

DOES EDUCATION ENHANCE A RECRUIT'S ACADEMIC PERFORMANCE  
DURING ACADEMY TRAINING

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy in Criminal Justice

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## ABSTRACT

This study will examine cadet/recruit academic performance while attending the Illinois State Police Training Academy. The focus will be primarily on the academic testing portion of the academy training. This quantitative study will evaluate whether there is a correlation between the academic achievement of the recruit before entry into the academy and academic performance while attending the academy training. This research will explore questions such as: What is the relationship between educational levels and academic performance among recruits while in the police academy? Does having a college education impact the recruit's ability to score higher on academic testing sections within the academy? Do college graduates have an advantage over recruits who do not have a college degree regarding educational testing while attending the primary police academy? The prospective cohort will include all recruit officers who have entered recruit training at the Illinois State Police Academy from 2018 through 2023. All participants will be 21 years or older, which is the age for hiring police recruits. All sampling information collected from the recruit's class training records will be abstracted from an electronic database without using any personal bio identifiers. The samples will be given a corresponding number to the test score. Recruit papers will be reviewed with the assistance of I.T. staff at the academy for data to be extracted from recruit databases. Information will be analyzed and reported using SPSS software to correlate the individual trainee summary.

***Keywords:** academy training, recruit, academic performance, Andragogy, experimental learning, performance measurement*

**Copyright Page**

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### **Dedication Page**

Proverbs 28:1 (NIV), “The wicked flee when no one pursues, but the righteous are bold as a lion.” This project is dedicated to the law enforcement men and women serving across the U.S. and to the Illinois State Police and ISP Training Academy personnel who graciously assisted me with gathering the information needed for this research.

## **Acknowledgments**

I want to thank all my professors and mentors who have influenced and shaped me into the law enforcement professional I am today. I would also like to thank my committee chair, Dr. Jarrod Sadulski, and committee reader, Dr. Matt Lamade, for taking this journey with me. Their knowledge has been inspirational and instrumental in shepherding me through this process. Without their patience, positive encouragement, and making me the best version of myself, I may not have completed this program.

I want to thank my family and friends for their patience and love needed to complete this long journey. Their understanding was unmeasurable at times when I was frustrated, tired from doing homework, or just needed their support. Finally, I would like to thank ISP Col. Gibson, Lt. Leatherwood, Jeff, and Erin, my work unit and the numerous others from the ISP administration who helped pave the way for this study to be completed. A special thanks to my fellow students and cohorts who had been a constant positive force completing this project.

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### **List of Abbreviations**

Constraint-Led Approach (CLA)

Commission on Accreditation of Law Enforcement Agencies (CALEA)

General Educational Development (GED)

Grade Point Average (GPA)

Experimental Learning (EL)

Illinois State Police (ISP)

Statistical Package for Social Sciences (SPSS)

## CHAPTER ONE: INTRODUCTION

### Overview

Whether cops should have degrees has been an argument since the beginning of the establishment of law enforcement in the United States. The father of modern policing, Sir Robert Peels, knew that standards needed to be developed to establish and maintain an effective police force. Peel's nine policing principles included agencies needing to always test police efficiency in the absence of crime, not the visible evidence of police action in dealing with them. The collected data may shed some clarification on whether educational achievement should be part of the hiring standards for police officers and may assist in the development of a national standard for police recruitment. This study will explore whether there is a connection between a police recruit's educational status of having a college degree and their academic performance during basic police training. The study solely focuses on the educational aspect of the academy training. The goal is to determine if having a degree higher than a GED or high school diploma provides an advantage for recruits regarding academic performance during basic training.

The theoretical framework of this study encompasses the Police Learning Management theory. This theory addresses police recruits' learning stages and academic achievement for the individual recruit. This model identifies a more focused view through the lens of police academy learning, which is the first stage of professional development and dealing with the challenges of contemporary policing (Koerner, 2022). The framework looks at multiple areas of learning and instruction to ensure the best possible learning environment for the individual officers. The theory supports that a recruit who possesses a higher set of learning skills acquired through educational achievement before attending the academy might have an academic advantage while at the

academy (Aamodt & Flink, 2006). The training standards vary from state to state and sometimes from jurisdiction to jurisdiction, depending on the population size (Vespucchi, 2020).

## **Background**

### **Craft or Profession**

The study will consist of a quantitative cross-sectional analysis that examines the relationship between academy testing scores and the educational levels of recruits. The data sampled will consist of individuals who graduated from the training academy between 2018 and 2023. The examination of a correlation between academy recruits who have a higher level of education beyond a GED or high school diploma and their academic performance compared to academy recruits who do not have education achievement past a high school diploma.

Recent research highlighted a paradox concerning the education levels of recruits, academy trainers, and their teaching methods as educators in academy training (Belur et al., 2020; Rui-Hsin & Lin, 2018; Zahav et al., 2016). Proactive police training is essential because it prepares officers with the knowledge and skills to apply the most enlightened policing (Conger, 2020). In the 1900s, the leader of modern law enforcement in the United States, August Vollmer, advocated the development of college education programs in police science and standardized training for police academies to produce professional and educated officers and police chiefs (Oliver, 2016). This was the first step in creating some form of police training and advocating for college-educated officers to support his vision of developing policing into a profession. Like physicians and attorneys, Vollmer envisioned officers as crime-solving specialists combined with a higher cognitive function that would significantly reduce crime. New technologies and ways of improving the effectiveness of policing were being developed.

These new initiatives required students who graduated from universities to possess the skills necessary for new programming (Cordner, 2020). Previous literature completed by Aamodt and Flink (2001) reveals that research has been conducted to identify if education plays a role in police recruits' academic performance while in police academy training. The community wants the best officer on the job, but do better-educated police perceive their responsibilities differently and rationally? The research looks to understand the impact of education on police personnel regarding their perceptions of the role, work values, stress, and management issues after on-the-job experiences. Research conducted by Huey and Kalyal (2018) has noted that the officer's pre-graduation success while attending academy training has not been given much attention. The data collected focused heavily on conduct and responses post-graduation in the field.

Police education and training expanded significantly around the twentieth century, as noted by several researchers (Blumberg et al., 2019; Cordner, 2022; Frevel & Kuschewski, 2023). The training was viewed as a method to prevent or correct police misconduct, whereas education might prevent the conduct from occurring. There needs to be more literature; therefore, empirical research is required to understand if recruits' educational levels directly affect their academic performance in academy training. Police training has taken a more scholarly approach, consisting of new teaching methods and training matched more appropriately for adult learners (Birzer & Tannehill, 2001).

This study hopes to gain a broader understanding of educational influences on new police recruits' academic training before attending basic police academy training. There is no national standard for basic police training, and hiring requirements vary from state to state. Police Academies run around 12 to 14 weeks from start to graduation, averaging about 800 hours of training. In a book by M.R. Haberfield (2002), the time and styles of police training in the U.S. are

significantly less than in other countries. The emphasis on training hours in other professions was weighed against those for police academy graduates, and it found that training hours and standards are far less than some other certified positions.

The study also showed that other countries such as Germany, Ireland, and Norway require officers to attend a three-year police college to get certified as law enforcement officers (Vespucci, 2020). Education and policing have traditionally been studied for data on the causation between the use of force issue or what percentage of administrators have college degrees. The past data on recruits' education and performance levels include all classes and backgrounds, not just if the recruit has a college degree. This study will address only if a recruit has a college degree, and this gap in the literature will be addressed.

### **Problem Statement**

The problem addressed in this quantitative correlational research is a need to understand whether a college degree of any level increases a police candidate's academic scores while attending the police academy. Current studies by Aamodt, 2001 Belur et al., 2020, and Boivin al et al., 2022 examine how education impacts officers already working in law enforcement. However, there is a need for additional research on the correlation between education and academic performance during the training phase (Aamodt, 2001; Bartkowiak & Theron, 2019; Blumberg, 2019; Conger, 2020; Koerner & Staller, 2021). This study aims to fill a gap in research data by investigating whether having a college degree affects a recruit's academic performance in the police academy or not. A correlational design approach will be used while controlling another variable of interest that might impact academic performance.

A recruit's pre-academy educational levels directly affecting their academic performance will be studied to see if a relationship exists between education and performance. By gauging the

impact of formal education on Academy trainee performance, we can evaluate the test scores of those with advanced degrees (associate or higher) compared to those with no degree above a GED or a high school diploma. This data can help determine if educational achievement influences an officer's academic performance or if there is no significant difference between officers with higher levels of education above a high school diploma. In this case, education, the possibility of progress in recruitment selection, and training methods may be advanced by identifying predictors of higher performance.

### **Purpose Statement**

The purpose of this study is to explore whether there is a connection between a police recruit's educational background and their academic performance during basic police training. In Illinois, the Basic Law Enforcement Training or BLET consists of a 16-week academy training period of law enforcement courses set as a requirement imposed by the Law Enforcement Training and Standards Board for all new police officers in the State of Illinois.

The study solely focuses on the educational aspect of the academy training, where academic performance is measurable and well-defined. The goal is to determine if having a college degree improves recruits' academic performance during basic training. The study will consist of a quantitative correlational analysis that examines the relationship between academy academic test scores and the educational levels of recruits. The data will include the recruitment performance of individuals who graduated from the ISP training academy between 2018 and 2023. The population will consist of recruits who have attended and graduated from the ISP police training program. The Illinois Compiled Statutes or ILCS, Chapter 85 750/1, police recruits are defined by Illinois law as civilians to be trained and certified by an Illinois police academy as probationary police officers until successful promotion to a fully licensed law



enforcement officer (Sect. 50, ILCS 705/1 Chap. 85, par. 501). The Illinois Law Enforcement Training and Standards Board (ILETSB) is the appointed governing body that oversees compliance with the 16-week program.

The program encompasses city and county recruits from all over the state (ILETSB, 2020).

The dependent variable in this study will be the academic performance of a recruit while attending basic police academy training. The educational information will be retrieved from the individual recruit academy entry form and grade summary in the ISP database. ISP and legal offices have approved a letter from the Academy director to collect the data needed for this study (Appendix). Academic performance can be defined as simply the performance of learning that is ultimately achieved through teaching and development obtained through achievement tests. Researchers in empirical studies often describe academic performance as academic achievement from students' examination results (Williams et al., 2019; Zheag & Mustapha, 2022).

The independent variable will be the level of education the recruit had achieved before entering the academy. This study will record if the recruits have a degree above a GED or high school diploma. The existing literature regarding education and police officers has focused chiefly on education levels and job performance of a police officer after academy graduation (Aamodt & Flink, 2001; Cordner, 2022; Cox & Kirby, 2018). A lack of literature still exists regarding the academic performance of recruits while attending the academy (Blumberg et al., 2019; Sloan & Paoline, 2021). By identifying a possible correlation between academic performance and higher education, law enforcement agencies can focus their recruiting budgets and employment opportunities in manners that target better recruitment possibilities by determining if recruits with higher education score higher in academic performance while in the police academy.

### **Significance of the Study**

This study aims to determine if a college education affects the academic performance of a recruit attending the academy. The data collected from this study may help determine if education should be a prequalification for becoming a police officer (Aamodt & Flink, 2001). The standard qualifications for hiring in the policing profession need to be more consistent and have been discussed throughout law enforcement. The connection between a college education and a better cop was never defined. However, it has been implied that officers with college experience might be more responsible and able to solve complex crime issues quickly (Terrill & Paoline, 2007).

The Illinois State Police Academy's primary purpose is to prepare new officers for a law enforcement career. Whether education makes a better police officer has been discussed but needs to be thoroughly researched (Edwards, 2019). More research is needed on how educational levels may affect a recruit's overall academic performance in the 16-week basic police academy training. In several studies, officers with a college education significantly reduce the likelihood of force being utilized, indicating a connection. Studying recruits' academic performance and education levels may give a clearer picture for developing pre-employment standards (Aamodt, 2001; Belur, 2020; Bondarenko, 2020; Cordner, 2022; Johnson et al., 2022). This study addresses a significant gap in the need for more research in this debated area and may help forecast the future of developing consistent educational standards. The study examines whether a college education impacts academic performance compared to a high school diploma. Very little research has examined predictors of academic performance in the academy.

