed the nationwide spike in crime to emboldened criminals and media scrutiny of the police (Gonzales & Cochran, 2017).

Research question five asked, “What is the relationship between the number of officer proactive initiatives and their career progression?” The career-stage theory, which was first proposed by Donald Super in 1957, posits that work activity levels naturally decline throughout a person’s career which may support the explanation as to why some officers curtail their proactive initiatives as their career progresses over time (Bonkiewicz, 2017; Johnson & Lafrance, 2016). The career-stage theory hypothesizes that as officers progress through their career they may modify their activity level (avoiding proactive initiatives) to preserve their career (Shjarback et al., 2017). Johnson and Lafrance (2016), have stated little analysis have been conducted, in the

criminal justice field, to prove a correlation between an officer's behavior and their career progression.

This study showed a weak, but significant, negative relationship between the officer's career progression and their proactive initiatives. As the officer's career progressed over time their proactive initiatives decreased. This was consistent throughout the three aforementioned time periods. However, there was a dramatic decrease in officer proactivity in 2019, two years after BWCs were employed, therefore, even though the career-stage theory was supported, it appears the BWCs accelerated the officer's unwillingness to be proactive.

The phases of the career-stage theory are represented in 5-year increments with the first phase being the exploration phase where the individual is anxious in learning new processes and the basis that forms their career (Johnson & Lafrance, 2016). They state the second phase, the establishment phase, is about polishing skills and fortifying the individual's career. These scholars believe phase three is where the individual strives to hold on to their reputation, rank, and other achievements while the last phase shows that work interests and productivity levels severely decrease.

Implications

This quantitative study analyzed traffic stops and officer self-initiated activity before and after BWCs were issued to determine if initiatives decreased after the cameras were implemented. The study attempted to examine how the officer's proactive initiatives effected the crime rate. It was found that traffic stops began to decrease significantly after BWCs were deployed in early 2017, with traffic stops decreasing considerably by 2019 as presented in RQ1 Figure 5. Officer self-initiated activities also began to decline shortly after the BWCs were issued in 2017 as shown in RQ2 Figure 9. However, even though a relationship between BWCs

and the crime rate could not be established, select Part 1 crime rates decreased while others remained static after BWCs were implemented as shown in Figure 1.

This researcher is hopeful this study will assist law enforcement agencies in having a better understanding of the implications and effects that BWCs can have on their officers and their communities. Numerous studies have touted the positive contributions BWCs have been able to make regarding use of force incidents and citizen complaints. However, this newly adopted technology does have some negative drawbacks that should not be overlooked. Oliver (2017), believes the BWCs may reduce police-citizen relationships, breakdown trust with community members, lost revenue, and an increase in crime. Additionally, if officers are being assaulted more often due to their hesitation to use force (due to scrutiny) this may inhibit others from joining police departments. Police agencies need to find a balance that is beneficial to the community and the police officer.

Limitations

The first limitation of this study is the various activities that first-line patrol officers may deem as a self-initiated activity and how the activity is coded in CAD. In this agency, self-initiated activity is usually when an officer on-views something that they feel needs addressing (traffic hazard, suspicious person, business check) or they are flagged down by a citizen concerning an issue. The officer can have the dispatcher recode the call to reflect the corresponding offense. For example, if an officer is flagged down by a citizen, who just found their vehicle had been burglarized, the call is initially coded as a self-initiated call, but the officer (at their discretion) can have the dispatcher recode the call to a “burglary of a motor vehicle” once the officer determines what offense has occurred. This also holds true for traffic stops. An officer may initiate a traffic stop which pulls a distinct code in CAD, but depending on the

outcome of the traffic stop the call may be recoded to “driving while intoxicated” once the officer makes contact with the driver of the vehicle and makes the determination the driver is impaired.

The second limitation is the number of policy changes this agency has made to their camera policy. The agency made 11 changes to the policy on BWCs beginning in January 2017-June 2019. These changes were not minute and several policies were rewritten for clarification. This indecisiveness from leadership may cause officers to withdraw or pull back from proactive initiatives because they are unsure of the most current policy. Hot spot policing, traffic stops, and the stop-question-frisk tactic have proven to be hard-hitting approaches at addressing low-level crimes to avert more serious crimes (Schuck, 2020). Establishing a clear policy that is reasonable and clearly written may put officers at ease and therefore increase proactive policing, thus reduce violent crime.

This study assessed traffic stops and self-initiated activities using archived data from 1,455 first-line patrol officers from a large agency who services more than one million citizens in the Southern United States. Other studies that have analyzed similar data collected data over time as the BWCs were rolled out. Ariel et al. (2021) believes these types of studies are contaminated in that the officers knew the testing was being conducted and therefore altered their behavior for more favorable results. They say these officers “have already seen the gorilla” (p. 60). In other words, officers knew the intended outcome was to show more favorable actions, so they knowingly modified their behavior. The data used in this study was archived data. The officers, included in this study, were unaware this research would take place and therefore this researcher believes the data to be more genuine.

Recommendations for Future Research

The first recommendation for future research is to evaluate other agencies of equal size and demographics exclusively analyzing officer proactivity before and after BWCs. Traffic stops and specific self-initiated activities need to be examined and not lumped together with other police activities. Gathering data from the CAD that shows how the police-citizen interaction was initiated would be a better indicator of proactive initiatives. The second recommendation would be to conduct a qualitative analysis using the same sample of officers to explore the reasoning behind the decrease in officer proactivity. Exploring Albert Bandura's social learning theory and Mead's self-awareness theory may shed light on reasons why officers are pulling back. This could give leadership insight that would help facilitate officer training and formulating policy.

Conclusion

This study sought to discover if there was a reduction in officer proactive initiatives (traffic stops and self-initiative activities) after body-worn cameras were issued. Additionally, this study attempted to determine if there were correlations to officer proactive initiatives and the crime rate. Archived data for first-line patrol officers was collected prior to and after BWCs were implemented for a comparison. The analysis revealed that traffic stops declined after the BWCs were issued in 2017. However, traffic stops declined significantly in the two years following the deployment of BWCs, in 2019. Officer self-initiated activities increased slightly in 2017 after all first-line patrol officers were equipped with the BWCs, but decreased significantly in 2019, just two years following the issuance of the cameras. Due to the manner in which the overall Part I crime data was retrieved, it was undetermined if the BWCs had any effect on the crime rate. The overall Part I crime rate declined in 2017 with 776 less Part I crimes reported than in 2014. However, Part I crimes were starting to climb back up in 2019 with a slight increase. In 2019,

murder, rape, aggravated assaults, and robberies were down when compared with 2017 totals. The increase in 2019 was due to auto thefts and burglaries. Implications from this study should be of concern for police leaders and citizens as community safety should be at the forefront. This researcher hopes the results from this study will encourage police leaders to look carefully at their body-worn camera policies to ensure they are not deterring officers from carrying out their duties.

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