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Five Years of the Ferguson Effect: An Officer Perspective

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Abstract

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MA, American Military University, 2013

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Dissertation Submitted in Partial Fulfillment

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Abstract

De-policing or pulling back from proactive policing existed before the shooting death of Michael Brown by Officer Darren Wilson in Ferguson, Missouri, on August 9, 2014. Shortly after this incident, de-policing was blamed for alleged increasing national crime rates and this connection came to be called the "Ferguson Effect." Since then, most Ferguson Effect research has focused mainly on this connection, with little research into officer perceptions. This nonexperimental quantitative study examined officer perceptions of the Ferguson Effect 5 years after the incident and compared it with their views of government oversight of local law enforcement, legal liability, and officer safety. Based on prior research, the confounding influence of self-legitimacy and organizational justice perceptions were also examined. Further, this study collected and compared often-overlooked small agency officer data with large agencies. Using the theory of reasoned action as a theoretical framework, this study surveyed nonrank patrol-level officers at 53 agencies in a 14-county metropolitan statistical area of a large southeastern city in the United States. Pearson's *r* (zero-order correlation) analysis indicated that officers still have strong perceptions of the Ferguson Effect 5 years afterwards, and those views correlate with concerns over government oversight, legal liability, and officer safety. OLS regression analysis indicated a decreasing influence of self-legitimacy and organizational justice, and no difference between large and small agency officer perceptions. These findings have social change implications by suggesting officer perceptions of the Ferguson Effect have not diminished over time, while previous confounding factors have. As important policy decisions regarding police reform are being made, the police officer perspective on the Ferguson Effect and other issues is vital.

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Dedication

This dissertation is dedicated first and foremost to my amazing wife, Melissa. She has stood by me and supported me throughout this long doctoral journey. She has carried a heavy load and sacrificed much, as normal life has continued to be lived during this process. I also dedicate this dissertation to my children, the younger of which have never really known a time when dad was not in school. My family has motivated and inspired me so much along the way. Above all, much gratitude and praise are given to God for guidance, provision, wisdom, and the will to see things through this season of life.

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My most sincere expression of appreciation goes out to my Committee Members and URR, Dr. Tony Smith, Dr. Richard DeParis, and Dr. Scott Frampton. Special thanks to my Committee Chairperson, Dr. Tony Smith, who has been tireless in his encouragement and guidance throughout the dissertation process. I quite literally could not have done this without him. Thanks also to all the police officers and law enforcement agencies who took the time to participate in this research study and help give the officer perspective into important criminal justice issues. Finally, a special thanks to all the men and women of law enforcement and the military, who sacrifice daily so that the rest of us can live our lives in relative peace, comfort, and safety. You may not always feel appreciated and supported but know that you are.

Table of Contents

List of Tables

Chapter 1: Introduction to the Study

On August 9, 2014, an unarmed Black citizen, Michael Brown, was shot and killed by a White police officer, Darren Wilson, in Ferguson, Missouri. This incident gave birth to the phrase and theory called the "Ferguson Effect," which has since become a commonly used phrase to describe the act of de-policing on the part of law enforcement, fearing the consequences associated with being involved in a similar incident (Byers, 2014; Mac Donald, 2015a; Wolfe & Nix, 2016). According to the Ferguson Effect theory, the de-policing will ultimately lead to spikes in crime rates. A variation of the theory has police officers hesitating to use force over the same fears and subsequently becoming injured or killed as a result. The specific elements of the Ferguson Effect will be reviewed at length in Chapter 2.

Five years after the incident in Ferguson, the phrase "Ferguson Effect" is still used in news articles to make sense of crime spikes or to describe police pullbacks, regardless of the reason for the pullbacks. Researchers still study the various elements of the Ferguson Effect and their impact on crime and policing. They also remain interested in how police officers see the Ferguson Effect and how it impacts their behavior while at work.

This study examined police officers' perceptions of the Ferguson Effect at the 5-year mark following the incident in Ferguson. It also focused on a geographic area that included law enforcement agencies in urban environments and rural areas with department sizes ranging from two officers to over 1,000. This study added to the body of knowledge by measuring officer perceptions of the Ferguson Effect after the passing of 5

years and by exploring the perceptions of smaller agency officers, a limited area of study in previous research. This investigation is significant because it provided data on law enforcement officers' perspective, an important perspective to consider in the ongoing debates over such things as racial disparity in policing, police use-of-force, and de-policing.

Background to the Study

The first use of the phrase "Ferguson Effect" can be traced back to the former St. Louis Police Chief Sam Dotson's statements in the weeks following the shooting death of Michael Brown by Ferguson Police Officer Darren Wilson in August 2014 (Byers, 2014). The phrase was subsequently seized upon by Heather Mac Donald in an article for the *Wall Street Journal* and used to explain an alleged spike in crime rates in the weeks and months following the incident in Ferguson (Mac Donald, 2015a; Mac Donald, 2015b; Mac Donald, 2016).

According to the Ferguson Effect theory, police officers cease proactive policing because they fear the repercussions (e.g., media scrutiny, legal liability, or government oversight) of finding themselves in a situation like that of Officer Wilson (Wolfe & Nix, 2016). Pulling back from proactive policing, however, pre-dates the Ferguson Effect and has been previously termed "de-policing" by others (Blake & Lafond, 2017; Donohue, 2017; Rosenfeld, 2016; Wheeler & Kovandzic, 2017). Still, 5 years after the incident in Ferguson, the "Ferguson Effect" phrase is commonly used to describe de-policing.

Rosenfeld (2015b) conducted one of the first examinations into the connection between the alleged Ferguson Effect and rising crime rates by examining crime data from

St. Louis, Missouri, a close neighbor to Ferguson. His research found no evidence of a Ferguson Effect on crime rates. Pyrooz et al. (2016) expanded Rosenfeld's work to a larger geographic area, examining a possible link between the Ferguson Effect and crime rates in several large U.S. cities. They also found no significant connection between the Ferguson Effect and crime rates. Similarly, Morgan and Pally (2016) studied crime rates in Baltimore, Maryland, between March 2010 and December 2015. They considered possible changes in crime rates in the Baltimore area in relation to high-profile police-involved incidents, including the high-profile death of Freddie Gray in April 2015 while in the custody of Baltimore Police Department officers. The study also found no significant connection between the Ferguson Effect and violent crime rates in the Baltimore area. It did find some discrepancy, however, in the property crime rate, which the authors attributed to de-policing. In a study of New York City police data for 2014-2015, some evidence of de-policing was found but not a corresponding increase in crime rates (Capellan et al., 2020).

Higher crime rates are not the only alleged consequence of the Ferguson Effect examined by researchers. Not long after Ferguson, anecdotal news reports began to surface of police officers sustaining injuries because they were hesitating to use force against resisting subjects (Valencia, 2015). One Chicago Police Department officer was dubbed "the face of the Ferguson Effect" after being seriously injured because she refused to use force against an actively resisting subject out of fear over the repercussions (Kass, 2016, p. 1). This phenomenon came to be called "deadly hesitation," and some even began claiming that police were under attack (Fairburn, 2015, p. 1; Hosko, 2018).

Despite the anecdotal evidence, Maguire et al. (2016) found no significant correlation when exploring the link between the "Ferguson Effect" and the rate of police officers murdered in the line of duty. The same conclusion was reached by other researchers while examining long-term trends in police officer deaths in the line of duty during the years 1976-2016 (White et al., 2019).

Regardless of the scientific data on crime rates and officer deaths, police officers' perceptions concerning the Ferguson Effect and how those perceptions impact their behavior while on duty are essential to consider. Police officer survey research provides some of the first "evidence" of a Ferguson Effect. Wolfe and Nix (2016) examined how the Ferguson Effect impacts the police/community partnership, specifically exploring if officers are unwilling to proactively police out of fear of being labeled a racist, being in the news, or potentially being prosecuted for using force. Their study did find a Ferguson Effect as perceived by officers. However, it was rendered insignificant when they adjusted for officer perceptions of organizational justice and self-legitimacy, two concepts discussed in Chapter 2 of this dissertation. A comprehensive study into police views concerning the current state of policing was done on behalf of the Pew Research Center by Morin et al. (2017). The study found awareness of and a belief in a Ferguson Effect among many surveyed officers. The researchers also found a connection between police views on the difficulty of their job and their perceptions of policing as viewed through the Ferguson Effect filter. In other post-Ferguson police officer survey research, participants revealed a belief in the Ferguson Effect, a tendency to de-police out of fear of a Ferguson Effect, a belief in rising crime rates, a belief in negative media coverage of

the police, and a hesitancy to use force, especially if the subject was Black (Blake, 2016; Blake & Lafond, 2017; Deuchar et al., 2018; Jones & Board, 2020; Marier & Fridell, 2020; Morin et al., 2017; Nix & Pickett, 2017; Wyllie, 2017).

Officer perceptions of the Ferguson Effect are important to consider, especially as 5 years have passed since the shooting death of Michael Brown. Have officer perceptions of the Ferguson Effect changed in the past 5 years? Additionally, missing from most research is the inclusion of data on officers at smaller law enforcement agencies. As some researchers believe there are differences between "big-city" police officers and those in smaller towns and rural areas, it is important to consider smaller police agencies also (Leiderbach & Frank, 2003; Meagher, 1985; Weisheit et al., 1995).

Problem Statement

The Ferguson Effect hypothesizes that in the current environment of media scrutiny, government oversight, and legal liability, law enforcement officers are reluctant to engage in proactive policing measures, choosing instead to de-police by simply answering calls for service (Wolfe & Nix, 2016). According to the theory, this reduction in proactive policing should correspond with an increase in the crime rate. However, in addition to possible correlations between law enforcement activity and crime rates, there are other facets to the Ferguson Effect that are more personal to law enforcement officers. For instance, there is anecdotal evidence that this same reluctance to engage can be found in use-of-force situations, where officers are sustaining injury or even being killed because they are hesitating to use force out of fear of possible repercussions (Fairburn, 2015; Kass, 2016; Valencia, 2015). Recent research, however, did not find an increase in

officers murdered in 2015 over previous years (Maguire et al., 2016; White et al., 2019). The debate over policing includes many elements—race, excessive force, police training, and police transparency, to name a few. De-policing and police officer perceptions of the legal liability of using force, federal government oversight, and officer safety are additional elements in the conversation that are important to consider. Policy-driven solutions in a post-Ferguson world are needed. Still, first, we must gain a better understanding of the correlations, if any, between police officers' awareness of the Ferguson Effect and their perceptions of potential legal liability, federal government oversight of local law enforcement agencies, and personal safety while on duty. For this study, the term *proactive policing* represents high visibility patrol activities coupled with community engagement aimed toward crime prevention (Ankony & Kelley, 1999). On the other hand, *de-policing* represents a move away from proactive policing measures.

Purpose

The purpose of this quantitative study was to examine the correlations between police officer awareness of the Ferguson Effect and their perceptions of legal liability, federal government oversight, and officer safety 5 years following the shooting death of Michael Brown by Officer Darren Wilson in Ferguson, Missouri. Specifically, the perceptions of patrol-level police officers from a 14-county Metropolitan statistical area (MSA) in a southeastern state comprised of 53 law enforcement agencies were explored.

As prior research primarily included only law enforcement agencies comprised of 100 or more officers, data on smaller law enforcement agencies of less than 100 officers were collected for comparative purposes. This is significant because previous researchers

have noted differences in crime trends between larger, more urban areas and smaller, more rural areas (Leiderbach & Frank, 2003; Weisheit et al., 1995). Further, the community demographics and style of policing may be different between the two. It is important to understand whether there is a difference in the Ferguson Effect impact on urban law enforcement agencies versus more rural agencies to avoid one-size-fits-all policies that do not address community and policing style differences. For instance, in a study of police officer daily tasks covering agencies of different sizes, Meagher (1985) found that smaller agencies were generally more concerned with crime prevention, whereas larger agencies focused on enforcing laws through criminal arrest. From the perspective of community members, Flanagan (1985) found that citizens in areas with larger law enforcement agencies preferred that the police limit their function to enforcing laws, while citizens in areas with smaller agencies generally wanted the police to perform a wide array of functions in addition to enforcing laws. Such differences are important to explore and include when discussing possible policy changes.

The data obtained through this study will potentially help inform policymakers on the police officer perspective in the ongoing conversations over police process and police behavior. This perspective is important to consider when seeking changes to police policies and procedures. Uncovering and including in the conversation any differences that may exist between larger and smaller agencies will assist policymakers with shaping policy to reflect local perceptions and needs.

Research Questions and Hypotheses

This research study focused on police officer perceptions of the Ferguson Effect and how those perceptions might correlate with their perceptions of government oversight, potential legal liability, and officer safety. Differences between the perceptions of smaller agency police officers and larger agency police officers were also explored. As such, the following research questions guided this study.

RQ1: Five years after Ferguson, do police officers perceive federal government oversight of local law enforcement agencies negatively?

$H_0$1: Five years after Ferguson, police officers do not perceive federal government oversight of local law enforcement agencies negatively.

$H_1$1: Five years after Ferguson, police officers perceive federal government oversight of local law enforcement agencies negatively.

RQ2: Five years after Ferguson, are police officers concerned about potential legal liability over use-of-force incidents?

$H_0$2: Five years after Ferguson, police officers are not concerned about potential legal liability over use-of-force incidents.

$H_1$2: Five years after Ferguson, police officers are concerned about potential legal liability over use-of-force incidents.

RQ3: Five years after Ferguson, are police officers concerned about their safety while on duty?

$H_0$3: Five years after Ferguson, police officers are not concerned about their safety while on duty.

$H_1$3: Five years after Ferguson, police officers are concerned about their safety while on duty.

Theoretical Framework

The theoretical framework for this study was the theory of reasoned action (TRA). First conceived in 1969 by Martin Fishbein and Icek Ajzen and later introduced in their 1975 work on attitude and behavior, TRA is a "cognitive model of the decision to engage in a behavior" (Fishbein & Ajzen, 1975; Gillmore et al., 2002, p. 885). Generally, TRA "rests on the assumption that the decision to engage in a behavior is based on the outcomes that the individual expects to accrue from the behavior" (Gillmore et al., 2002, p. 886). The Ferguson Effect concept is rooted in the idea that police officers change their behavior because of perceived consequences associated with proactive policing. In other words, if proactive policing increases citizen contact and thus the possibility of use of force situations or claims of racism, then simply answering calls for service (de-policing) will reduce those contacts and thus the chance of the perceived consequences associated with them. The Ferguson Effect concept explains any statistical rise in criminal activity in a geographical area by pointing to de-policing as a significant causal factor. The TRA helped provide a guide to this study for examining any changes in police officer behavior resulting from their perceptions of how the Ferguson Effect has impacted their job and the way they do their job 5 years after the Ferguson incident.

Nature of the Study

This quantitative study employed a cross-sectional design with a nonrandom sampling survey method to examine associations between awareness of the Ferguson

Effect and police officer perceptions of government oversight, legal liability, and officer safety at the 5-year mark since the police-involved shooting of Michael Brown in Ferguson, Missouri, in August 2014. Officer awareness of the Ferguson Effect as the independent variable was examined in relation to their perceptions of federal government oversight of local law enforcement agencies, concerns over potential legal liability, and concerns over personal safety while on duty as the dependent variables. Each dependent variable was examined individually with the independent variable through bivariate analysis. Based on previous research, I expected to find a positive correlation between an officer's perception of the Ferguson Effect and their perceptions of government oversight, legal liability, and officer safety. As outlined in Chapter 4 and Chapter 5 of this dissertation, this was generally the case.

Previous research into police officer perceptions of the Ferguson Effect by Wolfe and Nix (2016) found two variables that can potentially impact awareness of the Ferguson Effect. These variables are officer perceptions of organizational justice and self-legitimacy. For the present study, these two variables were included as possible intervening variables. Additional multivariate analysis was conducted examining their association to each of the dependent variables as related to the independent variable. Findings were mixed, but a similar impact was not generally observed. Additional multivariate analysis was conducted using several control variables, including age, race, gender, education level, agency size, jurisdiction size, department type, years of experience, rank, and duty assignment.

In the present study, I examined a 14-county MSA in a southern state consisting of 53 law enforcement agencies ranging in size from two officers to over 1,000. As previous research into the Ferguson Effect has focused on larger law enforcement agencies, differences in perceptions between smaller and larger agency police officers were also examined. Further, previous research has often included officers who primarily function in administrative or leadership roles within their agencies and do not have routine contact with citizens. This study focused on street-level patrol officers only.

Definitions of Terms

Certified: For purposes of this dissertation, the term *certified* was used to represent officers who have been certified as law enforcement officers by the state in which they work in accordance with the standards and requirements of that state.

De-policing: "Disengaging from active police work as a reaction to a negative experience" (Oliver, 2015, p. 4).

Ferguson Effect: The idea that "officers are conscious of the negative publicity surrounding their profession, understand that their actions could be recorded by the public at any given time, and become less willing to do their job as a way to avoid being accused of racial profiling or excessive force. In turn, this de-policing leads to increases in crime" (Wolfe & Nix, 2016, p. 1).

Larger agency: For this dissertation's purposes, the term *larger agency* represented law enforcement agencies of 100 or more police officers.

Patrol-level: For this dissertation's purposes, the term *patrol-level* included officers who routinely patrol the streets and engage with citizens on a proactive basis or resulting from a call for service.

Police officer/officer: For this dissertation's purposes, the term *police officer* or *officer* represents both city police officers and county sheriff deputies.

Proactive policing: "The predisposition of police officers to be actively committed to crime prevention, community problem solving and a more open, dynamic quality-oriented law enforcement partnership" (Ankony & Kelley, 1999, p. 121).

Smaller agency: For this dissertation's purposes, the term *smaller agency* represented law enforcement agencies of less than 100 police officers.

Assumptions

As this research study was an examination of police officers' perceptions and behaviors, it relied on the veracity of research participant responses to survey questions. As noted in Chapter 2 of this dissertation, sometimes there are differences between what people do and what they say they do (Chanin & Sheats, 2017; Shjarback et al., 2017). This study relied on truthful answers from the research participants to the best of their knowledge, with the additional assumption that police officers' perceptions as revealed by those answers are consistent with their behavior. The focus was on patrol-level police officers' perceptions, so truthful answers were essential to help sift out participants that did not meet that criteria.

Scope and Delimitations

This study collected data from a specific region in a southeastern state. As such, the data collected was specific to that area only and had limitations on generalizability to other areas of the country. Additionally, by focusing on patrol-level police officers only and excluding rank-level officers, investigators, school resource officers, and administrative officers, the data collected are only representative of patrol-level officers' perceptions. In order to focus on patrol-level officers who routinely interact with the general public, college campus police officers were excluded, even though there are several colleges and universities with police departments within the geographic area under study. There is also a state law enforcement agency that operates within the study area, which was excluded. This research was an investigation of officers who routinely operate within the geographic area under study. The state agency has operations outside this area, and agency personnel change geographic locations within the state routinely. Finally, the selected theoretical framework, TRA, would seem to presume that the decision to engage in a behavior is thoughtful and reasoned. This study, in part, focused on officer perceptions of the Ferguson Effect and how those perceptions impact their decisions to engage in de-policing. As indicated by the officers and viewed through the TRA, those decisions were presumed to be thoughtful and reasoned.

Limitations

There were several possible limiting factors with this research. Officer participation was one possible limitation. As outlined in Chapter 5 of this study, there was adequate participation for statistical analysis based on sample power calculations.

The study focused on an area comprised of over 50 law enforcement agencies ranging in size from two officers to over 1,000. One focus area was on smaller agencies, but there were no guarantees that smaller agency officers would participate. As presented in Chapter 4, adequate participation of smaller agency officers was obtained for statistical analysis purposes, even though future research might benefit from increased participation. One agency in the study area is large and has participated in numerous research studies in the past. Their refusal to participate could have been a limiting factor but based on the agency size data collected, officers from this agency did participate in the study.

This study focused on police officer perceptions of the Ferguson Effect 5 years after the Ferguson shooting. The entire area of study, however, was not specifically researched at any other time since Ferguson. As such, a lack of comparative data for the specific research population against which to compare the data from this study could be a limiting factor.

Finally, personal bias on my part may be a limiting factor. I am a 12-year police veteran with personal and professional opinions on the Ferguson Effect. I also formerly worked as a police officer for 8 years at one of the law enforcement agencies within the area of study and still know officers at that agency. The purpose of this research study was to gather objective data, which can add to the conversation on the Ferguson Effect and help inform stakeholders of the police officer perspective when considering policy and procedure changes for law enforcement. As such, any personal or professional opinions on my part have no place in this research and were held in check in pursuit of

objective, unbiased data. Additionally, my name and status as a veteran police officer and former employee of one of the law enforcement agencies under study did not appear in any correspondence with the agencies under study or in the survey instrument.

Significance of the Study

The debate over police use of force is not new, but since the officer-involved shooting of Michael Brown in Ferguson, Missouri in 2014, it has become more visible. Since the Ferguson incident, the federal government commissioned a panel to explore police/community relations, activist movements such as Black Lives Matter were formed, and a permanent memorial to Michael Brown was erected in Ferguson, Missouri. For some, the debate has crossed paths with other disputes on issues ranging from racial disparity to gun control. The media also seems to have taken note of public interest in officer-involved shootings, with near 24-hour coverage of many shooting incidents involving Black suspects and White police officers. Additionally, the federal government has taken an interest in these incidents, including civil rights investigations, which can end in consent decrees between the federal government and local law enforcement agencies.

Amid other high-profile events following the Ferguson incident, there have been calls for new policies regulating the police and additional police training, but one perspective that appears to be lacking in this debate is police officers themselves. To that end, Morin et al. (2017) conducted a comprehensive study into police officer attitudes toward policing. While their work was indeed comprehensive, it focused primarily on larger law enforcement agencies. According to Leiderbach and Frank (2003),

approximately 75% of law enforcement agencies in the United States serve communities of less than 10,000 people. These departments also employ roughly 14% of law enforcement officers in the United States (Leiderbach & Frank, 2003). Previous research has noted differences between urban (typically larger areas served by larger police agencies) policing and rural policing (Weisheit et al., 1995). As such, it is important to measure and understand any differences between larger agencies and smaller agencies. Further, Morin et al.'s (2017) work ranges across geographic boundaries within the United States but does not consider geographic differences. For instance, with the relaxation of marijuana laws in places like Colorado and Michigan, is it possible that there have been changes in policing there as compared to a "Bible Belt" state like Alabama? Measuring any differences in officer perceptions of the Ferguson Effect impact as it relates to geographic location would be an additional factor to help better understand the issue.

Drafting policy, changing procedures, and adopting new training can be dangerous if all facets of the issue are not explored first. The current study was intended to explore the perceptions of law enforcement officers and how they perceive the Ferguson Effect impacts the way they do their job, focusing on one geographic area and devoting special attention to smaller agencies as compared to larger agencies. Additionally, as it has been 5 years since the Ferguson incident, this study examined differences between police perceptions as previously studied and now. This research has the potential to help foster conversations that will allow policymakers to enact policy and make changes that make sense, addressing the concerns of all stakeholders. This

investigation will help bring about social change in that it can help make certain that all stakeholders' voices are heard before policies are changed or enacted.

Summary

Spikes in the crime rate are important to consider, especially when it comes to homicide. Important, also, is the number of police officers injured or killed each year at the hands of a resisting subject. But viewed through the Ferguson Effect theory lens, neither of these things can happen without police officers de-policing or hesitating to use force. In other words, there is no Ferguson Effect without police officers deciding to do or not do something. According to the TRA, those decisions will be made because police officers anticipate the consequences of proactive policing and using force. If the consequences and the Ferguson Effect are a matter of officer perception, one could argue then that the foundation of the Ferguson Effect is less about crime rates and injury than about police officer perceptions.

Although some researchers have explored police officer perceptions of the Ferguson Effect, little attention has been paid to smaller law enforcement agencies. Additionally, 5 years have passed since the incident that gave rise to the Ferguson Effect. This study attempted to confirm and extend previous research on police officer perceptions of the Ferguson Effect focusing on a specific geographic area in a southeastern state. Also, an examination of officer perceptions at smaller agencies and larger agencies added to the body of knowledge by measuring differences between the two.

Chapter 2 of this dissertation examines the relevant literature on the Ferguson Effect and how officer perceptions of the Ferguson Effect impact their behavior. Chapter 3 outlines the methodology for the present study and the procedures utilized to analyze data. Chapter 4 is a detailed description of the postanalysis results of the research study, and Chapter 5 is a discussion of the conclusions and recommendations for future research.

Chapter 2: Literature Review

The purpose of this dissertation was to examine police officer perceptions of the Ferguson Effect 5 years following the police-involved shooting death of Michael Brown in Ferguson, Missouri, on August 9, 2014. The literature demonstrated that although the "Ferguson Effect" title was born in the aftermath of the Michael Brown shooting, the concepts that comprise the Ferguson Effect existed prior to that incident. A review of available literature concerning these concepts and their connection to the Ferguson Effect follows.

After an exhaustive review of the literature, it is clear that there is no single, generally accepted definition of the Ferguson Effect. This appeared to be in part because of the complex, multifaceted nature of the Ferguson Effect concept itself. For instance, some news writers and researchers focused on the impact the Ferguson Effect had on crime rates, while others focused instead on its impact on the safety of police officers (Capellan et al., 2020; Fagan & Richman, 2017; Giordano, 2016; Morgan & Pally, 2016; Pyrooz et al., 2016; Rosenfeld, 2015a; Rosenfeld, 2015b; Rosenfeld, 2016; Valencia, 2015; Wang & Phillips, 2018). Some focused on how the media reports officer-involved shootings, while others focused on the role of federal government oversight following investigations into local law enforcement agencies (Hosko, 2018; Long, 2019; Walker, 2017). Some even considered differences in reactions to police-involved shootings and the Ferguson Effect in general, related to the political affiliations of research survey respondents (Torres-Cortez, 2016; Walker, 2017).