Education level will be defined as any degree earned above a high school diploma. Most studies have focused on personality traits or negative performance (White, 2018). The findings

from this study are likely to have implications for police hiring practices based on whether having a college education impacts academic performance while in the police academy.

### **Research Question(s)**

To achieve the primary aim of this study, the following research question will be examined:

RQ1: What is the relationship between educational status (college education) and completing academic training?

RQ2: What is the relationship between educational status (college education) and academic performance among recruits while in the police academy?

RQ3: Do academy recruits with a college education have an advantage in the police academy regarding academic test scores?

### **Hypothesis(es)**

Ha1: There is a significant relationship between possessing a college degree and graduating from the academy among recruits at the Illinois State Police Academy, such that those with a college education will have a higher probability of graduating when compared to those without a college education.

H01: There is no relationship between possessing a college degree and graduating from the academy among recruits at the Illinois State Police Academy.

Ha2: There is a significant statistical relationship between possessing a college degree and academy GPA among recruits at the Illinois State Police Academy, such as those with a college education having higher GPAs than those without a college education.

H02: There is no relationship between possessing a college degree and academic performance among recruits at the Illinois State Police Academy.

## Definitions

*Andragogy*: The science of adult learning advocates self-directed learning (Birzer & Tannehill, (2001).).

*CALEA*: Commission on Accreditation of Law Enforcement Agencies established in 1979. Grant's accreditation to the law demonstrates compliance with multiple standards, including those developed for recruitment, career development, and training (Baro & Burlingame, 1999).

*Comparative analysis*: When a study is used to determine and quantify relationships between two or more variables, it is used to observe groups exposed to different treatments (Weld, 1988).

*Decision-making*: Decision-making involves making choices by identifying a decision, gathering information, and assessing alternative resolutions (Drucker, 1967).

*Educational levels*: Educational level refers to the highest level of schooling a person has reached (Levels of Education, 2020).

*Illinois Law Enforcement Training and Standards Board*: The state agency mandated the promotion and maintenance of high professional standards for law enforcement and correctional officers.

*Police Recruits*: Under the direction of academy staff, the police recruit is a non-sworn civilian employee and attends a certified police academy to learn and perform the responsibilities of an entry-level police officer (Chappell, 2008).

## Summary

Many of the studies regarding education and policing initiated post-graduation, as Vespucci (2020) reported. The common thread has been to look at correlations between officers who possess college degrees and use of force issues, police administrators who possess degrees, and citizens' complaints. However, this study will examine pre-graduation test scores to see if there is a correlation between education and academic performance during the primary police training phase.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

Police academy training is one of the most critical steps in becoming a certified police officer. Today's modern academies understand that becoming a law enforcement officer is more than physical training. As early as 1931, Volmer's suggestions to raise educational standards in policing gained little notoriety (Poaline & Terrill, 2007). Three decades later, the subject of higher academic standards as a requirement for employment has yet to be settled. It was not until the National Advisory Commission of Higher Education for Police Officers (CALEA) suggested that a college education is beneficial to the role of the police officer. Future research should include college-educated recruits and their academic performance while attending basic academy training (Mayo, 2006; Ramsey, 2015). A study by Aamodt (2006) revealed that education may have affected a recruit's overall academic performance. This study will focus on the performance of police recruits based on testing scores in the educational classes attended during basic police academy training.

### **Theoretical Framework**

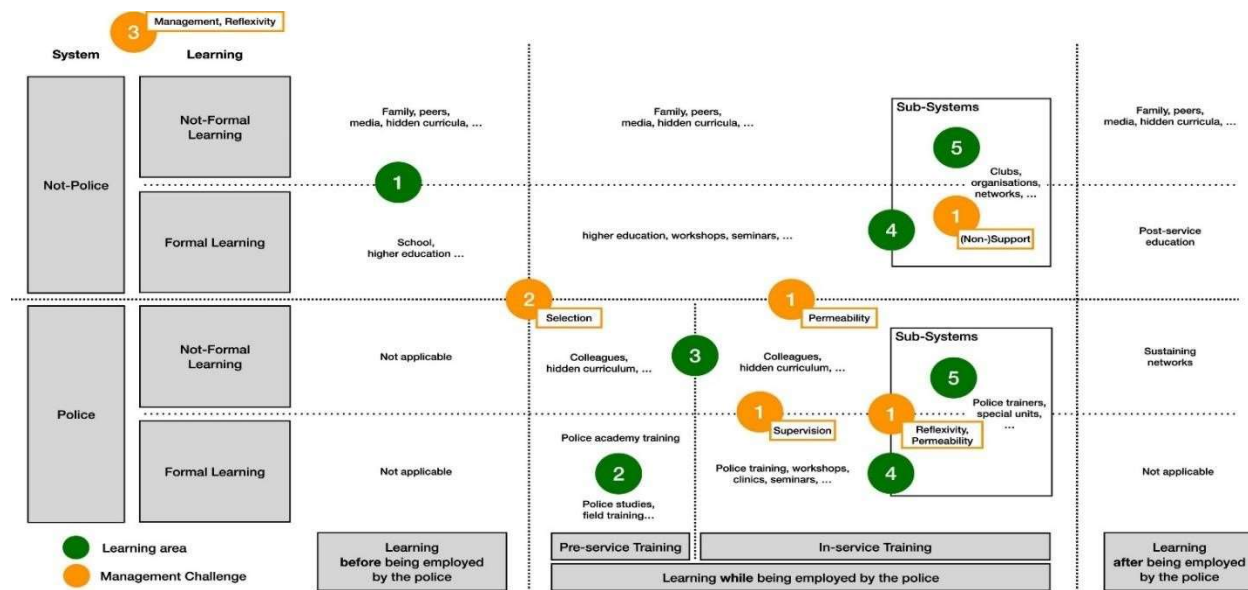
Several criminological theories can be applied when researching policing as an institution, police culture, and training techniques. However, the Police Learning Management theory is the best suited when addressing police recruits learning stages for the individual and on a police organizational level. This proposed model identifies a more focused view through the lens of police academy learning, which is the first stage of professional development and dealing with the challenges of contemporary policing (Koerner, 2022). The framework looks at developing a system

of the different areas that must be managed where learning for policing takes place and is managed by the police to ensure high-quality policing by individual officers.

Within this framework, a differentiation of police (non-)learning on three dimensions:

- (a) in and outside the police (gray blocks on the left)
- (b) formal and non-formal learning (second columns of gray blocks on the left)
- (c) The timeline is centered on the employment status of the police institution (gray blocks on the bottom).

**Figure 1**  
*Police Learning Management*



*Note:* (Koerner and Staller, 2022)

The gray blocks to the left represent non-police and police and the difference in learning and how that takes place. The gray boxes at the bottom indicate a timeline of education before employment status as a police officer and after employment. The green circles represent areas of learning that must be considered when managing learning in policing. The yellow circles represent areas that need improvement to professionalize police training and education. The theory supports that a recruit who possesses a higher set of learning skills acquired through educational

achievement before attending the academy might have an academic advantage while at the academy (Aamodt & Flink, 2006; White, 2018).

The Aamodt, Flink, and White studies help illustrate that educational achievement before attending the academy may give this study a foundation for identifying possible influencers on the recruit's academic performance. The standard academy training to be certified as a police officer is 600 to 800 hours or 20 to 22 weeks (ILETSB, 2020). The training standards vary from state to state and sometimes from jurisdiction to jurisdiction, depending on the population size (Vespucci, 2020). Performance is an essential element in the training and effectiveness of an officer, starting from academy training to the last day on the job. This performance model is more rational than the standard command control model.

Research conducted by Cox & Kirby (2018) showed that a good higher education foundation had benefits in reducing police culture, use of force (Rydberg & Terrill, 2010; Vespucci, 2020), and other after-academy issues. This is not to say all police culture have a negative impact. The opposite is true; the brotherhood of policing develops values such as teamwork, empathy, and supportiveness and helps officers cope with post-dramatic stress (Cohen et al., 2021). This system allows the recruit the ability to use prior learned skills to how they may approach a learning environment, solve a problem, or other cognitive skills (Blumberg et al., 2021; Schon, 1983; Staller et al., 2021; Williams, 2019; Woods & Williams, 2018). Police administrators and lawmakers can use this data to implement the performance management model to measure how their law enforcement agency is performing.

Standardizing education as a pre-employment qualification is a national and international issue. The article by Cordner & Shain (2011) has shown how some police departments offer postgraduate science Master of Science degrees in police studies delivered online (Dundee, 2011).



England has been conducting a national review, recommending shifting police training from academies to colleges and universities (Neyroud, 2011).

In the US, the Commission on Accreditation for Law Enforcement Agencies (CALEA) has revised the accreditation program and encouraged police agencies to emphasize course development and evaluation (CALEA, 2011). One main goal is to standardize the qualifications for becoming a police officer and develop a national training standard for all agencies to use as a template to design their training platforms. Another is to create a national police curriculum for colleges and universities to follow if they act as police academy institutions (Maile et al., 2022). Higher education and policing have been discussed since the early 1900s when a California police chief envisioned setting higher standards for new police officers. August Vollmer envisioned officers as licensed law enforcement representatives working in the community and to professionalize American policing with his principles of education and training (Willard, 2017).

### **Related Literature**

#### **History of Policing and Higher Education**

More research must be completed on the possible correlational relationship between higher education and academic performance while attending basic police training. Many police agencies have been reluctant to establish education and a hiring standard or measure if education enhances the academy performance of recruits. The main fear is that the applicant pool might limit the number of minority applicants and not represent the communities they serve (Donohue, 2021). According to Baro & Burlingame (1999), police academy training has been traditionally viewed as more vocational than professional. Historically, higher education has been considered irrelevant as the emphasis was placed on physical skills, giving officers tools for the street (White, 2008). The early 1900s saw a reform in policing and a movement towards professional standards.

Part of this new initiative was to heighten officers' educational levels to establish policing as a profession. Additionally, Vollmer introduced a validated general intelligence test to eliminate intellectually inferior candidates, and he appointed a police psychiatrist part-time to weed out the emotionally unsuited. This idea was just one of the many Vollmer implemented as police chief. One of the essential elements that Vollmer promoted was the education levels of officers. In the early 1900s, few people had a formal education, and Vollmer felt this needed to be improved in the police force (Bondarenko, V. et al., 2020; Terrill & Paoline, 2007). Vollmer's vision was to equip every officer with skills to function in the complex world of policing. Education was one of those critical components that enhanced officers' abilities (Carte, 1973; Cordner, 2022). The result was the establishment of the National Commission of Law and Enforcement in 1931, later recognized as the Wickersham Commission (Paoline & Terrill, 2007).

This commission was established by President Herbert Hoover in 1929 to monitor and recommend improvements to the criminal justice system (Carte, 1973; Uchida, 2005; Willard, 2017). The movement was headed by August Vollmer, who at that time was the first chief of Police in Berkley, California. Vollmer, who later became known as the father of modern policing, helped establish better training standards, chain of command, and educational standards for his police force (Willard, 2017; Williams et al., 2019). It should be noted that Vollmer's view that education makes better police officers was not universally accepted and that the disconnect between academia and policing still exists today despite the recommendations from the Wickersham Commission in 1929 that all police personnel have a college education (Uchida, 2005; Williams, al. et. 2019). Whether it was the viewpoint of the National Advisory Commission on Criminal Justice Standards and Goals or the National Advisory Commission of

Higher Education for Police Officers both subscribe that a college education is beneficial to the role of the police officer. To reinforce that sentiment, the Commission on Accreditation for Law Enforcement Agencies (CALEA) believed that a police officer who has received a broader education better understands society.

The result is that police officers are more capable of communicating with citizens and thinking more critically to solve problems (Mayo, 2006; Mummolo, 2018). A study by Aamodt and Radford (2001) concluded that education significantly correlated with academic performance. The overall goal of the research was to gain a better understanding of the practice of selecting police officers and police personnel (Aamodt, 2004; Marciniak & Elattrache, 2020). The sample of 301 recruits attending the training academy represents a variety of agencies across Virginia.

