

ABSTRACT

POLICE DEPARTMENT MINIMUM EDUCATION REQUIREMENT AND USE OF FORCE

The current study is a report on the existing literature regarding police departments, the minimum education requirement for the hiring of new officers and instances of use of force among officers. The professionalization of policing has been suggested and conceptualized for nearly 100 years and the existing literature supports the idea that police officers are less likely to use physical force to gain control of a situation when they have obtained a higher level of education. The present study used the LEMAS 2013 dataset and SPSS software to run Chi-Square and correlation tests between police departments' minimum education requirement for hire and reported use of force instances. As well as a correlation between the number of sworn personnel and minimum education requirement. The results of these tests show that there are extremely weak relationships between the variables and thus, the study concludes that there is a desperate need for more complete data on the subject in order to use education level to predict the likelihood of an officer to use force. Further research should be done on an individual use of force case basis to determine whether or not there is more concrete statistically significant relationship between officers' level of education and instances of use of force.

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May 2017

POLICE DEPARTMENT MINIMUM EDUCATION
REQUIREMENT AND USE OF FORCE

by
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A thesis
submitted in partial
fulfillment of the requirements for the degree of
Master of Science in Criminology
in the College of Social Science
California State University, Fresno
May 2017

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ACKNOWLEDGMENTS

They say it takes a village.

I have been surrounded by an incredible village over the course of my time here at Fresno State. A village of people that have taken me in, and stood by my side through the highest of my highs and the lowest of my lows. There is no way for me to adequately thank everyone that has been there in support of me during this process. I will never forget my time here; spent with the most incredible people from every walk of life. Fresno State has been the best risk I have ever decided to take and for that, I leave here a more complete person. None of this would have been possible without you all. This is for you.

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CHAPTER 1: INTRODUCTION

The policing profession is one of constant trial and tribulation. There is no such thing as a typical day on the force, much less a universally accepted way to prepare someone for what they may encounter over a career that can span across three more than three decades.

The word police, when used as a verb, is defined by Merriam-Webster:

(1) govern; (2) to control, regulate, or keep in order; (3) to make clean and put in order; (4) to supervise the operation, execution, or administration of to prevent or detect and prosecute violations of rules and regulations; ... to perform the functions of a police force in or over (Police, n.d., para. 1).

As a noun, police are “the internal organization or regulation of a political unit through exercise of governmental powers especially with respect to general comfort, health, morals, safety, or prosperity” (Police, n.d., para. 2). Regardless of the context, the word “police” is one that is known by nearly everyone. The men and women serving as police officers in the United States are recognized by all when in their uniforms and their presence has been unwavering throughout our nations’ history.

Unfortunately, due to instant access to unlimited media outlets, people may feel that police officers are not doing their job appropriately (Strandberg, 2015). There are always two sides to a story, and when only one is made public, information is easily skewed to favor the side that was made public. Police officers are public figures and as such, the public expects them to meet, uphold, and maintain the standards they are tasked with enforcing on an individual level as well.

As human beings, it is in our nature to make mistakes. No single individual is perfect, and there is no underlying expectation that we as a species will be. That being said, there is little room for error when a relatively small group of people is asked to keep the safety and well-being of a community in balance.

The United States has recently come face-to-face with a problem that has the potential to determine the success and stability of the law enforcement system for years to come. While police officers' use of force (see Appendix) has been a topic of criminological research since the early 1970s, with technological advancements and seemingly unlimited access to information, it now has become a front-page headline and thus, a prevalent concern of the general population (Foreman, 2014). The media has arguable portrayed the problem as far more common than it really is, nonetheless, determining the causes and how to reduce use of force incidents is something that must be addressed.

According to the Office of Justice Programs, National Institute of Justice (n.d.), use of force is defined as the “amount of effort required by police to compel compliance by an unwilling subject” (p. 14). However, policies vary from department to department and the National Institute of Justice, Law Enforcement Code of Conduct (2011) has reported that there is no universally accepted definition of use of force. The gold standard of use of force policies include any and all “control of person” actions by a police officer (Walker, 2005). Walker noted however, that vagueness in wording is common in nearly every departmental policy and creates the potential for misunderstanding and more discrepancy in determining what is and what is not use of force from one department to the next. With such potential for the misunderstanding of policy, it is imperative that police officers are equipped with not only exceptional training to prepare them for what they may face in the field, but also an appropriate level of

developmental preparedness in order to handle whatever situations they may encounter.

Due to the lack of an accepted and consistent definition of use of force, it has been difficult to collect and analyze data on police use of force (Walker, 2005). In 1999, The National Institute of Justice and the Bureau of Justice Statistics published a report that examined police use of force, with specific attention paid to incidents of excessive force. Sources including police use-of-force reports, civilian complaints, victim surveys, and observational methods confirmed the previous research that suggests a very small percentage of police encounters involve excessive use of force. Public perception of use of force, however, pays little regard to what the data suggests for a variety of reasons. First and foremost, news is shared on social media outlets. Incorrect information can get out and then shared instantly via social media outlets, making it hard for a department to do damage control (Foreman, 2014).

Police use of force is a problem within our criminal justice system for countless reasons, but this study will focus on three of these issues. First and foremost, the effectiveness of police officers in fulfilling their duty relies heavily on their public image (Strandberg, 2015). Citizens should not fear police officers and when people base their opinions of police officers on the latest video shared on social media, the current image of police is presumably tainted. Secondly, police use of force does not only represent the choices made by the officer(s) involved in the incident, but also serves as a reflection of the department that employs them (Bogats, 2016). When a department has more frequent instances of use of force reported, administrative approaches come into the discussion. Finally, the use of force is not necessary be an effective officer of the law (Akdogan, 2010). Using force may be necessary as a means of self-defense or to ensure the

safety of people surrounding the scene, but outside of these instances, use of force may be preventable. Each officer is different, just as every human is, and there will always be variables that cannot be controlled when dealing with behavior. That being said, the current requirements in place to become a police officer and the policies that exist to make sure they do their job, may not be adequate to ensure that these individuals are the most fit to be charged with protecting and maintaining order within our communities.

Purpose Statement

The purpose of this study was to identify whether or not there is a statistical significance in the instances of use of force between police officers that have a 4-year degree and those that do not. The study is intended to bring to light potential implications that can arise when hiring an individual that does not have a college degree. Varying opinions have been published in regards to whether police officers should be required to go to college and earn a degree, but until recently, the focus of research looking into the effectiveness of such a requirement has been lacking.

Research Questions

The research question that this study was designed to answer is as follows: Is a police officer less likely to use force or excessive force if he/she has earned a 4-year college degree? In order to examine this question a bit more thoroughly, there was one other questions that present itself as a secondary research question: Is there a correlation between size of the police department and the likelihood of the department to have an educational requirement in place for officers that calls for more than a high school diploma or GED?

Hypotheses

Based on the primary and secondary research questions these hypotheses will be addressed in this paper:

H1: There will be an increased statistical likelihood of a police officer using force with a lower educational requirement and a statistically significant, positive correlation between police departments' minimum education requirement and fewer reported use of force instances.