For purposes of this dissertation, the working definition for the Ferguson Effect was the idea that "officers are conscious of the negative publicity surrounding their profession, understand that their actions could be recorded by the public at any given time, and become less willing to do their job as a way to avoid being accused of racial profiling or excessive force. In turn, this de-policing leads to increases in crime" (Wolfe & Nix, 2016, p. 1). The literature review demonstrated that, while elements such as negative publicity, de-policing, and crime rates make up the core of what is commonly meant by the phrase "Ferguson Effect," there are other reported and researched elements as well. This dissertation focused on the Ferguson Effect and its impact as perceived by police officers. Before examining police officer perceptions of the Ferguson Effect, however, a review of the most common component parts of the Ferguson Effect and a review of relevant prior Ferguson Effect research is necessary.

Literature Search Strategy

During the literature review process, I located relevant sources in various venues, including books, newspaper articles, published reports, academic journals, magazine articles, published dissertations, and case law briefs. Each of these sources was located online through the Google Scholar (https://scholar.google.com/) search engine and through Walden University library databases, consisting of Academic Search Complete, Bureau of Justice Statistics, Criminal Justice Database, Dissertations & Theses @ Walden University, Homeland Security Digital Library, Nexis Uni, Oxford Criminology Bibliographies, ProQuest Central, ProQuest Dissertations & Theses Global, SAGE Journals, and Thoreau Multi-Database Search. The search terms used were *Ferguson*

Effect, Michael Brown, de-policing, depolicing, Ferguson, organizational justice, self-legitimacy, viral video effect, YouTube effect, use-of-force, officer safety, deadly hesitation, pattern & practice, crime rates, legal liability, government oversight, Darren Wilson, TRA, and *theory of reasoned action.*

As the phrase "Ferguson Effect" was first used in the aftermath of the incident in Ferguson, Missouri, in August of 2014, the most relevant literature for this study was produced after that time. In discussing concepts like de-policing, exploring historical crime rates, and outlining the TRA's theoretical framework, relevant literature was located and utilized that pre-dated the Ferguson incident.

Crime Trends

An important component of the Ferguson Effect concept is its alleged impact on crime rates. Before examining the relevant literature on an alleged Ferguson Effect impact, however, a pause to consider post-Ferguson crime rates is warranted.

For comparative purposes, an examination of crime trends since 1990 would be helpful. Each year the Brennan Center for Justice examines crime trend data as provided by the Federal Bureau of Investigation (FBI) and as obtained directly from police departments in the thirty largest cities in the United States. Their analysis of crime trends between the years 1990 and 2016 indicated that crime rates have recently been at or near historic lows (Friedman et al., 2017). They noted a 63.6% decline in crime rates since a peak in 1991.

In the year following the police-involved shooting of Michael Brown in Ferguson, Missouri, crime appeared to remain virtually unchanged. Specific 2015 data, as analyzed

by the Brennan Center for Justice, indicated an actual 0.1% drop in the overall crime rate as compared to 2014 (Grawert & Cullen, 2016). Violent crime did see a 3.1% increase over 2014, but nearly 60% of this increase was reported by the cities of Los Angeles, California; Baltimore, Maryland; and Charlotte, North Carolina. The murder rate rose by 13.2% over the previous year, but more than half of that increase was isolated to the cities of Baltimore, Maryland; Chicago, Illinois; and Washington, DC.

According to Grawert and Cullen (2017), this trend continued into 2016, with only a 0.9% increase in the overall crime rate over the previous year. The rate of violent crime did see an increase of 4.2% over the previous year, but over 35% of that increase came from Chicago, Illinois, and Baltimore, Maryland. Similarly, Chicago accounted for over 55% of a sharp 13.1% increase in the murder rate over the previous year.

Grawert et al. (2018) reported a drop of 2.1% in the overall crime rate for the year 2017 as compared to 2016. Unlike the previous two years, the violent crime rate fell by 1%, and the murder rate fell by 3.4% in 2017 as compared to 2016. The drop in the murder rate for 2017 was in part due to a 12.3% decline in the murder rate in Chicago, Illinois, even while cities like Philadelphia, Pennsylvania, and Baltimore, Maryland still saw slight increases over the previous year. According to the authors, the 12.3% murder rate decline for 2017 is even more pronounced considering that Las Vegas, Nevada saw a 23.5% rise in murder rate due to the mass shooting at the Mandalay Bay Hotel on October 1, 2017. Brennan Center for Justice data for 2018 shows a 3.5% drop in the overall crime rate, a 4.0% drop in the violent crime rate, and an 8% drop in the murder rate as compared to 2017 (Grawert & Kimble, 2019). Additionally, a preliminary look at

the 2019 crime data continued to show an overall decline in the crime rate in several key cities, with only a few isolated hot spots (Grawert & Kimble, 2020).

These data would indicate that there was not a sharp increase in the overall crime rate since the police-involved shooting death of Michael Brown in Ferguson, Missouri, in August of 2014. While there were increases in rates of violent crime and murder in the years following the incident in Ferguson, these appeared to be isolated to a handful of large cities. Further, these increases became decreases in 2017, and that trend continued into 2018 and even 2019 (Grawert et al., 2018; Grawert & Kimble, 2019; Grawert & Kimble, 2020). Even with the increases in violent crime and the sharp increases in murder in both 2015 and 2016, these rates were still near the bottom of a 30-year downtrend (Grawert et al., 2018). This is not, however, the end of the crime trend discussion.

Crime Trend Perspectives

A quick glance at the murder rate for the city of Las Vegas, Nevada, in 2017 versus 2016 would show a 23.5% increase, but as demonstrated by Grawert et al. (2018), this sharp increase was almost entirely due to the mass shooting at the Mandalay Bay Hotel in October of 2017. Still, if one simply looked at that year-by-year comparison, it appears that murder in Las Vegas, Nevada was out of control. The point is that single incidents, or a small handful of cities, can sometimes skew the numbers on their own. Additionally, while the year-by-year data may tell one story, a long-term view may tell a different story.

Friedman et al. (2017) found, in their analysis of crime between the years 1990 and 2016, that the overall crime rate for the United States of America was at, or near, the bottom of a long-term downward trend. Further, while there had been spikes in violent crime and especially in murder for the years 2015 and 2016, these spikes were mostly isolated to a few areas of the country, and they had all but reversed by the year 2017 (Grawert & Cullen, 2016; Grawert & Cullen, 2017; Grawert & Kimble, 2019). These data showed isolated increases that some used to support the Ferguson Effect argument, but the Ferguson Effect was not the only explanation offered for the spikes.

Grawert and Cullen (2016) found that the national murder rate for 2015 rose by 13.2% over 2014 and that over half of that increase came from the cities of Baltimore, Maryland; Chicago, Illinois; and Washington, DC. In a look at the murder data for the 56 largest cities in the United States for the year 2015, Rosenfeld (2016) also found a rise in the murder rate. In his sample, which represented 92% of all national murders, he found a 16.8% increase nationally in the murder rate. Similar to the findings of Grawert and Cullen, Rosenfeld found that this increase was produced by about two-thirds of the cities in his 56-city sample. Some researchers investigating the increase in the murder rate concluded that police officers were de-policing (the Ferguson Effect), and this was the direct cause of the crime increase (Cheng & Long, 2018). Rosenfeld was not, however, convinced that this rise was a result of any Ferguson Effect and offered some alternate explanations.

One explanation offered by Rosenfeld (2016) was that the increase in the murder rate was connected to the increased use and abuse of opioid drugs. Fagan and Richman

(2017) echoed this sentiment and offered the historical perspective that a similar increase in the murder rate in the United States was seen in the late 1980s, during the so-called "crack epidemic" era. In addition to a possible rise in murders at the hands of opioid users, some have offered that gang-related murders connected to the illicit opioid market itself could have accounted for the rise in murder rate (Donohue, 2017; Fagan & Richman, 2017; James, 2015; Rosenfeld, 2016). In a 2015 survey of 35 major cities by the Major Cities Chiefs Association, over half of the cities surveyed indicated that they had seen a rise in gang-related violence (James, 2015).

Another possible explanatory factor was a reduction in the prison population in the United States since 2009 (Donohue, 2017; James, 2015; Rosenfeld, 2016). In other words, there might be a correlation between convicted criminals being released from prison and an increase in the murder rate. Sharp crime increases in the 1960s and 1970s resulted in increased rates of incarceration in the 1980s. Some would argue this caused the sustained downward trend in violent crime and murder seen in the United States since the 1990s (Donohue, 2017; James, 2015; Rosenfeld, 2016). According to Rosenfeld (2016), the number of state and federal prisoners has begun to decline dramatically since a peak in 2009. The state and federal prison population for the year 2014 was roughly 60,000 inmates less than the number for 2009. Donohue (2017) counted 2007 as a peak year for the number of state and federal prisoners, citing an 8.6% drop in the prison population in the nearly 10 years since that peak. Donohue (2017) went on to state that "one could easily get an upward bump of 1.5% in the homicide rate from prison-population decreases of this magnitude" (p. 9).

Short-term crime trends can also be impacted by commonly cited causal factors, such as poverty, availability of jobs, and educational opportunities (Donohue, 2017). All these possible influencing factors taken together demonstrate that there are no simple solutions to the complexities of crime rates. Further, when viewed from a historical perspective, the current trends may not be out of the norm at all (Wheeler & Kovandzic, 2017). Even taking the sharp increases in the murder rate in a few cities, such as Chicago, Illinois, and Baltimore, Maryland, "generating prediction intervals using a random effects binomial regression model will also show that recent increases in those cities are not atypical given historical homicide rates over time" (Wheeler & Kovandzic, 2017, p. 2). In other words, not only can it be argued that there is no long-term upward trend in violent crime and murder, but there also may not even be a demonstrable short-term trend.

Still, an increase in the number of murdered people from one year to the next is worth considering and addressing. So too is an increase in violent crime and even property crime. Additionally, people in the United States live in communities and not simply in the United States as a whole. In other words, a downward national trend in crime or certain types of crime means little to someone living in a community that is experiencing a spike in crime. For this reason and others, it is important to consider possible root causes of crime fluctuations, including a possible Ferguson Effect.

The Ferguson Effect

In considering the possible causes for rising crime rates, it is important to first establish that crime rates are indeed rising. A review of the literature, however, demonstrates that there is no consensus that this is the case. Some argue that crime rates

must be viewed through the lens of long-term crime trends, so a so-called "spike" in a single category of crime or even in an overall crime rate might not actually mean anything. Additionally, some argue that national crime rate spikes can be skewed by a spike in one or a handful of large cities, which are often then explained by changes in localized policies (e.g., reducing or eliminating a stop-and-frisk program) or by a single incident (e.g., mass shooting). Still, 5 years after the incident in Ferguson, Missouri, the Ferguson Effect continues to be invoked as a cause for crime rate spikes. This section will examine the literature on the Ferguson Effect and its component parts.

Presenting the Ferguson Effect

The first mention of the phrase "Ferguson Effect" is credited to the former Chief of Police in St. Louis, Missouri, Sam Dotson (Byers, 2014). A few months after the police-involved shooting of Michael Brown in nearby Ferguson, Missouri, Dotson was being asked by a news reporter about crime in the area, riots that broke out after the shooting, and the response of law enforcement. Dotson stated that "It's the Ferguson Effect. I see it not only on the law enforcement side, but the criminal element is feeling empowered by the environment" (Byers, 2014, p. 1). Dotson and St. Louis County Police Chief Jon Belmar both indicated that violent crime was up in the St. Louis area and that officers were experiencing fatigue and stress after spending weeks dealing with protests and riots. What is not clear, however, is if Dotson was simply agreeing that there were post-Ferguson issues in the area, which were a by-product of the incident in Ferguson, or if he was deliberately giving birth to the Ferguson Effect theory itself. Regardless of the answer to that question, the Ferguson Effect was born.

The Ferguson Effect was driven into the mainstream criminal justice discussion with a May 2015 article in the *Wall Street Journal* by Heather Mac Donald. Mac Donald (2015a), a fellow at the Manhattan Institute for Research Policy, pointed to a surge in criminal activity in the months following the incident in Ferguson. She held that this surge corresponded directly with a reduction in proactive policing activity by law enforcement officers due to public scrutiny of their activities and accusations of racism.

Mac Donald (2015b) continued discussing the Ferguson Effect theory in another article in the *Wall Street Journal* in late 2015, where she argued that viewing the surge in the murder rate over a long period of time discounted the significance of the 2015 spike. She referred to this as a "strategy for brushing off the homicide surge" (Mac Donald, 2015b, p. 1). Finally, she argued in a December 2016 piece in *City Journal* that the upward trend in murder rate had continued (Mac Donald, 2016). In this article, Mac Donald took issue with the murder rate data generated for 2015 by Grawert and Cullen (2016) for the Brennan Center for Justice, arguing that they explained away the spike with explanations such as poverty-stricken communities and the availability of firearms. Mac Donald further addressed claims by Rosenfeld (2016) that any spike in the murder rate was due to a police legitimacy problem and that there was no evidence for a Ferguson Effect.

Over time, as will be outlined in the following pages, the Ferguson Effect came to be defined by more than the relationship between crime trends and police officer activity. Through both news stories and scientific research, concepts such as officer safety, police legitimacy, and organizational justice found their way into the discussion. Also, it

became clearer that the Ferguson Effect was closely related to the pre-Ferguson concept of de-policing.

Ferguson in the News

Not long after Heather Mac Donald began using the Ferguson Effect phrase to explain crime trends and their relation to alleged de-policing by law enforcement officers, others began to enter the Ferguson Effect conversation (Mac Donald, 2015a). While giving a November 2015 speech at the University of Chicago Law School, then FBI Director James Comey acknowledged the possible presence of a Ferguson Effect on crime, "linked to what he called a 'chill wind' police are facing in the wake of Ferguson" (Perez et al., 2015, p. 2). Comey mentioned what he called a "YouTube Effect" and how police officers were disengaging from proactive policing activities to minimize the chances of becoming the next victim of the Ferguson Effect (Perez et al., 2015, p. 2). Comey's boss at the Department of Justice [DOJ], Attorney General Lorretta Lynch, reached a different conclusion that same month, testifying before Congress that "there was 'no data' to support the so-called "Ferguson Effect'" (White, 2015, p. 1). Lynch agreed that there was possible anecdotal evidence of a Ferguson Effect but that the focus should instead be on civil rights, appropriate use of force, and police tactics. Of note is that Lynch was testifying at the time before the Congressional House Judiciary Committee about "the theory that the increased scrutiny of police department practices after high-profile killings has led to an increase in crime" (White, 2015, p. 1). This was something that sounds very similar to the Ferguson Effect theory.

Former New York Police Department (NYPD) Commissioner Ray Kelly also weighed in on the Ferguson Effect debate in November of 2015, stating that he believed police officers were disengaging due to the Ferguson Effect and that crime would rise as a result (Sanburn, 2015). Kelly argued that a reduction in traffic/citizen stops by law enforcement officers would cause crime to go up. This sentiment was later used to explain the rise of violent crime in Chicago, Illinois (Cassell & Fowles, 2018; Fagan & Richman, 2017). Ironically, New York City did not experience a rise in crime following the reduction of traffic/citizen stops there as the result of a successful lawsuit filed against the NYPD over their "stop and frisk" policy (Cassell & Fowles, 2018; Fagan & Richman, 2017; Sanburn, 2015; Wheeler & Kovandzic, 2017).

Another take on the Ferguson Effect was provided in 2016 by former Los Angeles Police Department (LAPD) Chief Charlie Beck. In a *Los Angeles Times* op-ed, Beck admitted that his officers were experiencing a Ferguson Effect but insisted that it had nothing to do with a decrease in their activity (Beck, 2016). Instead, Beck (2016) highlighted what he termed "the real Ferguson Effect," which is the issue of police legitimacy as experienced by both police officers and citizens (p. 2).

President Barack Obama entered the Ferguson Effect debate in October of 2015 by warning police officers against "cherry-picking" crime data to attempt to prove the Ferguson Effect and justify pulling back on enforcement activity (McCarthy, 2015, p. 1). Obama's comments were contemporaneous with the disputed comments concerning the Ferguson Effect made by his FBI Director James Comey and his Attorney General Loretta Lynch. Shortly after Obama made these comments, FBI Director James Comey

clarified his statements to say that he only knew of anecdotal stories of a Ferguson Effect and had no hard evidence. Some viewed Obama's comments as disparaging to the police, possibly prompting Las Vegas Metropolitan Police Department (LVMPD) Chief Joe Lombardo to question if the newly elected President-Elect Donald Trump might bring a different view to the Ferguson Effect debate in such a way that "expresses support and trust for the police" (Torres-Cortez, 2016, p. 1). Lombardo went on to argue that a DOJ move away from the scrutiny of local police departments might impact police officers' willingness to engage in proactive policing activities.

The Ferguson Effect, however, is not isolated to Ferguson, Missouri, or to larger metropolitan cities. Even cities where no Ferguson-type incident has taken place can feel the effects (Johnson, 2015). The Chief of Police for Providence, Rhode Island, Hugh Clements, acknowledged that officers at his department far away from Ferguson, Missouri were experiencing stress and uncertainty associated with the Ferguson Effect. Clements cited the recent removal of Chicago Police Superintendent Garry McCarthy in the aftermath of a police-involved shooting of a young African American man as creating a sense of fear that any officer at any time, regardless of their rank, could be the next victim of the Ferguson Effect. Clements stated, "I'm very concerned we are being judged as an industry" (Johnson, 2015, p. 3).

Police officer safety in a time of uncertainty and allegations of excessive use of force are also concerns. In one such instance, it was reported that a Seattle, Washington police officer was facing discipline for using non-lethal force to disarm a man with an ice ax instead of de-escalating the situation without having to use any force at all (Hahn,

2018). Another news story reported an officer refusing to help other officers with a violent subject out of concerns over becoming the next Ferguson Effect victim (Gallek, 2018). A female Chicago Police Department sergeant was called the "face of the Ferguson Effect" in October 2016, when she was severely beaten by a subject because she refused to use force out of concern over being sued or fired (Kass, 2016, p. 1).

The Ferguson Effect discussion also includes the prospect of future shortages of police officers due to problems recruiting and early retirements (Ali, 2017). This potential problem could arguably cause crime to go up as there are fewer police officers on the streets, and it could touch large cities and small towns alike. While not everyone agrees that more police on the streets leads to less crime, some research argues that it does (Lin, 2009).

Finally, while the national political conversation about the Ferguson Effect is ongoing, the local political views are important as well. As indicated by Chief Joe Lombardo with the LVMPD, how officers perceive the support or lack thereof from their elected leaders is an important piece of the Ferguson Effect equation (Torres-Cortez, 2016). When an elected leader is reported to have stated that "yesterday's KKK members are today's police officers," it could have an impact on police officers in that area (Wootson, 2016, p. 1). So too does the prospect that someone might seek elected office in order to re-open the incident that ignited the Ferguson Effect debate (Rosenberg, 2018). Lezley McSpadden, the mother of Michael Brown, ran for city council in Ferguson, Missouri in 2019, a race she ultimately did not win (Rosenberg, 2018; Salter, 2019). Additionally, the St. Louis County prosecutor who handled the criminal investigation into

the police officer who shot Michael Brown was defeated in an election primary by someone who stated that they intended to re-open the Michael Brown case with a special prosecutor if they were elected (Rosenberg, 2018). This is despite the finding by the DOJ that Officer Darren Wilson was not unjustified in his use of force against Michael Brown and also that a grand jury refused to hand down a criminal indictment against Officer Wilson (DOJ, 2015a; Sneed, 2014).

News stories and other relevant literature demonstrated that the Ferguson Effect theory is complex and touches on myriad issues and concepts. Specific discussion of issues and concepts relevant to the present study follows.

Viral Video Effect/Media Impact/Social Media

In October of 2015, FBI Director James Comey entered the Ferguson Effect discussion in a speech to the University of Chicago Law School, where he spoke of a "chill wind" blowing through law enforcement and the fear of some police officers of becoming a victim of the "YouTube Effect" (Perez et al. 2015, p. 2). His statements were contradicted a short time later by his boss, Attorney General Loretta Lynch, in testimony before Congress where she denied any evidence of a Ferguson Effect (White, 2015). Director Comey re-entered the discussion in May of 2016 stating that, while he did not support a Ferguson Effect theory, he was still concerned with the possible impact of a "viral video effect" on law enforcement officers (Lichtblau, 2016, p. 1). Comey went on to cite crime statistics showing a sharp increase in the murder rate, as well as to reference his own personal conversations with police officers concerned about becoming a victim of a "viral video effect" (Lichtblau, 2016, p. 3). Director Comey was not the only one

talking about the impact of viral videos and YouTube. NYPD Commissioner William Bratton also observed a reduction in proactive policing in his department and blamed that reduction in part on what he called a "YouTube effect" (Davis, 2015, p. 2). But this effect is not isolated to YouTube and viral videos.

Shortly after the police-involved shooting of Michael Brown in Ferguson, Missouri, in August of 2014, a *New York Times* reporter observed the role of Twitter in the Ferguson debate (Bilton, 2014). The reporter noted that he had seen thousands of tweets about the Ferguson incident, most of which appeared to be subjective and inaccurate. The reporter wondered how much responsibility the Twitter platform had for being a venue for generating and pushing false information and narratives. Additionally, research has shown that negatively perceived tweets are re-tweeted more often and with greater speed than those perceived to be positive (Bejan et al., 2018). Similarly, in research conducted on the influence of political comedy on Facebook users, researchers found that Facebook user attitudes can be influenced by the content they view and specifically that they could be persuaded in their thinking on topics like police militarization and racial discrimination (Greenwood et al., 2015). This influence is not isolated to Facebook but has been documented on other social media venues also (Bejan et al., 2018). Additionally, in a study of Google (https://www.google.com/) searches in 43 large U.S. cities, researchers found increased online searches for things such as police brutality, Black Lives Matter, and Ferguson Effect in the aftermath of any police-involved shooting incident, regardless the geographic location of the incident (Gross & Mann, 2017).

The widespread use of cell phones and social media over the past several years has made it easier for average citizens to record police-involved incidents and forward those recordings to standard media and social media outlets alike (Bejan et al., 2018; Wolfe & Nix, 2016). Some have expressed concern that both social media and standard media outlets "can act as an emotional contagion, spreading fear, anger and other negative affects" or can influence the thinking and policy decisions of politicians and police executives in addition to influencing the attitudes of average citizens (Bejan et al., 2018, p. 3; Blake, 2017). With technological advances, such as 24-hour per day news channels, social media, and cell phones, the speed and volume of information to which average Americans are exposed daily have increased dramatically, and some state that it influences law enforcement and has policy implications (Blake, 2017; Hosko, 2018).

Pyrooz et al. (2016) connected the influence of the news media and social media to de-policing by observing that the spread of information, which depicts law enforcement negatively, does have an impact on police officer activity. Blake (2016) confirmed these findings in a national survey of nearly 500 police officers, where he found that 94% of the respondents felt strongly that the media was biased against law enforcement and that the bias influences average citizens. Further, Nix and Pickett (2017) confirmed this finding in a study involving over 250 police officers at a southeastern United States police agency. In other survey research, police officers indicated they believed that news and social media viewed the police negatively, even promoting the "demonization of policing" (Deuchar et al., 2018, p. 7). News, social media, and viral

videos are not the only possible influences on police perception in the Ferguson Effect debate. There is also the matter of federal government oversight of local policing.

Consent Decrees and Government Oversight

Thirteen years before Officer Darren Wilson shot and killed Michael Brown in Ferguson, Missouri, police in Cincinnati, Ohio, shot and killed an unarmed Black man (Howlett, 2001). In the wake of that incident, there were four days of riots in Cincinnati, and the federal government started two different civil rights investigations into the involved officer and the Cincinnati Police Department over excessive force and systemic racism. Some believe the police officers in Cincinnati pulled back and began strictly answering 911 emergency calls for service in response.

According to the DOJ, Bureau of Justice Statistics (BJS), for the year 2012, there were 750,340 sworn law enforcement officers at the state and local level in the United States, operating out of 17,398 different law enforcement agencies (Banks et al., 2016). For the year 2015, the BJS estimated that police officers nationally had approximately 53.5 million citizen contacts, including citizen calls for police service and officer-initiated contact (Davis et al., 2018). According to numbers compiled by the Washington Post, there were 990 fatal police shootings of both armed and unarmed citizens for the same year (Nix, Campbell, et al., 2017). Comparing the 2015 numbers of fatal shootings to citizen contacts, police fatally shot someone in 0.0018% of all estimated citizen contacts for that year. But while 50% of those fatally shot by police that year were White, 26.1% were Black, which is over twice their representation in the overall population (Humes et al., 2011; Nix, Campbell, et al., 2017). Similar percentages in the early 1990s

prompted the federal government to begin investigating law enforcement agencies for signs of racially motivated policing and use of force. According to the DOJ Civil Rights Division, the federal government has conducted 40 such investigations since 1994 (DOJ, 2017).

Following the highly-publicized beating of Rodney King by LAPD officers in 1991, Congress authorized the Civil Rights Division of the DOJ to begin investigating and litigating incidents involving "a pattern or practice of conduct by law enforcement officers that violates Constitutional or federal rights" (DOJ, 2017, p. 3). These cases fell under United States Code 42 U.S.C. – 14141 and came to be called "pattern or practice" cases or "14141 cases" (DOJ, 2017, p. 3). Of the 40 cases noted by the Civil Rights Division, half have been settled agreements with law enforcement agencies known as a "memoranda of agreement," while the other half have been court-enforced consent decrees (DOJ, 2017, p. 3).

An investigation into the Ferguson, Missouri, Police Department by the DOJ following the police-involved shooting of Michael Brown resulted in a consent decree between the DOJ and the Ferguson Police Department (FPD) (DOJ, 2015b; United States of America v. The City of Ferguson, 2016). The report outlined revenue-generating abuses by the police department through heavy municipal fines and frequently issued high-priced traffic citations (DOJ, 2015b). It also noted signs of systemic racism and instances of excessive use of force within the department. According to the report, "data collected by the Ferguson Police Department from 2012 to 2014 shows that African Americans account for 85% of vehicle stops, 90% of citations, and 93% of arrests made

by FPD officers, despite comprising only 67% of Ferguson's population" (DOJ, 2015b, p. 4). But despite findings of excessive force in the department, the DOJ investigation into the shooting death of Michael Brown by Officer Darren Wilson found that the force utilized by Officer Wilson was not unreasonable or unjustified (DOJ, 2015a).