The dependent variable in this study was the education level of each recruit coming into the academy for basic police training. This study group in which the average score from the 20 tests was the criterion measure for the research. The average GPA ranged from 88.0 to 95.0 in the ten academy classes (Aamodt, 2001; Cordner, 2022). The overall average of the total recruits sampled was around 92.3. The grades for each recruit were then standardized by subtracting the recruits' average from the entire class average and dividing by the classes' standard deviation (Aamodt & Flink, 2001).

The results demonstrated that although the number of recruits (105 out of the 301) earned a high school diploma, they averaged around 91.61 GPA. Those recruits who made education beyond a high school diploma had averages above those with a high school diploma. The averages for those who obtained education beyond high school ranged from a GPA of 92.22 to 94.26, as shown below in Table 1 (Aamodt & Flink, 2001). The data results may help mold the qualifications for hiring police officers in that state. Law enforcement standards balance citizen's

demands, qualifications, and legislative mandates to maintain social order (Aamodt, 2004; Cordner, 2022).

**Table 1**

*Educational Validation Study in Virginia*

Educational Level	Number	Raw GPA	Standardized GPA
GED	0	91.61	-0.37
High School Diploma	105	91.61	-0.37
Some College	88	99.2	-0.07
Associates Degree	24	92.78	0.38
Associates Degree +	5	93.67	0.58
Bachelor's Degree	74	93.06	0.38
Master's Degree	5	94.26	0.78

*Note:* Adapted from Applied HRM Research by (Aamodt & Flink, 2001).

These standards advocating for a well-educated, professionalized police force and higher education are essential to a basic police academy program. The 2007 study conducted by Paoline, and Terrill indicated a correlation between education and the increased work production of officers, which then translated into effectiveness in reducing crime (Aamodt & Flink, 2001; Koerner & Staller, 2021; Lumsden & Goode, 2018; Paoline & Terrill, 2007; White, 2008). Most academies use some form of military-style structure. This military-style academy training is based on the military design and chain of command. This environment promotes regulation and self-discipline in recruits. A well-developed training system continually reinforces integrity, pride, and service-building blocks of policing. Other items include values, privileges such as

positive reinforcement, group disciplinary measures to promote team gelling, and a focus on academics, respect, and pride as an officer (U.S. Census Bureau, 2016).

There are only eight state police agencies that require secondary education and twelve that accept college-earned credits instead of other qualifications such as prior law enforcement or military experience. These standards are starting to change as educational opportunities are becoming more available to everyone (Burriesci & Melley, 2001). In other countries, critical components of police training include problem-solving and analytical thinking. Newly hired officers in Finland and Norway must have an equivalent to a four-year college degree to get hired (Haberfeld, 2018). The other aspect of academy training is academics. The academic portion of the activity takes place in classroom settings. It requires recruits to study the fundamental laws of their municipalities, departmental rules and regulations, radio ten codes, and proper report writing (Blumberg et al., 2019).

In California, recruits spend a minimum of 664 hours learning content from forty-two separate learning domains. This training is in an instructional format and involves formal testing in which recruits must pass each exam with at least a seventy percent score ratio (Training, 2020). As modern-day policing evolved, criminological theories emerged, and applying these theories became the basis of new legislative initiatives and policy development.

College education could be a skill that becomes essential in providing insight into reasons why criminality happens and how to reduce crime (Vespucci, 2020). A study completed by Chappell (2007) revealed that police recruits with a college degree performed better in communication, verbal and written exams, and overall better problem solvers. These skills in recruits are what administrators are looking for in today's emphasis on community policing, cultural diversity, and effective communication.

Blumberg (2019) revealed that the complexities of modern-day policing still needed to be met. The authors suggest that the past importance of rare situations where an officer must use force has become the focus of most academy programs.

### **Conventional Academy Training Approaches**

One challenge facing training academies today is changing teaching to a model more suited for adult learners. The traditional methodology has been teacher-centered, relying heavily on regurgitating manual information. Recruits commonly refer to instructors using this method as talking heads due to the narrow focus on written communication and little chance to interact if the data needs to be clarified (Birzer & Tannehill, 2001). Much of the officer's shift will be spent responding to service calls and traffic patrol, not fighting crime. The trick is quickly preparing the officer for as much as possible in a limited period (Cohen et al., 2019; Deckha, 2020). New teaching methods require a more self-directed, learner-centered approach and may require skills usually gained through academic achievement (Koerner & Staller, 2021).

Experimental learning (E.L.) and reflective practices are becoming the foundation for new training methods for recruits and veteran officers. Evidence-based policing based on scientific data has led the charge rationale for developing new methods and effective training curricula (Braga et al., 2019). New initiatives that involve community policing have altered the traditional role of police officers and how the community perceives them. Some police chiefs have encouraged officers to pursue higher educational opportunities as it builds better communication and enhances problem-solving skills (Marciniak & Elattrache, 2020; Phelps et al., 2018). Houlihan (2018) looked at the paramilitary style of instruction used by most police training academies, which included lectures and memory-driven testing models. Those models were compared to new training methods used by the British Columbia Police Academy.

This unique training method is performance-based, scenario-based instruction and developing individualized learning plans (Bondarenko, 2020; Blumberg, 2019; Deckha, 2020; Houlihan, 2018; Johnson & Dolan, 2022). Significant findings showed that recruits in lecture-based education do not have as deep of an understanding of the role of patrol-level responsibilities (Houlihan, 2018). Additionally, most academies devoted over 54 % of core training hours toward operations, weapons, and defensive tactics (Sloan & Paoline, 2021).

### **Strict and Disciplined**

The training of police using the military-style structure is done in several phases. Most police academies use a military-style structure that orientates recruits into basic military formations and commands and introduces stressors to observe performance under pressure. This training style has become the standard and does not consider the strengths or weaknesses of individual recruits. Only a fraction of the departments nationwide requires new entry-level officers to have a 4-year college degree, according to a study by Edwards (Edwards, 2019). Sixty-six percent of the respondents, officers, perceived a high school education or GED as the most appropriate requirement level (Edwards, 2019).

The second block of instruction of academy training strives to build unity in the class ranks. It starts with conditioning pride and integrity in each recruit (Edwards, 2019). This occupational culture has only sometimes been perceived as a good thing. Residual effects sometimes develop into an "us versus them attitude." Researchers have endorsed that social identity theory often defines boundaries between different groups. This early introduction into police culture can sometimes leave impressionable recruits with a negative perception of citizens. (Boivin et al., 2020; Edwards, 2019; Rui-Hsin & Lin, 2018).

This imprinting of police culture on recruits could be an essential element in the possible restructuring of how recruits are educated, and the emphasis may shift to a greater focus on the academic area of the academy. Lynch (2018) recommended changing traditional police academy training that teaches unfavorable aggressiveness that may increase violence toward citizens, and Blumberg (2019) believed the development of cognitive, social, psychological, and emotional would strengthen areas of community and orientational policing (Blumberg, 2019; Lynch, 2018).

### **Self-Discipline Skills**

This next phase in training reinforces discipline in areas such as time management, ensuring the uniform is worn correctly, and issuance of sanctions for noncompliance with academy rules or poor performance. Officers will assume many career roles, from traffic patrol to school resource officers. Either position requires attention to detail while maintaining the safety of others (Devlin & Gottfredson, 2018).

In a study completed in 2020, Bondarenko expressed that those professional skills and competencies gained through rigid training, such as military utilization, significantly improved job performance efficiency in future officers (Bondarenko et al., 2020). The academic portion of academy training is just as essential as the physical skills testing, which is highly emphasized as the most important aspect of policing. Because agencies nationwide do not require education as a qualification, only about 40 percent of current police officers hold a four-year degree (Gardiner, 2017; Paoline et al., 2014).

### **Advanced Training Methods**

This attitude toward standard components, which include physical skills training, has started to diminish where other elements have become more prominent in academy training



programs. Community policing, practical communications, and decision-making skills have been emphasized to stay current with society's demands. (Blumberg et al., 2019). Most training in the academy setting is delivered in a lecture format, requiring the recruit to memorize details and pass exams with at least a seventy percent score to be able to move on (Conger, 2020).

Significant changes and innovation in classroom functions and information delivery look at new ideas that include adult learning strategies (Bondarenko, 2020; Cordner, 2022; Houlihan, 2018; Koerner & Staller, 2021). Koerner and Staller revealed the essential elements of practice and education and how those elements affect actual deployment into dynamic situations. The problem discovered a gap between the actual transfer of knowledge and operational techniques. Empirical data showed that over fifty-four percent of officers' training time was passive using old training methodologies of trainer-centered teaching and pedagogy (Koerner & Staller, 2021). An evidence-based constraints-led approach (CLA) is the principal approach to skills learning and effectively designing educational standards (Koerner & Staller, 2021).

All new police recruits must undergo a twelve- twenty-four-week structured police training program. The primary academy curriculum will include writing proficiency testing, criminal and constitutional law regarding citizens' rights and detainment, and strategies for effect patrol practices. Andragogy methods are gaining traction as a needed method of instruction. These techniques differ from the lecture format (pedagogy), a one-way transfer method mentioned earlier.

Andragogy involves student and instructor collaborations of essential ideas coupled with subject matter experts to get effective results from a learning environment (Haberfield, 2003). As Terrill and Paoline (2007) state, policing requires higher cognitive thinking levels in sociological and psychological areas.

The study of education levels of recruits and police reform is often difficult to collect due to access to data kept solely as a training record mandate for future references (Lough & Von Treuer, 2013). Roberg and Bonn (2004) discovered in their survey that those administrators support subordinate ranks to accept the standard of higher education as a benefit in the policing world.

In city and county police chiefs in jurisdictions that had more than 50,000 citizens, eighty-seven percent of the chiefs held bachelor's degrees, and approximately fifty-seven percent held master's degrees, with nearly five percent holding a law or doctorate. This percentage is significant for departments wanting officers to advance their education and careers. Since academy training is the first exposure to policing practice and theory, it makes sense to monitor the academic achievement of recruits to try to identify those who possess positive characteristics for future key positions within an organization (Roberg & Bonn, 2003). If recruits have college-level degrees, the institution of new learning andragogy methods may be easier to institute. Switching from the traditional lecture style to an interactive format between student and instructor could prove viable to training platforms.

### **Research Confusion**

Researchers have argued that higher educational levels have produced a more mature officer with a more humanistic approach to the policing profession (Huey, 2018). While some scholars support vocational practices, others believe leaving out technical coursework will lower academic standards and change the perception of how the public views the criminal justice system overall and especially the role of police officers (Marciniak & Elattrache, 2020). Policing has become known as one of the most stressful professions an individual can do. The constant exposure to violent situations, job dissatisfaction, and social pressures from an ever-changing

attitude toward police can be a lethal toxin. It may lead to an unstable mental health capacity and behavioral changes (Christopher et al., 2018; Edwards, 2019).

Existing studies have given various viewpoints that support education in policing. The mandate of educational standards in hiring qualifications has been projected to positively affect officer skills and job performance (Roberg & Bonn, 2004). In a Sherlock (2006) study, officers' attitudes were surveyed to determine if education was essential to professionalism at rank-and-file levels. The study reveals that education was not a significant factor in every service function, exercising discretion and interaction with the community they serve. However, the survey did show that educational levels were a factor in placing a more significant value on the importance of having ethical conduct and decreasing the culture of keeping organizational issues a secret (Shernook, 2006).

### **New Policing Training Initiatives**

New police training initiatives have helped to bring policing into the current century to meet the challenges of our modern society. Various studies have been undertaken to determine if the current police training approaches are consistent with the needs of the ever-evolving world (Del Toro et al., 2019). Cohen (2021) focused on the primary police academy curriculum and the demands of modern policing today. This study's interviews with police-level administrators and data collection from the police academy curriculum provided insight into police training management through an administrator lens. From the study findings, Cohen (2021) affirmed that new officers must learn the skills of being a police officer but also become masters at street-level bureaucrats and effectively interact with a diverse community. These findings are like those obtained by Dechla (2020) after the researchers explored the developed partnerships with higher educational institutions to professionalize policing in the country (Cohen, 2021).