H2: There will be a statistically significant correlation showing that the greater the number of sworn personnel, the higher the minimum education requirement will be.

Significance of the Study

A current topic of interest within the criminology community is police use of force. To gain a more comprehensive view of the problem, many researchers have attempted to identify the cause of the problem. With all the research assessing *why* police officers use force, a variety of variables have been examined, including age, gender, and years of experience. Unfortunately, policing is a profession that primarily does not require a college degree. The intention of this paper is to explain the benefits having an education can provide to a police officer, as well as provide the statistical evidence to support the theories the existing literature presents.

Limitations

The limitations of this study are that the dataset used for the analysis included information on police departments and not individual officers. This unfortunately did not allow for the researcher to generalize any results across individual officers. With the data that were available, the study was unable to

include specific data in relation to the number of use of force instances reported involving specific officers within departments. It should be assumed that while there may be an increased frequency of use of force instances within several police departments included in the study, it does not mean that every officer within that department has been involved in an instance of use of force. It also should be noted that in using these data for analysis, in the departments that have few instances of use of force reported, there is no way to determine whether or not a single officer in that department is responsible for each of those instances or all the officers contribute to the total number. There are further delimitations explained in a subsequent section of this paper, in which the selection criteria for the initial dataset is described in more detail.

A final limitation of the study is that the police departments represented in the dataset used in the analysis may not be representative of the true demographic and educational make-up of police departments across the country. This limitation is possible because despite any measures taken to send the survey to departments that would ensure the study does in fact pull representative responses, there were departments that didn't respond and there is no such thing as a perfect sample. As the data analyzed for the purpose of this study were collected via a survey administered to police departments and not individuals, it is hoped that those whom were asked to answer the questions on behalf of the department answered truthfully and appropriately.

CHAPTER 2: LITERATURE REVIEW

History

Police officers have a storied history in the United States. In one way or another, individuals filling roles similar to what we would today call police officers have served the citizens of our communities since the conclusion of the American Revolution. The constant presence of these public figures throughout our history has helped shape the path this country has taken.

Many aspects of policing have changed in America throughout the years, but there is also one thing that has remained the same: the minimum hiring requirements of officers has not advanced with the times. Eighty-five percent of police departments still only require a potential hire to have a high school diploma or the equivalent GED (United States Department of Justice, Bureau of Justice Statistics, 2013). In 1916, August Vollmer initiated a movement to increase the level of education of police officers. The purpose of this was to establish policing as more “esteemed profession” through the use of higher education. Vollmer’s suggestion appeared necessary and justified at the time because an improved level of intellectual training would aid in police officers’ ability to stop crime more effectively and efficiently as criminals became more and more adaptable to the officers’ traditional tactics (Bruns, 2010).

Policing is not an easy profession and while training can be a daunting physical task, the intellectual side of the job is equally, if not more, important. Vollmer created a curriculum specialized for police officers that featured new developing aspects of the field such as evidence collection, methods of identification and organizational structures of police departments (Gault, 1918). After Vollmer’s acknowledgement of the need for police officers to have obtained

a higher education, the National Commission on Law Observance and Enforcement followed suit in 1931 by recognizing the importance of officers being college-educated (Bennett & Marshal, 1979). As time passed, the President's Commission of Law Enforcement and Administration of Justice was formed and determined that policing had become more complex and the requirements for hiring should be adjusted to account for these complexities if public satisfaction of police was to be maintained. The Commission was established as a response to the general public's criticisms of their police departments (Krimmel & Tartaro, 1999). The recommendation of the Commission was for new officers to be required to earn a bachelor's degree due to the need for an increased ability in critical thinking. Various funding opportunities were created to encourage officers to complete an undergraduate degree (Jones, 2016).

The President's Commission of Law Enforcement and Administration of Justice was just the beginning of these commissions. One commission of note, the American Bar Association Project on Standards for Criminal Justice (1973), stated: "police were unable to curb crime and no longer had a relationship with, nor understood, the communities they served" (Hawley, 1999, p. 40). Following all the commissions' requests for higher education as a means to increase officers' ability to communicate with and know the members of the communities, approach situations using better critical thinking skills, and become better problem-solvers, an era of research began that looked into the relationship between higher education and police officer performance.

With differing theories as to why the data might not support the inclusion of higher education as a requirement for becoming a police officer, the vast majority of the research methods implemented at this time to look at police performance and higher education were poorly designed and inconsistent in their

methodology (Smith, 1978). In an effort to further develop the field, raising the minimum qualifications was a progressive idea that unfortunately did not get too far past the drawing boards.

Recognizing the Problem

The problem of police use of force is one that can no longer be overlooked. Research has focused on variables such as which officers are likely to use force, who officers use force against, and how many years of experience officers have upon the timing of the use of force incident, just to name a few. All things considered, little research has been done thus far to find and then promote effective solutions to the problem that we face. It is unlikely that any potential solution presented will eradicate police use of force, but finding a way to limit the frequency is a start.

Within the past 10 years, a number of studies have been conducted to look at different variables that may contribute to police use of force. Training, pre-employment screening, age of officer, race, and years of experience are the variables included in nearly every one of these studies. One variable, however, has only recently received attention, and that is officers' education level. Rydberg and Terrill (2010) and Stickle (2016) looked at the effect of higher education on police behavior. These studies both concluded that police officers who have completed at least some college are less likely to use force than officers who are hired with the high school diploma or GED requirement. The present study looks to build upon this study using nationwide data from the LEMAS 2013 dataset. The data offers insight into the topic on a larger scale than previous studies, but does lack the benefit of individual case-by-case data.

Education is an invaluable part of our modern lifestyle. People are encouraged to stay in school for as long as they can, with the potential of better employment opportunities serving as an incentive for people to do so. It seems counterintuitive that becoming a police officer would be easier than nearly any other career someone would chose to pursue. It is possible to get a job, in the present day, with a high school diploma. It is difficult, however, to pursue a career without at least a bachelor's degree. With such a demand for people with degrees from institutes of higher education, it is becoming more and more common for people to go to college or community college and at least earn an associate's degree. The United States Census on Educational Attainment (year of publication) reported that in 2015, 59% of citizens had at least some college education. Police officers are tasked with maintaining peace and order within society. If the average member of society is becoming more educated through the obtaining of some sort of advanced degree, why would police officers not be required to have more than a high school diploma?

The research suggests that police officers with higher levels of education are not only less likely to use force, but more likely to serve their communities effectively through the use of improved communication skills, better self-control and an increased likelihood to consider the options prior to making rash decisions when it comes to use of force (Paoline & Terrill, 2007; Rydberg & Terrill, 2010). The literature labels education as a positive influence on behavior in nearly every study that includes it as a variable (Hein, 2011). With the potential benefits that an increased level of education can give to police officers, it is an administrative change that should at least be considered.