For some, findings of systemic racism in pattern or practice investigations focus too much on the numbers and not enough on other possible contributors, such as poverty, educational opportunities, and availability of firearms. According to Robert Driscoll in testimony before the United States Senate, this practice of focusing only on the numbers is problematic because it makes it unclear what exact standards of proof are used to prove constitutional violations (War on Police, 2015a). He goes on to state, "using raw racial disparities regarding arrests or stops to establish discriminatory policing (as DOJ did in Ferguson) would support that allegation against virtually any law enforcement agency" (War on Police, 2015a, p. 4). According to Klinger et al. (2015), there is a greater degree of correlation between levels of violent crime in a neighborhood and police-involved shootings than there is between race and police-involved shootings.

As with systemic racism, findings of excessive force are also not easily defined. In a review of the 2015 fatal police shootings, researchers found that 82.4% of the 990 citizens fatally shot by police in that year were armed with a deadly weapon (Nix, Campbell, et al., 2017). Only 9.4% or 93 people shot and killed by police nationally in 2015 were unarmed, with the remainder using an automobile as a weapon or having an unknown armed status. These numbers are relatively stable from year to year, and as demonstrated in an examination of police-shooting fatalities between May of 2013 and

December of 2015, there was no increase in police shooting deaths in the "Post-Ferguson Era" (Campbell et al., 2018, p. 1). In terms of non-fatal uses of force, a study by Wake Forest Baptist Medical Center into police use-of-force incidents found force to be rare and seldom to result in serious injury compared to overall numbers of police-citizen contacts (Beck et al., 2018). The study examined over one million police calls for service by three mid-sized law enforcement agencies in three separate states over a 2-year period. They found 893 use-of-force incidents, representing 0.086% of the total citizen contacts, and of those incidents, a total of 16 resulted in moderate to severe physical injury. Finally, in considering the crossroads of racism and use of force, Fryer (2018) found that while Blacks were more likely than Whites to have nonlethal force used against them, they were 23.5% less likely to be shot by the police than Whites.

While consent decrees are usually tailored to fit the police department under decree, there are also components frequently found across the spectrum of decrees. Consent decrees often require changes in officer training, changes in officer disciplinary processes, the creation of citizen review boards, and stricter requirements for reporting incidents, to include the demographic information of the parties involved in the incidents (Rushin & Edwards, 2017; Shi, 2005). The consent decree is generally meant to create an environment of "best practices" for the offending police agency (Walker, 2017, p. 7). These best practices typically focus on things like use-of-force policy, incident reporting, and citizen complaint procedures (Shi, 2005; Walker, 2017). But while some argue that consent decrees have successfully brought needed institutional changes to police departments under decree, others believe that the agreements are invasive and even cause

inefficiencies (Long, 2019; Rushin & Edwards, 2017; Walker, 2017). Some even argue that consent decrees are more about political outcomes than anything, a sentiment perhaps reflected by former Attorney General Jeff Sessions when he stated his intention to oppose the consent decree under negotiation at that time between his own DOJ and the Chicago Police Department in October 2018 (Hinkel, 2018; Stolberg & Lichtblau, 2017; War on Police, 2015a).

As previously stated, the federal government notes 40 consent decree agreements since 1994, but for some, their impact on crime and officer behavior goes beyond their frequency (DOJ, 2017; Long, 2019; Rushin & Edwards, 2017). Rushin and Edwards (2017) observed what they considered to be an "uptick" in crime in a police jurisdiction immediately following the implementation of a consent decree there (p. 1). This was also found in other research into the aftermath of the consent decree instituted in Cincinnati, Ohio, in 2001 (Shi, 2005). Both noted, however, that this increase went back down over time to levels seen before the consent decree (Rushin & Edwards, 2017; Shi, 2005). They speculated that this temporary increase was caused by officers decreasing activity (de-policing), but it was unclear if that was a function of fear of repercussions or increased paperwork due to new incident reporting procedures. A common theme between the two sets of researchers appears to be the police intentionally reducing their activity in connection with a consent decree.

This is not the only theme, however, as research conducted by Chanin and Sheats (2017) into 10 police departments under DOJ consent decree found no statistical differences in proactive policing activity after the introduction of a consent decree. The

researchers concluded that perhaps there was a divide between the things officers said they did and the things they actually did. Still, some hold that consent decrees are destructive and even "breed resentment" among both the police officers impacted by the agreement and officers in general (War on Police, 2015a, p. 4). The question at hand is to what extent, if any, do police officers perceive that consent decrees impact their behavior in a post-Ferguson world.

Public Perception of the Police

In a Pew Research Center/USA Today survey conducted less than two weeks after the shooting death of Michael Brown in Ferguson, Missouri, researchers found that a majority of those surveyed, especially African Americans, believed that police generally do not do a good job of treating all races the same (Doherty et al., 2014). A similar result was found when participants were asked about officers being held accountable for their actions and if they generally had confidence in their local police. This finding was confirmed in June of 2015 by a national poll conducted by Gallup that noted a 52% rate of confidence in the police (down from 56% in 2014), which tied the previous low in 1993 (Jones, 2015; Newport, 2014). These are noteworthy findings, as public perception and especially police officer perceptions of public perception are important components of the Ferguson Effect.

The following June, Gallup found that the rate of confidence in the police recovered by 4%, and then in June of 2017, they found that overall confidence in the police had recovered to a level at or near the 25-year average of 57% (Newport, 2016; Norman, 2017). In a similar poll, respect for the police dipped to 64% in 2015 but then

rose to 76% in 2016 (McCarthy, 2016). Of note is the difference recorded between confidence in the police and respect for the police. The rate of confidence in the police fell again in 2018 to 54%, but while this was on the lower end of the spectrum, the findings for the years since the shooting of Michael Brown were still within the 22-year range of confidence -- 52% - 64% -- in the police (Jones, 2015; Saad, 2018).

Research conducted by Moule et al. (2018) found that in a national survey of 702 adults, public perceptions of the police were generally tied to perceived legitimacy levels. In other words, to the extent that a person views the police's role and operations at a national level and especially at their local level as being legitimate, they will, in turn, express confidence in the police in that role and those operations. The research focused primarily on public perceptions of police militarization and found that "cynicism increased beliefs that the police are too militarized" (Moule et al., 2018, p. 1). It appears that specific perceptions of the police are driven largely by whether one believes the police are acting legitimately within the confines of their purpose and of the law. According to Moule et al. (2018), "legitimacy reflects the public's trust in police and feelings of obligation to obey law enforcement" (p. 5). Police legitimacy will be discussed at length later in this chapter.

In terms of the public perception of fatal encounters between the police and Black males, 60% of the public believed these incidents are indicative of a larger problem (Morin et al., 2017). Among Whites surveyed by Morin et al., 54% viewed these fatal incidents as indicative of a larger problem, while 79% of Blacks held that view. The divide between White police officers and Black police officers was even greater, with

27% of White officers and 57% of Black officers perceiving that there was a deeper issue.

An important component of the Ferguson Effect is how police officers perceive the views of the public. In survey research of over 1,200 police officers at a southeastern police agency, Nix and Pickett (2017) found that officers generally believed the public is influenced by biased media coverage of the police and that this impacts how they view the police. Blake (2016) reported the same officer perception of media bias in a national survey of nearly 500 police officers. Of note is the finding that the officers indicated a belief that biased media coverage of the police has an impact on crime rates (Nix & Pickett, 2017). The connection between police officer perceptions of negative publicity and their feelings of self-legitimacy was further confirmed by a recent survey of 567 officers (Nix & Wolfe, 2017).

De-policing

For some, the Ferguson Effect is just the newest name for "de-policing," a concept that long precedes the events in Ferguson, Missouri (Blake & Lafond, 2017; Donohue, 2017; Rosenfeld, 2016; Wheeler & Kovandzic, 2017). That is not a universal contention, however, in that some distinguish between the two, holding that the Ferguson Effect is about negative publicity and public scrutiny while de-policing has a variety of causes, including bad leadership and expiring union contracts (Walker, 2017). The "Ferguson Effect" is also not the first label used to describe de-policing (Oliver, 2015; Rushin & Edwards, 2017). In the past, phrases like "passive law enforcement," "tactical disengagement," "selective disengagement," "retreat," or even "blue flu" have been used

to describe a pullback from proactive policing by police officers (Oliver, 2015, p. 2; Rushin & Edwards, 2017, p. 733; Stockwell, 2001, p. 1). But even the word "de-policing" has not always meant what it has come to mean today (Oliver, 2015). While the modern use of the term "de-policing" describes a pulling back by police as a negative, it was previously used to describe a more positive context. Officers now de-police out of protest or self-protection, but in the past, the word described an intentional move toward a system of self-help by a community, with a corresponding reduction in the necessity of police activity. Regardless of the view one takes of de-policing, one must first be introduced to reactive and proactive policing to understand it better.

Bain et al. (2014) held that most policing is reactive, in that most people only have contact with the police when they are party to a crime (suspect, victim, witness) or through their consumption of news. In other words, the police respond to places where a crime has taken place, and only those involved have contact with the police. The police would then spend their time in neighborhoods where crimes occur, and police leadership would allocate resources accordingly. Proactive enforcement or proactive policing "is usually defined as the predisposition of police officers to be actively committed to crime prevention, community problem solving and a more open, dynamic quality-oriented law enforcement partnership" (Ankony & Kelley, 1999, p. 121). This matters to the Ferguson Effect debate in part because prior research has noted a direct correlation between the number of officers on the street and the rate of crime, to include murder (Donohue, 2017). As there are more police on the street, the rate of crime will go down. One can

easily see how police proactivity, or the lack thereof (de-policing) could also theoretically impact crime rates. But why do officers de-police?

According to Stockwell (2001), the "blue flu" happened in Prince George's County, Maryland, in 2001 when the officer's union and city officials failed to reach an agreement on pay raises. Union officials told the news that a policy of "no contact-no complaint" (de-policing) by officers would probably become commonplace until an agreement could be reached (Stockwell, 2001, p. 1). De-policing can also be caused by police executive leadership action or inaction, which officers feel demonstrates a lack of agency support (Blake & Lafond, 2017). It can also result from media portrayals of officer-involved incidents and protests where marchers shout things like "What do we want? Dead cops! When do we want it? Now!" (Hosko, 2018, p. 25). De-policing can be caused by enacting a consent decree, creating a citizen review board, or the fear of legal liability (Butler, 2018; Fields, 2019; Long, 2019; Mosendz, 2015; Shi, 2005; War on Police, 2015a). Sometimes it is caused by police officer perceptions of a lack of support or even anti-police statements from elected political leaders (FBI, 2017; Hosko, 2018; War on Police, 2015b; Wootson, 2016). De-policing may be an act of protest by police officers, a way of bringing recognition to the work they do, or even a threat to those they serve that, without them, crime will soar in the community (Cooper, 2003; Shi, 2005). It could even be as simple as an attempt to avoid burdensome paperwork designed to comply with a consent decree or to prevent any claims of discriminatory policing against the police agency (Hosko, 2018; Rushin & Edwards, 2017).

De-policing does not appear to be something strictly isolated to places directly impacted by events like those outlined above, although Donohue (2017) holds that de-policing can only adequately explain changes in crime rates for specific places in the wake of a clear, specific officer-involved incident. But far away from Ferguson, Missouri, in a survey of over 3000 police officers across 18 police agencies in Canada, officers admitted to de-policing in part out of a "fear of being scrutinized by the public" (Yogaretnam, 2018, p. 1). Similarly, officers in Minneapolis, Minnesota, at the LAPD and at the Los Angeles County Sheriff Office were accused of pulling back (Jany, 2016; Queally et al., 2017). The alleged pullback in the city of Los Angeles, however, preceded the 2014 incident in Ferguson, Missouri (Queally et al., 2017). Regardless of the cause or location of the de-policing, clearly defining what it is and what it does can be problematic.

Just like there is not a single, generally accepted definition of the Ferguson Effect, the same is true of de-policing. The term is credited to the work of Black and Baumgartner in the 1980s in their description of a reduction of police protection in favor of a self-help community model (Oliver, 2015). As stated previously, this definition has morphed into the modern use of the term wherein police officers are "disengaging from active police work as a reaction to a negative experience" (Oliver, 2015, p. 4). Other definitions of de-policing include terms like scrutiny, criticism, withdraw, retreat, scared, demoralized, avoid, riots, lawsuits, prosecution, consent decree, pullback, refrain, disengage, reduction, oversee, racism, deadly force, and self-preservation (Chanin & Sheats, 2017; Cooper, 2003; FBI, 2017; Hosko, 2018; Rosenfeld, 2016; Rushin &

Edwards, 2017; Shjarback et al., 2017; Walker, 2017). The New Jersey Superior Court even got into the act of defining the term de-policing. In deciding a case involving alleged de-policing claims against the New Jersey State Police, the court defined de-policing as follows: "officers, on their own, decide to stop taking pro-active steps to engage citizens" (Oliver, 2015, p. 5; Rushin & Edwards, 2017, p. 733; Gacina v. State of New Jersey, et al., 2011). Further complicating matters is that some hold there are two versions of de-policing, one that results strictly from perceived public scrutiny and the other that follows actual oversight of a police agency in the form of consent decrees, external regulations, and citizen review boards (Rushin & Edwards, 2017). The definition of de-policing incorporated into this dissertation was taken from Oliver (2015): "disengaging from active police work as a reaction to a negative experience" (p. 4). But even if de-policing occurs, what are the consequences (if any)?

Freddie Gray died while being transported in the back of a police van in Baltimore, Maryland, in April of 2015 (Morgan & Pally, 2016). Six Baltimore Police Department (BPD) officers were prosecuted for his death, with none ultimately being convicted of any crime (Rector, 2016). The following year, the BPD executed a consent decree with the U.S. DOJ (United States of America v. Police Department of Baltimore City, et al., 2016). BPD officers reportedly started to de-police out of fear of being prosecuted, and some people believe this de-policing directly caused a crime wave in the city, including an increase in the murder rate (Mosendz, 2015). Regardless of the view on the impact of de-policing on crime rates, the BPD responded to the alleged spike in crime by moving 230 officers from administrative roles back onto the streets (Richman &

Meehan, 2018). Viewed through a different lens, Andrew McCarthy, in testimony before the Senate Judiciary Committee, stated that "since a great deal of crime involves minority offenders preying on minority communities, it is those communities that bear the brunt of police passivity" (War on Police, 2015b, p. 19). But is there evidence of a correlation between de-policing and increased crime beyond the anecdotal?

In considering the national murder rate, as outlined previously in this chapter, there are other explanations for any regional or national rise in the murder rate aside from de-policing or a Ferguson Effect. Further, some researchers do not see historical evidence supporting a concern for any rise in the murder rate or calling any rise a "trend reversal" (Rosenfeld, 2016, p. 11; Wheeler & Kovandzic, 2017). In terms of violent crime trends and property crime trends, as previously stated, rates have remained mostly stable and in line with historical averages in the years following the Ferguson incident. But crime rates are not the only indicators one can use to measure the impact of de-policing.

In research targeting a 2016 spike in the Chicago, Illinois, murder rate, Cassell and Fowles (2018) observed a decline in the number of citizen stop and frisks conducted by Chicago police officers that immediately preceded the spike. This observation was also noted in work by Fagan and Richman (2017). Cheng and Long (2018) found a similar reduction in citizen arrests – especially in predominantly Black neighborhoods – during their research into increased crime rates in 47 large cities, which specifically focused on the city of St. Louis, Missouri. This reduction in arrests in predominantly Black neighborhoods is also consistent with admissions by police officers of de-policing in predominantly Black neighborhoods (Deuchar et al., 2018). Similar stop/arrest

findings were made in St. Louis, Missouri, following the Ferguson incident, but the stop/arrest rates rebounded to previous levels over time (Slocum et al., 2019). Finally, an alleged reduction in proactive policing in the wake of the Freddie Gray incident in Baltimore, Maryland, was correlated with an uptick in the violent crime and murder rates there (Morgan & Pally, 2016). Confusing the matter, however, was the finding that no such increase was observed in any crime rate after a reduction in stop-and-frisk investigations in New York City following the 2013 court-ordered reduction of the NYPD stop-and-frisk program (Cassell & Fowles, 2018; Morgan & Pally, 2016; Wheeler & Kovandzic, 2017).

Research has also been conducted on the numbers of stops and arrests recorded in several cities following the implementation of a DOJ consent decree. Immediately following a consent decree in both Los Angeles, California, and Cincinnati, Ohio, a reduction in citizen stops, traffic citations, and arrests was observed, but this reduction returned to pre-decree levels over time (Rushin & Edwards, 2017; Shi, 2005; Walker, 2017). In terms of arrests, initial drops were primarily seen in misdemeanor arrests and situations where officers had more discretion and much less in serious felony-type arrests (Chanin & Sheats, 2017; Shi, 2005). Rushin and Edwards (2017) found a short-term increase in the misdemeanor crime rate in geographic areas not directly affected by a consent decree. But the researchers also noted that any increase in crime could also be explained by either criminals feeling freer to commit crimes because the police were limited by a consent decree or by more crimes being reported because citizens felt more comfortable reporting a crime (Rushin & Edwards, 2017). Finally, returning to the notion

of two diverging paths of de-policing – public scrutiny and federal government oversight – Rushin and Edwards found no correlation between increased crime and public scrutiny but did find a significant correlation between increased crime and government oversight. From a police officer perspective, officers do admit to reducing their proactive citizen contact, but the actual stop and arrest numbers may indicate a difference between what officers say they do and what they actually do (Blake & Lafond, 2017; Chanin & Sheats, 2017; Shjarback et al., 2017).

An understanding of the concept of de-policing is important to understanding the Ferguson Effect. This chapter previously discussed other possible causes for an increase in crime rates, such as reduced imprisonment, opioid use, and gang violence. Unlike these three causes, de-policing is directly under the control of law enforcement officials and law enforcement officers. Important to understanding the Ferguson Effect is another potential causal factor that is more under the control of the citizens they serve – perceptions of police legitimacy.

Legitimacy

In a February 2016 op-ed in the *Los Angeles Times*, then LAPD Chief Charlie Beck stated that the Ferguson Effect was real (Beck, 2016). But instead of officers pulling back, it was a matter of police legitimacy, according to Beck. Rosenfeld (2016) also spoke of the two sides or causes of any alleged Ferguson Effect being de-policing and police legitimacy. He was part of a group of researchers who pointed to long-term, unaddressed issues between the police and many communities they serve (especially Black communities) that had weakened police legitimacy and that this was an equal, if

not greater, cause of any rising crime rates than de-policing (Fagan & Richman, 2017; James, 2015; Rosenfeld, 2016). But what do they mean by legitimacy?

According to Moule et al. (2018), "legitimacy reflects the public's trust in police and feelings of obligation to obey law enforcement" (p. 5). It has also been called "a view that police authority is valid and to be respected and adhered to" (Kochel, 2015, p. 4). In other words, to the extent the public does not view the police as legitimate because of past issues or high-profile use-of-force incidents and to the extent that the public will then refuse to obey the police, crime rates and use-of-force incidents could go up. Researchers found that views of police legitimacy and a willingness to cooperate with the police (or even want them around) were driven by the general view one has of the police – a negative or cynical view of the police fuels feelings of police illegitimacy (Cobbina et al., 2016; Moule et al., 2018; Nix, Pickett, et al., 2017; Morin et al., 2017). Perhaps the strongest indicator of how one views the police is the race of the viewer (Cobbina et al., 2017). The legitimacy of the police as viewed by the public, however, is not the only piece in the police legitimacy puzzle. Just as important and equally as complex are feelings of self-legitimacy on the part of the police or even feelings of trust officers have toward the public (Mourtgos et al., 2020; Nix & Wolfe, 2017).

The impact of negative publicity or even the perceptions police officers have of how the public views them can cause officers to feel less legitimate in their dealings with the public, even negatively impacting an officer's motivation to engage in proactive policing activities (Myers, 2018; Nix & Wolfe, 2017; Morin et al., 2017). In a bit of cyclical irony, a strong sense of self-legitimacy can serve as a barrier against negative

publicity for police officers (Wolfe & Nix, 2016). But this is not the only cycle observed in the debate over police legitimacy.

Self-legitimacy and motivation on the part of police officers are driven in large part by their feelings of trust in the police agency for whom they work (Wolfe & Nix, 2016; Wolfe & Nix, 2017). This concept is known as organizational justice, and it intimately ties to the Ferguson Effect debate (Wolfe & Nix 2016). The topic of organizational justice is considered at length later in this chapter. For the present literature review concerning legitimacy, it is enough to understand that positive feelings of organizational justice on the part of police officers directly impact how they interact with the public (a concept known as procedural justice). This, in turn, directly impacts the public's view of police legitimacy, which in turn directly impacts officer's feelings of self-legitimacy. This is driven in part by positive feelings of organizational justice, and this all continues in a cyclical motion (Meares, 2017; Nix & Wolfe, 2018; Wolfe & Nix, 2016; Wolfe & Nix, 2017). A simplified version of this cycle would be that procedural justice (how officers treat the public or "a belief that police act fairly, impartially, and respectfully") directly impacts the public's feelings of police legitimacy, which in turn impacts an officer's feelings of self-legitimacy and that dictates in large part how an officer treats the public (Cobbina et al., 2017; Kochel, 2015, p. 4; Meares, 2017; Wolfe & Nix, 2016). Morin et al. (2017) found that police officers agree that it is important to treat the public with dignity and respect. This is true regardless of whether they reside in high or low crime areas (Nix, 2017). But procedural justice is not just about how a police

officer interacts with the public. It is also a matter of their willingness to interact with the public at all, and that ties back into de-policing and the Ferguson Effect.

In examining the Ferguson Effect through the lens of procedural justice, Wolfe and Nix (2016) found that any indication of officer unwillingness to engage with the public was rendered insignificant when factoring in their positive feelings of organizational justice and self-legitimacy. In other words, a key tenant of the Ferguson Effect theory – de-policing on the part of police officers out of concern over media scrutiny or government oversight or legal liability or officer safety – appeared to be nullified when officers feel like their agency has their back and when they feel like their work is seen as legitimate.

Police legitimacy and police self-legitimacy are complex and interconnected concepts. The argument that police legitimacy in the eyes of the public could account for rising crime rates instead of or in tandem with de-policing is an important argument to consider in the Ferguson Effect debate. This is especially so when considering that some argue that it is also a matter of officer safety.

Deadly Hesitation

One area explored in the Ferguson Effect debate has nothing to do with rising crime rates but instead focuses on the safety of police officers while on duty. Safety for a police officer during citizen encounters is a function of both the citizen with whom they are in contact and the actions or inactions of the officer during that contact. As perceived by the public, police legitimacy can drive an unwillingness to cooperate with police officers and even fuel belligerent or dangerous behavior (Cobbina et al., 2017; Correll et

al., 2007; Moule et al., 2018; Nix, Pickett, et al., 2017). Self-legitimacy on the part of the police officer can impact how they behave during that interaction as well, even though research by Nix and Wolfe (2017) found no link between feelings of self-legitimacy on the part of police officers and concerns that their work is more dangerous in a post-Ferguson world. Still, there is plenty of anecdotal evidence of police officers being hurt because they are hesitating to act, regardless of their feelings of self-legitimacy.

In 2015, a police detective in Birmingham, Alabama, had his gun taken from him by a subject and was subsequently beaten with that gun (Valencia, 2015). The detective stated that he hesitated to use force out of fear of killing an unarmed person. In 2016, a 17-year veteran sergeant with the Chicago Police Department became the "face of the Ferguson effect" after she was similarly beaten by a subject on whom she hesitated to use deadly force out of fear of possible repercussions on her police agency (Kass, 2016, p. 1). Some call it "deadly hesitation," and it is described simply as "officers hesitating to use force when action is required" or "when their lives are threatened" (Fairburn, 2015, p. 1). But it is not just a matter of a police officer being hurt when they hesitate to use force with a potentially dangerous subject. It can also be a matter of proactive self-preservation.

A police officer in New Richmond, Ohio, in 2015 was praised for showing "great restraint" when he did not shoot an armed subject charging at him in a suicide-by-cop attempt (McLaughlin, 2015, p. 1). The officer was not injured, and the subject was taken into custody, but not everyone agreed that his restraint was necessary. Some thought it might have even set a dangerous precedent. A Seattle, Washington police officer was

disciplined for “failing to de-escalate” when, instead of shooting an ax-wielding man, he grabbed the man in a “bear hug” and took him into custody (Hahn, 2018, p. 1). On the other end of the spectrum, officer Stephen Mader with the Weirton Police Department in West Virginia was talking to a subject who raised a gun and was subsequently fatally shot by another officer (Wang & Phillips, 2018). Officer Mader was fired from the department for “apparent difficulties in critical incident reasoning,” and he was accused of being a “coward” for refusing to use deadly force when warranted (Wang & Phillips, 2018, para. 8). In an environment where a police officer must guess if using or refraining from using force will result in either accolade or looking for a new job, it is not surprising that a Cleveland, Ohio police officer was caught on video in 2018 refusing to help other officers with a dangerous subject out of fear of being investigated and punished (Gallek, 2018). But is there research to support the allegation that so-called deadly hesitation is a serious problem and that cops are getting injured and even killed as a result?