The residual effect is that education would legitimize the police force in the eyes of other professional organizations and possibly reduce complaints and grievances from the community. The purpose was to demonstrate that education is a critical element of policing and may assist in establishing consistent police standards that include educational components.

### **New Direction in Academic Achievement**

Body-worn cameras and Tasers are just a few of the new pieces of equipment beyond just a firearm carried by officers today (Christopher et al., 2018). Officers must have basic computer skills to utilize the in-car computer systems, navigate the many software programs needed for background checks, and run criminal history or check for valid plates. Smartphones and other recording devices instantly put the officer's interactions into the court of public opinion. The demand for professional performance has placed officers under even higher stress levels. (Devlin & Gottfredson, 2018).

### **Training Techniques**

As a result of this demand from the public, training academies and police agencies have had to rise to the challenge of training and retaining today's modern police officers. The combination of academically structured lectures framed in theoretical platforms and adult learning styles has proven best for the recruits to perform at maximum levels (Conger, 2020; Copenhaver & Tewksbury, 2019).

The bar is set high for recruits to pass academy training to ensure the public gets the best law enforcement officer to overwatch their communities (Frevel & Kuschewski, 2023). The staff that instructs and guides recruits to successful completion have been chosen for their high performance in the field in hopes of passing those high standards and professional attitudes on to the recruit (Copenhaver & Tewksbury, 2019).

Blumberg et al. (2019) discussed how academy training must evolve to meet the demands of an ever-changing world. Although officers spend most of their time in non-life-threatening situations, they are prepared for the worst-case scenario. Officers must also possess other skills that should have been taught in past training. The manuscript suggests an infusion of the old proven style with new modern policing techniques, including cognitive, emotional, social, and moral skills (Blumberg, 2019).

### **Establishing a Base**

Like military boot camp training, there are rewards and sanctions for the personal performance of the recruit. Remediation training and counseling are available for those recruits who show weaknesses in particular areas. Other essential skills, including teamwork, consistency in daily routines, and the need for self-motivation and integrity, are reinforced throughout the academy experience (Cox & Kirby, 2018). The public would like the academy to produce an all-knowing and perfect officer. Instead, academy platforms prepare the officer for the next phase of training, where the recruit starts to make decisions based on academy experiences, social morals, and constitutional law (Del Toro et al., 2019). Adult-style learning programs help identify each recruit's unique learning method to ensure recruits perform at their best (Marciniak & Elattrache, 2020). Community policing has risen to meet some of today's community grievances and demands that the officers be more professional and require that officers be more in touch with community attitudes (Weisburst, 2019).

Critical thinking, effective communication, and higher cognitive thinking processes are just a few of the demands of the public (Koerner & Staller, 2021). To meet professional standards of academic rigor in police academy settings, trainers with advanced degrees and positive field experience are critical factors in meeting the standards developed by the merit

board for police officers (Frevel & Kuschewski, 2023). These changes in criminal justice education have allowed the field to mature and gain academic respect (Weisburst, 2019).

### **Education in Law Enforcement**

The combination of formal educational requirements has slowly been gaining traction, and some research suggests that many recruits coming through the academy now have at least a four-year degree. Many colleges and universities have increased social justice and criminal justice divisions to meet student demands (Koerner & Staller, 2021). Some researchers (Marciniak & Elattrache, 2020) have reviewed the impact of college on police attitudes and focused on comparing the authority of college-educated police to police with little or no college. Research has indicated that there may be a difference in the attitudes regarding the use or abuse of authority of those with higher education levels than those without (Lankford et al., 2019). Some universities have police corps academies and have shown in evidence-based data that students with more education via their status as seniors were more tolerant in dealing with stressors than first-year college students (Frevel & Kuschewski, 2023; Koerner & Staller, 2021).

### **Non-Effective Facts**

The fact data indicated that age, college major, or social experience did not make a difference and that the overall college experience was instrumental in broadening an individual's perspective (Lankford et al., 2019). Instituting educational standards in policing is essential for future studies to determine the impact of higher education in law enforcement. Creating an academic average is not without its residual effects on specific demographics of communities. An aggressive recruitment strategy could be implemented to reduce the possibility that the effect of a higher education requirement could be discriminatory and shrink the pool of applicants (Frevel & Kuschewski, 2023). Dechka (2020) reveals that other incentives may attract higher applicant

interest and encourage younger persons to consider getting into policing to pursue higher education.

### **Incentives to Get Degrees**

These incentives may include higher salaries, health care coverage, and advanced training opportunities to assist in advancement through the ranks (Morrow, 2019). In the past decade, larger departments have attempted to draw prospective applicants and have raised starting salaries, including sign-on bonuses and opportunities for newly graduated criminal justice students to receive advanced training paid for by the department (Deckha, 2020). The popularity of community policing is starting to advance in larger cities as an avenue to boost community and police relations, which may be the professional atmosphere that attracts newly graduated college students (Hadlington et al., 2021). Based on the dynamics of this new modern world that requires more intelligent officers combined with the complexities of social order, officers will need a college degree to function in law enforcement (Javdani, 2019).

An article in 2021 suggests that developing educational and recruitment policies requiring a higher education standard should not adversely affect minority recruitment or retention. (Hadlington et al., 2021). In today's ever-changing, more educated, and diverse society, the advantage of such a requirement is that it demands a more sophisticated police force that meets the demands of legislative enforcement and taxpayers' expectations (Smalley, 2018).

### **Profession or Vocation**

The advancement of policing being accepted as a profession requires modern American policing and better service to the communities they serve (Javdani, 2019). More research needs to be done on policing and higher education and the history of the relationship between higher education, academic standards, and academic success in a police academy. Williams et al. (2019)

undertook a study exploring effective policing concerning police academic education and the efficiency of police agencies.

The study findings indicated that a primary training academy equipped the police with the basic skills required for an officer; therefore, higher education cannot be perceived as a prerequisite for police success during training and at work. The data analyzed is consistent with the results of research conducted by Marciniak and El Attrache (2020) to explore basic academy training concerning its ability to provide formative knowledge and experience consistent with the work demands.

The study findings indicated that in most cases, to be hired as a community police officer, the applicant had to have earned at least a GED or high school diploma. These findings have been further corroborated by Venema (2018) after undertaking a study in which investigations were made into primary police training academies and their impacts on police effectiveness. The researchers concluded that the training provided in the police academy was practical in preparing the recruits to transition to professionals.

Most police agencies in local, state, and jurisdictions require just a high school diploma during recruitment. Cordner (2019) provided a brief historical perspective on the popularity of officers achieving higher levels before academy training. The researcher noted that higher educational standards were a vehicle for professionalizing the world of policing, lowering dropout rates of recruits, and enhancing academy legitimacy (Cordner, 2020). According to Cordner (2019), other incentives have been added to entice college students seeking specific police degrees to participate in new programming.

Programs such as the one in Grand Valley allow students to earn a 4-year degree and attend the police academy simultaneously with a position waiting for them after graduation. The study



findings indicate that the poor performance of academy recruits is being trained to the status quo and finally recognizes that education adds academic respectability to academy instruction (Cordner, 2019).

In a study conducted by RuiHsin (2018) to explore educational standards and their usefulness and inconsistent performance at the national level, data indicated that higher education is essential in a basic training academy setting and that having a college degree predicts a more upbeat performance in training and throughout the police officer's tenure (RuiHsin, 2018). Lockie et al. (2018) investigated historical perspectives regarding the necessity of collegiate education for police officers. Findings from the study revealed that only 14% of agencies that upheld this requirement reported that only a tiny percentage of local departments listed college as a hiring standard. In a similar study, Lockie et al. (2019) attempted to explain the variances in the police recruitment requirements in different states and departments.

The researchers discovered a difference in percentages depending on the study and how it was conducted. The contrast and the figures need to be more consistent, leading to the conclusion that higher education may not significantly impact the success of recruits (Lockie et al., 2019). A study completed by Bumgarner (2006) wanted to gain insight into those considering a law enforcement career, particularly those who viewed the job as professional. The assumption of this research was to distinguish if those students who pursued a four-year degree are more apt to be professionally driven towards policing and, therefore, would be a better candidate for the police academy.

The residual effect would be fewer officer complaints, reduced use of force incidents, and a better relationship with the public (Bumgarner, 2006). The study raised the question internally and externally from municipal and county authorities as to whether training alone was sufficient to

meet the demand of today's policing expected by citizens. Some findings indicated that citizens believe future police candidates who commit to a four-year degree (Bumgarner, 2002).

### **Education and Academy Performance**

Aamodt and Flink (2016) examined the relationships between levels of education in recruits and performance while attending the academy. Recruits who were enrolled at the regional training police academy were correlated with the overall final academic scores. The results indicated a correlation between recruit performance and educational levels in academic performance in academic testing of the academy curriculum. Recruits' grades were recorded and graded, noting the total average from the class and subtracting the recruits' average grades from that total average (Aamodt & Flink, 2016).

In the US, there is a separation of police training that usually consists of an occupational training format, while police educational classes are the criminal justice core classes in the universities that offer a criminal justice degree (Cordner, 2020; Oliver, 2017). The hope is to open criminal justice studies up to a larger scientific body of knowledge about policing to give a better police professional base to prospective recruits (Cordner, 2011).

### **How Education Effects Performance**

The argument could be made that college-educated recruits are synonymous with the skills and knowledge acquired in college classrooms and the complexity of their tasks. Edwards (2019) reported observance of higher education in the police ranks and how perceptions differ between county, city, and state levels of policing. Also emphasized was the need to evaluate academic performance and programs to identify if some curriculum designs needed improvement.

Edwards (2019) suggested that college-level education increases officers' problem-solving skills. In a similar study, Henson et al. (2010) looked at academic performance in the academy as a possible predictor of career success by comparing whether officers with higher levels of education received higher performance evaluations from supervisors. Other examinations were performed as well, including officer's arrest activities. Other factors, such as complaints against the officers, were also noted. Various studies have been conducted on how education impacts police performance (Henderson, 2010).

For instance, Huey et al. (2018) explored the research findings on whether a degree and the level of education can influence the individual's behaviors as an officer post-graduation. These studies (Huey, 2018) included interviews with recruits, recruiters, and senior officers for data on desirable qualities they would like to see in future recruits. Information was grouped into identifiable themes and relied on guide topics that measured performance competencies. Arguments were identified that obtaining any higher level of education is a plus; however, other areas, such as personality qualities and other outside factors (Huey et al., 2018).

### **Residual Effects**

Johnson and Dolan (2022) addressed the universal belief that officers with university educations will improve performance in all areas. Johnson and Dolan (2022) discovered significant research devoted to implementing college-educated officers compared to those who do not. This study was inconclusive as both arguments needed to be more consistent. One factor found was that many high school graduates are not going to universities as there has been a rise in industrial services (Johnson & Dolan, 2022). Some researchers believe that before engaging in a career in law enforcement, individuals should pursue education to enhance job performance and assist in

developing problem-solving skills (Javdani, 2019). Marciniak and ElAttrache (2020) reviewed the administrators' briefings on the possible mandate of college education for police officers.

The agreement is that educational standards have been researched before, mainly involving an officer's performance and view. Also explored were the advantages and disadvantages of establishing a college degree mandate as part of the standards for hiring. Empirical data revealed that officers with a college degree performed more proficiently than those without a degree beyond a high school diploma (Marciniak & ElAttrache, 2020).

In a similar study, Williams and Rowe (2019) conducted qualitative interviews with senior officers who had received higher education after being hired and the difference in job performance. Williams and Rowe (2019) affirmed that academia is responsible for developing degree-level policy educational standards. The interview data also showed arguments from officers who believe training is curriculum-based (Willian & Rowe, 2019).