Education

When looking for someone fit to serve as a police officer, there are skills that are innate, and there are skills that are learned. Some people fit the ideal mold to become an officer when they are 18 and others may need a few more years of development until they are ready for such an undertaking. One thing scientists do know is that the human brain is not fully developed at age 18 (Johnson, Blum, & Giedd, (2009). This does not just refer to the physiological development, but also the personal, moral and behavior development that comes with that physiological growth. As an individual ages in their late teens and into their early twenties, the brain is maturing and putting the finishing touches on what still is a somewhat malleable organ.

In his book, Robert Thompson (2014) discussed the developmental science basis for an improved undergraduate curriculum. The foundation of his belief that undergraduate education programs should be more focused on promoting a well-rounded, all-encompassing curriculum, is rooted in the information stating that the brain not fully developed during the years people are typically enrolled in college. In his writings, he discusses the challenges we face in higher education. He believes that there are three core components that are essential to the success and maximum neural development of 18 to 25 year olds. The first of these is a “personal epistemology that reflects a sophisticated understanding of knowledge beliefs, and ways of thinking” (Thompson, 2014, p. 43). In other words, Thompson suggested that an individual should pursue a higher education when they have the background supporting their success in such a curriculum. He makes clear that the purpose of higher education should be to continue to develop young minds to think with the whole picture in mind, as opposed to creating such specialization towards a single topic during the undergraduate schooling years.

The concept is forward thinking and promotes the idea that we must, as a society, continue to engage in the learning of things that not only apply to us here in the United States, but on a global scale as well.

The second core component is “empathy and the capacity to understand the mental states of others” (Thompson, 2014, p. 44). This section of the book delves into the developmental science behind learning and the benefits of said learning experience. The frontal cortex of the human brain offers a wide variety of services to the rest of the body: motor function, problem solving, memory, language, judgement, impulse control and social behavior (Floden, 2014). With the frontal lobe contributing so much to the overall function of the brain it is important to consider what education can contribute to its development. Any potential advantage that a police officer can obtain should be taken advantage of if it is shown to improve the quality and competency of decision-making. Seeing that the frontal lobe is known to influence judgment and impulse, two things critical to a police officer’s success and safety, it seems like pursuing further development of that region of the brain would be encouraged.

The third and final core component included in Thompson’s book is “an integrated identity that includes values, commitments, and a sense of agency for civic and social responsibility” (Thompson, 2014, p. 44). While this book was written to provide justification in the form of developmental science research, for an improved undergraduate curriculum for the general population, and not particularly police officers, this third component ties directly into the mission statement for policing in the United States. While each and every mission statement is unique to its respective department, the majority communicate the same core principles. For example, the Los Angeles Police Department mission statement reads:

It is the mission of the Los Angeles Police Department to safeguard the lives and property of the people we serve, to reduce the incidence and fear of crime, and to enhance public safety while working with the diverse communities to improve their quality of life. Our mandate is to do so with honor and integrity, while all times conducting ourselves with the highest ethical standards to maintain public confidence. (LAPD Online, 2016)

The role of a police officer relies heavily on their ability to make ethical decisions. The three points Thompson makes are critical in the understanding of the importance of education in general. To apply them further to justify the importance of education in police officers, further literature was reviewed.

Why Do Some Departments Require a Degree?

As a result of requests made by the countless commissions to require police officers to have at a bachelor's degree prior to hire, some departments have changed their minimum requirements to meet this standard. Bruns (2010) conducted a qualitative study that analyzed data from 36 police chiefs in regards to why college degrees are just a preference and not a requirement for hiring. While the debate has been going on for 100 years now as to whether or not police officers should be required to have a college education prior to being hired, there is little research out there on those departments that have implemented this requirement. Bruns noted that less than one percent of local and state police departments have adjusted this hiring standard (Hickman and Reeves, 2006). The study addressed that while police chiefs tend to prefer a college degree, they are discouraged from making this a requirement due to the lack of interest in becoming a police officer among many college graduates.

Police chief opinions as to why a college degree was preferable when hiring officers were collected to serve as an analysis tool. In 2010, a search of state police agencies and state highway patrol websites concluded that there were only three state police departments that required police officers to have obtained a bachelor's degree prior to their hire (Bruns, 2010). Even with these requirements stated, there are exceptions and potential alternatives such as military experience, a combination of military experience and some college education, and prior experience as a police officer (Bruns, 2010).

Reviewing the other state police department requirements, it was found that 10 states require an associate's degree or at least 60 units of college courses. Any other state asked that applicants had a high school diploma or equivalent GED. However, there is one state that differs; Nevada calls for no minimum educational requirement standard (Bruns, 2010).

Police Education vs. Experience and Use of Force

The existing literature involving police officers and their level of education are variables typically looked at when trying to establish who performs better on the force: officers with some college education or a college degree, or an officer with no college education but those extra years of experience. Beginning in the 1970s (Carter, Sapp, & Stephens, 1989; Cohen & Chaiken, 1973), scholars have looked into the impact of education on various tasks associated with being a police officer, all while comparing the results collected to those whom have greater experience on the force. The literature that pins education versus experience on the force suggests that the role of a police officer is best learned "on the job," as there is no better way to simulate the things that an officer will encounter than by actually living the part (Bayley & Bittner, 1984). This suggests that for at least the

beginning of a police officer's career they are still learning, and perhaps not fully prepared to handle the things they may encounter.

With this in mind, police officers with the most experience on the force should be those whom are the best or most fit to handle tough situations. Bayley and Bittner (1984) suggested that only those officers with the utmost experience are capable of establishing whether or not an officer has handled an encounter appropriately, arguing that policing is an occupation that cannot be rationally analyzed by anyone on the outside (Bayley & Bittner, 1984). If there is no way to prepare an officer in a classroom or even in a police training program, it seems counterproductive to require them to obtain a college degree prior to their hire onto the force. However, without an objective standard of performance off of which to measure much of their work behavior, it makes it hard to hold police officers accountable for their actions.

Based on data from a variety of sources over the 10 years prior to publishing their work, Bayley and Bittner (1984) established that making important decisions on the spot is something that police officers are asked to do regularly. Situations that police officers are faced with are seldom the same, and even something as simple as a routine frisk is different from individual to individual. The act of decision-making is not a challenge for officers when dealing with simple things; for example, the things that they do learn how to handle in training that do not differ from how they appear in training and how they present themselves on the street. In training officers might be asked what to do upon encountering a drunk man passed out on the sidewalk in the winter. There are logical ways to handle that situation, thus making it simple to handle when it presents itself. The issue of appropriate action among police officers is something that comes into play when discussing instances in which how to handle the

situation is not as logical. Appropriate action includes an element of discretion. Discretion can be dangerous when in the hands of an officer that may not have the experience, or education, to support an appropriate reaction.