In the wake of the Ferguson incident, several high-profile murders of police officers in New York City, New York, and Dallas, Texas, took place and led some to conclude that the police were under attack (Hosko, 2018). Research conducted by Maguire et al. (2016) examining police officer murders between January 2010 and March 2016, however, found no significant increase in murders of police officers post-Ferguson. Their findings were confirmed in later research, which focused on police officer line-of-duty deaths from 1976-2016 (White et al., 2019). Similarly, Bejan et al. (2018) found there to be no increase in police officer murders at the hands of minorities post-Ferguson. Unfortunately, no research was located to indicate if the findings in research into police

officer murders hold true for assaults against police officers also. Landers (2017) did, however, find a correlation between police agencies having a de-escalation policy and an increased likelihood that police officers could suffer injury or death during a dangerous encounter.

Research using video-based scenario simulation has found police officers demonstrating a hesitancy to use deadly force against Black subjects as compared to Whites (Giordano, 2016; James et al., 2016). A similar result, however, was found in research conducted before the Ferguson incident (James et al., 2013; James et al., 2014). Of interest is the finding in two different studies that police officers' hesitation to shoot Black subjects as compared to White subjects is also seen in civilian and military research participants (James et al., 2013; James et al., 2014). Survey-based research by Nix, Campbell, et al. (2017) found no link between suspect race and police officer's perception of danger or the threat of violence.

Some police officers admit to hesitating to use force or to observing other officers hesitating to use force (Jones & Board, 2020; Myers, 2018). Officers stated that they hesitated because they feared being judged or punished, and many stated that at minimum, they had higher levels of stress while interacting with citizens on the street (Myers, 2018). This increased stress level over safety concerns was also found in command-level police officers, who routinely spend little to no time patrolling the street and in contact with citizens (Nix, Wolfe, & Campbell, 2018).

Summary of the Ferguson Effect

Research into the Ferguson Effect must begin with an understanding that the Ferguson Effect existed long before Ferguson and that regardless of the name it carries, it is a complex, multi-faceted matter. To some, the Ferguson Effect is just the current name given to the concept of de-policing (Blake & Lafond, 2017; Donohue, 2017; Rosenfeld, 2016; Wheeler & Kovandzic, 2017). The Ferguson Effect is not just about crime rates but also about officer safety (Moule et al., 2018). In addition to the de-policing variety of the Ferguson Effect, there is also the police legitimacy variety (Beck, 2016; Rosenfeld, 2016). As has been outlined previously in this chapter, there has been much research into the pieces and parts of the Ferguson Effect. But what about research into the Ferguson Effect itself?

Researching the Ferguson Effect

As noted previously, there is not a single generally accepted definition of the Ferguson Effect. Further, the Ferguson Effect itself encompasses different impacts ranging from crime rates to officer safety. In considering the Ferguson Effect, it is important to distinguish between the de-policing variety and the police legitimacy variety (Rosenfeld, 2016). In one, the police pull back, withdraw, or "de-police" as a way of avoiding negative consequences, false allegations, government oversight, and possible legal liability for actions they take on the street that could be video recorded by citizens and that could be cast as racist or unreasonable or excessive use of force (Deuchar et al., 2018; Fagan & Richman, 2017; Nix & Pickett, 2017; Rosenfeld, 2016; Wolfe & Nix, 2016). Under this theory, police officers will decrease or even cease proactive policing

measures and might become unwilling or fearful to work with the communities they serve (Blake & Lafond, 2017; Deuchar et al., 2018; Nix & Wolfe, 2017). In the second variety of the Ferguson Effect, the public loses or never had much faith in the legitimacy of the police because of actions they perceive to be racist or excessive, and this results in an unwillingness on the part of the public to respect or cooperate with the police, even possibly emboldening criminals to commit crimes (James, 2015; Rosenfeld, 2016).

Regardless of the variety of Ferguson Effect causes, the result is alleged to be that it increases crime (Wolfe & Nix, 2016). However, as noted previously, there are competing explanations for any increase in crime after the incident in Ferguson, Missouri, in August of 2014. Some point to the opioid problem in the United States, gang activity related to that problem, decreased levels of incarceration, and decreased levels of police employment (Donohue, 2017; Fagan & Richman, 2017; James, 2015; Rosenfeld, 2016). Some explain away any short-term increases in violent crime and murder with a long-term historical perspective (Wheeler & Kovandzic, 2017). Finally, some researchers found that the increased availability of firearms in the Chicago, Illinois area is more likely the cause of an increased murder rate there and not any so-called Ferguson Effect (Towers & White, 2017).

Five years after the incident in Ferguson, there continues to be interest in the Ferguson Effect. Additionally, there continues to be no single, generally accepted definition of the Ferguson Effect. For purposes of this dissertation, the definition (while not fully encompassing all the elements of the Ferguson Effect) will continue to be that "officers are conscious of the negative publicity surrounding their profession, understand

that their actions could be recorded by the public at any given time, and become less willing to do their job as a way to avoid being accused of racial profiling or excessive force. In turn, this de-policing leads to increases in crime" (Wolfe & Nix, 2016, p. 1). Even while research into the Ferguson Effect's various aspects continues, research began shortly after the incident in Ferguson in the nearby city of St. Louis, Missouri.

Rosenfeld (2015b) hypothesized that any "Ferguson Effect" on crime would also be seen in nearby St. Louis, Missouri. In examining crime statistics for St. Louis, Rosenfeld (2015b) found that crime was trending upward for 2014 even before the incident in Ferguson in August of that year. Based on his analysis, he found that as the murder rate and violent crime rates were already moving up pre-Ferguson, the small uptick in violent crime and even the significant increase in the murder rate for 2014 could not be definitively attributed to Ferguson alone. The property crime rate told a slightly different story in that it saw the most significant uptick; however, Rosenfeld (2016) concluded that any correlation between the uptick and the Ferguson incident was not enough to be attributed to a Ferguson Effect. Rosenfeld (2015b) was not convinced that there was a Ferguson Effect, and he stated that attributing any short-term crime increases to the Ferguson Effect was premature and possibly dangerous. An examination of 2014-2015 arrest/stop data in St. Louis by Slocum et al. (2019) found an initial decline in arrests and stops, but those numbers quickly returned to previous levels, and they also found no clear connection with crime rates.

In early 2016, Morgan and Pally (2016) published results from their analysis of crime rates in Baltimore, Maryland. This was in the wake of Ferguson and the death of

Freddie Gray while in police custody in Baltimore in April of 2015. Examining both crime statistics and arrest records, Morgan and Pally (2016) concluded that "adjusting for seasonality, evidence of a Ferguson Effect on crime is very weak" (p. 2). But this was their analysis of crime rates. In their analysis of arrests for the same time period, they did find evidence of possible de-policing in that arrest rates fell sharply. They concluded that only the decline of arrests was possible evidence of a Ferguson Effect and that a longer time frame would have to be observed to see if there was any significant uptick in crime rates. A similar pattern was observed by Shjarback et al. (2017) during 2013-2015 research into all police departments in the state of Missouri serving populations over 5,000 residents.

Pyrooz et al. (2016) took a broader view in examining a Ferguson Effect on crime rates by collecting data for 81 of the largest cities in the United States. They examined data for the 12 months preceding and the 12 months following the Ferguson incident and found no evidence to support a nationwide Ferguson Effect phenomenon. They noted that some cities did have increased murder rates post-Ferguson and that there seemed to be greater variation in crime rates pre-Ferguson than in the 12 months following but that any Ferguson Effect seemed to be isolated to cities with historically high crime levels, socioeconomic issues, and higher populations of Black residents. They concluded that "the national discourse surrounding the "Ferguson Effect" is long on anecdotes and short on data" (Pyrooz et al., 2016, p. 1). In their analysis of a similar dataset, Wheeler and Kovandzic (2017) concluded that any short-term increase in murder rates post-Ferguson, when considered from a historical perspective, was found to be within historical patterns

and norms. They also indicated that evidence of a Ferguson Effect might only be seen definitively as we get further in time away from the Ferguson incident and have more data to examine.

The Ferguson Effect's impact on crime rates in terms of de-policing or police legitimacy is not the only area of concern. As stated previously, officer safety is also of concern, especially in that there were claims following the Ferguson incident that police officers were being targeted and murdered (Hosko, 2018). Maguire et al. (2016) examined officer line of duty deaths following Ferguson and found no evidence of a Ferguson Effect on the number of officers murdered in the line of duty. White et al. (2019) confirmed these findings. Bejan et al. (2018) found this to be true also of homicidal violence against police by minorities. The two studies, however, do not include data on the number of assaults or attempted assaults against police officers. This may, in part, be because such data is not readily available and not at present tracked on a national level.

In terms of the connection between perceived police legitimacy and crime rates, Gross and Mann (2017) conducted unique research into Google (https://www.google.com/) searches and crime rates in 43 of the largest U.S. cities. Using public data on Google (https://www.google.com/) search topics, the researchers examined the volume of searches in each city using search terms like "Black Lives Matter" and "police violence". They equated such searches with concerns over police violence. One obvious limitation to the study is that such searches could also be undertaken for research by police officers or reporters and not necessarily indicative of someone concerned about

police violence. Still, the researchers found that cities with more concern over police violence, as indicated by the volume of Google (https://www.google.com/) searches, also had increased crime rates post-Ferguson. While this research has limitations, and while it is not in the de-policing vein of the Ferguson Effect, it does offer some insights into the police legitimacy side of the Ferguson Effect theory.

In terms of a Ferguson Effect on crime rates, it would appear from the research that there is not much evidence that the Ferguson Effect exists (Morgan & Pally, 2016; Rosenfeld, 2015b; Rosenfeld, 2016; Slocum, et al., 2019). The same could be said of a Ferguson Effect on police officer line-of-duty murders. But the Ferguson Effect seems to be as much about perception as it is about reality. The perception of the Ferguson Effect as held by police officers is important to consider in the debate. So too, is the role of organizational justice in shaping that perspective.

The Police Perspective and Organizational Justice

Much of the Ferguson Effect research to date has been data-driven examinations of crime trends, numbers of arrests, numbers of pedestrian stops, and even line-of-duty law enforcement deaths. Some previous scholars have noted that research into officer perspectives on these matters demonstrates a difference between what officers perceive or say they do and what they actually do on the street as demonstrated by actual data (Blake & Lafond, 2017; Chanin & Sheats, 2017; Shjarback et al., 2017). Still, the police officer perspective is important because, like all human beings, their perceptions might dictate their actions (or inactions) regardless of the data.

Even if the “jury is still out” on the existence of the Ferguson Effect in terms of the existence of de-policing, most surveyed police officers admit to cutting back on proactive policing and have observed other officers doing the same (Blake, 2016; Blake & Lafond, 2017; Capellan et al., 2020; Deuchar et al., 2018; Jones & Board, 2020; Morin et al., 2017; Wyllie, 2017). This is despite a belief that proactive policing works and that crime is up as a result of de-policing (Blake & Lafond, 2017). Nearly 94% of surveyed officers believed that the media is negatively biased against the police, and anywhere from 58% to 83% blamed this negative bias for rising crime (Blake, 2016; Blake & Lafond, 2017; Nix & Pickett, 2017).

Police officers indicated they are more reluctant to use force, even when warranted, and that they are more concerned about their safety since the Ferguson incident in 2014 (Jones & Board, 2020; Morin et al., 2017; Wyllie, 2017). Many felt fear of losing their job because of a use-of-force incident, even one that was reasonable and justified (Wyllie, 2017). This is despite over 50% indicating they are confident in their ability to know when and how much force to use if necessary. For many, the feelings of anxiety are so bad that they would consider quitting their job or moving into a strict self-preservation mode while at work (Calibre Press, 2020; Hosko, 2018; Reynolds et al., 2018; Wolfe et al., 2017; Wyllie, 2017).

Similar feelings were found among management-level or front-line police supervisors as researchers observed reduced motivation, unwillingness to police proactively, reduced job satisfaction, and the belief that crime was increasing because the police were de-policing (Nix & Wolfe, 2018). The same researchers, along with

Campbell, examined similar feelings in police officers at command levels (Nix, Wolfe, & Campbell, 2018). While they did not find the same reduced motivation and low job satisfaction at the command level, they did observe an awareness by command-level police officers of the Ferguson Effect and the belief that their street-level officers are de-policing. The researchers found that command-level police officers with a higher level of belief in a "war on cops" also held higher levels of belief that police officers were de-policing or less safe on the street. Additionally, they found a positive correlation between this belief in a "war on cops" and feelings of stress and anxiety over their safety, even though they spent little to no time on the street. Further, these beliefs in de-policing and a "war on cops" by command-level officers could influence street-level officers' perceptions under their charge.

While such recognition could send a message to street-level police officers that the agency and its command-level executives understand concerns they might have in a post-Ferguson world and that they support their officers, it could also inadvertently legitimize and show empathy for the practice of de-policing (Nix, Wolfe, & Campbell, 2018). Additionally, personal experience with de-policing on the part of management-level front-line supervisors could influence how their subordinate officers view de-policing and the Ferguson Effect and could unintentionally cause their officers to pull back, lose motivation, and even have increased anxiety (Nix & Wolfe; 2018). This is important considering the impact organizational justice has on how police officers perceive the Ferguson Effect's de-policing aspect, with many even believing organizational justice to be the solution to the Ferguson Effect problem (Oliver, 2015).

Blake and Lafond (2017) found that slightly over half of officers in one survey felt that upper leadership in their respective law enforcement agencies had not responded to recent policing events and trends in ways that made them feel supported. While police officer support for the leadership direction of executives at their respective agencies is often mixed, many officers still indicated that they have slowed or completely stopped proactive policing activities because of feelings that their agency will not "have their back" if they should find themselves in a Ferguson-type incident (Blake, 2016; Blake & Lafond, 2017; Morin et al., 2017; Nix & Wolfe, 2016). So important is this concept of organizational justice that the DOJ often finds, during consent decree investigations, that "management failures and not individual officers" are to blame for many if not most of the issues they identify (Walker, 2017). But what is organizational justice, and how does it relate to the Ferguson Effect?

While organizational justice research is not new, expanding into the rank-structure policing environment is a newer area of focus (Wolfe et al., 2017; Wolfe, Nix, & Campbell, 2018). Generally speaking, "organizational justice communicates to employees that they are valued members of their organization and they will not be exploited" (Wolfe et al., 2018, p. 72). With policing, this is important to consider because success "in terms of public safety and the administration of justice is partially dependent on the quality of employee-supervisor relations" (Wolfe et al., 2018, p. 72). In other words, supervisors and leaders largely determine the behavior and success of those under their charge (Nix & Wolfe, 2016). Further, the perception of how their supervisors and their agency in general treat and take care of them impacts how a police officer views

him or herself, how they view the community they serve, and how willing they are to serve that community proactively.

Police officers want leaders who they perceive to be fair and who implement and enforce clear policies and procedures (Adams, 2018). To officers, organizational justice is a "powerful force in shaping officers' views of their work and the agency's mission" (Rosenbaum & McCarty, 2017, p. 80). Research has found a direct correlation between a police officer's perception of organizational justice and their job satisfaction, morale, commitment to the job, willingness to follow the rules, how fairly and justly they treat people on the street, and even their acceptance of a citizen review board (Deuchar et al., 2018; Nix & Wolfe, 2016; Nix, Wolfe, & Tregle, 2018; Rosenbaum & McCarty, 2017; Wolfe et al., 2017). A strong sense of organizational justice can even temper feelings of uncertainty and anxiety in police officers on the street (Wolfe et al., 2017). Further, research shows that officers who have strong feelings of organizational justice demonstrated increased productivity while at work, restraint in the use of force, a stronger connection to the citizens they served, and a greater sense of trust in the public (Reynolds et al., 2018; Van Craen & Skogan, 2017).

For police officers, "organizational justice communicates to individual officers that their supervisors and the broader agency have their back – they are there to support them" (Nix & Wolfe, 2016, p. 14). So powerful is this sense to officers that many who indicated a strong sense of organizational justice also indicated that they saw no difference in how they interacted with the public pre and post-Ferguson (Adams, 2018). Additionally, when directly examining police officer perceptions of the Ferguson Effect,

researchers found that any beliefs that the Ferguson Effect exists and that it impacts crime were almost completely negated in officers with a strong sense of organizational justice (Nix & Wolfe, 2016; Wolfe & Nix, 2016). Furthermore, any lack of motivation on the part of police officers because of perceived negative publicity was similarly counteracted by a strong sense of supervisor fairness and general organizational justice. Still, as research continues into the Ferguson Effect and how police officers perceive it, it is unclear at this time if organizational justice is indeed the cure.

Other Consequences of the Ferguson Effect

The Ferguson Effect, in both the de-policing and police legitimacy varieties, was initially blamed for increased crime rates. However, the available literature has demonstrated that the data on crime rates are more subjective. If one wishes to see a spike in crime, they can find one, and if they do not, the data are equally as useful. Even after 5 years have elapsed since the shooting of Michael Brown in Ferguson, Missouri, it may still be too early to see any clear Ferguson-related crime trends.

Second only to the alleged Ferguson Effect on crime rates, is how Ferguson impacts officer safety, especially officer murders. There is plenty of anecdotal evidence of officers being injured by either emboldened criminals or because of hesitating to use force, but research does not show any increase in officer murders post-Ferguson. Crime rates and officer safety, however, are not the only potential consequences of a Ferguson Effect. This is especially true when considering that police officer perceptions of the Ferguson Effect are just as real to them as any crime rate-related data.

Two other areas of concern in the post-Ferguson world are recruiting new police officers and retaining veteran officers. It is important to consider, as there is some evidence of a connection between the number of officers on the street and crime rates (Donohue, 2017). But like the crime rate concerns and officer safety concerns, the concerns over recruitment and retention appear to be heavy on anecdote and light on research.

While it is generally acknowledged that a good economy makes it harder to recruit police officers, the negative publicity and increased safety concerns are making it even more difficult (Ali, 2017). According to Ali (2017), "numerous police departments around the country are desperately losing manpower with decreasing numbers of officers and recruits" (p. 1). A 2018 poll of law enforcement agencies conducted by the Police Executive Research Forum had similar findings (Jackman, 2018). It is difficult, however, to prove or disprove this assertion, as the reported or estimated number of police officers in the United States varies by the reporting entity. For instance, the Bureau of Justice Statistics reported for the year 2012 that there were 750,340 certified law enforcement officers in the United States (Banks et al., 2016). They reported for the year 2013 that there were 724,690 law enforcement officers in the United States, but it is unclear if this is an actual reduction in officers, as the data sources they utilized to arrive at those 2013 numbers are different from the 2012 sources (Hyland, 2018). Complicating matters is that the National Law Enforcement Officers Memorial Fund (NLEOMF) reports approximately 900,000 law enforcement officers nationally (NLEOMF, 2018). Hyland (2018) reports an estimated 701,169 police officers in the United States for 2016,

representing about 23,000 fewer than their reported number for 2013. This is despite an estimated seven million additional people living in the United States in 2016 compared to 2013. Still, it is unclear if there has actually been a decline in the number of law enforcement officers in the United States since Ferguson and further if any alleged decline can be attributed to the Ferguson Effect.

In the absence of clear data on police officers nationally as it relates to concerns over recruitment and retention of police officers, another source of data becomes important, and the results are mixed. Approximately 80% of surveyed police officers indicate that they still enjoy their job and are not currently looking for another job (Morin et al., 2017; Wyllie, 2017). Still, they do admit that their level of job satisfaction and thoughts of changing careers have been negatively impacted by Ferguson (Calibre Press, 2020; Morin et al., 2017; Wyllie, 2017). About 86% of those surveyed indicated they thought the job was harder now and that they have become more calloused since Ferguson (Morin et al., 2017). Nearly 81% say that they would not recommend a career in law enforcement to others, and over one-third say they would not do it all over again themselves (Calibre Press, 2020).

In terms of police officer recruitment, Todak (2017) found in survey research of criminal justice college students that most felt there was a police legitimacy crisis in the United States and that law enforcement officers are generally now guilty until proven innocent after use-of-force encounters. Surprisingly, this did not in any way dampen their interest in becoming police officers, with many seeing the current environment as an opportunity for them personally to help change public opinion about police officers.

Similar research of 654 criminal justice college students found a correlation between the perception of negative media bias against the police and a reduced desire to enter the law enforcement profession (Morrow et al., 2019). Regarding police officer retention, command-level police officers indicated that while they acknowledged the Ferguson Effect and its impact on policing, they had no desire to quit (Markopoulos, 2017). What is not clear in the study is any difference between the perspectives of command-level police officers and street-level police officers. One survey of nearly 10,000 officers conducted in 2019 did find that 45% of those surveyed, who were near retirement, stated they would be retiring early, and 8% stated they would be leaving, even though they were not near retirement (Calibre Press, 2020).

As with crime rates and officer safety, the data on recruitment and retention of police officers is mixed. It may be difficult to demonstrate any clear link between the Ferguson Effect and the reported number of police officers in the United States from year to year, as the numbers vary by source and as things like a good economy and the number of available jobs may be contributors.

Summary

As outlined in this chapter, there appears to be much anecdotal evidence of a pre and post-Ferguson world but little evidence – mixed at best – through the lens of scientific research. Some researchers have attempted to move beyond a Ferguson Effect era into a Gray Effect (Freddie Gray in Baltimore, Maryland), but the recent mention of any effect still employs the Ferguson Effect name (Morgan & Pally, 2016). The literature also revealed that the Ferguson Effect had been called by other names before the August

2014 incident in Ferguson, Missouri, indicating that it is not a new phenomenon at all. Still, 5 years after the Ferguson incident, the Ferguson Effect name is invoked on a regular basis.

Before examining the Ferguson Effect literature, this chapter looked at research on perhaps the most enduring pre-Ferguson name, de-policing. What is clear when researching the concept of de-policing is that, much like the Ferguson Effect, there is much in the way of anecdotal evidence to support the concept but less in the way of actual scientific research. Indeed, the research tends to demonstrate that whether called de-policing or the Ferguson Effect, there is little actual evidence that it has any impact on crime. Some research has shown a reduction in police arrests, traffic stops, and pedestrian stops, but there is no clear corresponding increase in crime. Further, crime rate fluctuations and even spikes in certain categories of crime in certain places are regarded by some researchers as well within long-term historical trends.

Regarding police officers' safety and hesitating to use force out of fear of the consequences, research showed no increase in police officer murders post-Ferguson. Additionally, polling data demonstrated that public sentiment regarding the police has generally trended within historical boundaries since Ferguson and even spikes in negative sentiment immediately following Ferguson tended to rebound over time. While there was ample survey evidence to demonstrate that public perceptions of police legitimacy have been down since Ferguson, this too has rebounded in the years after. Further, it appears this was also an issue pre-Ferguson. While legitimacy seems to be an important component in police/citizen relations, the belief that a crisis in police legitimacy has

caused crime to go up post-Ferguson is also not supported by the data. Still, even critics of the Ferguson Effect admit that a longer trend snapshot of data will need to be collected before any scientific conclusions can be made about a Ferguson Effect impact on crime.

Some believe that organizational justice can counter feelings of any Ferguson Effect on the part of police officers, but this presupposes a belief in the Ferguson Effect by those same officers – a supposition that tends to be correct from street-level officers to those in the highest of command. Still, surveyed officers indicated the importance of feeling like their agency has their back and that this feeling does impact how they interact with citizens. As police legitimacy is not strictly a matter of how police officers interact with the public but also a matter of public feelings regarding the police – some feelings may be deeply rooted and not easily changed – it is not clear at all that organizational justice might dampen negative outcomes related to the Ferguson Effect.

Just as data on the Ferguson Effect is mixed and inconclusive, research into the perceptions of the Ferguson Effect held by officers is much the same. Surveyed officers at all levels of rank and responsibility seem to indicate a belief in the Ferguson Effect. Many admit to de-policing or knowing other police officers who do, but they also indicate that the Ferguson Effect has not dramatically impacted their satisfaction with their career choice. Some have concerns over their safety but still feel confident they know when and how to protect themselves. Recruit officers recognize the risks and acknowledge the current environment but are not deterred from entering law enforcement.

As indicated by news stories, there are plenty of anecdotal stories to prove or disprove the ingrained beliefs one has on the current state of policing and the existence of a Ferguson Effect. Five years after the incident in Ferguson, the Ferguson Effect is still blamed for alleged spikes in crime, assaults on police officers, low recruitment numbers, and early retirements. However, the Ferguson Effect research shows little to no evidence that there is a Ferguson Effect and further, that it has caused any of these alleged problems. And yet, police officers believe it is real.

A few researchers have examined facets of the officer perspective, such as their intentions to leave policing in a post-Ferguson world or their willingness to cooperate with citizens in the community they serve or the intentions of criminal justice students to enter policing, or how they view organizational justice. Most of the research, however, was conducted in the 2 years following Ferguson. But it has now been 5 years since the incident that birthed the Ferguson Effect. The question is, do they still believe it is real 5 years after Ferguson? Further, are there perceptual differences between officers employed by larger law enforcement agencies and those employed by historically under-researched smaller agencies?

The present study provides a more current examination of officer perceptions of the Ferguson Effect. The focus is on how, if at all, the Ferguson Effect still impacts police officer behavior. The study attempts to replicate the general Ferguson Effect findings of others related to police officer perceptions. A survey approach was used to collect data on officer perceptions of the Ferguson Effect as related to concerns over legal liability, federal government oversight of local law enforcement agencies, and officer

safety. Additionally, the roles of organizational justice and self-legitimacy were examined. Finally, the present study explored small-town officers' perceptions, something historically underrepresented in officer survey research.

In terms of the generalizability of research findings, most policing research seems to focus on larger police agencies. Considering that a researcher can get a larger participant pool by focusing on larger agencies, this makes sense. In other words, if a researcher can get 1000 participants by approaching one agency in a large city as opposed to the same number by approaching 100 smaller agencies, it only makes sense from a financial perspective and a workload perspective to do the former. The problem is that there may be differences between a larger agency officer and a smaller agency officer.

Previous research has shown differences in the style of policing between a big city and a small town, as well as differences in the demographics of the community served and the expectations that community has of their police department (Leiderbach & Frank, 2003; Meagher, 1985; Weisheit et al., 1995). Still, most research focuses on larger agencies. Even while explaining that about one-third of police officers in the United States work at police agencies with 100 or fewer officers and that there are differences in the perceptions of big-city and small-town officers, the Pew Research Center (https://www.pewresearch.org/) in their 2017 survey still only examined officers working for agencies with 100 or more officers (Morin et al., 2017). In a bit of irony, the Ferguson Police Department itself would not have been included in the survey, as the department only employed just over fifty officers at the time of the survey (Firozi, 2014).