In a study by Paoline and Terrill (2007), findings consistently reflected the value of college-educated police officers. The data collected and examined revealed that college degrees were not the only factor that reduced complaints against officers by citizens and that use of force incidents was reduced. The argument that college education alone was researched with officer length of service and experience. The researchers found that combining life experiences and earning a college degree resulted in fewer incidents where officers used force to gain compliance (Christopher, 2018; Henson, 2010).

### **Public Perceptions of Police Officers with Higher Education**

When agencies restrict hiring officers with higher education levels, there may be negative ramifications from the community—agencies from hiring officers who have a college education (Lankford et al., 2019). Many agencies nationwide find it challenging to fill open police officer

positions primarily due to education requirements restricting the number of candidates in the eligibility pool (Javdani, 2019). These restrictions could affect one or more affected groups due to the number of minorities who do or do not have a college education (Koerner & Staller, 2021). The idea that a police officer must have a higher education has been challenged by practical skills gained through handling situations that are just as important (Terrill & Paoline, 2007). Job experience, not a college education, provides the skills needed to perform the job (Javdani, 2019; Lockie et al., 2019). As police reform efforts aimed to professionalize the force, paramilitary organizations emerged that prioritized training for discipline and technical skills over higher education (Lockie et al., 2018). The community expects certain things from the police, which can affect how police interact with the community and their relationship with law enforcement officers (Koerner & Staller, 2021; Mumolo, 2018).

Linetsky (2018) focused on law enforcement through the expectations of citizens and the liability the officer possesses by not knowing the law or applying its application correctly. The study findings demonstrate that citizens expect our police to be amateur lawyers. The researcher concluded that the ability to comprehend the application of the law increases as the recruit gains a deeper understanding of the law (Linetsky, 2018). According to Koropanovski et al. (2022), their findings suggest that having a higher academic qualification can increase an officer's likelihood of meeting the post-academy job performance indicators by over 27% (Koropanovski, 2022).

### **Professionalism and Education in the Police Service**

The police are the most visible institution in the criminal justice system, and their professionalism is crucial for maintaining social order (Braga et al., 2019). However, one violent encounter between police and citizens can drastically change citizens' perception of the police and lead to mistrust. This mistrust can result in severe consequences such as civil litigation against the

department, civil disorder, and criminal prosecution. Scholars have studied police-citizen violence issues for over four decades (Koerner & Staller, 2021; Mumolo, 2018; Venema, 2018).

However, little focus has been on the relationship between departmental measures of police professionalism and violent outcomes between citizens and officers (Shjarback & White, 2016). The police, the most prominent symbol of the state's power to enforce laws, can be seen as both a representation of authority and a potential threat to personal freedom. Due to their ability to use force, many people fear the police and view them suspiciously. The feelings of mistrust are particularly true for individuals belonging to social groups targeted by police power (Braga et al., 2020; Del Toro, 2019;). As society progresses, our law enforcement agencies must adapt to meet the changing demands. The police are seen as a force that can offer protection against crime and disorder, providing comfort to alleviate worries about physical harm (Hebert, 2006).

### **Self-Discipline**

Over time, police departments have evolved to address our society's various challenges and issues. The police play a vital role in a criminal justice system that exercises disciplinary power. Discipline influences behavior and creates subjectivity through regular training environments where people are under constant public observation (Sandhu & Haggerty, 2015).

In today's world, with both human-caused and natural disasters on the rise, citizens and police need to work together effectively during emergencies. As a result, the definition of police professionalism has evolved, along with what it means to be a professional police officer in the modern era (Williams et al., 2016). New forms of policing are emerging in response to community outrage over recent events.

A study completed by Telep (2010) examines whether having a four-year degree would affect an officer's attitude toward abuse of authority or use of force issues. The survey was sent out nationally and found that those officers with pre-service bachelor's degrees possessed attitudes that did not tolerate abuses of authority against citizens with some education, like an associate degree or a four-year degree such as a bachelors.

The data suggest that education had a causal effect on the attitude of the officers, their dislikes for abuses of authority, and how they perceived themselves as professionals in the community (Telep, 2010). Moreover, the importance of higher education has become a political football issue, such as the debate in Massachusetts, where conflict between the chiefs of police and the governor over the Quinn bill provides incentives in pay for college-educated officers (Paige, 2009).

### **Public Expectations**

Citizens demand more training for law enforcement officers (Sloan & Paoline, 2021). Prior studies have focused on evaluating individual recruits and case studies in police academy training (Marciniak & Elattrache, 2020). Researchers have observed significant differences in core areas and required hours nationwide. Sloan and Paoline (2021) noted how official police academies have evolved, expanding their curriculum beyond crime-fighting dimensions. In 2015, research was conducted on the impact of education on the academic performance of police academy recruits.

The main objective was to determine if higher education levels could be used as a hiring standard for new police officers (Ramsey, 2015). The study also examined how changes in education have affected police training, particularly with the rise of community policing. The findings revealed that skills acquired in the classroom, including analytical and critical thinking, have become crucial for police officers. In their daily duties, law enforcement individuals require

knowledge and serve as counselors, lawyers, and psychologists. Researchers have concluded that due to the lack of educational requirements, the reputation of the law enforcement profession is negatively impacted (Linetsky, 2018; Venema, 2018). Historically, police education and how education could influence productivity and other areas have been highly debated. Police education is another topic regarding hiring standards and academic performance both before and after the academy and may be indicators of future leaders in a department (Cordner & Shain, 2011; Haberfeld, 2002; Kratcoski, 2004).

### **Significance**

Police officers need specific physical, cognitive, emotional, and interpersonal skills. Even though their job mainly involves non-threatening situations, they must always be ready for life-threatening events. While officers must be equipped with these skills, sometimes they may have to use deadly force. Police training directors and trainers usually prioritize teaching the physical skills needed to prepare for challenging situations (Field et al., 2019). However, this study highlights the importance of academic learning and mastering additional skills that require attention during recruit academy training. Past studies, specifically by Schlosser (2013), have suggested that police academies should follow an adult learning theory model. Police officers undergo training that equips them with crucial skills such as critical thinking, effective communication, and better emotional control for managing high-pressure situations.

Recent research (Zahav, 2016) highlights a paradox concerning academy trainers' views of themselves and their assigned roles. Are they merely imparting essential information during classes or actively instilling new knowledge as teachers? If the teacher role is emphasized, then recruits with higher education levels have an advantage over those who did not pursue higher educational levels (Zahav et al., 2016). Another factor in the review is that education and training cost money.



The applicant pools are shrinking, and unexpected events such as the COVID-19 pandemic have forced some academies to cancel classes or modify the activity to meet the conditions at that time. Budgetary crises and a lack of additional resources have some countries scrambling to keep personnel numbers above minimum levels (Paterson, 2011). Britain has established a College of Policing and educates officers on complexities that most countries see, such as drugs and cybercrimes.

### **The Future**

A report authored by Neyrod (2011) suggests the recommendations of a universal professional body of policing that establishes all desired qualifications that exist in a professional organization. These include a code of ethics, accredited qualifications, and the development of a solid scientific evidence platform accessed by anyone to unite the professional knowledge bank (Neyrod, 2011). New initiatives in police education and higher academy performance while using empirical data to develop a standards framework. The College of Policing has been established in Britain and Wales and already has many professional standards desired by the professional organizational traits mentioned above (Sherman, 2013). However, Holdaway (2017) has suggested that trying to reorganize and re-professionalize policing comes with a price.

The first step would be establishing what professionalism is and then applying it to the world of policing. Remembering that every organization has its own opinion of professionalism, attempting to change any professional image may lead back to the current idea of professionalism (McCann & Granter, 2019). We are reflecting on the works of Noorgraaf (2020), who reports that a different analytical framework is needed to re-adjust how a profession can be restructured and reconfigured to be successful. Instead of using the historical perspective of policing, there needs to be a new conceptualization of what policing professionalism will look like. Then, those elements

must be identified to be used as the organizational base's foundation (Noorgraaf, 2020). From a historical perspective, Vollmer (1922) established the first set of professional guidelines to steer policing towards the professional category. Historians have linked successful policing programs from the citizens to the likelihood that the program will be accepted in the communities (Joyce, 2010).

### **Evidence-Based Policing and Education**

As evidence-based policing (EBP) has become an essential element in the future of policing (Weisburg et al., 2023), practitioners and researchers must possess the skills necessary to interpret data for practical use. The focus of the literature was not to promote EBP but to show that it can be a valuable tool in managing police agencies, making policy decisions, and effectively using police personnel. What evidence-based has brought forward the ideas of two different avenues of professionalizing police organizations to instill reform and modernization (Ratcliff, 2016)? Radcliff wanted to open the pathway for expanding technology roles and utilizing intelligence-led police practices.

With the rise of popularity in using EBP to create, use, and develop policies and procedures, greater user engagement and knowledge will be required to ensure correct photocall and data collection. There will need to be a direct marriage between academia and law enforcement practitioners and the ability to use the information correctly (Foster & Bailey, 2010; Thompson et al., 2017; Wood et al., 2017). This new initiative is not without resistance from other police practitioners (Greene, 2014).

Greene proposes that Sherman's ideas of a scientific criminologist that will deliver treatments with preconceived cures will result in an officer losing the balance between equity, an individual's rights of due process, and the rule (Greene, 2014). In any instance, it may be that

practitioners will need higher levels of education that will use both theory and practice aligned with how other professionals are educated (Knutsson & Tompson, 2017). Possible candidates could be recognized based on their level of education and experience in academic procedures and academic performance while attending basic training at the academy.

### **Summary**

The literature has shown that police officers may receive two types of training during their academic stay. The first type is the traditional academy curriculum, which focuses on mechanical skills like defensive tactics and firearms qualification (Marciniak & Elattrache, 2020). The second type is a newer approach that introduces and supports community policing. Previous research has suggested that this unique type of community policing is more beneficial to recruits with higher levels of education, especially female recruits who perform better (Morrow et al., 2019). Vollmer's professional vision includes college-educated officers, command staff, and a code of ethics to regulate individual actions. Vollmer also wanted to establish that policing is more than just crime-fighting and about the actual part of the community that is reliable and changes with social highs and lows, hoping to partner with universities to teach professional policing (Neyroud, 2016). Unfortunately, the policing field is not very open to change, and institutions should adopt academic requirements and standards for officers more quickly.

College education levels have been identified as strengths in hiring and performance in academic and professional settings. However, these requirements significantly affect minority applicants (Mumolo, 2018). The demand for solutions to contemporary police issues is rising, and it is becoming clear that training alone is not enough (Murphy & Hine, 2019). Higher education can improve the chances of police recruits graduating, increase professionalism, and

enhance individual performance. Educated officers have better writing skills, can analyze problems more efficiently, and display self-confidence (Marciniak & Elattrache, 2020).

Many agencies, such as the Pennsylvania State Police (PSP), have had to drop educational standards to expand the applicant pool. In thirty days, 1,217 new applicants applied for the post-trooper position PSP. Approximately half of those applicants, 524, possessed a high school diploma or equivalent and would not have been previously eligible for this position.

Applicants who meet the fundamentals then move on to a written examination. The Governor of Pennsylvania has ordered that all state agencies under his jurisdiction will take steps to emphasize work experience in hiring state personnel to refill applicant pools. However, education will still be emphasized as essential in officers' careers for promotional purposes or advancing to specialized units (PA, 2023).

Some agencies have started to offer additional pay incentives or college reimbursement for higher educational attainment. With recent social demands for police reform, recent research has shown that higher education was one of six practical ways to reduce crime. College-educated officers generated fewer citizen complaints and were less likely to use force. Until there is a consensus on what role education plays in the law enforcement community, there will be a variety of qualifications for hiring new applicants tailored to each department's needs.

Empirical data may help determine the depth of education's role in policing and how taxpayers' money is spent training a new officer. As policing evolves, evidence-based policing will play a vital role in producing, maintaining, and managing the actors of our society we have chosen to help keep social order (Williams, 2019).