Paoline and Terrill (2007) published an article titled “Police Education, Experience, and the Use of Force,” which examined the impact that a college education has on police officers’ performance against the common counter-argument, which suggests experience as an officer is more beneficial than a college education. The study focused on officers’ use of coercion. The results of their research suggest that different levels of education and experience are related to differences in the use of coercion when interacting with citizens (Paoline & Terrill, 2007). When an officer had some college education, there was significantly less verbal force used in comparison to an officer with a high school education. The study also found that there was significantly less use of physical force, but only in encounters involving officers that had obtained a 4-year degree. The present study looks to add a couple dimensions to this education variable as the data allows for multiple groupings starting with no educational minimum, and progressively increasing until the fifth category is reached when departments ask that potential candidates earn a Bachelor’s degree prior to being considered for hire. The final finding was that officers that had more experience serving on the force had fewer instances of verbal and physical force when engaged in an encounter (Paoline & Terrill, 2007).

Benefits of Education

An opportunity to obtain a higher education offers the ability for police officers to increase their effectiveness in policing. Possessing the communication skills, rapport building ability, critical thinking and problem-solving skillsets that

are nurtured during undergraduate studies are all key aspects of the policing profession. The existing literature suggests that police officers with better communication skills are more effective in talking through situations and maintaining relationships with those in the communities they serve (Lersch, Bazley, Mieczkowski, & Childs, 2008). An effective ability to communicate with community members not only can limit the amount of misunderstandings between officers and those they encounter, but also, can make it easier to gather information for investigative purposes. In order to collect evidence and build a case, officers need to investigate the different aspects of the crime. An investigation often starts with determining whether or not someone witnessed the crime, followed by a formal interview. Both formal and informal interviewing techniques can be used by police officers, both of which require at least some ability to build an immediate relationship with the interviewee (Villalba, 2016). This “relationship,” is more commonly referred to as rapport. Building a sense of rapport with an interviewee enables a police officer to gain a more complete perspective as to what that individual may have seen.

Institutions of higher education are in place to create and foster the extension of learning. Early on in an academic career, students are faced with critical thinking problems, often to judge their abilities in creating step-by-step plans to accomplishing a final task. Math, for example, has word problems that may take students multiple steps to complete, with the correct answer only presenting itself if all the steps are done correctly.

Police officers are faced with situations that require these very critical thinking skills often. Huber and Kuncel (2016) found in their study that a higher level of education was correlated with an increased level of critical thinking abilities. The argument surround studies of this sort is correlation does not mean

causation. While the argument is made by these studies that more education means more critical thinking ability, it is equally possible that those who are innately better critical thinkers have an easier time in school, apply and are accepted into undergraduate or graduate programs, and thus have a higher level of education. Regardless of the epistemology of an individual's critical thinking ability, the literature suggests that continuing education is beneficial to maintaining and improving upon those abilities.

Something that goes hand in hand with critical thinking is an officer's ability to make important decisions on the spot, with little or no time to appropriately consider all the potential consequences. Police officers' instinct and response to the things they see develops as they spend more time on the force, but the literature suggests that having an educational background may prove as beneficial in these situations (Christian, 1977). Being able to make a decision on the spot that will keep you, your partner, the suspect, and potentially the surrounding spectators safe is no simple task and personal judgment differs from one officer to the next.

The decision police officers have to make in shoot/no-shoot situations is one that has been of special interest to researchers. There are infinite variables that present themselves in such situations and it is nearly impossible to simulate a similar kind of scenario in training sessions (Walker, 2005). Self-control and the ability to rationalize actions are important for police officers as well, both of which have been tied to higher education (Gottfredson & Hirschi, 1990). Impulse control and improved brain development are referenced as benefits of an education, particularly higher education, among those in professions typically involving high levels of stress

Behavioral Theories: Self-control

Higher education benefits not only police officers themselves, but the function of society in general. When police officers are asked to respond to a call they are rarely ever given specific instruction in regards to what they are walking into (Ferrara, 2004). With sufficient, but still just a small amount of information letting officers prepare appropriately for how they should handle the call, there are advantages having an education can provide. An officer that has effective communication skills and an ability to think critically on the spot, very well may use the skills in his repertoire to talk down a potential threat as opposed to using force.

Likewise, a creative approach can often come in handy. For example, an article by Karpenko (2011) found that it can be helpful for police officers to use a creative approach when creating plans for responding to difficult situations. Creativity, in both community-based policing and undercover work, is highly encouraged as long as said creativity has appropriate boundaries. Creative thinking has gained respect in academia over the course of the past 50 years, and as a result, non-conventional approaches are becoming more common in fields that used to be very conservative (Silberman, 1990).

Within the policing profession, this ability to think outside the box is both a blessing and a curse. When used by those whom are thinking not only about what happens next but what happens further along, creativity in policing can be invaluable. The other side of the arguments for or against creativity in policing is that too often officers are caught up in a situation and they fail to consider the repercussions of the plan they have crafted. The reality that cannot be ignored, regardless of what any literature states, is that in simply being human beings, there is no way to predict behavior with 100% certainty, nor is there going to be a

solution that can cater to each and every officer when trying to decrease the number of use of force instances.

Self-control is defined by Merriam-Webster (n.d.) as “restraint exercised over one’s own impulses, emotions or desires” (Self-control, n.d., para. 1). Based on this definition and research that has been conducted (Christian, 1977; Landman, Nieuwenhuys, & Oudejans, 2016), self-control is important for police officers to exercise. Several studies have looked into the potential ways to maximize levels of self-control in police officers. Thompson (2014) used self-control to support the argument being made on behalf of higher education and the benefits it can provide to not only those looking to go into specialized fields, but anyone wishing to better themselves. The part of the brain associated with the ability to practice self-control is in the dorsolateral prefrontal cortex, which is in the frontal lobe (Collins, Koechlin, & O’doherly, 2012). There have been multiple studies suggesting that education aids in the maximum development of this brain region (Aldrich, 2013; Ferrari & McBride, 2011; Isherwood, 2011). This type of development not only increases the likelihood of better decision making for the benefit of the individual, but also increases the likelihood of their potential to make better decisions on the job, while under maximum pressure, as well.

Self-Efficacy

Self-efficacy “refers to an individual’s belief in his or her capacity to execute the behaviors necessary to produce specific performance attainments” (Bandura, Adams, Beyer, & Greenwald, 1977). They continued with: “self-efficacy reflects confidence in the ability to exert control over one’s own motivation, behavior, and social environment.” Albert Bandura’s theory of self-efficacy and its effect on behavior is well acknowledged in the field of psychology

and has been referenced in a study that included an analysis of participation in prison education programs (Jonesa, Mangerb, Eikeland, & AsbjØrnsen, 2013). This behavioral theory is one that has been applied across a vast number of fields, particularly in regards to how it can affect the outcome of an individuals' participation in education. Phan and Ngu (2016) conducted a longitudinal study that looked into the sources of self-efficacy in academia with a focus on the foundation of self-efficacy in elementary school children. Self-efficacy is noted as a critical benefit of education. As self-efficacy plays a role in police officer behavior, the addition of further education either as a part of the hiring requirement or as a part of training may prove to be rewarding. While there may only be a few similarities between the effect of education on elementary school children and police officers, the concept of self-efficacy is consistent between the two groups and can play a significant role in officer behavior.