Some might think that, despite the size of Ferguson, Missouri, the Ferguson Effect is a big city matter, but research found that officers in small police agencies viewed Ferguson as a transformative event for policing that included small towns (Adams, 2018). Regardless, if there is any felt experience, the perceptions of a police officer regarding the Ferguson Effect can impact their behavior. This is equally true of a small-town police officer and understanding if there are differences in the Ferguson Effect perceptions between the officers in larger agencies and those in smaller agencies is important to research, especially when considering policy changes.

The present study gathered data from officers employed in several law enforcement agencies in a large southeastern city's MSA. This area is comprised of 14 counties and 53 law enforcement agencies ranging in size from two police officers to over 1000 police officers. Additionally, the area covers a large metropolitan city and numerous small towns and rural counties allowing differences between large and small police agencies to be observed.

Finally, this study was guided by the TRA. In short, the theory is a "cognitive model on the decision to engage in a behavior" that "rests on the assumption that the decision to engage in a behavior is based on the outcomes that the individual expects to accrue from the behavior" (Ajzen & Fishbein, 1980: Fishbein & Ajzen, 1975; Gillmore et al., 2002, p. 885-886; Sheppard et al., 1988). In view of police officer perceptions of the Ferguson Effect, this theory served as a guide to examine the extent to which police officers modify their behavior – de-policing, officer hesitation, job satisfaction, etc. – as a

result of the perceived consequences of the Ferguson Effect. The next chapter is devoted to discussing the research design and methodology for this study.

Chapter 3: Research Method

The purpose of this study was to examine police officer perceptions of the Ferguson Effect and its potential impact on their behavior and attitudes. As the incident giving rise to the Ferguson Effect occurred in August of 2014, this study sought to capture officer perceptions after the passing of 5 years. Additionally, as most previous research into the Ferguson Effect's impact on police officers has focused on larger police agencies, comparative findings between officers at large and small agencies are included.

The Ferguson Effect hypothesizes that police officers are abstaining from proactive policing activities and avoiding the use of force because they fear possible repercussions such as media scrutiny, federal government oversight, and legal liability (Fairburn, 2015; Kass, 2016; Valencia, 2015; Wolfe & Nix, 2016). As a result of this pullback or de-policing, crime rates are alleged to be on the rise (Mac Donald, 2015a). Although a connection between the Ferguson Effect and crime rates has not been definitively established, survey research of police officers has consistently found an awareness of the Ferguson Effect and its perceived impact on officers (Blake, 2016; Blake & Lafond, 2017; Deuchar et al., 2018; Morgan & Pally, 2016; Morin et al., 2017; Pyrooz et al., 2016; Rosenfeld, 2015; Rosenfeld, 2016; Wheeler & Kovandzic, 2017; Wyllie, 2017).

This study sought to compare previous findings of officer perceptions of the Ferguson Effect with new data collected at the 5-year mark following the incident in Ferguson, Missouri. Specifically, for this investigation, I examined associations between officer awareness of the Ferguson Effect and their perceptions of federal government

oversight of local policing, the potential for legal liability as a result of a Ferguson-type incident, and concerns over personal safety while on duty. This investigation focused on a large 14-county MSA in a southeastern state, comprised of 53 law enforcement agencies ranging in size from two officers to over 1,000.

This chapter outlines the specifics of the population studied, as well as the research methodology. The body of knowledge on the Ferguson Effect has been expanded by taking a 5-year post-Ferguson snapshot of officer perceptions, collecting small agency data, and providing additional officer perspective to the ongoing conversation on policing in a post-Ferguson world.

Research Design and Rationale

For this quantitative research study, I used a nonrandom sampling method and cross-sectional design to explore statistical associations between police officer awareness of the Ferguson Effect and their perceptions of federal government oversight, legal liability, and officer safety. A review of the literature revealed research examining various aspects of the Ferguson Effect, including studies geared toward the police officer perspective. The qualitative studies generally analyzed samples much smaller (n = < 25) than that analyzed for this study. There were quantitative studies similar to this study as well, but they tended to examine samples from larger law enforcement agencies only or included non-patrol-level police officers. This study's focus was on street-level patrol officers, as that is the population most likely to encounter citizens in the community on a daily basis. Finally, the design is correlational in nature and does not attempt to make

claims of causality. An online survey method was utilized for data collection, and it was assumed that participants provided honest, thoughtful responses.

Methodology

In the following subsections, I discuss the specifics of the methodological approach for this research study. The sample population and participant recruitment procedures are first discussed, followed by a discussion of the survey instrument, measures utilized for the study, and all study variables. Finally, this section outlines the three research questions and a detailed discussion of the process for analyzing the collected data.

Population

The population was composed of certified law enforcement officers in a 14-county MSA in a southeastern state, represented by 53 law enforcement agencies. The focus was on street-level patrol officers, who have routine contact with citizens. As such, I filtered out administrative officers and officers at the rank of Sergeant and above after the data were collected. Additionally, there are several campus law enforcement agencies within the MSA. I excluded these departments from the study, as they routinely perform tasks specific to the campus environment and outside of street-level patrol functions. Finally, the area in which the MSA is located has a statewide law enforcement agency. While the state agency's jurisdiction encompasses the study area, it also includes a large geographic area outside the MSA. Furthermore, law enforcement officers from this agency working within the MSA can change frequently. In order to focus strictly on county sheriff agencies and municipal police agencies who work exclusively inside the

MSA, the statewide agency was excluded. Based on publicly available information on agency websites and obtained by direct response from phone and email solicitation, the total number of law enforcement officers at the time of data collection represented by the agencies under study was 3,568.

Sample

After considering the sample population, I determined that time and cost considerations warranted targeting an optimal sample size for the study instead of waiting on full participation by the entire population. Using the G*Power program, I determined the optimal sample size to be (n = 135), based on the population size of 3,568 (Faul et al., 2007). I inputted the following parameters: Cohen's f^2 effect size (0.15), α significance level (.05), and power (0.80). According to Cohen (1988), "a medium effect size is conceived as one large enough to be visible to the naked eye … that is, in the course of normal experience" (p. 25). Cohen went on to state that a (0.15) Cohen's f^2 effect size would be considered a medium effect size in social science research. The α significance level is a threshold value used to judge whether a test statistic is statistically significant (Lavrakas, 2008). A .05 alpha level is customary in social science research and "although unofficial, has come to serve as a convention for a (minimum) basis for rejecting the null hypothesis in most areas of behavioral and biological science" (Cohen, 1988, p. 12; Lavrakas, 2008). Norton and Strube (2001) stated that "one definition for statistical power is the probability of not making a type II error" or failing to reject a false null hypothesis (p. 308). Cohen suggested a power of .80. I chose an alpha level of .05 and a power of .80 in order to minimize Type I (false positive) and Type II (false negative)

errors, respectively, and therefore increase the likelihood of drawing correct conclusions (Banerjee et al., 2009).

Recruitment, Participation, and Data Collection

As this research study focused on 53 law enforcement agencies in the target geographical area, the population is finite. Additionally, the exact number of law enforcement officers in the population could have changed during the data collection phase due to hiring and separations during that time. As the study was anonymous, there were no safeguards to ensure that a participant had not separated from their respective agency before the end of the data collection period. Further, it was possible that there were participants who were hired during the data collection period and were not with that agency before the start of data collection.

In addition to being anonymous, this study was also voluntary. The voluntary nature was stressed to the agency head/contact person at each agency, and the survey instrument clearly indicated to each participant that it was voluntary. I contacted each organization by phone and email within the area of study, explaining that their agency had been selected to participate in a research study and requesting an ongoing contact person. Agency information was collected through the National Public Safety Information Bureau and confirmed through agency websites. Initial contact with the ongoing contact person included an explanation of the research study and why their agency had been requested to participate. Additionally, it included a voluntary participation form in which they could indicate their willingness to inform their officers of the study through the means outlined below and facilitate officer participation by

sending them the link to the survey instrument through email. One week before the start of data collection, I sent a notice by email to each agency asking them to advise officers through department email that they could participate in an anonymous research study to begin the following week. On the first day of the data collection period, I sent a second email requesting that officers be advised through department email that the research study had begun and that they were encouraged to voluntarily participate. A link to the survey was provided in the department email and can be found in Appendix A.

The data collection period for this research study was initially intended to last 3 weeks. However, as explained in Chapter 5, the collection period was extended by approximately three months due to several incidents occurring within the area of study just prior to, and during, data collection. As a result of this extension of the data collection period, additional email contact was made with agency contacts requesting that they forward the survey link email to officers again. I used SurveyMonkey (https://www.surveymonkey.com/), an online survey research site, to build the survey instrument and collect the data.

Instrument

The survey instrument used for this research study was comprised of general information questions and topic-relevant questions taken from several previously developed questionnaires. The general information questions functioned as control variables and provided additional opportunities to examine relationships based on characteristics such as gender, age, race, ethnicity, and level of education. A description of the variables employed for this study's data collection portion is contained in Table 1.

The variables utilized for statistical analysis, after removing nonpatrol and supervisory participants from the initial sample, are presented in Table 2. Questions used to measure the variables are presented in Appendix B, with research question linkages presented in Appendix C.

Measures

A scale measuring the Ferguson Effect was devised and first used by Wolfe and Nix (2016) and subsequently employed by other researchers (Markopolous, 2017). This scale measured police officer awareness of the Ferguson Effect, specifically in that it "captured deputies' perceptions regarding how recent negative publicity surrounding law enforcement has affected them" (Wolfe & Nix, 2016, p. 5). The researchers used a 5-point Likert Scale to measure agreement or disagreement with five items, which they summed into an index as the "Ferguson Effect" and used as the independent variable in their study (Wolfe & Nix, 2016, p. 5). According to the researchers, "principal components analysis (PCA) with varimax … results provided evidence that the five items loaded on a single component ($\lambda = 3.27$; loadings > .70)" and "also demonstrated strong internal consistency ($\alpha = .87$)" (Wolfe & Nix, 2016, p. 5). The current investigation utilized this five-item Ferguson Effect scale in its entirety, with only a minor modification. The original scale asked participants to rate each of the five items considering "the past 6 months" (Wolfe & Nix, 2016, p. 5). As the present study examined the 5-year period since the Ferguson, MO incident, the questions read, "the past 5 years."

Wolf and Nix (2016) also developed an 18-item scale for their study to measure officer perceptions of organizational justice and a five-item scale to measure their perceptions of self-legitimacy. Regarding the organizational justice scale, the researchers stated that "a single component was observed in a PCA ($\lambda = 10.75$; loadings > .64) and items had strong internal consistency ($\alpha = .96$)" (Wolfe & Nix, 2016, p. 5). Regarding the self-legitimacy scale, the researchers stated that "these items … loaded on a single component ($\lambda = 2.32$; loadings > .56) and evidenced adequate internal consistency ($\alpha = .71$)" (Wolfe & Nix, 2016, p. 5). The current investigation utilized the scales for organizational justice and self-legitimacy in their entirety with only slight modifications to some questions' wording. Where the original study questions specify "Midlands County," the wording was changed to "my agency."

In later research, Nix, Wolfe, and Campbell (2018) examined command-level officer perceptions of de-policing and officer safety. The researchers developed a scale for measuring officer perceptions of their personal safety while on duty. According to the researchers, "PFA showed that the items loaded onto a single factor," and they "averaged responses to the four items to create a mean index ($\alpha = .90$)" (Nix, Wolfe, & Campbell, 2018, p. 42). This four-item scale was included in the survey instrument with only a minor modification to the wording. The researchers asked participants to consider the previous 2 years, whereas the present study asked participants to consider the previous 5 years. There is ongoing debate in statistics over the appropriateness of treating additive scales at the interval level. This approach, as used in this study, is addressed in the Survey Instrument Scale Verification section of Chapter 4.

Table 1

*Variable List (*n *= 182)*

Variable	Description	Min/Max	Mean	SD
Sociodemographic				
Age	Age (in years)	21-66	38.93	9.75
Gender	Gender (0 = Female, 1 = Male)	0-1	0.86	0.35
Race	Self-identified as Non-Hispanic White (0 = Non-Hispanic White, 1 = All other groups)	0-1	0.12	0.32
Education	2-year college degree or above (0 = No, 1 = Yes)	0-1	0.64	0.48
Employment characteristics				
Agency size	Number of full-time certified officers	8-2000	467.43	588.06
Jurisdiction size	Number of citizens	2700-2M	266,215	319,607
Department type	0 = Municipal, 1 = Sheriff	0-1	0.11	0.31
Experience	Years as police officer	0.50-44	13.47	9.00
Rank	0 = Non-supervisor, 1 = Supervisor	0-1	0.26	0.44
Duty assignment	0 = Patrol, 1 = Other	0-1	0.26	0.44
Dependent variables				
Officer safety	4 item scale measuring opinion of safety while on duty	0-11	4.59	2.56
Legal liability	2 item scale measuring opinion of legal concerns after use-of-force incident	0-7	1.92	1.68
Government oversight	2 item scale measuring opinion of federal oversight of local law enforcement agencies	0-8	2.77	1.88
Main independent variable				
Ferguson Effect Scale	5 item scale measuring perception of Ferguson Effect	0-14	6.10	3.33
Intervening variables				
Self-legitimacy	5 item scale measuring feelings of self-legitimacy in position as law enforcement officer	0-12	5.78	2.67
Organizational justice	18 item scale measuring feelings of organizational justice in agency	3-67	34.68	14.27

Control Variables

Several questions were used in the survey instrument as control variables: gender, race, age, education level, agency type, department size, size of jurisdiction, experience, rank, and duty assignment. Age, agency size, jurisdiction size, and experience were measured as continuous level variables. Gender was measured as a binary variable where 0 = Female and 1 = Male. Race was measured as a binary variable where 0 = Non-Hispanic White and 1 = All other groups. Education level was measured using a binary variable where 0 = No 2-year college degree or above and 1 = Yes 2-year college degree or above. Rank was a binary variable where 0 = Non-Supervisor and 1 = Supervisor. Agency type was a binary variable where 0 = Municipal and 1 = Sheriff. Duty Assignment was measured as a binary variable where 0 = Patrol and 1 = Other.

Ferguson Effect Perception

The independent variable for this study was police officer perception of the Ferguson Effect. This variable was operationalized by utilizing the five-item Ferguson Effect scale developed and used by Wolfe and Nix for their research (2016). The instrument questions were worded in a manner to include officer perceptions for the 5-year period following the Ferguson incident in August of 2014. Questions 1–5 in the survey were used to measure police officer perception of the Ferguson Effect, and responses to these questions were computed to form an additive scale. These questions can be found in Appendix B.

Officer Safety

Police officer perceptions of their safety in the Ferguson Effect era continues to be a topic of discussion and research. Questions previously devised and used by the same researchers mentioned above to measure officer perceptions of their safety while on duty were included in this study's survey instrument. Questions 6–9, as found in Appendix B, were used for this purpose, and responses to these questions were computed to form an additive scale.

Officer Legal Liability

Questions were included in the present study's survey instrument to measure and operationalize police officer fears of legal liability resulting from a high-profile use-of-force type incident. I created two questions for this purpose, which can be found in Appendix B as Questions 10 and 11. Responses to these questions were computed to form an additive scale.

Government Oversight

This study also called for the measurement of officer perceptions concerning federal government oversight of local law enforcement agencies. As with the measurement of officer perceptions of legal liability, a previously created survey instrument for measuring officer perceptions of government oversight was not located. I devised questions 12 and 13, found in Appendix B, to measure this item, and the responses were computed to form an additive scale.

Organizational Justice and Self-Legitimacy

Previous research by Wolfe and Nix (2016) found that officer perceptions of organizational justice and self-legitimacy can be confounding factors in examining officer perceptions of the Ferguson Effect. The present study included questions in the survey instrument previously developed and used by Wolfe and Nix to measure officer perceptions of organizational justice and self-legitimacy.

Questions 14–18 were used to measure police officer perceptions of self-legitimacy. They can be referenced in Appendix B, and the responses to these questions were computed to form an additive scale.

Questions 19–36 were used to measure police officer perceptions of organizational justice. These questions can also be located in Appendix B, and the responses to these questions were computed to form an additive scale.

Research Questions and Hypotheses

This investigation focused on police officer perceptions of the Ferguson Effect and how those perceptions impact their behavior and attitudes 5 years after the police-involved shooting death that gave rise to the Ferguson Effect theory. Specifically, it focused on statistical associations between officer perceptions of the Ferguson Effect and their perceptions of government oversight, legal liability, and officer safety. Additionally, differences in the perceptions of police officers in smaller agencies versus larger agencies were examined. As such, the following research questions guided this study.

RQ1: Five years after Ferguson, do police officers perceive federal government oversight of local law enforcement agencies negatively?

$H_0$1: Five years after Ferguson, police officers do not perceive federal government oversight of local law enforcement agencies negatively.

$H_1$1: Five years after Ferguson, police officers perceive federal government oversight of local law enforcement agencies negatively.

RQ2: Five years after Ferguson, are police officers concerned about potential legal liability over use-of-force incidents?

$H_0$2: Five years after Ferguson, police officers are not concerned about potential legal liability over use-of-force incidents.

$H_1$2: Five years after Ferguson, police officers are concerned about potential legal liability over use-of-force incidents.

RQ3: Five years after Ferguson, are police officers concerned about their safety while on duty?

$H_0$3: Five years after Ferguson, police officers are not concerned about their safety while on duty.

$H_1$3: Five years after Ferguson, police officers are concerned about their safety while on duty.

RQ1 through RQ3 utilized the five-item Ferguson Effect Scale as developed by Wolfe and Nix (2016) for their research to measure awareness of the Ferguson Effect as the independent variable. The dependent variable for RQ1 was officer perceptions of federal government oversight of local policing as measured by survey questions 12 and 13. RQ2 utilized survey questions 10 and 11 to measure officer concerns over potential legal liability after a use-of-force incident as the dependent variable. Finally, RQ3

measured officer concerns about their personal safety while on duty as the dependent variable using questions 6 through 9.

Data Analysis Plan

Data analysis for this dissertation was conducted using SPSS Version 25.0. The survey instrument utilized a 5-point Likert scale scoring system (0 = *strongly agree*, 1 = *agree*, 2 = *neither agree nor disagree*, 3 = *disagree*, 4 = *strongly disagree*) for all survey questions except for sociodemographic and employment characteristics. Reverse coding was employed for 11 randomly selected survey questions to maximize answer integrity. Bivariate and multivariate analyses were performed to examine relationships between the independent variable, dependent variables, control variables, and intervening variables. The units of analysis and levels of measure for each variable were at the individual level (officer).

During the first phase of data analysis, Pearson's *r* (zero-order correlation) was used to determine if bivariate linear relationships existed between the study variables as outlined in the Bivariate Correlations matrix in Table 3. Pearson correlation "is a measure of the strength and direction of association that exists between two continuous variables" and is commonly used for bivariate analysis ("Pearson's Correlation", n.d., p. 1). Scatterplots were used to examine the linearity of variable relationships. "The Pearson correlation coefficient, *r*, can take a range of values from +1 to -1 … a value of 0 indicates that there is no association between the two variables … a value greater than 0 indicates a positive association … a value less than 0 indicates a negative association" ("Pearson Product-Moment", n.d., p. 1). Data transformation is an accepted method for

dealing with non-linear data, but no data transformations were necessary, as there were not any non-linear relationships identified. Using Pearson's *r* for the bivariate analysis allowed for early identification of potential collinearity issues when performing multiple regression analysis during the second phase of data analysis. It also provided an opportunity to determine whether associations held true when performing Ordinary Least Squares (OLS) regression when all control, intervening, and independent variables were entered in the model.

In order to investigate the first research question (RQ1), a Pearson' *r* correlation was performed to examine the relationship between the independent variable (awareness of the Ferguson Effect) and the first dependent variable (negative perceptions of federal government oversight). The same test was performed to examine the relationship between the independent variable and the second dependent variable (concerns over legal liability) for research question two (RQ2) and between the independent variable and the third dependent variable (concerns over officer safety) for research question three (RQ3). Beyond the three research questions' findings, additional bivariate analysis was conducted using the control variables and intervening variables as outlined above.

Four assumptions associated with using Pearson's *r* correlation were identified and addressed ("Pearson Product-Moment", n.d.). The first assumption was that all variables are at either the interval or ratio (continuous) level. The independent variable, dependent variables, intervening variables, and four of the control variables (age, agency size, jurisdiction size, and years of experience) are all continuous level variables. The remaining six control variables (gender, race, education, department type, rank, and duty

assignment) are dichotomous (binary) variables. According to Pasta (2009), "binary variables are those that take on exactly two values, such as 0 and 1 or True and False or Male and Female … for analysis purposes, they can be considered either continuous or categorical." Accordingly, Pearson's *r* was utilized for all bivariate analyses.

The second assumption with Pearson's *r* was that there is a linear relationship between the two variables ("Pearson Product-Moment", n.d.). As indicated previously, scatterplots were generated and used to examine relationship linearity. No data transformation was performed, as non-linear relationships were not identified.

Assumption number three was that no significant outliers were found ("Pearson Product-Moment", n.d.). Histograms or box plots are commonly used to detect outliers, and after they are identified and confirmed, they can be transformed or even dropped (Tabachnick & Fidell, 2001). Both were generated, but no data transformations were necessary.

In the fourth instance, Pearson's *r* assumed that the data were normally distributed ("Pearson Product-Moment", n.d.). Normality was checked with a Shapiro-Wilk test through SPSS ("Pearson Product-Moment", n.d.; Tabachnick & Fidell, 2001). No data transformations were necessary as a result of this test.

During the second phase of data analysis, multivariate analysis was performed utilizing OLS regression. "Ordinary least-squares (OLS) regression is one of the most popular statistical techniques used in the social sciences … to predict values of a continuous response variable using one or more explanatory variables" (Hutcheson &

Sofroniou, 1999, p. 2). Further, “it is a generalized linear modeling technique, which, as the name suggests, models linear relationships” (Hutcheson & Sofroniou, 1999, p. 2).

OLS multiple regression was required for the multivariate analysis, as this study introduced 10 control variables and two intervening variables into the analysis alongside the independent variable and three dependent variables (tested separately in different regression models). “Using multiple regression, one can calculate the effect that each explanatory variable has on the response variable whilst controlling for other variables in the model” (Hutcheson & Sofroniou, 1999, p. 21). The OLS multiple regression method of analysis was most appropriate, in part because, while four of the control variables were continuous level variables (age, agency size, jurisdiction size, and years of experience), the other six control variables (gender, race, education, department type, rank, and duty assignment) were dichotomous and “it is possible … to include dichotomous, or binary, data in a model since the OLS regression procedure treats this as continuous data which can only assume one of two values … the ability to include dichotomous data enables variables … to be used as explanatory variables” (Hutcheson & Sofroniou, 1999, p. 33). The OLS multiple regression statistical method allowed for the multivariate analysis of all continuous level and dichotomous independent, dependent, intervening, and control variables.

Six assumptions associated with using OLS multiple regression were identified and addressed (“Multiple Regression Analysis”, n.d.). The first assumption was that the variables are continuous level or, as previously explained, dichotomous in nature

(Hutcheson & Sofroniou, 1999; “Multiple Regression Analysis”, n.d.). The independent, dependent, intervening, and control variables were all either continuous or dichotomous.

The second assumption found in OLS multiple regression was that there is a linear relationship between the independent and dependent variables individually and collectively (Hutcheson & Sofroniou, 1999; “Multiple Regression Analysis”, n.d.; Tabachnick & Fidell, 2001). This relationship was examined for linearity through scatterplots (“Multiple Regression Analysis”, n.d.; Tabachnick & Fidell, 2001). No non-linear relationships were identified from the scatterplots.

The third assumption in OLS multiple regression analysis was that the data is normally distributed. “Multivariate normality is the assumption that each variable and all linear combinations of the variables are normally distributed and independent” (Tabachnick & Fidell, 2001, p. 72). As indicated with Pearson’s *r*, normality in OLS multiple regression can be checked by a histogram and resolved by transforming variables. Histograms were generated and demonstrated normal distribution.

A fourth assumption related to normality and found in OLS multiple regression analysis was homoscedasticity, which is “that the variability in scores for one continuous variable is roughly the same at all values of another continuous variable” (Tabachnick & Fidell, 2001, p. 79). When this assumption is not met, the failure is known as heteroscedasticity, which “is caused either by nonnormality of one of the variables or by the fact that one variable is related to some transformation of the other” (Tabachnick & Fidell, 2001, p. 79). According to Tabachnick and Fidell (2001), “violations of

homogeneity usually can be corrected by transformation of the DV scores" (p. 80). No violations of homogeneity were observed.

The fifth assumption with OLS multiple regression concerns multicollinearity, "which occurs when you have two or more independent variables that are highly correlated with each other" ("Multiple Regression Analysis", n.d.). Multicollinearity can be minimized or avoided by careful selection of variables. If detected, multicollinearity issues can be resolved typically by collecting more data, collapsing variables, or removing variables (Hutcheson & Sofroniou, 2011). A common test for multicollinearity during regression is to generate a Variance Inflation Factor (VIF) (Hair et al., 2020). A VIF "quantifies how much the variance is inflated" between factors and should be below 10 (Detecting Multicollinearity, (n.d.), para. 4; Hair et al., 2010). VIFs were generated and multicollinearity was not observed during data analysis.

The sixth and final assumption with OLS multiple regression was that the data analysis does not contain outliers ("Multiple Regression Analysis", n.d.). "An outlier is a case with such an extreme value on one variable (a univariate outlier) or such a strange combination of scores on two or more variables (multivariate outlier) that they distort statistics" (Tabachnick & Fidell, 2001, p. 66). Histograms or box plots are commonly used to detect outliers, and after they are identified and confirmed, they can be transformed or even dropped. No outliers were observed. All tests were performed utilizing tools within the SPSS Version 25.0 program.