## **CHAPTER THREE: METHODS**

### **Overview**

This quantitative causal-comparative study examined whether education status impacts the academic performance of recruits in basic police training at the Illinois State Police Academy. This study solely focused on the educational aspect of the academy training. In addition, this study examined whether gender and race significantly affect the relationship between education status and the academic performance of recruits. The sample consisted of police recruits who graduated from the Illinois State Police Academy between 2018 and 2023. This number equates to ( $N = 174$  recruits) that represented the population sampled.

This chapter outlined the methodology employed to gather data for the study. This chapter delves into the chosen design, offering discussion and justification. The research questions and their corresponding hypotheses are explicitly stated, and the discussion extends to how the collected data will address these inquiries. Additionally, the instruments implemented in the study and the recruited participants are addressed. The procedures for data collection and analysis are detailed. The chapter concludes by summarizing the key points discussed.

### **Study Design**

Quantitative methodology was particularly suited to this study because it provides precise measurements and statistical analysis of relationships between variables (Mohajan, 2020; Taherdoost, 2022). This study examines the impact of education status on the academic performance of recruits in basic police training at the Illinois State Police Academy while also considering the potential influences of gender and race. Quantitative methods allowed for the collection of numerical data, such as GPA scores, which were analyzed using statistical techniques like analysis of variance (ANOVA) and analysis of covariance (ANCOVA).

By quantifying variables such as education level, gender, race, and academic performance, this study was able to systematically investigate the relationships between these factors and draw objective conclusions based on statistical evidence (Schutt, 2019; Stockemer et al., 2019).

Moreover, the quantitative methodology enabled this study to generalize its findings beyond the specific sample of police recruits from the Illinois State Police Academy. By employing statistical tests like ANOVA and ANCOVA, this study assessed the significance of differences in academic performance based on education status while controlling for potentially confounding variables such as gender and race (Creswell & Creswell, 2022). This analytical approach allows researchers to conclude policy and practice within law enforcement training programs (Stockemer et al., 2019). Overall, the quantitative methodology offered a rigorous framework for examining complex relationships between variables in a systematic and replicable manner, aligning well with the objectives of this study.

The causal-comparative design was aptly suited to this study because it focused on exploring potential causal relationships between variables (Taherdoost, 2022), specifically examining the impact of education status on the academic performance of police recruits at the Illinois State Police Academy. By comparing groups of recruits with different levels of education, this design allowed researchers to investigate whether variations in education status led to differences in academic outcomes, such as overall GPA (Babbie, 2016). Additionally, this design enabled the study to control for confounding variables, such as gender and race, by comparing similar groups except for the variable of interest (education status). This approach facilitated identifying potential causal relationships while minimizing the influence of extraneous factors, thereby enhancing the study's internal validity (Creswell & Creswell, 2022).

Furthermore, the causal-comparative design aligned well with the practical constraints of this study, as it utilized existing data from police recruits who graduated from the Illinois State Police Academy between 2018 and 2023. By leveraging this retrospective data, researchers efficiently compared the academic performance of recruits with varying educational backgrounds without the need for extensive data collection (Creswell & Creswell, 2022). This design also allowed for examining multiple research questions simultaneously, including the potential moderating effects of gender and race on the relationship between education status and academic performance (Mohajan, 2020; Schutt, 2019). Overall, the causal-comparative design provided a robust framework for investigating causal relationships between variables while accommodating this study's logistical and practical considerations.

### **Research Questions**

To achieve the purpose of this study, the following research questions was be examined:

**RQ1.** To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status?

**RQ2.** To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status while controlling for gender?

**RQ3.** To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status while controlling for race?

## Hypotheses

Considering the research questions mentioned earlier, the following are the relevant hypotheses that were tested:

**H<sub>0</sub>1.** There is no significant difference between the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education.

**H<sub>a</sub>1.** There is a significant difference between the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education.

**H<sub>0</sub>2.** Education status has no significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for gender.

**H<sub>a</sub>2.** Education status has a significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for gender.

**H<sub>0</sub>3.** Education status has no significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for race.

**H<sub>a</sub>3.** Education has a significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for race.



## **Participants and Setting**

### **Population**

The target population for this study was the police academy training recruits. The number of recruits in 2023 is not currently available, but overall, the Illinois State Police Academy has graduated over 7,000 recruits (Illinois State Police, 2020). The participants for this study were drawn from the Illinois State Police Academy training records located in Springfield, Illinois.

### **Procedures**

In this case, the sample was taken from recruits who have participated in basic training at the academy using purposive sampling. Purposive sampling is a non-probability sampling technique where researchers deliberately select participants based on specific characteristics or criteria relevant to the study's objectives (Campbell et al., 2020). Unlike random sampling, which provides an equal chance for every individual to be selected, purposive sampling involved a thoughtful and intentional selection process. Because this study sought to collect data from a specific group, a purposive sampling method ensured that the participants and the data obtained provided the needed information. Recruits are pre-certified police officers sent to the academy by the sponsoring county or city agency. The recruit population will have participated in basic police academy training under the core training objectives using the ISP curriculum for that time range.

A power analysis was carried out with G\*Power software to determine the required sample size (Faul et al., 2009). Four elements were considered in the power analysis: statistical test, effect size, power of test, and significance level. The significance level was the probability of rejecting a true null hypothesis, a Type I error (Haas, 2012). On the other hand, test power indicates the likelihood of rejecting a false null hypothesis (Haas, 2012). According to Katz (2006), most quantitative research puts the significance level at 95% and the test power at 80%.

I used the same parameters for this study: a 95% significant level and an 80% test power. The estimated degree of the correlation between the independent and dependent variables was known as the effect size, which can be small, medium, or large (Cohen, 1988). Because they strike a compromise between being overly strict and underly lax in evaluating the strength of the link between the variables, a medium effect size is commonly used in quantitative research (Berger et al., 2013). Lastly, I will employ ANOVA and ANCOVA to respond to the research questions and assess the hypotheses.

Using a one-way fixed effects ANOVA, a 95% significance level, 80% power of the test, and a medium effect size ( $f = 0.25$ ), the minimum sample size is 128 (see Appendix A). Meanwhile, using a 95% significance level, 80% power of the test, a medium effect size ( $f^2 = 0.15$ ), and one covariate (at a time) for ANCOVA analysis, the minimum sample size is still 128 (see Appendix B). So, the minimum required sample size for this study should be 128. However, given that there are approximately 7,000 recruits from 2018 and 2023 at the Illinois State Police Academy, data from at least 174 recruits was collected instead.

### **Data Collection Procedures**

The data for this study was collected from the Illinois State Police Academy. The researcher was granted permission to access and use recruitment data in this study. To obtain permission, I first contacted the Division of the Academy and Training to identify who the gatekeeper is, which was my contact for site permission. Once the gatekeeper was identified, I provided them with the information about the study and the type of data I was seeking to obtain. An email follow-up was be sent to the gatekeeper asking permission to utilize the requested data.

The data collected for this study came from the individual recruit grade summary. The academy's data collection is restricted to the recruit's academic performance while attending the

academy. Huey and Kalyal (2018) stated that academic performance is a better measure of academic achievement than physical abilities or practical training, which is why it was chosen as the primary variable. Each recruit's training transcript contained the GPA (cumulative grade point average) that was analyzed as the dependent variable for this study. Every academic exam is given a numerical score and recorded into a secured database for recruits. These scores are then placed into the recruit's profile and assigned to the recruit class. After all academic testing, the recruit is given an overall final GPA testing score for all academic tests combined. The ISP awards each recruit a final course grade summary, with an overall class ranking compared to the rest of the recruit class. Gender and race was also collected from each recruit's profile, which were be used as covariates in this study. This study then concentrated on recruiting classes that have successfully graduated from the Illinois State Police Academy basics from 2018 to 2023. This time selected is preferred because it guarantees that most of the current curriculum has been utilized within the last five years.

### **Instrumentation**

This study utilized archival data from the Illinois State Police Academy, which was collected exclusively from its records. The Illinois State Police Academy manages electronic data containing a comprehensive list of the selected sample, which includes graduates recruited between 2018 and 2023.

All the data has come from recruits employed by agencies in the State of Illinois who have attended or are attending basic training at ISP. The data was completed from recorded individual Trainee Grade Summaries. Those recruits are placed in a class together, ranging from any 877 police agencies in Illinois. Only data from recruits who completed and received certification from the Standards Training Board was utilized.

The independent variable in this study was the recruit's education status. The education status is a binary variable coded as 0 for recruits with high school diplomas, general education diplomas, and any educational certificates, while 1 for recruits with associate degrees, bachelor's degrees, and master's degrees. The dependent variable in this study is the overall cumulative GPA already reported in each recruit's profile. Lastly, the covariates in this study are gender and race. Gender is a binary variable coded 0 for females and 1 for males. Similarly, race is a binary variable coded as 0 for Whites and 1 for Non-Whites. Table 1 presents the study variables and their types, measurements, and sources.

Table 2

*Study Variables*

Variable Name	Variable Type	Variable Measurement	Source
Academic Performance	Dependent	Continuous	Overall GPA (Illinois State Police Academy records)
Education Status	Independent	Binary/Categorical 0 = High school and below 1 = Beyond high school	Education level (Illinois State Police Academy records)
Gender	Covariate	Binary/Categorical 0 = Female 1 = Male	Gender (Illinois State Police Academy records)
Race	Covariate	Binary/Categorical 0 = White 1 = Non-White	Race (Illinois State Police Academy records)

### Data Analysis Plan

Data from the Illinois State Police Academy records was exported to Microsoft Excel for preliminary data processing. Data preprocessing is a crucial step preceding data analysis as it ensures the cleanliness, transformation, and organization of raw data, thereby enhancing consistency and quality (Luengo et al., 2020), leading to more accurate and reliable analysis

outcomes. Moreover, the issue of missing data was addressed before analysis, as emphasized by Dong and Peng (2013). Schlomer et al. (2010) cautioned that a data set with more than 10% missing data could seriously jeopardize the efficacy and validity of research studies. As such, I ensured that only recruits with complete information on the study variables were included to streamline the process. After a complete dataset had been acquired, the information was imported into a working sheet in SPSS Version 27® from Microsoft Excel to conduct further analysis.

Two types of statistical techniques were used: descriptive statistics and inferential statistics. The descriptive statistics provided basic information, such as the study categorical variables' frequency and percentages and continuous variables' mean and standard deviation. By providing insights into the data structure, these descriptive statistics will help recognize trends, spot outliers, and decide what additional analysis or interpretation to do (Cooksey, 2020). Meanwhile, the inferential statistical tests that were conducted for this study was the one-way ANOVA and ANCOVA. I assessed the importance of associations, test hypotheses, and extrapolate findings beyond the observed sample by using inferential statistical tests, which enhanced the external validity and broader applicability of the research findings (Trotter, 2012).

### **Analysis of Variance**

One-way ANOVA is the appropriate statistical test to address RQ1 due to its ability to compare means across two or more groups concurrently. This study considered education status as the independent variable, which was categorized as either (0) high school and below or (1) beyond high school, and the aim investigated potential differences in the academic performance of recruits (RQ1) between these two groups. ANOVA facilitated the determination of whether there are statistically significant differences in the mean rates of academic performance of recruits in basic police training between the two educational status groups (Hess & Hess, 2018).

Moreover, ANOVA is well-suited for examining the relationship between a categorical independent variable (education status) and a continuous dependent variable (academic performance). ANOVA sheds light on the associations being investigated by determining whether the variability in the dependent variable can be attributed to differences between groups while taking within-group variability into account (Christensen, 2016; Wilcox, 2022). In addition, ANOVA helps indicate the magnitude and direction of differences between groups, which enabled a more complex understanding of the relationship between education status and academic performance (Gamst et al., 2008). Post-hoc analyses can also reveal specific group differences if the overall ANOVA result is statistically significant, offering a deeper comprehension of the observed connections (Wilcox, 2022).