Ishoy (2016) found that police officer attitudes towards enforcement behavior played a critical role in impacting the decisions they made while on duty, even though they may vary depending on the situation. Also of note, police officers were most concerned with meeting the expectations of their supervisors as opposed to those of their fellow officers or the community as a whole. With that in mind, one must take into consideration the impact self-efficacy levels can have on police performance. When police officers perform well and earn recognition from their superiors, the likelihood of an increase in self-efficacy is high. This can be both positive and negative: the positive being if that police work was, in fact, good policing and that good policing is thus reinforced by the recognition. The negative aspect being that if the police officers' behavior was not something that should be condoned, and it is in fact being reinforced. Police officer use of force is something that lies not only on the shoulders of police officers themselves, but

also of the superiors that these officers report to. When proper action is not taken within departments to discourage or prevent instances of use of force, the behavior will not cease among officers.

In 2014, Donner and Jennings conducted a study using 1,935 police officers from the Philadelphia Police Department assessing levels of police officer self-control. Like Michael Gottfredson and Travis Hirschi suggested in their general theory of crime (1990), Donner and Jennings found that lower levels of self-control among police officers were related to instances of police misconduct. That being said, those that argue that police officers are justified in their use of force must recognize that when that force is not used in the appropriate circumstances, the only thing differentiating them from a felon is their uniform. Whatever the situation may be, when a police officer uses force, the public may call into question that force, because had a citizen used the same force, he or she would most likely then be labeled a criminal.

Gottfredson and Hirschi (1990) call self-control a “learned” behavior. Education helps this behavior develop and thus as one’s level of education increases, in theory, so does his or her level of self-control. When self-control increases, likelihood of criminal behavior decreases. If scholars have provided countless potential causes of crime that can be decreased through the use of education, why would police officers not be encouraged or required to have the highest level of education possible to ensure they are most fit for the profession they have chosen? When hiring officers, police departments should have not only the best interest of their department in mind, but also the best interest of their community. Police officers are supposed to represent safety and security and promote the same within a community. If criminological theory suggests that to

reduce the likelihood of criminal behavior people should be more educated, there should be no exception for police officers.

Learning Theories and Behavioral Change Theories

In the Behavioral Theories: Self-Control sub-section of this literature review, a connection was drawn between criminal behavior and police officer use of force. With the primary differences between these two populations being (1) a police officer wears a uniform, (2) a police officer is called to respond to an instance as opposed to becoming involved completely volunteering, and (3) the reaction drawn from each group. Similar to the theoretical approach taken to address and alter the behavior of criminals, the same idea could be applied to educating police officers. As the United States has developed as a nation, education has become a priority. People from each and every socioeconomic status now have the opportunities to earn an education (Russo & Harris, 1994).

One of the goals of education is behavioral change (Knowles, 1970). According to Payne and Welch (2014), countless studies have been conducted to understand the impact of education on behavioral change to best provide educational methods that will maximize behavioral change. Teaching methods are the mechanisms of behavioral change in individuals. In order to appropriately modify behavior or train individuals, the methods by which they are taught must be consistent with what they are being taught. Certain training programs work well for some professions and do not work for others.

In order to train and educate police officers appropriately, those providing said training and information must effectively be able to communicate the purpose of what they are doing. Understanding the behaviors of police officers prior to their use of force may help decrease the number of instances of police use of force.

When working towards correcting a behavior, one must know how to identify the root of that behavior. Once the cause of that behavior is identified, training and education programs can be adapted to address that problem as opposed to simply the use of force problem. When an officer is a step ahead of whatever situation they are walking into, they are more likely to handle the situation appropriately and without using unnecessary force (Ferrara, 2004).

International Police Education

While the United States has yet to implement a university program specifically for the training of police officers, there are several countries in Europe that have. Norway lead the way on the European continent in the early 1990s when police officers started receiving their formal police education from a university instead of a police academy. Over the years, the program has developed into an increasingly academic based training program; essentially a degree program specifically designed for those who want to become police officers (Lagestad, 2013). Similar to the United States, policy sparked the initiative to shift police training from a practice based program to more traditional study of theory. Unlike the United States, however, Norway has actually taken these policy suggestions and created a system to encourage and provide education to their officers.

In the United Kingdom, a distinct separation between the police training in academies and police training in university has been made. More specifically, this separation has come in firearm training. Firearm training is of critical importance for police officers and that training is referred upon in cases where police officers misuse their firearm (Morrison, 2003). Literature suggests (Lim & Lee, 2015) that under most departments protocol, not only does the officer under question for a

reported use of force, or use of deadly force instance receive an investigation, but the method by which that officer received training, as well as the administration of the department, are called into question. The traditional model of police training was used as a foundation to create and then implement a more university-like program. These programs, with such a foundation, then are enabled to expand upon that foundation and provide both breadth and depth to the officers participating. International and domestic police training protocol have been criticized (Chan, Devery, Doran, 2003; Fielding, 1988; Harris, 1978) for its failure to prepare police for the things they will encounter and experience on the force. Traditional police training is quasi-militaristic and relies heavily on law-based, action centered responses (Atherton, 2012). While there are obvious benefits of such programs and tactics within police training and it is clear that police officers should know the law that they are enforcing, taking action is something that often comes with consequences.

When considering the action that a police officer may be asked to take in response to a call they receive, there are infinite variables that will play into that action. Regardless of training, police officers are human beings and, as such, their behavior is unpredictable. The idea of police training or police education cannot be centered on eliminating the possibility of an officer using force. Unfortunately, that would be a near impossible task simply because you are training human beings. When dealing with this population, the goal must be to enable a police officer to have other options when they are faced with a situation in which they may be tempted to use force. International police training has taken initiative to remove the responsibility of training their officers from police academy or department staff and in doing so, the results show that they are giving their police officers a better opportunity to grow their knowledge and communication skill

base, thus lowering the likelihood of them feeling the need to use force (Lagestad, 2013).

Lagestad (2013) noted that in the previous literature, other vocational positions, such as teaching and the nursing field, have used a more practical approach to teaching and training. The foundation of this practical approach was first coined by Dewey (1916), and is centered on the notion that when teaching, an instructor must “relate the theory to practice.” In doing such, it gives whatever is being taught a purpose. The challenge in shifting from police training to police education would lie in ensuring that the instructors, while teaching the theory, were able to relate said theory to the practice of policing. Of course, there is no reason to teach a police officer theory if they do not see how they can apply it to the things they will experience on the job. Likewise, without engaging the students’ interest or taking into consideration their perspectives it will be hard to see any success in the teaching of theory to individuals “studying” to become police officers.

To maintain integrity within police departments and to take some burden off of those charged with training and administering training procedures, removing the participation of department staff in firearm training can prove to be beneficial. A study conducted in the United Kingdom noted that by expanding professional learning of police officers, there was a level of separation that allowed room for not only more outside influence on police firearm activity, but also an ability to take some strain off of supervisors as some accountability was shifted off of them and onto the third party, university training (Beighton, Poma, & Leonard, 2015).