Separate models were generated for each dependent variable for a total of three OLS regression analyses. The model predicting a negative view of federal government

oversight as the dependent variable can be found in Table 4. The model predicting fear of legal liability as the dependent variable can be found in Table 5. Finally, the model predicting officer safety concerns as the dependent variable can be found in Table 6. The same 11 variables were entered into each model during data analysis, namely the independent variable (Ferguson Effect awareness), two intervening variables (self-legitimacy and organizational justice), four sociodemographic control variables (gender, race, age, education), and four employment characteristic control variables (agency size, jurisdiction size, department type, experience). The rank and duty assignment variables were utilized during data collection only to identify non-patrol and supervisory rank officers. They were not utilized during statistical analysis. These analyzed variables, along with descriptive statistics, can be found in Table 2.

Threats to Validity and Reliability

Creswell (2009) defines threats to internal validity as "procedures, treatments, or experiences of the participants that threaten the researcher's ability to draw correct inferences from the data about the population" (p. 162). While there is not an official list of threats to internal validity, there are threats that appear in multiple sources, even if appearing by different names. For this research study, I identified two possible threats to internal validity.

The first identified internal threat to validity is commonly referred to as "selection" (Creswell, 2009; Frankfort-Nachmias et al., 2015; O'Sullivan et al., 2008). According to Creswell (2008), this threat is found where "participants can be selected who have certain characteristics that predispose them to have certain outcomes" (p. 163).

One might refer to this threat as “stacking the deck,” and the best way to avoid this threat is through randomization (Creswell, 2009). The population for this research study was patrol-level law enforcement officers. One could argue that a certain measure of homogeneity will be found among them by virtue of their job description and that this “selection” of homogeneous participants will render an expected outcome. Anonymous biographical information was collected from each participant through the survey instrument that provided data along lines like age, time on the job, and sex, which reduced the possibility of homogeneity. Additionally, previous research has found differences in officer responses and has not demonstrated unusually high percentages of agreement in responses.

The second identified internal threat was “design contamination,” and is defined as “a condition occurring where participants know that they are in a study and act differently because of it” (O’Sullivan et al., 2008, p. 60). While such a threat would be more common in experimental research, it might also be found in correlational survey research, where participants answer questions in a manner they think they should answer rather than consistent with their own beliefs and behavior. This study, like all survey research, relied on the veracity of responses from research participants. As indicated previously, that veracity was assumed, even while it was difficult if not impossible to manage and prevent by research design. The anonymity of the study helped minimize this risk, as participants were more likely to answer honestly.

Threats to external validity generally have to do with the generalizability of findings to others. Creswell (2009) defines it simply as "when experimenters draw

incorrect inferences from the sample data to other persons, other settings, and past or future situations" (p. 162). Generalizability is also known as "representativeness of the sample," "effects of selection," and "interaction of setting" (Creswell, 2009, p. 165; Frankfort-Nachmias et al., 2015, p. 93; O'Sullivan et al., 2008, p. 64).

It is understood that the findings of this research study are exclusive to the population under study. As such, there are issues of generalizability to law enforcement officers in other geographic regions of the United States. Additionally, the findings along biographical lines are not generalizable to others along those same lines, even within the law enforcement agencies under study. Finally, as the focus was on street-level patrol officers, the findings cannot be generalized to other certified officers within or outside the agencies under study who do not fit that definition.

According to Creswell (2009), "reliability evaluates the consistency of a measure" (p. 109). While great care was taken in the selection of appropriate measures for this study, it is generally accepted that no measure is without error (Creswell, 2009; Frankfort-Nachmias et al., 2015). Additionally, "because measurement in the social sciences is primarily indirect, the number of errors that occur when variables are measured tends to be greater than when physical variables are measures" (Frankfort-Nachmias et al., 2015, p. 135). Even things like "mood, test conditions, and other factors can affect performance on any given day" (Creswell, 2009, p. 110).

In order to minimize error, it is important to establish measure reliability by testing for internal consistency of the measures being used in the study. As the present study had a single point of measurement, an appropriate test for internal consistency of

the measures used was Cronbach's alpha "α" (Reliability in Research, n.d.). "Cronbach's alpha is often used when you have multi-item scales … such as a survey, with multiple questions … it is also a versatile test of reliability of internal consistency because it can be used for attitudinal measurements … to include Likert scales" (Reliability in Research, n.d., p. 3).

A total of five scales were utilized for this study. The independent variable of Ferguson Effect awareness was measured by a five-item Likert scale previously developed by Wolfe and Nix (2016). As indicated in the Measures section of Chapter 3 of this dissertation, the researchers checked for internal consistency of their measure with Cronbach's alpha, and it "demonstrated strong internal consistency (α = .87)" (Wolfe & Nix, 2016, p. 5). The scale utilized in this study to measure one of the three dependent variables (Officer Safety) was a four-item Likert scale developed by Nix, Wolfe, and Campbell (2018), which also demonstrated internal consistency through Cronbach's alpha (α = .90). The scales utilized for this study to measure the intervening variables of Organizational Justice and Self-Legitimacy were developed by Wolfe and Nix (2016) and demonstrated strong internal consistency of (α = .96) for Organizational Justice and (α = .71) for Self-Legitimacy. I developed the remaining two scales for measuring concerns over Legal Liability and Government Oversight for the present study. Cronbach's alpha was used during the data analysis process of this study to test for internal consistency of all five measures. As stated previously, no measure is free of error, but a demonstration through Cronbach's alpha of strong internal consistency of each of the measures used in this study minimized any threats to reliability.

Ethical Procedures

The population for this research study was comprised of certified law enforcement officers from 53 different law enforcement agencies in the MSA of a large city in a southeastern state. The focus was on street-level patrol officers. In order to avoid disenfranchising officers who did not fit that definition, questions were asked in the survey instrument and used to determine if a participant met that definition. No indication was made in the survey instrument that only street-level patrol officers were being studied, but instead, those not meeting that definition were filtered out after the data was collected. The study's final participants were both male officers and female officers and had a variety of demographic differences, ranging from variations in age to time on the job.

The only potential harm to participants caused by the survey instrument could be psychological in nature, resulting from concerns over supervisors or coworkers learning of their responses. The participants were asked to provide honest answers to questions regarding their behavior while on the job, their satisfaction with their work, their perceptions of management at their agency, and other potentially sensitive matters. In order to address this potential harm, participants were provided with materials regarding informed consent and a guarantee of their anonymity.

Data from this research study was collected and analyzed and will be disseminated in accordance with Walden University policies and procedures and that of the Institutional Review Board (IRB). Data will be stored on a password-protected computer and additionally on a flash drive dedicated to this research project and stored in

a key-locked fire-proof file storage box. Data will be stored for a period of 5 years from the end of the data collection period. After that time, data from both the computer and flash drive will be permanently deleted and the flash drive destroyed. No outside entity supported or funded any part of this research.

I am a former certified police officer at one of the agencies in the study area and was employed by that agency from October 2009 until August 2017 in a street-level patrol officer capacity and in a traffic officer capacity. I made friends and acquaintances at that agency during that time and still have contact with some of those people. Additionally, there are people at that agency who were aware that I am pursuing a doctoral degree and would at some point be conducting research. In order to minimize any bias in the number of participants from that agency and to minimize any bias resulting from their relationship to me as the researcher, all agencies involved were advised of the research study and invited to participate, but my identity remained anonymous.

Summary

The purpose of this study was to examine the Ferguson Effect through the lens of police officer perceptions 5 years after the August 2014 police-involved shooting incident in Ferguson, Missouri. Specifically, associations between police officer perceptions of the Ferguson Effect and federal government oversight of local law enforcement agencies, potential legal liability after use-of-force incidents, and officer safety were explored. The sample population was taken from a 14-county MSA in a southeastern state, comprised of 53 law enforcement agencies of varying sizes. Previous research into police officer

perceptions of the Ferguson Effect has tended to focus solely on larger law enforcement agencies of 100 or more officers. The present study also collected data on smaller law enforcement agencies in order to compare results between the two.

The survey instrument utilized was primarily comprised of previously developed scales, modified slightly to encompass the time frame under study. The survey was administered online, and survey participants were anonymous. This study is quantitative in design and utilized a correlational, cross-sectional approach. The data were analyzed using bivariate and multivariate regression analysis through the Microsoft SPSS Version 25.0 software. In Chapter 4 of this dissertation, the results of the study are outlined in detail.

Chapter 4: Results

The purpose of this quantitative study was to explore the relationship between police officer awareness of the Ferguson Effect and their perceptions of federal government oversight of local law enforcement agencies, potential legal liability over use-of-force situations, and personal safety while on duty. Consistent with previous research, these three relationships were additionally examined after introducing self-legitimacy and organizational justice as intervening variables (Wolfe & Nix, 2016). Also, as prior officer survey research focused primarily on larger law enforcement agencies, differences between perceptions of large agency officers and small agency officers were explored. The following research questions guided this study.

RQ1: Five years after Ferguson, do police officers perceive federal government oversight of local law enforcement agencies negatively?

$H_0$1: Five years after Ferguson, police officers do not perceive federal government oversight of local law enforcement agencies negatively.

$H_1$1: Five years after Ferguson, police officers perceive federal government oversight of local law enforcement agencies negatively.

RQ2: Five years after Ferguson, are police officers concerned about potential legal liability over use-of-force incidents?

$H_0$2: Five years after Ferguson, police officers are not concerned about potential legal liability over use-of-force incidents.

$H_1$2: Five years after Ferguson, police officers are concerned about potential legal liability over use-of-force incidents.

RQ3: Five years after Ferguson, are police officers concerned about their safety while on duty?

$H_0$3: Five years after Ferguson, police officers are not concerned about their safety while on duty.

$H_1$3: Five years after Ferguson, police officers are concerned about their safety while on duty.

In this chapter, I discuss the data collection procedures and the results of this study. Specifically, the methods for collecting, cleaning, and recoding the data are reviewed. Also, the descriptive statistics, processes of statistical analysis, and statistical findings are detailed to include additional analysis of correlational differences based on participant demographics and employment characteristics.

Pilot Study

An initial pilot study of the survey instrument consisting of three family members/friends was conducted prior to the actual research study for purposes of obtaining feedback on the flow and clarity of the survey instrument. All three participants indicated that the survey instrument flowed well and was clear to them. No changes to the survey instrument were made as a result of this pilot study. The data collected during the pilot study were not included in the research study.

Data Collection

Data collection for this study did not commence until approval was obtained from the Walden University IRB. Approval was received from the IRB on March 24, 2020 (IRB# 03-24-20-0453246), with data collection commencing May 1, 2020. Data were

collected in accordance with the plan, as outlined in Chapter 3 of this study. The data collection window was extended beyond the initial 3-week period. The last response was received on August 29, 2020, and the online data collection tool was closed on August 31, 2020.

Commencement of the data collection period was delayed until May 1, 2020, due to a natural disaster that struck and significantly impacted the area under study in early March of 2020. This disaster caused law enforcement agencies within the geographic area of study to be impacted as well, and a I made the decision to delay data collection accordingly.

The first online survey response for this research study was received on May 4, 2020. As the responses were anonymous and no identifying data were collected, it was difficult to know which of the 53 law enforcement agencies under study had forwarded the email invitation to voluntarily participate in the online survey to the certified law enforcement officers at their agency. Over the first 19 days of data collection, only 11 survey responses were received. The 12th response was received on May 26, 2020, which was the day after a second event, discussed below, impacted data collection.

On May 25, 2020, George Floyd died while in police custody in Minneapolis, Minnesota. This incident sparked months of protest in many locations across the United States, including the geographic area under study. Once again, law enforcement officers were tasked with duties outside normal police patrol activities. This second incident caused contact with the law enforcement agency representatives to become difficult at times and possibly resulted in a slow response rate to the online survey. I made the

decision to continue data collection until such time as the number of survey participants more closely matched the recommended G*Power sample population (n = 135), as outlined in Chapter 3.

Based on publicly available information on agency websites and direct response from phone and email solicitation, the total number of law enforcement officers at the 53 agencies under study at the time data collection began was 3,568. Data collection was conducted from May 1, 2020, until August 31, 2020. During that time, a total of 191 survey responses was received, representing a 5.3% response rate. Research into response rates of police survey research indicates that "response rates ranged from a low of 5.2% to a high of 100%" (Nix et al., 2019, p. 536). The researchers attributed response rate variance, and low response rates to such things as difficulty in gaining access to law enforcement officers and "survey fatigue" as "officers are asked frequently to complete surveys" (Nix et al., 2019, p. 534). In addition to the two previously mentioned factors, these factors could help explain the response rate and the necessity of extending the data collection period.

Data Cleaning and Recoding

A total of 191 online survey responses were received during the data collection period. Of those, nine survey responses were found to have at least one missing data point. A listwise deletion method was used to clean the dataset. According to Allison (2001), "listwise deletion is an 'honest' method for handling missing data, unlike some other conventional methods" (p. 76). After removing these nine cases, the remaining sample population was 182.

After removing the nine cases with missing data, the remaining dataset (n = 182) was imported into SPSS. The first 36 questions of the survey instrument were derived from six separate scales, as outlined in Chapter 3. Each of these questions utilized a 5-point Likert scale system (0 = *strongly agree*, 1 = *agree*, 2 = *neither agree nor disagree*, 3 = *disagree*, 4 = *strongly disagree*). Variables were created in SPSS for each of these questions in the same scoring manner. The 36-question survey instrument contained 11 reverse-coded questions to maximize answer integrity.

Shortly after the statistical analysis was begun on the dataset, I discovered that the variable coding from 0 = *strongly agree* to 4 = *strongly disagree* caused some confusion in trying to clearly interpret relationships between variables. I made the decision to recode variables within SPSS in order to convert all Likert scale question results to a 0 = *strongly disagree* to 4 = *strongly agree* system. This was done in a manner that did not substantively change the answers indicated by the participant but simply recoded the data so that a higher degree of agreement was indicated by a higher value and vice versa. The reverse-coded questions were then reversed once again to comply with this revised system. After beginning statistical analysis again, the interpretations of relationships between the variables were clearer.

Questions 1–5 of the survey formed an additive scale used to measure perception of the Ferguson Effect as the independent variable. Questions 6–9 formed an additive scale to measure perception of officer safety. Questions 10 and 11 formed an additive scale to measure perception of fear of legal liability. Questions 12 and 13 formed an additive scale to measure perception of concerns over government oversight. Officer

safety, legal liability, and government oversight are the three separate dependent variables for this study. Two intervening variables were included in this study. Questions 14–18 formed an additive scale to measure self-legitimacy, and questions 19–36 formed an additive scale to measure organizational justice. Variables were created within SPSS for the independent variable, the three dependent variables, and the two intervening variables. Scale reliability tests were performed on each scale. Reliability of scales used in the survey instrument is discussed in the Survey Instrument Scale Verification section of this chapter.

The remaining 10 questions of the survey instrument were demographic and employment characteristic control variable questions. Variables were created for each of these questions within SPSS. Age, agency size, jurisdiction size, and experience were created as continuous level variables. Gender, race, education level, rank, agency type, and duty assignment were created as binary variables.

The focus of this study was on patrol-level, non-supervisory law enforcement officers. Two of the control variables (rank, duty assignment) were used as a means to identify and eliminate participants who indicated they were supervisors and/or that they did not function in a patrol capacity at their agency. By using these two variables as a filter 75 cases were eliminated from the data set, leaving the number of patrol-level, non-supervisory cases at (n = 107). Based on the effect size bands (.02 = small, .15 = medium, .35 = large), as indicated by Cohen (1988), this sample size is still within the range of a medium effect size and thus “large enough to be visible to the naked eye … that is, in the course of normal experience” (p. 25). Using the G*Power program with a

total population size of 3,568, a sample size of $n = 107$ was calculated as ideal with the following parameters inputted: Cohen's f^2 effect size (0.195), α significance level (.05), and power (0.80). This is the sample size used for statistical analysis for this study. Data concerning supervisory officers and non-patrol-level officers were retained for future analysis outside this dissertation.

Descriptive Statistics and Sociodemographic/Employment Characteristics

Descriptive statistics were conducted in SPSS to establish a summary of the data. These are used to examine general characteristics of the dataset. Descriptive statistics for the eight analyzed sociodemographic and employment characteristics questions and for the six scales used to measure the independent, dependent, and intervening variables are presented in Table 2. The descriptive statistics include the min/max, mean, and standard deviation for each.

Sample Representation of Population Under Study

One challenging aspect of survey research is ensuring that the sample population is representative of the population under study. Additionally, when the population under study is located within a specific geographic location, one must question how representative that sample population is of the general target population.

The general target population for this survey research was certified law enforcement officers. While participation in the survey was anonymous, demographic and employment characteristic questions were included in the survey instrument in order to prevent participation by those outside the general target population. This relied on

participant truthfulness in answering questions, which is an assumption of this study outlined in the Assumptions section of Chapter 1.

As the general target population of this study was certified law enforcement officers and the survey instrument was designed to include only participants matching that criteria from the population under study, the sample might be representative of the general target population in that respect. However, as outlined in the Threats to Validity and Reliability section in Chapter 3, the findings of this study are exclusive to the population under study and cannot be generalized to the general target population of all certified law enforcement officers.

Table 2

*Descriptive Statistics for Analyzed Variables (*n *= 107)*

Variable	Description	Min/Max	Mean	*SD*
Sociodemographic				
Age	Age (in years)	21-56	34.71	8.46
Gender	Gender (0 = Female, 1 = Male)	0-1	0.85	0.36
Race	Self-identified as Non-Hispanic White (0 = Non-Hispanic White, 1 = All other groups)	0-1	0.14	0.35
Education	2-year college degree or above (0 = No, 1 = Yes)	0-1	0.55	0.50
Employment characteristics				
Agency size	Number of full-time certified officers	8-2,000	536.32	633.21
Jurisdiction size	Number of citizens	3,000-2M	311,836	355,883
Department type	0 = Municipal, 1 = Sheriff	0-1	0.11	0.32
Experience	Years as police officer	0.50-29	9.2	6.51
Dependent variables				
Officer safety	4-item scale measuring opinion of safety while on duty	5-16	11.01	2.42
Legal liability	2-item scale measuring opinion of legal concerns after use-of-force incident	0-8	5.96	1.80
Government oversight	2-item scale measuring opinion of federal oversight of local law enforcement agencies	0-8	5.55	1.81
Main independent variable				
Ferguson effect scale	5-item scale measuring perception of Ferguson Effect	4-20	14.16	3.59
Intervening variables				
Self-legitimacy	5-item scale measuring feelings of self-legitimacy in position as law enforcement officer	9-20	14.52	2.69
Organizational justice	18-item scale measuring feelings of organizational justice in agency	5-69	36.92	14.78

The demographic similarities indicate that the sample does have characteristics representative of the general target population. Table 2 indicates that 15% of the survey respondents were female, and 85% were male. According to the 2018 FBI Uniform Crime Report, 87.4% of law enforcement officers in the United States at that time were male, and 12.6% were female (USDOJ/FBI, 2019). Table 2 also indicates that 86% of respondents were non-Hispanic White and 14% were Other. According to the Bureau of Justice Statistics at the DOJ, 71.5% of law enforcement officers nationally identified as White in 2016 (Hyland & Davis, 2019). However, this number varied significantly with locations of one million or more residents having 50.4% White officers and locations of ten thousand or less having 87.1% White officers on average. The population under study contains law enforcement officers working in jurisdictions represented by both ends of that spectrum. Based on race and gender demographics, the sample population is not inconsistent with either the general target population or the population under study.

Regarding the representativeness of the sample to the population under study, general demographic consistencies were observed as outlined above. Additionally, through G*Power analysis with Cohen's f^2 effect size (0.195), α significance level (.05), and power (0.80), the optimal sample size was determined to be $n = 107$, based on the population under study size of 3,568 (Faul et al., 2007). As the sample population was $n = 107$ after data cleaning, the sample population is representative of the population under study based on G*Power analysis.

Survey Instrument Scale Verification

In addition to demographic/employment characteristic questions, the remaining 36 questions in the survey instrument for this study were employed to create six separate scales used to measure the independent variable, three dependent variables, and two intervening variables. Four of the scales were previously established scales. I created two of the scales for this study. All six scales employed Likert scoring techniques. Principal Components Analysis (PCA) was used to determine the degree to which the items within each scale loaded as a single component for each scale. PCA "is a dimensionality-reduction technique that is often used to transform a high-dimensional dataset into a smaller-dimensional subspace" in order to find "the principal components of the dataset" (Hamilton, 2014, para. 1). During the PCA process, eigenvalues are computed for each principal component. "The corresponding eigenvalue is a number that indicates how much variance there is in the data along that … principal component" (Hamilton, 2014, para. 23). The eigenvalue is represented by the λ symbol, with "loading" for each principal component representing the percent of variance explained by that principal component. "A larger eigenvalue means that that principal component explains a large amount of the variance in the data" (Hamilton, 2014, para. 24). According to Kaiser (1960), a principal component with an eigenvalue of 1.0 or greater should be considered. Cattell (1966), however, suggested that further examination of a scree plot should be performed when identifying principal components in order to identify the point of inflection where the line changes dramatically and then using that point as a cut-off for retaining components. According to Hair et al. (2010), an acceptable minimum loading

level would be .60 or 60%. Tabachnick and Fidell (2001), however, identify .32 or 32% as an adequate minimum loading for a principal component in the social sciences. As outlined below, PCA demonstrated that the questions for each scale computed to form an additive scale for each of the six scales used in this study to measure the independent variable, three dependent variables, and two intervening variables. Additionally, Cronbach's Alpha was used to measure the internal consistency of each scale. While a generally accepted minimum level for Cronbach's Alpha to confirm internal consistency is ($\alpha = .70$), others have found that a level as low as ($\alpha = .60$) or even ($\alpha = .50$) can be acceptable for exploratory research (Cortina, 1993; Hair et al., 2010; Nunnally, 1967). As outlined below, all six scales demonstrated adequate to strong internal consistency.

Debate continues over the statistical appropriateness of treating an additive scale at the interval level, as is the case with the present study. In some early thought on this debate, Stevens (1946) held that many important findings can be discovered with this approach. Later work by Knapp (1990) confirmed this conclusion. Borgatta and Bohrnstedt (1980) agreed with Stevens, stating that "concern with levels of measurements may mislead persons into attending to issues other than maximizing (utility, given) the particular limits of the state of the measurement art in the social sciences." Despite some disagreement, there is adequate literature on the topic to support the appropriateness of this approach for the current study.

Ferguson Effect Scale

The scale used to measure perception of the Ferguson Effect as the independent variable was previously developed and used in officer survey research by Wolfe and Nix

(2016). This scale was used in the present study with their permission, as demonstrated in Appendix D. The scale questions were the same for the present study, except for changing "over the past 6 months" to "over the past 5 years." This scale was composed of five items and utilized a 5-point Likert system.

Wolfe and Nix (2016) previously used PCA to "assess the degree to which the items loaded together" (p. 5). Further, internal consistency of the scale was measured using Cronbach's Alpha. According to Wolfe and Nix (2016), the results of these tests demonstrated that the items loaded together as a single variable ($\lambda = 3.27$; loadings > .70) and the scale had strong internal consistency ($\alpha = .87$). Similar results were discovered in the present study utilizing the same scale verification tests ($\lambda = 2.81$; loadings > .56; $\alpha = .78$). Taken together, the results demonstrated that the Ferguson Effect Scale, as utilized in the present study, loaded as one variable, and had strong internal consistency.

Officer Safety Scale

The scale used to measure perception of officer safety as one of three dependent variables was previously developed and used in officer survey research by Nix, Wolfe, and Campbell (2018). This scale was also used in the present study with their permission, as demonstrated in Appendix D. The scale questions were the same for the present study, with the exception of changing "over the past 2 years" to "over the past 5 years." This scale was composed of four items and utilized a 5-point Likert scoring system.

For this scale, the researchers utilized Principal Factor Analysis (PFA) to demonstrate that the items loaded together onto a single factor and once again utilized Cronbach's Alpha and found the internal consistency ($\alpha = .90$) of the scale to be strong

(Nix, Wolfe, & Campbell, 2018). For the present study, Principal Components Analysis (PCA) was utilized and demonstrated that the items loaded together as a single variable ($\lambda = 2.89$; loadings > .72). Additionally, Cronbach's Alpha demonstrated strong internal consistency ($\alpha = .85$). Taken together, the results demonstrated that the Officer Safety Scale, as utilized in the present study, loaded as one variable, and had strong internal consistency.

Legal Liability Scale

A two-item scale to measure perception of legal liability concerns as the second of three dependent variables was developed for this study. PCA was conducted and demonstrated that the items loaded together as a single variable ($\lambda = 1.65$; loadings > .83). Further, internal consistency was found to be adequate using Cronbach's Alpha ($\alpha = .79$). Taken together, the results demonstrated that the Legal Liability Scale as utilized in the present study loaded as one variable and had adequate internal consistency.

Government Oversight Scale

A two-item scale to measure perception of government oversight as the third of three dependent variables was developed for this study. PCA was conducted and demonstrated that the items loaded together as a single variable ($\lambda = 1.52$; loadings > .76). Further, internal consistency was found to be adequate using Cronbach's Alpha ($\alpha = .67$). As with the Legal Liability Scale, high alpha scores can be difficult to achieve in that Cronbach's Alpha is sensitive to the number of items in a scale (Streiner, 2003). Taken together, the results demonstrated that the Government Oversight Scale as utilized in the present study loaded as one variable and had adequate internal consistency.

Self-Legitimacy Scale

The scale used to measure perception of self-legitimacy as one of two intervening variables was also developed and used by Wolfe and Nix (2016). Wolfe and Nix found in their research that perceptions of self-legitimacy impacted perceptions of the Ferguson Effect. This scale was used in the present study with their permission in an attempt to replicate their findings. Their permission to use this scale can also be found in Appendix D. The scale questions were the same for the present study. This scale was composed of five items and utilized a 5-point Likert system.