### ***Assumptions Testing***

ANOVA, a parametric test, employs statistical parameters to infer about the population, relying on the assumption that the data adhere to a specific probability distribution, usually the normal distribution. While these tests provide precise estimations of population parameters, they often necessitate assumptions regarding the variance and distribution of the data. Given that ANOVA falls under parametric tests, it is necessary to verify that certain assumptions, such as independence of observations, homogeneity of variances, and normality of residuals, are satisfied before the analysis (Bücher et al., 2011).

**Independence of Observations.** The observations within and between groups are independent (Rivas Martínez & Jiménez-Gamero, 2021). This means that the values do not influence the values in one group in another group. This assumption is typically ensured during the experimental design phase. Random assignment or random sampling techniques help to ensure

independence (Creswell & Creswell, 2022). However, it can also be checked by examining the data collection process to ensure that the observations are not influenced by each other.

**Homogeneity of Variances (Homoscedasticity).** The variance of the residuals is constant across all levels of the independent variable (Yang et al., 2019). In other words, the spread of the residuals should be similar across all groups. Levene's and Bartlett's tests can be used to test it. If the assumption is violated, transformations of the data (e.g., log transformation) or alternative statistical methods such as Welch's ANOVA or the Brown-Forsythe test may be considered (Katz, 2006).

**Normality of Residuals.** The residuals (the differences between the observed and predicted values) are typically distributed (Schmidt & Finan, 2018). This assumption refers to the distribution of the residuals, not necessarily the original data itself. This assumption can be tested statistically with tests like the Shapiro-Wilk or Kolmogorov-Smirnov tests or graphically with histograms or Q-Q plots. ANOVA alternatives that are non-parametric or the transformation of the dependent variable could be considered if the residuals show a considerable departure from normality (Katz, 2006).

### **Analysis of Covariance**

ANCOVA is a statistical technique combining elements of ANOVA and regression analysis. It allows researchers to examine the relationship between categorical independent variables and a continuous dependent variable while controlling for the effects of one or more continuous/categorical variables, known as covariates (Bücher et al., 2011). This study aims to examine the academic performance (overall GPA) of recruits in basic police training at the Illinois State Police Academy, explicitly examining how it differs based on education status while controlling for gender and race. Two ANCOVA models will be developed to determine whether

there are significant differences in overall GPA among recruits based on their education status while controlling for the effects of gender (for RQ2) or race (for RQ3). ANCOVA allows the assessment of whether any observed differences in GPA between education status groups are independent of the effects of gender or race. The assumptions for ANCOVA are similar to those for ANOVA and include assumptions such as normality, homogeneity of variances, linearity, and independence of observations. Before conducting ANCOVA, it's essential to check these assumptions to ensure the validity of the results.

### **Threats to Validity**

In a quantitative causal-comparative study, researchers should be mindful of several potential threats to validity, especially when utilizing archival data. Selection bias is one threat to the validity of this study. Selecting archival data can introduce biases because certain criteria included or excluded specific cases, such as only utilizing data from a particular time frame. This could affect the external validity of the study. Instrumentation bias can also be a threat to validity. If there were variations in how educational status or academic performance were recorded by the Illinois State Police Academy, it might impact the study's internal validity. Other variables not included in the study might influence educational status and academic performance. Without controlling for these confounding variables, the proper relationship between the variables of interest may be obscured.

The reliability and accuracy of archival data can be a concern. Only complete or accurate records may represent educational status or academic performance, impacting the study's internal validity. To mitigate these threats to validity, I also consider alternative explanations for observed relationships and employ appropriate statistical controls. Additionally, transparency in reporting



the study's limitations is crucial for clearly understanding the research's scope and potential biases.

### **Ethical Procedures**

Permission was granted to conduct this study of this nature. The permission was obtained from the Illinois State Police Academy administrative representative to use the recruits' archival data. A letter of approval was issued before the data collection began. Because archival data was used in this study, care was taken to ensure the anonymity of the recruits of the data. Protecting the privacy of individuals represented in the archival data is paramount. I took measures to de-identify data to ensure that any potentially identifying information was securely handled if the data provided by the Illinois State Police Academy still needs to be de-identified. For any recruit data that is not deidentified, I assigned pseudonyms to those with identifiable information. I also ensured the data was kept secure by storing the archival data on a password-protected drive that only I had access. In this study, I also ensured that transparency was maintained in reporting the methods used to carry out this study, the procedures, and the results. This allows other researchers to validate the survey so that the research findings can be duplicated.

### **Summary**

In this chapter, a comprehensive overview of the procedures designed for the execution of the quantitative correlational study was presented. The primary objective of this quantitative causal-comparative investigation was to examine whether education status impacts the academic performance of recruits in basic police training at the Illinois State Police Academy. The research questions formulated for this study aim to provide insightful answers to the identified problem, explicitly exploring the correlation between educational attainment and performance in police academy training. The targeted population for this study comprised of recruits undergoing training

at the Illinois State Police Academy. Archival data sourced from the Illinois State Police Academy was be utilized to rigorously address the research questions, encompassing detailed individual recruit grade summaries. The statistical analysis of the data and hypothesis testing was conducted using the SPSS software, that enabling a robust examination of whether possessing a college degree influences academic performance during police academy training. The subsequent chapter, Chapter 4, presents the outcomes derived from this study's data collection and analysis procedures.

## CHAPTER FOUR: RESULTS

### Overview

This quantitative causal-comparative study aimed to examine whether education status impacts the academic performance of recruits in basic police training at the Illinois State Police Academy. In addition, this study aimed to examine whether gender and race significantly affect the relationship between education status and the academic performance of recruits. The independent variable was the education status operationalized as a binary variable (0 = high school and below, 1 = beyond high school). The dependent variable was the academic performance operationalized as a continuous variable through the overall GPA of recruits. Lastly, the covariates were gender (0 = Female, 1 = Male) and race (0 = White, 1 = Non-White) operationalized as binary variables. Records from 174 recruits were extracted from the Illinois State Police Academy from 2018 to 2023 to measure the study variables. Data were analyzed using ANOVA and ANCOVA in SPSS Version 27® to address the research questions and test the hypotheses. This chapter consists of four sections: (1) a descriptive analysis of the sample; (2) the detailed data analysis procedures that were conducted; (3) the results of the data analysis; and (4) a summary of the key findings from the data analysis.

### Descriptive Findings

Records of 174 recruits from the Illinois State Police Academy from 2018 to 2023 were retrieved. These recruits were from 11 different recruit classes and had complete information on the study variables. The number of recruits in each recruiting class ranged from eight to 28. The majority of the recruits' highest educational attainment was a high school diploma and below ( $n = 91, 52.3\%$ ). Most of the recruits were male ( $n = 146, 83.9\%$ ) and were White ( $n = 96, 55.2\%$ ). Table 1 presents the demographic information of the recruits.

**Table 3**

*Frequencies and Percentages of Categorical Study Variables (N = 174)*

Variable		%
Education Status		
High school and below	91	52.3%
Beyond high school	83	47.7%
Gender		
Female	28	16.1%
Male	146	83.9%
Race		
White	96	55.2%
Non-White	78	44.8%

### **Data Analysis Procedures**

The data for this study was obtained from the Illinois State Police Academy after I sought permission to access recruitment data. Initially, I contacted the Division of the Academy and Training to identify the gatekeeper who facilitated site permission. I then emailed the gatekeeper to provide study details and request permission to use the data. Data collection focused on individual recruit grade summaries, primarily examining academic performance as the dependent variable.

Each recruit's training transcript was scrutinized for GPA, the dependent variable. Academic scores were meticulously recorded in a secured database and factored into the recruits' profiles, alongside an overall final GPA. Furthermore, the ISP provided final course grade summaries, including overall class rankings. Education status was obtained and was categorized as either 0 = High school and below or 1 = Beyond high school. Gender and race information was also gathered from recruit profiles and utilized as covariates. Specifically, gender was operationalized as either 0 = Female or 1 = Male, whereas race was categorized as either 0 = White or 1 = Non-White. The study concentrated on recruiting classes graduating from the Illinois State Police Academy basics between 2018 and 2023, ensuring relevance to the most recent curriculum implementation.

## **Assumptions Testing**

The use of both ANOVA and ANCOVA requires data to meet certain assumptions. The assumptions of both statistical tests are the same: independence of observations, homogeneity of variance (homoscedasticity), and normality of residuals. Each of these assumptions was tested before conducting the ANOVA and ANCOVA, and the results are shown in the succeeding discussion.

### ***Independence of Observations***

The independence of observations assumption for ANOVA suggests that each observation or data point should be independent of the others (Rivas Martínez & Jiménez-Gamero, 2021). This assumption was likely met in this study due to the nature of the data collection process. Firstly, the data was collected from individual recruit grade summaries, implying that each recruit's academic performance was assessed separately. This suggests that one recruit's performance does not influence another recruit's performance, ensuring independence among observations. Secondly, the recruitment classes selected for the study were from different years (2018 to 2023), further ensuring independence as each class represents a distinct group of recruits undergoing training at different times. Lastly, the data preprocessing steps undertaken, such as ensuring completeness of information and addressing missing data, likely contributed to maintaining observation independence. Including only recruits with complete information on study variables mitigated any potential biases or dependencies arising from incomplete data. With all of these steps taken, it is safe to conclude that the assumption of independence of observations has been met.

### ***Homogeneity of Variance (Homoscedasticity)***

The assumption of homogeneity states that the variances of the dependent variable are equal across different groups or levels of the independent variable(s) (Yang et al., 2019). The spread or

dispersion of the data points within each group or category being compared is roughly the same (Katz, 2006). Violations of this assumption can lead to inaccurate results and affect the validity of statistical tests. A Levene's test was conducted to provide information regarding the homogeneity of variances assumption across groups (Table 2). The results showed that since the  $p$ -value (0.448) is greater than the significance level of 0.05, we failed to reject the null hypothesis. Therefore, insufficient evidence exists to conclude that the variances significantly differ across groups. In other words, the assumption of homogeneity of variances appears to be met based on the results of Levene's test.

**Table 4**

*Levene's test for Homogeneity of Variances*

	Levene statistic	<i>df1</i>	<i>df2</i>	Sig.
Based on Mean	.579	1	172	.448

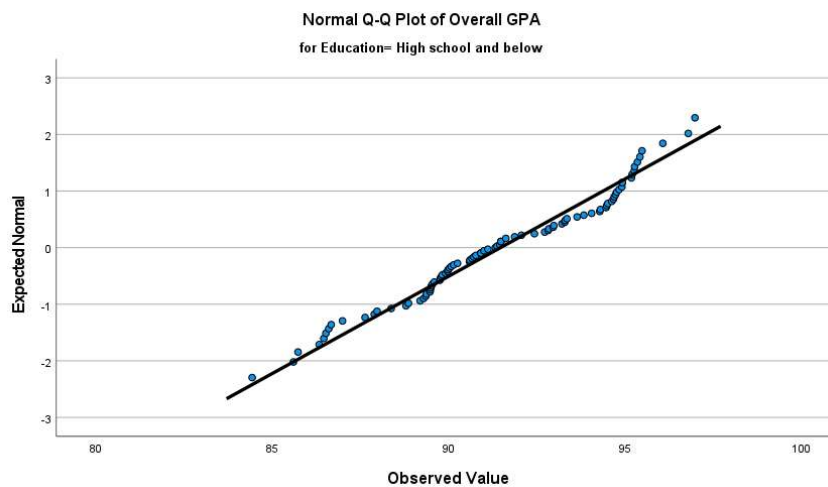
### *Normality of Residuals*

The model's residuals should follow a normal distribution to make valid inferences from the ANOVA and ANCOVA models. Kolmogorov-Smirnov and Shapiro-Wilk tests were conducted to test for normality (Table 3). For recruits with high school diplomas and below, both the Kolmogorov-Smirnov and Shapiro-Wilk tests suggest that the data significantly deviates from a normal distribution (Schmidt & Finan, 2018). The  $p$ -values (0.034 and 0.028) are less than the chosen significance level 0.05, indicating that the null hypothesis of normality is rejected. Meanwhile, for recruits who have finished beyond high school, both the Kolmogorov-Smirnov tests suggest that the data does not significantly deviate from a normal distribution, as the  $p$ -values (0.200 and 0.423) are greater than the chosen significance level of 0.05.