Summary

To summarize the current literature, it is agreed upon that there are benefits and disadvantages to implementing a minimum education requirement for the hiring of new police officers. The proposals for such reform were initiated a century ago, but have gained little momentum. The potential social, behavioral, and intellectual benefits of a higher education can take the profession of policing to entirely new heights, not to mention may help in decreasing instances of use of force.

CHAPTER 3: METHODS

Initial Data Collection

This study was conducted using data collected by the United States Department of Justice, Bureau of Justice Statistics for the 2013 Law Enforcement Management and Administrative Statistics (LEMAS). The 2013 LEMAS survey was sent to 3,272 agencies in total, including 2,327 local police departments, 895 sheriffs' offices and each of the 50 state agencies. Due to department closures and inaccurate contact information, responses were only collected by 2,822 agencies. Responses and collections of the survey came from 2,059 local police departments, 717 sheriffs' offices, and 46 state law enforcement agencies. These responses were all included in the analysis for this study. Access to this dataset is available to the general public.

The population of police departments used for the 2013 LEMAS Survey were the departments that responded to the 2008 Bureau of Justice Statistics Census of State and Local Law Enforcement Agencies. The 2008 edition was the most recently available. The departments chosen for the 2013 LEMAS sample were selected using a stratified sample design based on the number of sworn personnel on staff. The sample was created with the intention of being representative of all state and local law enforcement agencies in the United States. The initial study was a cross-sectional design and was administered through the use of web-based survey.

Procedure

Various datasets were explored in the hopes of finding one that included both variables related to reported use of forces instances and the level of education of the involved officer. Unfortunately, there was no success in finding a complete

dataset that included both these variables. The LEMAS 2013 dataset was introduced to the researcher as a potential source. Although using the LEMAS dataset does not allow for the specific case-by-case approach that was initially hoped for, it does include a variable that references the minimum hiring requirement for officers in each of the departments included in the survey. The dataset also includes information on departmental instances of use of force.

With those two variables, the researcher used SPSS to run statistical tests of correlation, as well as a Chi-Square test. The Chi-Square test of independence was calculated comparing minimum education requirement and instances of use of force. It allowed for the data to be analyzed by measuring how the observed data distribution fell within the expected distribution of independent variables. A test for correlation was run to determine whether there was any linear relationship between the variables in the study.

Initially, the breakdown of the data collected from the question inquiring about education hiring requirements was in the form of six sub-variables: No Minimum Education Requirement, High School Diploma or Equivalent GED, Some College Required, Associate's Degree Required, Bachelor's Degree Required, and Other Education Requirement.

All of the responses from the survey questions fell into one of the six categories described above. Due to the fact that departments do not have more than one minimum education requirement, they answer YES to one of the questions and NO to all the others. Out of the complete LEMAS dataset, 2,826 agencies reported their education requirements. Forty-four agencies did not respond to this question and were labeled as "Missing." The missing population accounted for 1.6% of the total number of departments. It was not noted in the codebook whether or not the 44 non-responding agencies were statistically

different than those that did respond. Thirty-seven, or 1.3%, of departments reported having no minimum education requirement for hire. There were 2,314 departments or 81.9% of the total sample that reported a High School diploma or equivalent GED was required for hire. 4.2% of the sample, or 120 departments responded saying that new hires had to have Some College education as a minimum requirement. Some college was defined in the LEMAS codebook as: “some college but no degree.” Unfortunately, due to the vagueness, this definition could mean that departments with this requirement hired officers who had been enrolled and completed 1 college course or officers that had gone through 120 units but did not earn their degree. Two hundred and sixty-one, or 9.2% of departments required an Associate’s Degree for hire while 1.3% required new hires to have a Bachelor’s Degree. The final 0.4% of respondents stated that their departments minimum education requirement for hire was something “other” than the previously stated options. Examples of this could be considered military service or previous experience as a police officer.

To run the correlation, the researcher recoded the minimum education level variable to represent the different levels of education in a scale model. The dataset was exported into Microsoft Excel and a new variable was created to include the YES responses from each of the five original variables. Departments that had “No Minimum Educational Requirement” were labeled as 1, if a “High School Diploma or Equivalent” was required the department was assigned a value of 2, those that required “Some College” were given the value of 3, an “Associate’s degree” was assigned the value 4, and departments that required a “Bachelor’s degree” for hire were labeled 5. Use of force instances did not need to be recoded or altered within the dataset as the variable was represented numerically in the initial data.

For the purposes of the Chi-Square test, the use of force and education level variables were dichotomized. Use of force was split at “fewer than 100 instances” and “greater than 100 instances,” while the education level variable was split at “high school diploma or lower” and “greater than a high school diploma.” The use of force variable was split at 100 instances because, while the mean was 41.28 reports, there were so many reports of fewer than 10 instances there is the potential that those data could have brought down the mean significantly. Education level was dichotomized at high school diploma because that was the level of education most commonly found within police departments minimum education requirement and thus the question the hypothesis are working towards addressing: does having earned a degree decrease the likelihood of a police officer to use force?

Department size and minimum education requirement were also analyzed to determine if there was a correlation between the size of department and minimum education requirement. This variable was tested due to the fact that larger departments are typically located in large cities where there is typically a higher likelihood of criminal behavior and thus more potential police-civilian interaction. The researcher wanted to explore if this was something that showed a possible correlation to use as a potential starting point for future research.

Analysis

To determine if there was any statistical significance suggesting that the likelihood of a police officer to use force was increased as a result of their education level, SPSS was used to conduct a Chi-Square test. Bivariate correlation was conducted on the dichotomized reported use of force totals variable and the education level groups generated by using the subsets of the minimum education

requirement variable to determine if there was a linear relationship between the two variables.

To address Hypothesis 2, a bivariate correlation was run using the reported use of force instances and number of sworn personnel variables to test for any statistically significant linear correlations between the two variables.

CHAPTER 4: FINDINGS

Findings

The purpose of the current study was to provide insight, with statistical support, into the suggestion that education may serve as a method to decrease the frequency of which police officers use force. In analyzing the variables of education level, number of use of force instances, and department size, the results the researcher found are stated in Table 1. Results are presented in the tables below.

Table 1

Descriptive Statistics for Use of Force, Minimum Education Requirement and Number of Sworn Personnel

Variable	N	Mean	Range	Standard Deviation
Use of Force	2692	41.28	4383	173.893
Minimum Education Requirement	2782	2.25	5	.713
Department Size	2826	163.92	34454	824.958

Research Question 1

H1: Does education have an impact on police officer use of force?

In running the chi-square test, the researcher found that the minimum education requirement of police department does not affect the likelihood of an officer using force. The SPSS output results were: $\chi^2 = (1, N=2666) = .851$, $p = .356$, Cramer's $V = .018$ and are presented in Table 2.