Wolfe and Nix (2016) also utilized PCA and Cronbach's Alpha to test their scale. The researchers stated that "these items … loaded on a single component ($\lambda = 2.32$; loadings > .56) and evidenced adequate internal consistency ($\alpha = .71$)" (Wolfe & Nix, 2016, p. 5). In the present study, PCA identified two principal components with eigenvalues greater than 1.0. Further examination using a scree plot demonstrated that the line changed dramatically just beyond the first principal component (Cattell, 1966). As such, I determined that the items loaded adequately on a single component ($\lambda = 2.26$; loadings > .45; $\alpha = .63$), which is consistent with previous results from Wolfe and Nix (2016). Taken together, the results demonstrated that the Self-Legitimacy Scale as utilized in the present study loaded as one variable and had adequate internal consistency.

Organizational Justice Scale

The scale used to measure perception of organizational justice as the second of two intervening variables was also developed and used by Wolfe and Nix (2016). Wolfe and Nix found in their research that perceptions of organizational justice also impacted

perceptions of the Ferguson Effect. This scale was used in the present study with their permission in an attempt to replicate their findings. Their permission to use this scale can also be found in Appendix D. The scale questions were the same for the present study. This scale was composed of eighteen items and utilized a 5-point Likert system.

Wolfe and Nix (2016) also utilized PCA and Cronbach's Alpha to test their scale. They found the items to load as a single item and the scale to have strong internal consistency ($\lambda = 10.75$; loadings > .64; $\alpha = .96$). As with the Self-Legitimacy Scale, PCA identified two principal components with the Organizational Justice Scale. Once again, a scree plot examination demonstrated a dramatic line change just beyond the first principal component (Cattell, 1966). This examination provided adequate evidence that the scale items loaded onto a single component ($\lambda = 12.04$; loadings > .67; $\alpha = .95$), with results similar to Wolfe and Nix (2016). Taken together, the results demonstrated that the Organizational Justice Scale as utilized in the present study loaded as one variable and had strong internal consistency.

Data Analysis

Initial statistical analysis for this study was completed in three steps. In the first step, univariate statistics were performed in SPSS Version 25.0 to obtain descriptive statistics for the control variables, independent variable, three dependent variables, and two intervening variables (*see* Table 2). In the second step, data were analyzed for bivariate associations employing Pearson's product moment correlation (*see* Table 3). In the third and final step, multivariate analysis was conducted using OLS regression, with the results presented in Tables 4 through 6. A multi-step strategy was undertaken to

create three models for each dependent variable. The first model (Model 1) for each dependent variable contains OLS regression using only the eight control variables outlined previously in this chapter. The second model (Model 2) introduced the independent variable (Ferguson Effect) along with the control variables for each dependent variable. The final model (Model 3) introduced the two intervening variables (self-legitimacy, organizational justice) into the regression with the independent variable and eight control variables.

In addition to the three research questions, a focus of this study was on differences between findings of large agency officers versus small agency officers. Prior officer-based survey research has focused on large agencies, which have 100 or more officers as defined for this study. The agency size variable was used to conduct this statistical analysis. The dataset was sorted in ascending order based on agency size, as indicated by the research participants. It was then divided into two sets, with one being agency sizes of 100 or more officers and the other being agency sizes of less than 100 officers. Findings from the agency size analysis are outlined below.

Assumption Testing

The four assumptions associated with Pearson's *r* bivariate correlation are interval or continuous level variables, a linear relationship between variables, no outliers, and normal distribution of data. Each of these assumptions was satisfied during the bivariate correlation phase of data analysis.

As outlined in Chapter 3 of this study, the independent variable, three dependent variables, two intervening variables, and four of the ten control variables are continuous

level variables. The remaining four analyzed control variables are binary variables, which according to Pasta (2009), can be considered continuous for analysis purposes. As such, this first assumption was satisfied.

Scatterplots were generated in SPSS in order to examine relationship linearity between the independent variable and all dependent variables, as well as the two intervening variables. Based on analysis of the scatterplots, a linear relationship was observed between these variables. As such, the second assumption was satisfied.

No outliers were observed in any variable during analysis of histograms generated in SPSS for purposes of identifying outlying data. As such, the third assumption of no outlying data was satisfied.

The final assumption when using Pearson's *r* for bivariate analysis is that the data is normally distributed. The Shapiro-Wilk test for testing normality of distribution was utilized and performed in SPSS. Based on those tests for each variable, data was found to be normally distributed, thus satisfying the fourth and final assumption.

OLS regression was utilized for multivariate analysis during the next statistical data analysis phase. There are six assumptions, which must be satisfied when using OLS regression. These assumptions are that all variables are continuous or dichotomous, that they have linear relationships, that they are normally distributed, that no heteroscedasticity is observed, that no multicollinearity is observed, and that there are no outliers. Each of these assumptions was satisfied during the multivariate data analysis phase.

Assumptions 1, 2, 3, and 6 were satisfied as observed during assumption testing for Pearson's *r* bivariate analysis. All variables are continuous, observed relationships between variables are linear based on scatterplots, data was normally distributed based on histograms, and no outliers were observed based on those same histograms.

The fourth assumption of OLS regression is no heteroscedasticity is observed, which means "that the variability in scores for one continuous variable is roughly the same at all values of another continuous variable" (Tabachnick & Fidell, 2001, p. 79). This assumption is commonly tested using scatterplots of standardized residual and predicted values. No evidence of heteroscedasticity was observed. As such, this assumption was satisfied.

The fifth assumption of OLS regression and the last addressed in this section is that no multicollinearity is observed. Multicollinearity "occurs when you have two or more independent variables that are highly correlated with each other" ("Multiple Regression Analysis", n.d.). A common test for multicollinearity during regression is to generate a Variance Inflation Factor (VIF), which should be below 10 (Detecting Multicollinearity, (n.d.); Hair et al., 2010). Using SPSS, VIFs were generated, and all values were observed to be well below 10. As such, no evidence of multicollinearity was observed, and this assumption was satisfied.

Findings

The following three research questions guided this study:

- RQ1: Five years after Ferguson, do police officers perceive federal government oversight of local law enforcement agencies negatively?

- RQ2: Five years after Ferguson, are police officers concerned about potential legal liability over use-of-force incidents?
- RQ3: Five years after Ferguson, are police officers concerned about their safety while on duty?

Special attention was given to observing differences between perceptions of large agency officers as compared with small agency officers. Additional observations were made utilizing demographic and employment characteristic control variables.

Initial bivariate analysis was conducted using Pearson's Product-Moment Correlation (*r*). Values of correlation range from -1.00 to +1.00, with -1.00 indicating a perfect negative relationship between the two variables and +1.00 indicating a perfect positive relationship (Cohen, 1988). A value of "0.00" would indicate no relationship at all. According to Cohen, a small effect size or strength of association would be $r = .10$ to $r = .29$, a medium effect size would be $r = .30$ to $r = .49$, and a large effect size would be $r = .50$ or above. In other words, a Pearson's *r* of .50 or above is considered a moderate to high correlation. Hinkle et al. (2003) further interpret Pearson's *r* correlations as $r = .50$ to $r = .69$ as moderate, $r = .70$ to $r = .89$ as high, and $r = .90$ and above as very high. Bivariate correlation analysis was used to answer the three research questions in this study.

Subsequent multivariate analysis was conducted utilizing OLS regression to examine the impact of the two intervening variables on the relationships between the independent variable and the three dependent variables. When reporting OLS regression results, special attention should be paid to the R^2 value. This value is also called the

"coefficient of determination" and "is the proportion of variance in the dependent variable that can be explained by the independent variables" ("Multiple Regression Analysis", n.d.). For instance, an R^2 value of .29 would mean that the independent variable(s) explain 29% of the variability of the dependent variable. While this value can range from "0" to "1," a lower value is not necessarily a bad thing. In fact, "any field that attempts to predict human behavior … typically has R-squared values lower than 50%" (Ellis et al., 2013). Additionally, unstandardized coefficients (b) and related significance levels (p) will be reported. The unstandardized coefficients "indicate how much the dependent variable varies with an independent variable when all other independent variables are held constant" ("Multiple Regression Analysis", n.d.).

In order to examine differences between large agency and small agency officers, the dataset was divided into two groups containing participants who indicated their agency employed less than 100 officers and participants who indicated their agency employed 100 or more officers. The bivariate analysis examining the three research questions and two intervening variables was then performed again for each of these two groups.

Finally, additional multivariate and bivariate statistical analysis was conducted to examine correlations between the independent variable, the three dependent variables, the two intervening variables, and six control variables. These findings will be reported in this section.

Table 3

*Bivariate Correlations Matrix (*n *= 107)*

	01	02	03	04	05	06	07	08	09	10	11	12	13	14
01. Ferguson Effect	--													
02. Gender	.07	--												
03. Race	-.35***	-.21*	--											
04. Age	.35***	.00	-.06	--										
05. Education	-.09	-.33**	.15	-.11	--									
06. Agency Size	-.03	-.24*	.05	-.12	.30**	--								
07. Jurisdiction	.04	-.19*	.04	-.11	.32**	.86***	--							
08. Dept Type	.03	.19	-.06	-.23*	-.10	-.19*	-.03	--						
09. Experience	.44***	.08	-.09	.86***	-.15	-.16*	-.16	-.14	--					
10. Gov Oversight	.54***	.01	-.27**	.23*	-.07	-.10	-.09	.04	.23*	--				
11. Officer Safety	.65***	.18	-.27**	.34**	-.14	.02	.08	-.01	.33**	.33**	--			
12. Legal Liability	.67***	.17	-.23*	.13	-.02	.04	.12	.08	.26**	.50***	.48***	--		
13. Self -Legitimacy	-.43***	.01	.28**	-.29**	-.03	-.07	-.06	.05	-.37***	-.35***	-.37***	-.39***	--	
14. Org. Justice	-.52***	-.11	.16	-.51***	-.10	.07	-.02	.00	-.55***	-.19	-.62***	-.36***	.52***	--

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 4

*OLS Regression Table – Predicting Concerns Over Government Oversight (*n *= 107)*

	Model 1			Model 2			Model 3		
Variable	b	SE	β	b	SE	β	b	SE	β
Sociodemographic									
Gender	.17	.52	.03	.26	.46	.05	.41	.45	.08
Race	-1.29*	.50	-.25	-.43	.47	-.08	-.17	.47	-.03
Age	.04	.04	.18	.05	.04	.24	.07	.04	.32
Education	.11	.38	.03	.16	.34	.04	.07	.33	.02
Employment Characteristics									
Agency Size	.00	.00	.01	.00	.00	.11	.00	.00	.02
Jurisdiction Size	.00	.00	-.06	.00	.00	-.21	.00	.00	-.13
Department Type	.41	.60	.07	.31	.53	.05	.36	.51	.06
Experience	.01	.05	.05	-.06	.05	-.23	-.07	.05	-.25
Primary Independent Variable									
Ferguson Effect				.27***	.05	.54	.28***	.05	.56
Intervening Variables									
Self-Legitimacy							-.17*	.07	-.25
Organizational Justice							.03*	.14	.27
Intercept	4.07**	1.25		.43	1.30		.91	1.80	
R^2	.13			.33***			.38***		

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 5

*OLS Regression Table – Predicting Concerns Over Legal Liability (*n = *107)*

	Model 1			Model 2			Model 3		
Variable	b	SE	β	b	SE	β	b	SE	β
Sociodemographic									
Gender	.59	.50	.12	.71	.40	.14	.75	.40	.15
Race	-.93	.48	-.18	.12	.41	.02	.28	.42	.05
Age	-.07	.04	-.34	-.06	.03	-.27	-.05	.03	-.25
Education	.13	.36	.04	.19	.29	.05	.14	.29	.04
Employment Characteristics									
Agency Size	.00	.00	-.03	.00	.00	-.002	.00	.00	-.03
Jurisdiction Size	.00	.00	.29	.00	.00	.11	.00	.00	.13
Department Type	.22	.57	.04	.10	.46	.02	.10	.45	.02
Experience	.16	.05	.56	.06	.04	.21	.05	.04	.18
Primary Independent Variable									
Ferguson Effect				.33***	.04	.66	.32***	.05	.63
Intervening Variables									
Self-Legitimacy							-.10	.06	-.15
Organizational Justice							.00	.01	.03
Intercept	6.26***	1.20		1.79	1.12		3.27*	1.59	
R^2	.20**			.49***			.51***		

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 6

*OLS Regression Table – Predicting Concerns Over Officer Safety (*n = *107)*

Variable	Model 1			Model 2			Model 3		
	b	SE	β	b	SE	β	b	SE	β
Sociodemographic									
Gender	.84	.66	.12	.98	.55	.15	.80	.50	.12
Race	-1.47*	.64	-.21	-.17	.56	-.02	-.20	.52	-.03
Age	.07	.05	.25	.09	.04	.31	.06	.04	.22
Education	-.37	.48	-.08	-.30	.40	-.06	-.28	.37	-.06
Employment Characteristics									
Agency Size	.00	.00	-.09	.00	.00	.02	.00	.00	.09
Jurisdiction Size	.00	.00	.26	.00	.00	.08	.00	.00	-.01
Department Type	.07	.76	.01	-.08	.63	-.01	-.20	.57	-.03
Experience	.04	.07	.10	-.08	.06	-.21	-.12	.05	-.31
Primary Independent Variable									
Ferguson Effect				.41***	.06	.60	.32***	.06	.47
Intervening Variables									
Self-Legitimacy							.01	.08	.02
Organizational Justice							-.07***	.02	-.42
Intercept	7.56***	1.59		2.04	1.55		7.06**	2.01	
R^2	.22**			.47***			.57***		

* $p < .05$. ** $p < .01$. ***$p < .001$.

Bivariate Results

Research Question 1. The first research question in this study asked if, after 5 years have passed since the Ferguson incident, police officers perceive federal government oversight of local law enforcement negatively. This question used the Ferguson Effect Scale to measure officer perception of the Ferguson Effect as the independent variable and the Government Oversight Scale to measure officer perception of government oversight of local law enforcement as the dependent variable. A significant positive correlation was found ($r = .54$, $p < .001$) between these two. Increased awareness of the Ferguson Effect on the part of the officer was associated with a negative perception of government oversight of local law enforcement. This result indicates a large effect size and a moderate result (Cohen, 1988; Hinkle, Wiersma, & Jurs, 2003).

Research Question 2. The second research question in this study asked if, after 5 years have passed since Ferguson, police officers have concerns about potential legal liability following a use-of-force incident. This question used the Ferguson Effect Scale to measure officer perception of the Ferguson Effect as the independent variable and the Legal Liability Scale to measure officer perception of concerns over legal liability as the dependent variable. A significant positive correlation was found ($r = .67$, $p < .001$). Increased awareness of the Ferguson Effect on the part of the officer was positively associated with concerns over legal liability following a use-of-force incident. This result indicates a large effect size and a moderate result (Cohen, 1988; Hinkle, Wiersma, & Jurs, 2003).

Research Question 3. In this study, the third research question asked if, after 5 years have passed since Ferguson, police officers have concerns about their personal safety while on duty. This question used the Ferguson Effect Scale to measure officer perception of the Ferguson Effect as the independent variable and the Officer Safety Scale to measure officer perception of personal safety while on duty as the dependent variable. A significant positive correlation was found ($r = .65$, $p < .001$). Increased awareness of the Ferguson Effect on the part of the officer was positively associated with concerns over personal safety while on duty. This result indicates a large effect size and a moderate result (Cohen, 1988; Hinkle, Wiersma, & Jurs, 2003).

Multivariate Results

Introduction of Intervening Variables. Previous research by Wolfe and Nix (2016) found that the introduction of self-legitimacy and organizational justice as intervening variables confounded the relationship between the Ferguson Effect and their dependent variable (willingness to engage in community partnership). The researchers reported that these two intervening variables made the correlation between the Ferguson Effect and their dependent variable "no longer statistically significant" (Wolfe & Nix, 2016, p. 7).

That research was duplicated for this study using OLS regression to measure the influence of the two intervening variables on the relationship between the independent variable and each of the three dependent variables in this study separately. OLS Regression was run for each of the three dependent variables in three separate models, and these findings are presented in Tables 4 through 6. In each table, Model 1 represents

control variables only, Model 2 represents the inclusion of the independent variable, and Model 3 represents the inclusion of the independent variable along with the two intervening variables.

For the first dependent variable (concerns over government oversight), Model 2 represented that a sizable amount of variation ($R^2 = .33$, $p < .001$) in the dependent variable was accounted for by the independent variables in the model. The unstandardized coefficient level ($b = .27$) indicated that each unit increase in the Ferguson Effect corresponded with a .27 increase in concerns over government oversight. The inclusion of the two intervening variables in Model 3 resulted in an increased R^2 value ($R^2 = .38$, $p < .001$) over that of Model 2 ($R^2 = .33$, $p < .001$). Only a slight increase in the unstandardized coefficient level ($b = .28$) was observed. This is not consistent with prior research from Wolfe and Nix (2016), where the researchers observed a decreased association between the Ferguson Effect and their dependent variable after inclusion of the self-legitimacy and organizational justice variables. The association between the independent variable and the dependent variable ($\beta = .54$, $p < .001$) actually became slightly stronger after the inclusion of the intervening variables in the model ($\beta = .56$, $p < .001$). Based on bivariate and multivariate findings, the null hypothesis for Research Question 1 is rejected.

The second dependent variable (fear of legal liability) produced similar results. Model 2 represented a sizable amount of variation ($R^2 = .49$, $p < .001$) in the dependent variable accounted for by the independent variables. The unstandardized coefficient level ($b = .33$, $p < .001$) indicated that each one-unit increase in the Ferguson Effect

corresponded with a .33 increase in fear of legal liability. The inclusion of the two intervening variables in Model 3 resulted in an increased R^2 value ($R^2 = .51$) over that of Model 2 ($R^2 = .49$, $p < .001$). A slight decrease in the unstandardized coefficient level was observed ($b = .32$, $p < .001$) after the inclusion of the intervening variables in Model 3. This finding is consistent with previous research from Wolfe and Nix (2016). The association between the independent variable and the dependent variable ($\beta = .66$, $p < .001$) decreased after the inclusion of the intervening variables ($\beta = .63$, $p < .001$). Based on bivariate and multivariate findings, the null hypothesis for Research Question 2 is rejected.

Concerns over officer safety was the third and final dependent variable in this study. Unlike the previous two dependent variables, the introduction of the two intervening variables significantly impacted the relationship between the independent variable and the dependent variable. Model 2 represented a sizable amount of variation ($R^2 = .47$, $p < .001$) in the dependent variable accounted for by the independent variable. The unstandardized coefficient level ($b = .41$, $p < .001$) indicated that each one-unit increase in the Ferguson Effect corresponded with a .41 increase in concerns over officer safety. The inclusion of the two intervening variables in Model 3 resulted in an increased R^2 value ($R^2 = .57$) over that of Model 2 ($R^2 = .47$, $p < .001$). A significant decrease in the unstandardized coefficient level ($b = .32$, $p < .001$) was observed after the inclusion of the intervening variables in Model 3. This finding is consistent with previous research from Wolfe and Nix (2016). The magnitude of the association between the independent variable and the dependent variable ($\beta = .60$, $p < .001$) decreased by 21.7% after the

inclusion of the intervening variables (β = .47, $p < .001$). Based on bivariate and multivariate findings, the null hypothesis for Research Question 3 is rejected.

Difference Between Smaller and Larger Agencies. Smaller size law enforcement agencies have historically been underrepresented in police survey research. Most research focuses on agencies of 100 or more certified officers. But understanding what differences, if any, exist between perceptions of officers at smaller agencies (less than 100 certified officers) versus their counterparts at larger agencies (100 or more officers) is important. Examining any differences between the two was an important component of this study.

Of the sample population ($n = 107$) for this study, approximately two-thirds of the respondents were from large agencies ($n = 68$), and the remaining third were from small agencies ($n = 39$). Officers at small agencies did not demonstrate a significantly different perception of the Ferguson Effect than officers at large agencies $t(105) = 1.5$, $p = .12$. Perceptions of officer safety concerns between the two groups were also found to be insignificant $t(105) = .13$, $p = .89$. Fear of legal liability produced similar results $t(105) = 1.2$, $p = .23$. Concerns over government oversight for officers from small agencies ($M = 6.21$, $SD = 1.67$), compared to large agency officers ($M = 5.17$, $SD = 1.79$), demonstrated a significantly higher level of concern, $t(105) = 2.9$, $p = .004$, for small agency officers. This was the only one of the three dependent variables where a significant difference was observed. Significant differences between small agency officers and large agency officers were also not observed with the two intervening variables, self-legitimacy, $t(105) = .42$, $p = .68$, and organizational justice, $t(105) = .73$, $p = .47$.

Taken together, small agency officers and large agency officers did not generally demonstrate significant differences in perception of any study variable except for concerns over government oversight.

Additional Analysis With Control Variables. Univariate and multivariate analyses were undertaken using six control variables. Univariate results are reported for the binary variables of gender, race, education level, and department type. Bivariate results from Pearson's *r* analysis were performed for the continuous variables of age and experience. Additional multivariate findings are reported below for each of these variables. The sample (n = 107) used for this analysis did not include participants who indicated they held a supervisory rank or who indicated they worked in a non-patrol capacity.

Male officers (n = 91) generally indicated slightly higher perceptions of all independent, dependent, and intervening variables relative to their female officer (n = 16) counterparts except for the intervening variable of organizational justice. Female officers indicated a 12% higher perception of organizational justice (M = 40.75, SD = 10.17) than their male officer counterparts (M = 36.23, SD = 15.39). None of these findings, however, was found to be significant after performing independent samples *t*-tests. Multivariate results were generally consistent with previously reported findings. Inconsistent with prior research from Wolfe and Nix (2016) but consistent with findings from the present study, the correlation between gender and the dependent variable of government oversight increased after the introduction of the two intervening variables (β = .08) in Model 3 as compared to the independent variable only (β = .05) in Model 2. The

findings were not significant, however. A similar result was observed with concern over officer safety. The finding with the dependent variable fear of legal liability, however, was not consistent with previously reported findings. Where the introduction of the intervening variables generally caused a reduced correlation between the independent variable and the dependent variable, the opposite was observed with gender. A slight increase in correlation ($\beta = .15$) was observed after introducing the intervening variables, as compared with the introduction of the independent variable only ($\beta = .14$). These findings were not significant.

Of the sample population used for this analysis ($n = 107$), the vast majority of respondents indicated they were non-Hispanic White ($n = 96$) as compared to other ($n = 11$). Non-Hispanic White respondents indicated higher perceptions of the independent and dependent variables but not the two intervening variables. Perceptions of the Ferguson Effect for non-Hispanic White officers were significantly higher, $t(105) = 3.8$, $p = .000$. A significantly higher perception of concerns over officer safety was also observed in non-Hispanic White officers, $t(105) = 2.9$, $p = .005$. While fear of legal liability was not found to have a significant result, non-Hispanic White officers did demonstrate a significantly higher perception of concern over government oversight $t(105) = 2.9$, $p = .004$. While officers, who indicated their race as other, did show higher perceptions of organizational justice, the finding was not found to be significantly different through a subsequent *t*-test. This was not the case, however, with self-legitimacy. Officers who indicated their race as other had significantly higher perceptions of self-legitimacy, $t(105) = -3.0$, $p = .003$. As previously reported, multivariate findings

were consistent with previous findings from Wolfe and Nix (2016) regarding the influence of the intervening variables on the correlation between the independent variable and dependent variable. This was observed with legal liability and officer safety, but the exception was the dependent variable of concerns over government oversight. While this was observed in the relationship between race and government oversight, the opposite was observed with the other two dependent variables. The correlation with legal liability increased between the introduction of the independent variable only (β = .02) in Model 2 and the inclusion of the two intervening variables (β = .05) in Model 3. With officer safety, the same trend was observed, increasing from (β = -.02) to (β = -.03) after the inclusion of the intervening variables. These multivariate findings were not significant.

More respondents indicated they had a 2-year or greater college-level education (n = 59) than not (n = 48). Officers who did not possess a 2-year or greater education indicated higher perceptions of all independent, dependent, and intervening variables, except for organizational justice. Officers with a 2-year or higher college-level education indicated a 10% higher perception of organizational justice (M = 38.25, SD = 11.89) than their counterparts without the same level of education (M = 35.25, SD = 17.70). None of these findings, however, was found to be significant after subsequent t-tests were performed. All multivariate findings with regard to the relationship between education level, the independent variable, and the dependent variables, as impacted by the inclusion of the two intervening variables, are consistent with previously reported findings for this study. An increased correlation was observed with government oversight, and a

decreased correlation was observed with legal liability and officer safety. None of these findings were significant.

Much like with the race control variable, a large disparity of respondents indicated they worked for a municipal agency (n = 95) as compared to a sheriff office (n = 12). Findings across all independent, dependent, and intervening variables were very close between the two groups, with slight variances changing from variable to variable. Sheriff deputies indicated a slightly stronger perception of the Ferguson Effect than municipal officers but a slightly lower perception of officer safety concerns. Deputies indicated a slightly higher perception also of fear of legal liability, concern over government oversight, and self-legitimacy. The results for perception of organizational justice were almost identical between the sheriff deputies (M = 36.92, SD = 13.18) and the municipal officers (M = 36.91, SD = 15.03). None of these findings, however, was found to be significant after t-tests were performed. Multivariate findings were mixed. The correlation between department type, the independent variable, and government oversight saw an increase after introducing the intervening variables. This was consistent with previous findings from this study. This was not the case, however, with legal liability and officer safety. The findings for legal liability were identical between introducing the independent variable only (β = .02) in Model 2 and after introducing the intervening variables (β = .02) in Model 3. With officer safety, a negative but increased correlation was observed after the independent variable only (β = -.01) and introduction of the intervening variables (β = -.03). As with other control variables, the findings were not significant.