After the Chi-Square test, a test for correlation was done. For this correlation, the researcher used the variables use of force and minimum education requirement. Use of force was used as it appears in the LEMAS 2013 dataset: coded numerically as departments answered the survey questions with numerical

Table 2

Type	Chi-Square Value	df	P
Use of Force	.851	1	.356

data, each reported use of force instance was equal to “1”; and minimum education requirement was used in the 1-5 scale created for the study. Upon running a correlation test in SPSS, the results confirmed that there is a significant, but very weak correlation between a police department’s minimum educational requirement and the number of use of force incidents reported by the department. The r value was .054 at $p=0.005$, signifying that there was a statistically significant correlation between the Education Level Scale variable that was created to represent departments minimum education requirement for hire, and departmental use of force totals. The SPSS output summarizes these results in Table 3. This analysis, put simply, means that the two variables in question in the study are correlated, however not strongly. Potential explanations are addressed further chapter 5 to explain why the test shows that as education level increases, so do use of force incidents.

Table 3

Variable	Use of Force	Minimum Education Requirement
Use of Force	1	.054**
Minimum Education Requirement	.054**	1

** . Correlation is significant at 0.01 level

Research Question 2

H2: Do police departments with more sworn personnel have higher minimum education requirements?

The results show that there was a positive correlation between the number of police departments' full time, sworn personnel and the departments' minimum educational requirement for hire. Pearson's r was equal to 0.076, $p > 0.00$ showing a statistical significance at the 0.01 level. This finding suggests that the more sworn personnel a police department had, the more likely the department was to have a higher minimum educational requirement. There was no Chi-Square test run for this hypothesis as it was run merely to see if there was any linear relationship between the two variables in question. Determining if there was any correlation between the number of a police departments' full time, sworn personnel and its' minimum education requirement for hire was considered to give insight into further potential research in this area.

Table 4

Correlation Between Number of Sworn Personnel and Minimum Education Level

Variable	Sworn Personnel	Minimum Education Requirement
Sworn Personnel	1	.076**
Minimum Education Requirement	.076**	1

** . Correlation is significant at 0.01 level.

CHAPTER 5: DISCUSSION

Overall, although there was not a strong correlation between the two primary variables in question, there was still a statistically significant correlation. This section will include a discussion regarding potential reasons for the weak correlation, as well as ways to improve upon the current study that can be utilized by others in future research endeavors. The current study offers good insight into the potential of this topic and provides a foundation for further research opportunities. Details on potential reasons for the results of this study, as well as further literary support offered from previous studies, will be used to reinforce the statistical conclusions drawn from this study. The limitations of the current study are also considered during this discussion to place emphasis on the need for further research on this topic to be continued.

Education and Use of Force

There was a statistically significant correlation between the education and use of force variables, but the relationship was weak ($r=0.054$, $p=0.005$). The correlation results show that as education levels increase, so do the use of force incidents. While this does not support the argument that officers with a higher level of education are less likely to use force, there are limitations to this study that may explain the statistical results that were gathered.

As a result of this study, there was some insight given into the relationship between use of force, department education, and number of sworn personnel, but nothing that was strikingly apparent. The findings in both the Chi-Square test and the correlation test for Hypothesis 1 (education level and use of force) were statically significant. However, the coefficients were so statistically insignificant that the results cannot stand alone to accept or reject the hypothesis. This

discussion points out potential explanations for the insignificant coefficient size. The results of the correlation ($r=0.076$, $p=0.01$) for Hypothesis 2 (education level and number of sworn personnel) show that again, there is room for improvement within the study to show true statistical significance between the two variables. Again, a weak correlation was found, likely due to other factors that will be discussed in further detail in this chapter.

Looking further at the statistical output, it is clear that the correlation results from the test run between use of force instances and level of education show, while weak, suggests that use of force instances increase as level of education required by the police department increases. This is the opposite of the hypothesis proposed by the researcher, but there are also potential explanations for the result. It is possible that the results of the correlation could have been skewed by the outliers in the data and that creating a new variable using the available data could have controlled for these outliers better. The major outliers that may have contributed to skewing data were found in both the use of force and number of sworn personnel variables. These outliers were both extremely larger than the means of each variable: 4,383 use of force reports compared to the mean of 41.28 and 34,454 officers compared to 163.92 mean. However, there are also theoretical approaches to explaining this problem that lie outside the scope of the statistical methods of this study.

For example, the study looked at education requirements of police departments, but there is no way to know when the education requirement the department had in place was implemented. This can impact the results in that it does not give insight into how many officers on the force were hired before and after a new education requirement was set. The LEMAS survey was sent out to departments in 2008 and if, for example, a department had implemented a new

minimum education standard in December of 2007, the likelihood of them having hired a completely new staff under this new policy is highly unlikely. There is the potential that departments had implemented new education policy as a result of an increase in use of force instances and because we do not know that, the data does not completely reflect the possible discrepancy between the timing of an education minimum requirement being changed and its impact on police officers' likelihood to use force. Along this same line of thought, because individual case data were not available, there is the potential that the police officers who were hired prior to the education policy change are the ones more likely to use force. If these officers were hired before the education minimum requirement was changed, they do not fall into the category of officers whom this study would have preferably studied. Having access to the information regarding the timing of the educational policy change and how many officers had been hired after that change, and then looking at that population of officers and their use of force instances would give better insight into the effect changing an education minimum requirement has on a police departments' use of force totals.

Education and Number of Sworn Personnel

In regards to Shaw and McKay's 1942 theory of social disorganization, the research supports that crime rates are higher in more densely populated urban areas. These areas, having a higher population, are also in need of more officers on the force. More officers, dealing with more crime inevitably leads to more citizen-officer contact and thus more opportunity for a situation to escalate into one where force is used by police. Police departments that have more interactions with citizens in these highly populated urban areas also may be more likely to have to deal with the scrutiny of the public opinion and respond accordingly. That being

said, it is possible that these larger departments in big cities where use of force by police is much more likely to occur are the departments that have implemented the recent policy change to account for citizen response to police officer use of force. Lersch et al., (2008) found there were neighborhood characteristics that played into police use of force within certain areas. It is important to look at this problem from a holistic approach noting that while department policy can change, there are still characteristics of neighborhoods or cities that instigate the use of force.

The flip side of this crime rate and population hypothesis starts with a higher number of police officers on the force. When a department has a larger number of sworn personnel, there may be a greater likelihood for each of those officers to have one or two reports of use of force against them then it would be for a smaller department to have 10 reports against each of their officers. Likewise, in a high-crime urban area, it might be more common to see police officers use force because they are more threatened by the everyday calls they respond to as opposed to lower profile calls that an officer in a more rural area may be used to. Noted by Morrison (2009), there are different use of force training protocols for different police departments. Specifically, differences in the training that officers in larger departments when compared to officers of smaller rural departments. The Morrison study can shed light on the concept of how departments do differ, and why it may be important to create a more standardized approach as to how officers should respond to a situation that may call for force. It is not reasonable to think that use of force policy will be consistent between a department in a town of 15 and New York City, but there should be consistency between policy within cities that do have similar demographic make-ups, population sizes, and a similar frequency of citizen-police encounters.

The study found that police departments with more sworn personnel were more likely to have a higher education requirement. While the statistical significance found was questionable at best, it is important to make note of why this may be the case, especially after the previous tests found that as education increased, so too did use of force instances by police. Aside from the occasional announcement on a state or government website stating that a law enforcement agency is looking to hire new police officers, police departments do not typically recruit too far outside of their jurisdiction (Bogats, 2016). Bogats noted that training influences police performance and that different training protocol can play its own role in promoting use of force in certain scenarios, particularly with training that is specific to the scenarios most commonly encountered in that jurisdiction. Police training differs from jurisdiction to jurisdiction. If a police agency is comprised of individuals recruited from the population in the surrounding area, there is the likelihood that the police officers they are recruiting will have a similar educational background to the population they will be policing. In a larger city with a bigger population, there may be a greater likelihood that the general level of education is higher in a large, urban area when compared to that of a small town that has no local college or university.

Recruiting from within the city or county that a department is located in helps with community perception (Lersch et al., 2008). If officers are known by those within the community as members of that community, not just as police officers, public perception can change from, “He/she is just trying to get us in trouble,” to “He/she is looking out for his/her neighborhood too.” This internal recruiting can help community relations between a police department and the community it serves immensely, and also may play a role in reducing the

likelihood of use of force instance by police. This idea may also be used to help explain, to a certain extent, the results that were found in this study.

With the data from LEMAS 2013 and the above possibilities taken into consideration, the true potential for further research on this topic is just getting started. To improve upon the information that already exists, it is imperative that researchers gain access to individual use of force case data from individual law enforcement agencies that include information on not only the department minimum education requirement, but also the level of education of the individual officer that was involved in the use of force instance. With this information, there is a much greater potential for significant statistical findings, showing that either yes, use of force instances decrease as the education level of the officer increases or no, use of force increases as the education level of the officer increases.

Education versus Experience

On the other side of this argument is the opinion that the level of education obtained by an individual police officer is, in fact, *not* related to their use of force. The literature suggests (Hilal, Densley, & Zhao, 2013; Paoline & Terrill, 2007) that those against police officers being required to have a Bachelor's degree believe that what they learn in a classroom is not as beneficial as what they learn in the academy or on the job. It is possible that these beliefs are true. In many regards, it is a logical argument that the knowledge gained from a 4-year college degree does not adequately prepare a police officer for what he or she is going to see when he or she is engaged in police work. And handling scenarios in a classroom setting is far less volatile than dealing with people on the street. Paoline and Terrill reference the pros and cons associated with earning a degree versus gaining experience on the force. Most of the existing literature that hopes to

provide insight into the best options for police officers recognizes the lack of complete data as a limitation.

That being said, the argument for raising the minimum education requirement for police officers does not dispute any of that information; it simply adds a step to the process of becoming an officer based on the belief that there are other benefits that a 4-year college education can provide to those in the policing profession, such as critical thinking skills and communication skills that can be used to build rapport with citizens they are bound to encounter on a daily basis (Villalba, 2016). If the community knows that police officers have not only been trained to be police officers, but also have the same general knowledge base of things not related to policing, there is the potential for some leveling to take place without any contact.

If, in fact, there is no relationship between police officer level of education and his or her likelihood to use force then the question still remains: what is missing from the police academy and field training that provides officers with the necessary skills to handle difficult situations without using force? If education is found to provide no aid in decreasing use of force instances, policy change may not be necessary in regards to formal education requirements, but instead to the training protocol of police academies. If police officers do not have to earn a Bachelor's degree then they should be trained in methods to avoid forceful contact with citizens or at least ensure that police cadets are aware of the policy and procedures that surround use of force reports.

Summary

Ultimately, the data provided in by the LEMAS study did not allow the researcher to assess the relationship between the selected variables in the way she

had hoped. That being said, seeing the potential for the need of more inclusive and detailed data and new studies on this topic are overwhelmingly apparent. Moving forward, it is critical for police departments and researchers to work together to address issues related to police officer use of force. To gain insight into the true impact of police officers' education level on their use of force, case by case data must be collected and analyzed. The intent is no longer to prove that an education is more beneficial than going through the academy and field training, so much as it is to provide our police officers and departments with the knowledge they need to bring the best, most effective means of safety and protection to not only our communities, but themselves as well. This phenomenon, like that of crime in general, is not something that can be fixed or explained by a single theory, but rather will most likely require a complex approach. It is time to take what resources we have in the fields of not just criminology, but all social sciences, to tackle this problem head on and determine the root cause.

Taking into consideration the existing literature and research that has been conducted regarding the level of education obtained by police officers and their use of force, there are very few studies that have analyzed the developmental and behavioral benefits of a higher education. There have been studies that have assessed how years of experience, race, gender, and age of police officers impact their use of force, but rarely have the more psychological aspects of education discussed. The problem is that police officers' use of force is a behavior. As a behavioral problem, there are things that must be considered outside of age, gender, and race of the officers involved. That is not to say that each one of those variables will not have an impact on the behavior of officers, but there is more that plays into behavior on an underlying psychological level. The resources that are available to the scientific community in regards to psychological research are

often overlooked. Brain scans, improved psychological tests and overall studies into brain function can completely change the way scientists and researchers conduct studies on this matter moving forward.

Biologically, psychologically and developmentally, the benefits education has on the brain and thus behavior is undeniable. While the scientific community continues to uncover more and more information on the brain and its intricacies, the existing literature on frontal lobe function, brain growth and development, and self-control in relation to higher education is thorough but not complete. While police officer use of force has been labelled a criminological problem, it will take research beyond the scope of criminology to solve it.

Conclusion

The present study displays the potential for further research in this area. With the data showing a positive correlation between police departments' minimum education requirement and reported instances of use of force, while very weak, future research should look to analyze the effect that having a higher education has on police officers on an individual level. Having the opportunity to look at the data on use of force instances case-by-case and determining if there is a greater statistical significance on an individual level would be the next step in the process of initiating the long awaited social change within the law enforcement community.

There were 142 police departments included in the statistical analysis that reported zero use of force instances. One department reported 4384 use of force instances. With the mean being 41.28, as stated in the Analysis section, it shows the tendency was for departments to have relatively low reported use of force incidents. The reality of the matter is that, in a perfect world, there should not be

any need to use force during police encounters with civilians. With an appropriate, nationwide standard that created a minimum required level of education for hire, the implementation of consistent training mechanism, and proper the use of discipline of officers that engages in using force, there is no reason use of force instances can be significantly decreased in the United States.

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APPENDIX: DEFINITION OF TERMS

Definition of Terms

The terms included in this section are defined by the researcher to clarify what they mean within the context of this paper. For the purposes of this study, any other important term that may be presented less frequently is define when it is used within the paper.

Use of force – an instance in which a police officer uses physical force in a manner that may be deemed unnecessary by another individual OR officer in the situation. The LEMAS 2013 dataset defines use of force incidents as, “situations where officers used physical force to control individuals or to prevent the escalation of conflicts.”

Education – the process of going to school or a school-like facility with the intention of further improving one’s knowledge of various topics in an environment in which one is pushed to improve their mental capacity to include the material being presented to them.

Size of department – the number of sworn personnel that a police department has on staff at the time the 2013 LEMAS survey was administered.