Bivariate analysis using Pearson's *r* was conducted using the continuous variables of age and experience. A medium positive result, as outlined by Cohen (1988) was observed when examining the correlation between age and the Ferguson Effect ($r = .35$, $p < .001$) and the correlation between experience and the Ferguson Effect ($r = .44$, $p < .001$). In other words, the older and more experienced a respondent was, the higher perception they had of the Ferguson Effect. Both findings were significant, but neither was found to be moderate to high, as outlined by Hinkle et al. (2003).

Similar results were observed for officer safety concerns and concerns over government oversight. Older officers indicated an increasingly higher perception of officer safety concerns ($r = .34$, $p < .001$), as did officers with more years on the job ($r = .33$, $p < .01$). Age also demonstrated a positive correlation with concerns over government oversight ($r = .23$, $p < .05$), as did experience ($r = .23$, $p < .05$). All findings were significant, but the strength of correlation was small to medium (Cohen, 1988). Fear of legal liability did not demonstrate a significant correlation with age ($r = .13$). A slight but significant positive correlation was observed between experience and fear of legal liability ($r = .26$, $p < .01$).

Interestingly, older and more experienced officers indicated a lower perception of the two intervening variables of self-legitimacy and organizational justice. A significant but small negative correlation was observed between age and self-legitimacy ($r = -.29$, $p < .01$). This was also observed when considering experience and self-legitimacy ($r = -.37$, $p < .001$). The results when comparing age and experience to organizational justice produced large effect size results according to Cohen (1988) and moderate results

according to Hinkle et al. (2003). Age was found to have a significant negative correlation with organizational justice (r = -.51, p < .001). Likewise, experience and organizational justice demonstrated a significant negative correlation (r = -.55, p < .001). Taken together, it appears that older and more experienced officers generally have increased perceptions of the Ferguson Effect, officer safety concerns, fear of legal liability, and concerns over government oversight, while having lower perceptions of self-legitimacy and organizational justice.

Multivariate findings were consistent with previously reported findings for this study examining the impact of the two intervening variables on the relationship between the independent variable, the dependent variables, and both age and experience. There was only one exception to this. The relationship between experience, the Ferguson Effect, and officer safety produced a negative but increasing correlation between the introduction of the independent variable only (β = -.21) in Model 2 and the introduction also of the intervening variables (β = -.31) in Model 3. While none of these multivariate findings were significant, the discrepancy between age of the officer and years of experience in the exception outlined above should be noted.

Summary

This research was guided by three research questions, examining if non-supervisory, patrol-level law enforcement officers perceive government oversight negatively, have fears over potential legal liability, and have concerns over officer safety 5 years after Ferguson. This was examined using the Ferguson Effect Scale as the independent variable and the Officer Safety Scale, Government Oversight Scale, and

Legal Liability Scale as the dependent variables. In all three research questions, the null hypothesis was rejected, and a positive correlation was observed between perception of the Ferguson Effect and perceptions of each of the three dependent variables. Consistent with prior research, these correlations were generally diminished with the introduction of two intervening variables, self-legitimacy and organizational justice (Wolfe & Nix, 2016). The results, however, were not as striking as in prior research.

In addition to the three research questions, this study also examined perception differences of each of these variables between large agency officers and small agency officers. Higher perceptions of all independent, dependent, and even intervening variables were observed in small agency officers versus large agency officers. Finally, differences along racial, gender, educational, age, experience, and department type lines were examined and reported.

This chapter detailed the data collection process, procedures, and analytical findings of this study. Chapter 5 of this study will interpret these findings, as well as discuss public policy and social change implications. Recommendations for future research will also be offered.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to examine the relationship between officer perception of the Ferguson Effect and their concern over government oversight, legal liability, and officer safety 5 years after the police-involved shooting incident of Michael Brown in Ferguson, Missouri, on August 9, 2014. Additionally, as most officer-based studies have historically favored larger law enforcement agencies, this research included small agencies and examined differences between them. This study employed an online survey administered to nonsupervisor patrol-level law enforcement officers within the MSA of a large southern city that is comprised of 53 municipal police agencies and sheriff offices ranging in size from two officers to over 1000 officers.

Based on previous officer survey research on the Ferguson Effect, my expectation was that a correlation would be observed between the Ferguson Effect and concern over government oversight, fear of legal liability, and officer safety. As outlined in Chapter 4, such correlations were generally observed, resulting in the rejection of the null hypothesis for each of the three proposed research questions. Previous research had also found that the relationship between the Ferguson Effect and several dependent variables was weakened by the inclusion of self-legitimacy and organizational justice as intervening variables. These two intervening variables were included in this study, but mixed findings were observed as these measures, in general, did not significantly impact these relationships. Finally, while some differences were observed between the perceptions of large agency and small agency officers, these differences were generally insignificant.

This chapter includes interpretations of these, and other related findings generated by this study. Additionally, I will discuss the limitations of the study as well as recommendations for future research and the policy implications for positive social change.

Interpretation of the Findings

Previous officer-based research on the Ferguson Effect found a significant correlation between the perception of the Ferguson Effect and an expressed unwillingness on the part of surveyed officers to engage in community partnership (Wolfe & Nix, 2016). The same scale used to measure the perception of the Ferguson Effect produced results that are consistent with Wolfe and Nix's (2016) study in that a significant association with negative perceptions of government oversight of local law enforcement agencies, concerns over legal liability, and officer safety concerns was observed. Although the current study's findings are specific to the population under study, the replication of findings across different times, spaces, and populations increases confidence in their generalizability.

Unlike previous research, however, the inclusion of self-legitimacy and organizational justice as intervening variables did not reduce or significantly diminish the correlation between the Ferguson Effect measure and dependent variables analyzed for this study. In other words, previous research found that officers who had a greater sense of self-legitimacy and organizational justice also had lower perceptions of the Ferguson Effect and its relationship to other variables. In the present study, the relationship between the Ferguson Effect and government oversight concerns was unexpectedly

stronger when officers indicated higher degrees of self-legitimacy and organizational justice. The same was true for the relationship between the Ferguson Effect and legal liability concerns. The finding for officer safety concerns, however, duplicated findings from Wolfe and Nix's (2016) study, as the inclusion of self-legitimacy and organizational justice as intervening variables significantly reduced the correlation between perceptions of the Ferguson Effect and officer safety concerns.

While the findings were not significant, male officers generally indicated higher perceptions of the Ferguson Effect and each of the dependent variables than did their female officer counterparts. Female officers, on the other hand, indicated a higher sense of self-legitimacy and organizational justice. Similar findings were found with non-Hispanic White officers and those indicating "other" as their race. Non-Hispanic White officers indicated higher perceptions of the Ferguson Effect and all dependent variables, whereas officers with a race of "other" had higher degrees of self-legitimacy and organizational justice. Also, officers who did not possess a 2-year or greater college-level education had a higher perception of the Ferguson Effect and all dependent variables than did their counterparts with a 2-year or above degree. The findings with regard to self-legitimacy and organizational justice were split, however. Officers with a 2-year or greater college-level education indicated a higher degree of organizational justice, whereas officers without higher education indicated a higher degree of self-legitimacy. Differences between municipal officers and sheriff deputies were mixed across all independent, dependent, and intervening variables, with no finding achieving statistical significance. Older, more experienced officers generally indicated higher perceptions of

the Ferguson Effect and each of the dependent variables. Newer, younger officers, however, indicated a greater sense of self-legitimacy and organizational justice. Officer age and experience generally tracked together in each of these findings except for one instance. The correlation between the Ferguson Effect and officer safety concerns, after introducing the two intervening variables, was stronger for older officers but became weaker for more experienced officers. It is unclear why a discrepancy between age and experience was found in relation to officer safety concerns, but further research on the connection between age and officer experience is perhaps warranted.

Taking these findings together, it is interesting to note that older White male officers with less than 2 years of college education generally indicated higher perceptions of the Ferguson Effect, as well as concerns over government oversight, legal liability, and officer safety. Female officers, non-White officers, younger officers, and college-educated officers generally had a stronger sense of self-legitimacy and organizational justice. Still, contrary to previous research, the relationship between the Ferguson Effect and two of the three dependent variables was not diminished significantly after introducing self-legitimacy and organizational justice as intervening variables. Only the relationship between the Ferguson Effect and officer safety concerns was significantly reduced after factoring in the intervening variables. One possible contributing factor to these findings is the comparative sample size differences between male (n = 91) and female (n = 16) study participants, as well as between White (n = 96) and non-White study (n = 11) participants. As previously noted, approximately 85% of the respondents were male, and 90% were non-Hispanic White. Future research might benefit from a

sample with a larger number of female and racial-ethnic minority participants in order to increase statistical power requirements.

In addition to examining the relationship between the Ferguson Effect and the three separate dependent variables, the second component to this study explored the differences between large agency officers and small agency officers. Historically, larger agencies with 100 or more officers have been favored for officer survey research. While most law enforcement officers in the United States work for larger agencies, there are more small agencies in the United States than large agencies. The area under study for this dissertation contained both large and small agencies.

While this study attempted to examine the differences between the two by collecting data on both within one geographic area, future research is necessary to further explore this facet of Ferguson Effect research. Among the entire sample studied (n = 107), approximately two thirds of the respondents were from large agencies (n = 68), and the remaining third were from small agencies (n = 39). As larger agencies generally serve more urban areas and smaller agencies are found in rural areas, discrepancies between the two were expected. This was not, however, generally the case. Perceptions of the Ferguson Effect were not significantly different between large agency and small agency officers. This was the same for legal liability concerns and officer safety concerns. Interestingly, however, a significant difference was observed in negative perceptions of government oversight. Officers at small agencies indicated significantly greater concerns over the idea of federal government oversight of local law enforcement agencies than did

their large agency counterparts. Small agency and large agency officers also indicated no significant differences in their sense of self-legitimacy and organizational justice.

In the final analysis, expected differences between large and small agency officers were generally not observed. Differences were observed, however, based on gender, race, age, experience, and education. One key observation was that older, White male officers with less than a 2-year college education from both large and small agencies generally indicated higher perceptions of the Ferguson Effect and of concerns over government oversight, legal liability, and officer safety.

This research study's guiding theory was Fishbein and Ajzen's (1975) TRA. As observed through the Ferguson Effect filter, TRA would predict that officers will change their behavior while on duty based on their perceptions of the possible consequences. The persistent perception of the Ferguson Effect 5 years after the incident would seem to indicate that many officers continue to move away from proactive policing. Further, perceptions of some possible associated consequences of not changing this behavior (i.e., government oversight of their agency, personal legal liability, and compromised officer safety) would also seem to support this argument. Based on the findings of this study, the prediction of TRA seems to hold true.

Limitations of the Study

The limitations of this study were outlined in Chapter 1. As previously indicated, several incidents occurred in the area under study just before and during the data collection phase, which could have impacted officer participation. Another factor that potentially impacted participation rates was a highly publicized police-involved death in

Minneapolis, Minnesota. This incident resulted in increased media coverage of the police, as well as calls for defunding law enforcement. In fact, one contact person at an agency under study emailed me and indicated they wished data could have been collected just before and just after the incident in Minneapolis. After removing supervisory and nonpatrol officers prior to statistical analysis, as well as removing nine cases with missing data, the final number of study participants was (n = 107). Despite the low participation rates, the sample size was still adequate to detect moderate size effects based on sample size requirements obtained by power sampling analysis.

Recommendations

The primary focus of this study was to examine perceptions of the Ferguson Effect held by officers 5 years after the police-involved shooting incident in Ferguson, Missouri, that gave rise to the term. Previous research had found officer awareness of the Ferguson Effect and examined the relationship of that awareness with variables like willingness to engage in community partnership or officer safety. The present study used a previously developed scale for measuring officer perception of the Ferguson Effect and examined the relationship of that perception with three separate dependent variables. Those variables were concerns over federal government oversight of local law enforcement agencies, concerns over legal liability, and officer safety concerns. Two previously examined intervening variables, self-legitimacy and organizational justice, were also included in this study. Additionally, by including both large and small law enforcement agencies within the study area, this study attempted to examine differences

in officer perceptions between the two. Finally, demographic and employment characteristics were collected and examined.

Future research should examine the relationship between perception of the Ferguson Effect and other important outcomes not investigated in this study. Some research has previously examined the relationship between the Ferguson Effect and such things as officer recruitment or officer retirements/resignations, but mostly with samples of university students in the former. Although such data add to the body of knowledge, they do not encompass the felt experience of officer survey research. Additionally, this research was not conducted during or following such things as active calls for defunding the police. Previous research did not find strong correlations between the Ferguson Effect and recruitment/retirement, but would the findings be different today? Other recommendations for future research include examining the impact of the Ferguson Effect on the desire of officers to leave patrol-level duties for supervisory roles or investigations or some other non-street-level job assignment. In other words, are officers who are not leaving law enforcement trying to move job assignments within their agency in an effort to minimize possible situations that could result in legal liability or officer safety issues?

Although this study gathered comparative data between large and small agency officers, more research can be done in this regard. Additionally, a more robust examination of demographic and employee characteristics could be valuable future research. This study attempted to collect and examine such data; however, the small sample size for certain categories reduced the power to detect statistically significant

differences. Future research should perhaps employ a more focused approach on, for example, gender and/or racial-ethnic differences in perceptions of the Ferguson Effect. Additionally, as higher education requirements for officers is one solution offered in the current environment of criminal justice reform, focused research on differences between officers of increasingly higher education levels could also be examined. Another proposed solution is a higher standard age requirement for entering policing. Focused research into differences between younger and older officers regarding perceptions of the Ferguson Effect and its impact on their behavior could also be examined.

Implications

This study provides additional insight into police officers' behavior as it relates to their perception of the Ferguson Effect. While there is much research demonstrating no association between a Ferguson Effect and crime rates or even the existence of a Ferguson Effect at all, officers still indicate an awareness of a Ferguson Effect and still suggest that this awareness shapes their behavior. This is the case even 5 years after the incident in Ferguson, Missouri, as this study has demonstrated.

But certain findings in this study regarding gender, race, education, and age/experience differences do raise questions about officer perception of the Ferguson Effect. Is it in part a matter of education? As such, would requiring higher education for officers reduce or even eliminate any perception of a Ferguson Effect? What do differences in gender or race have to do with perceptions of the Ferguson Effect among police officers?

While there continue to be many questions and avenues of research, the present study's findings demonstrate that the officer perspective continues to be an important consideration when crafting or changing criminal justice policy. Equally important is gaining a better understanding of how the intersection of officer race, gender, and education may shape an officer's perspective. During a moment in time where there are calls to defund the police or limit their activities and powers, it is incumbent on policymakers to consider the perspective of all stakeholders. If the police perspective is not considered, policymakers may find that their policies have driven away the very people charged with serving and protecting our communities.

Conclusion

The research undertaken for this dissertation indicated that law enforcement officers still have strong perceptions of the Ferguson Effect. They continue to indicate that this perception impacts their behavior while on duty. Further, they continue to indicate concerns over such things as federal government oversight of their local law enforcement agency, possible personal legal liabilities associated with using force, and their personal safety while on duty. Contrary to previous research, this study did not find a universal diminishment of those perceptions when considering the officer's sense of self-legitimacy and organizational justice. The study also found that there are differences within the ranks of patrol-level, non-supervisory officers when gender, race, education, and age/experience are factored in. Generally speaking, perceptions of the Ferguson Effect were strongest among White, male, older, less-educated officers. The findings also indicate no difference between the perceptions of large and small agency officers.

This study provides a modest contribution to the body of knowledge in several ways. The findings indicate that perceptions of the Ferguson Effect among officers have not decreased since the Ferguson incident in August of 2014. As more than 5 years have passed since Ferguson, perhaps this indicates these perceptions will continue to linger? While there are differences as noted elsewhere in this dissertation, these findings are generally universal across gender, race, education level, age, experience, and department type. This study also adds important findings on historically under-represented groups—officers employed at smaller law enforcement agencies. Although I had expected findings to differ between larger and smaller agencies, no significant differences were found. Taken together, the findings indicate perceptions of the Ferguson Effect among officers generally have not gone down.

Perhaps more troubling is the finding that these perceptions are no longer significantly reduced by how an officer views themselves within their job (self-legitimacy) or how they view the support of their agency (organizational justice). Taken together, these two findings are vitally important to consider when discussing reforms geared toward addressing issues like de-policing, use of force, officer recruitment, qualified immunity, and systemic racism within policing. Equally important to consider in policy discussion and to further research is the finding that the highest perceptions of the Ferguson Effect and the lowest levels of self-legitimacy and organizational justice were found in older, White, male, less-educated officers. As the United States is at a place in its history where discussions of criminal justice reform, systemic racism, and even defunding the police have perhaps become louder and more emotional than at any

time before, it becomes even more vital to have research data representing all stakeholders to supplement opinion and anecdote. This study helps, in part, by providing an empirical “voice” from an officer perspective in these debates. If honest and intelligent debate is to take place on these important issues, it cannot take place without this voice.

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Appendix A: Sample Survey Invitation Email

You are receiving this message because your law enforcement agency has agreed to participate in an important research study. Even though your agency has agreed to be a part of this study, participation on your part in a short 10-15 minute survey is completely voluntary. The researcher is a doctoral candidate and this study is in partial fulfillment of a requirement toward obtaining a Ph.D. The study is entitled Five Years of the Ferguson Effect: An Officer Perspective. It gives participants the opportunity to share opinions and perceptions of law enforcement officers on such things as the Ferguson Effect, de-policing, officer safety, crime rates, and potential legal liability after use-of-force incidents, in the five years since the officer-involved shooting death of Michael Brown by Officer Darren Wilson in Ferguson, Missouri in 2014. The data from this study will help provide the perspective of law enforcement officers on these important, timely topics.

In addition to being completely voluntary, this study is also anonymous. At no time will your personal responses be conveyed to anyone in your agency. Additionally, any public release of the results of this study will be in aggregate form only and will have no identifying information of study participants.

Again, this survey is completely voluntary and anonymous. It should take no more than 10-15 minutes to complete and it can be completed online.

Thank you in advance for your participation and for providing your voice to these important law enforcement topics

Appendix B: Survey Instrument

Five Years of the Ferguson Effect: An Officer Perspective

Online Consent Form:

You have been invited to participate in a research survey about law enforcement officer perceptions of the Ferguson Effect and its influence on officer safety, potential legal liability, and possible government oversight, five years following the shooting death of Michael Brown by Officer Darren Wilson in Ferguson, Missouri. The survey should take no more than 10-15 minutes to complete and can be completed online. The survey will cover the topics outlined above, as well as, your perceptions of organizational justice and self-legitimacy in your job. At the end of the survey you will find ten demographic and employment characteristic questions. If you decide to participate in the survey, please answer each question completely and honestly. There are no known risks or discomforts associated with participating in this survey but some questions relating to perceptions of organizational justice and self-legitimacy require honest assessments of your law enforcement agency. These responses will be held in the strictest confidence and will at no time be shared with anyone in your respective agency.

This survey is completely voluntary and anonymous. You can withdraw from the survey at any time. Your responses will be kept in a digital format and under strict confidence. No data will be released to the law enforcement agency with whom you are employed. Any data made public from this research study will only be released in aggregate form, with any and all possible identifying information of study participants removed.

Participating in this survey allows you the opportunity to express your opinions and perceptions on an important, timely topic, which is related to ongoing discussions on such other topics as de-policing, crime rates, officer safety, possible legal liability rising from use-of-force incidents, and law enforcement policies, procedures, and training. By participating in this survey, you are helping to add the law enforcement officer perspective into these important, timely topics. Results from this study will be retained for ten years. If you have questions or would like a copy of the study results during that time, please contact the researcher at the email address listed at the end of the survey.

Thank you very much for your participation.

Scale Items
Ferguson Effect Items (1-5)
1 Over the past 5 years, negative publicity surrounding law enforcement has made it more difficult for law you to be motivated at work.
2 Over the past 5 years, negative publicity surrounding law enforcement has not caused you to be more apprehensive about using force even though it may be necessary. (R)
3 Over the past 5 years, negative publicity surrounding law enforcement has impacted the way you do your job.
4 Over the past 5 years, negative publicity surrounding law enforcement has made it more enjoyable to have a career in law enforcement. (R)
5 Over the past 5 years, negative publicity surrounding law enforcement has caused you to be less proactive on the job than you were in the past.
Officer Safety Items (6-9)
6 Over the past 5 years, citizens have become more compliant. (R)
7 Over the past 5 years, citizens have become more willing to resist police officers.
8 Over the past 5 years, citizens have become less likely to assault police officers. (R)
9 Over the past 5 years, it has become more common for officers to be feloniously assaulted in the line of duty.

(R) = Reverse Coded Item

Scale Items
Fear of Legal Liability Items (10-11)
10 I am not concerned about being criminally prosecuted following a use-of-force situation. (R)
11 I have concerns about being civilly sued following a use-of-force situation.
Government Oversight Items (12-13)
12 Local law enforcement agencies should be under the direct oversight of the federal government. (R)
13 Federal government investigations of my agency are welcomed. (R)
Self-Legitimacy Items (14-18)
14 I have confidence in the authority invested in me as a law enforcement officer.
15 As a law enforcement officer, I believe I occupy a position of special importance in society.
16 I believe people should always do what I tell them as long as my orders are lawful.
17 I am not confident that I have enough authority to do my job well. (R)
18 I believe law enforcement is capable of providing security for all citizens in my jurisdiction.

(R) = Reverse Coded Item

Scale Items

Organizational Justice Items (19-36)

19 I trust the direction that my department's command staff is taking our agency.

20 I feel confident about top management's skills.

21 I trust that command staff makes decisions that have the agency's best interest in mind

22 As an organization, my agency can be trusted to do what is right for the community.

23 Command staff at my agency considers employees' viewpoints.

24 My agency's policies are designed to generate standards so that decisions can be made with consistency.

25 My agency's performance evaluation system is fair.

26 My agency's investigation of civilian complaints is not fair. (R)

27 I understand clearly what type of behavior will result in discipline within my agency.

28 If you work hard, you can get ahead at my agency.

29 Command staff treats employees at my agency with kindness and consideration.

30 Command staff clearly explains the reasons for their decisions.

31 Command staff does not clearly explain the reasons the agency makes policy changes. (R)

32 Generally, command staff treats employees at my agency with respect.

33 My agency's policies are not designed to allow employees to have a voice in agency decisions (e.g., assignment changes, discipline). (R)

Scale Items

Organizational Justice Items (19-36)

34 Landing a good assignment in my agency is based on whom you know.

35 Command staff treats agency employees the same regardless of their gender.

36 Command staff treats agency employees the same regardless of their race or ethnicity.

Sociodemographic and Employment Characteristics

Sociodemographic (37-40)

37 What is your age in years?

38 What is your gender? *(0=Female, 1=Male)*

39 What is your race? *Self-identified as Non-Hispanic White (0=Non-Hispanic White, 1=All other groups)*

40 What is your level of education? *2-year college degree or above (0=No, 1=Yes)*

Employment Characteristics (41-46)

41 How many full-time certified officers work for your agency?

42 How many citizens reside within your jurisdiction?

43 What type of department do you work for? *(0=Municipal, 1=Sheriff)*

44 How many years have you been a certified officer?

45 Are you a supervisor at your agency? *(0=Non-Supervisor, 1=Supervisor)*

46 Do you currently work in a patrol capacity? *(0=Patrol, 1=Other)*

(R) = Reverse Coded Item

Appendix C: Research Question, Survey Instrument, and Variable Linkage

RQ	Instrument Scale/Questions	Variables
RQ1	Ferguson Effect Items (1-5)	**Independent Variable** *(Aware of Ferguson Effect)*
	Government Oversight Items (12-13)	**Dependent Variable** *(Oversight Perception)*
RQ2	Ferguson Effect Items (1-5)	**Independent Variable** *(Aware of Ferguson Effect)*
	Fear of Legal Liability Items (10-11)	**Dependent Variable** *(Legal Liability Perception)*
RQ3	Ferguson Effect Items (1-5)	**Independent Variable** *(Aware of Ferguson Effect)*
	Officer Safety Items (6-9)	**Dependent Variable** *(Officer Safety Perception)*

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Appendix D: Permission to Use Ferguson Effect, Officer Safety, Self-Legitimacy, and Organizational Justice Scales

Use of Ferguson Effect Scale for Doctoral Dissertation Research

Mon, Jan 27, 2020, 1:34 PM

Darrin Wilcox
to wolfesc1

Good afternoon, Dr. Wolfe:

My name is Darrin Wilcox and I am a doctoral candidate at Walden University. For my dissertation, I am conducting officer survey research into the Ferguson Effect. Specifically, as it has been 5 years (5 1/2) since the Ferguson incident, I am looking at the impact of the Ferguson Effect on officers today. During my literature review, I encountered research conducted by you and Justin Nix in 2016 (The Alleged "Ferguson Effect" and Police Willingness to Engage in Community Partnership) containing a scale for measuring the Ferguson Effect. With your permission, I would like to use this instrument for my dissertation study. Also, as I will be including the two confounding variables that you found (Organizational Justice and Self-Legitimacy) as intervening variables, I would like to use the instruments you used for measuring them for my dissertation study as well The Organizational Justice and Self-Legitimacy scales would be used exactly as you described them. The Ferguson Effect Scale would only be changed from "Over the past 6 months" to "Over the past 5 years". Finally, I will include an officer safety aspect and would also like to use the scale you used with Justin Nix and Bradley Campbell to measure "likelihood of being feloniously assaulted" in your 2018 research entitled "'Command-level Police Officers Perception of a War on Cops and De-policing". This scale would only be modified to reflect 5 years instead of 2 years. All proper attribution will of course be given for the use of the instruments, and if you desire, a copy of my finished paper. Please let me know if you have any questions or need further information.

Thank you for your time and I look forward to hearing back from you.

Have a great day!
Darrin Wilcox

Wolfe, Scott

Tue, Jan 28, 2020, 8:26 AM

to Darrin

Darrin,

Thanks for reaching out. You are welcome to use our measures for your study. Its great to hear they'll be useful to your work. Good luck on the dissertation!

Best,
Scott