**Table 5***Test of Normality*

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	<i>df</i>	Sig.	Statistic	<i>df</i>	Sig.
High school and below	.097	91	.034	.969	91	.028
Beyond high school	.053	83	.200	.985	83	.423

Provided that there are seemingly violations of the normality of residuals assumption for the high school and below group, a Q-Q plot was created to visually assess whether the line follows the normal distribution (Figure 1). The graph shows that the points closely follow the diagonal line, suggesting that the dataset is approximately normally distributed (Katz, 2006). Deviations from the diagonal line may indicate departures from normality, but these deviations are not significant enough to warrant further investigation or consideration of alternative statistical approaches. Therefore, we can conclude that the assumption of normality of residuals has been met.

**Figure 2***Normal Q-Q plot of Overall GPA for High school and Below Group*

## Hypotheses Testing

Hypotheses were tested using ANOVA and ANCOVA. A significance level of 0.05 was used in the tests. The summary of the results is discussed in the succeeding subsections.

### Research Question 1

The first research question states, “To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status?” and the corresponding hypotheses were:

**H<sub>0</sub>1.** There is no significant difference between the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education.

**H<sub>a</sub>1.** There is a significant difference between the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education.

In Research Question 1, the independent variable was the education status, and the dependent variable was the academic performance measured through the overall GPA. The means and standard deviations of the overall GPA between the education status groups are shown in Table 6. Recruits with high school diplomas and below have ( $M = 91.477$ ,  $SD = 2.909$ ) slightly higher overall GPA than recruits with educational attainment above high school ( $M = 90.927$ ,  $SD = 2.811$ ).

**Table 6**

#### *Education Groups*

	<i>N</i>	<i>M</i>	<i>SD</i>
High school and below	91	91.477	2.909
Beyond high school	83	90.927	2.811
Total	174	91.215	2.868



Table 7 shows the output of the one-way ANOVA analysis. It can be seen that the significance value (Sig.) is  $p > .05$  and, therefore, it can be concluded that there is no statistically significant difference in the means of overall GPA based on education status,  $F(4, 82) = 2.048, p = .095$ . Therefore, there was insufficient statistical evidence to reject the first null hypothesis.

**Table 7**

*One-way ANOVA Test Results for Research Question 1*

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Between Groups	10,232.208	4	2,558.052	2.048	0.095
Within Groups	102,439.412	82	1,249.261		
Total	112,671.620	86			

## Research Question 2

The second research question states, “To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status while controlling for gender?” and the corresponding hypotheses were:

**H<sub>0</sub>2.** Education status has no significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for gender.

**H<sub>a</sub>2.** Education status has a significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for gender.

In Research Question 2, the independent variable was the education status, the dependent variable was the academic performance measured through the overall GPA, and the covariate was the gender. Table 8 shows the output of the one-way ANCOVA analysis. The  $p$ -value along the education status row provides the statistical significance of whether there are statistically significant

differences in the overall GPA between the education status groups when adjusted for gender. The results showed no statistically significant difference between adjusted means ( $p = .079$ ), suggesting that introducing gender as a covariate did not affect the relationship between education status and overall GPA. Therefore, there was insufficient statistical evidence to reject the second null hypothesis.

**Table 8**

*One-way ANCOVA Test Results for Research Question 2*

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Corrected Model	36.713 <sup>a</sup>	2	18.357	2.265	.107
Intercept	217,331.238	1	217,331.238	26,813.700	<.001
Gender	23.613	1	23.613	2.913	.090
Education	25.321	1	25.321	3.124	.079
Error	1,385.995	171	8.105		
Total	1,449,122.425	174			
Corrected Total	1,422.708	173			

a. R Squared = .026 (Adjusted R Squared = .014)

### Research Question 3

The third research question states, “To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status while controlling for race?” and the corresponding hypotheses were:

**H<sub>0</sub>3.** Education status has no significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for race.

**H<sub>a</sub>3.** Education status has a significant effect on the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy based on education status while controlling for race.

In Research Question 3, the independent variable was the education status, the dependent variable was the academic performance measured through the overall GPA, and the covariate was the race. Table 9 shows the output of the one-way ANCOVA analysis. The  $p$ -value along the education status row provides the statistical significance of whether there are statistically significant differences in the overall GPA between the education status groups when adjusted for race. The results showed no statistically significant difference between adjusted means ( $p = .639$ ), suggesting that introducing race as a covariate did not affect the relationship between education status and overall GPA. Therefore, there was insufficient statistical evidence to reject the third null hypothesis.

**Table 9**

*One-way ANCOVA Test Results for Research Question 3*

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Corrected Model	14.921 <sup>a</sup>	2	7.460	.906	.406
Intercept	775,347.866	1	775,347.866	94,179.383	<.001
Gender	1.821	1	1.821	.221	.639
Education	14.889	1	14.889	1.809	.180
Error	1,407.787	171	8.233		
Total	1,449,122.425	174			
Corrected Total	1,422.708	173			

a. R Squared = .010 (Adjusted R Squared = .001)

### Summary

This quantitative causal-comparative study investigated the impact of education status on the academic performance of recruits undergoing basic police training at the Illinois State Police Academy while also considering the potential influence of gender and race on this relationship. The study utilized a sample of 174 recruits' records from 2018 to 2023. Education status was the independent variable, categorized as high school and below (0) or beyond high school (1). Academic performance, measured by overall GPA, served as the dependent variable, while gender (0 = Female, 1 = Male) and race (0 = White, 1 = Non-White) were considered as covariates.

The research questions aimed to explore the differences in overall GPA based on education status alone (Research Question 1), education status while controlling for gender (Research Question 2), and education status while controlling for race (Research Question 3). For Research Question 1, the ANOVA analysis revealed no statistically significant difference in overall GPA based on education status ( $F(4, 82) = 2.048, p = .095$ ), suggesting that education status alone did not significantly impact academic performance. Therefore, the first null hypothesis could not be rejected. For Research Question 2, When gender was introduced as a covariate using ANCOVA, the results showed no statistically significant difference between adjusted means ( $p = .079$ ), indicating that gender did not significantly affect the relationship between education status and overall GPA. Thus, the second null hypothesis was not rejected. For Research Question 3, when race was introduced as a covariate, the ANCOVA results indicated no statistically significant difference between adjusted means ( $p = .639$ ), implying that race did not significantly influence the relationship between education status and overall GPA. Consequently, the third null hypothesis was not rejected.

Overall, the results suggest that within the context of basic police training at the Illinois State Police Academy, education status does not appear to significantly impact academic performance. Moreover, including gender and race as covariates did not alter this finding. These results provide valuable insights for understanding the factors that may influence academic outcomes among police recruits, highlighting the need for further research in this area. Chapter 5 will discuss results, conclusions, and recommendations for future research.

## CHAPTER FIVE: CONCLUSIONS

### Overview

Chapter 5 concludes this study. In this chapter, the researcher discusses the results presented in Chapter 4, including how they relate to the literature presented in Chapter 2. The discussion centers on the research questions' findings. Second, the researcher covers the implications of the results of this study, including the practical implications of each research question's findings, unique findings, and theoretical implications. Third, the researcher covers the limitations of this study based on the methodology used, including how those limitations impacted internal and external validity and the measures taken to address the limitations. Finally, the researcher concludes the chapter with a list of recommendations for future research.

### Discussion

The purpose of this quantitative correlational-predictive study was to examine the relationship between education levels and academic performance among recruits at the Illinois State Police Academy. The researcher used three research questions to achieve the study's goals.

**RQ1.** To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status?

In RQ1, the independent variable was education status, and the dependent variable was academic performance measured through the overall GPA. The results revealed that recruits with high school diplomas and below had slightly higher overall GPA ( $M = 91.477$ ,  $SD = 2.909$ ) than recruits with educational attainment above high school ( $M = 90.927$ ,  $SD = 2.811$ ). The output of the one-way ANOVA analysis showed that the significance value (Sig.) was  $p > .05$ . Therefore, the

researcher concluded that there was no statistically significant difference in the means of overall GPA based on education status,  $F(4, 82) = 2.048, p = .095$ .

The finding was consistent with that of Williams et al. (2019), who noted that basic training academies equipped police with the basic skills required for an officer, but higher education was not perceived as a prerequisite for the success of police during training and at work. In most cases, the requirements for joining the police include having a high school diploma or having completed a General Education Development (GED) examination (Marciniak & Elattrache, 2020). The training provided in the police academy was effective in preparing the recruits to transition to professionals (Marciniak & Elattrache, 2020; Venema, 2018). Nevertheless, education status may not be a prerequisite for academic performance in police academies. The fact that these academies require a level of education to qualify for training underscores the underlying significance of education.

The finding was also consistent with Lockie et al. (2018), who found that education has been viewed as a lesser requisite for police officer applicants, as a low percentage of law enforcement agencies uphold this requirement, leading to a workforce where a majority of police officers do not have a college degree. The variances in the police recruitment requirements in different states and police departments have led to conclusions that higher education may not have a significant impact on the success of police recruits (Lockie et al., 2018). The proposition that higher education may not be a prerequisite for success in the police force may be different for other levels of law enforcement, such as the military.

However, the finding contradicted Edwards (2019), who noted that the arguments for college-educated officers are related to the knowledge and skills acquired in college classrooms and the complexity of their tasks and duties. In his study on the perception of higher education in the police ranks between county, city, and state levels of policing, the researcher noted that college-

level education increased officers' problem-solving skills (Edwards, 2019). A similar study by Henson et al. (2010) that assessed academic performance in police academies as a predictor of career success by comparing whether police officers with higher educational attainment received higher performance evaluations from supervisors reached the same conclusions. Despite the findings of this study, a higher education status may positively influence the career and performance of a police officer.

The finding was also inconsistent with Cordner (2019) and Rui-Hsin and Lin (2018). Higher educational standards are a vehicle for professionalizing the world of policing, lowering dropout rates of recruits, and enhancing academy legitimacy (Cordner, 2019). A growing number of police academies are incorporating other incentives to enhance educational attainment among law enforcement applicants (Cordner, 2019). Higher education is important in a basic training academy setting and having a college education predicts success in training and throughout the career of police officers (Cordner, 2019; Rui-Hsin & Lin, 2018). Education status and success among law enforcement agencies is crucial in an ever-changing policing environment in the United States.

The finding was also inconsistent with Javdani (2019), who argued that when engaging in a career in law enforcement, individuals should pursue education as a tool to develop critical thinking and problem-solving skills. Marciniak and Elattrache (2020) reviewed administrators' opinions on the utility of college education for police officers and discovered that college-educated officers performed better than other officers without. Donovan (2007) indicated that college education was not the only factor that reduced citizen complaints and decreased use of force incidents. The researcher found that combining college education and experience resulted in fewer use-of-force incidents. Despite the current study's findings, college education for law enforcement officers is critical, especially when policing is becoming more complex in an ever-changing environment.

Lastly, various studies reached mixed results and were neither consistent nor inconsistent with the findings of this research (Huey, 2018; Johnson & Dolan, 2022). Obtaining higher education was considered a positive, but other areas, such as personality characteristics, were external factors that were not shaped and influenced by educational status (Huey, 2018). However, these studies ignored the fact that the relationship between education status and academic performance is no longer linear since a growing number of high school graduates are not attending university due to a rise in industrial services (Knaggs et al., 2020). College education may be an essential component of police professionalism that is nevertheless mediated by other internal and external factors.

**RQ2.** To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status while controlling for gender?

In RQ2, the independent variable was education status, the dependent variable was academic performance measured through the overall GPA, and the covariate was gender. The results showed no statistically significant difference between adjusted means ( $p = .079$ ), suggesting that introducing gender as a covariate did not affect the relationship between education status and overall GPA. Consequently, the researcher found that education status had a significant effect on the academic performance of recruits in basic police training at Illinois State Police Academy, as measured through the overall GPA, based on education status while controlling for gender. The finding differed from Murray (2020), who noted that law enforcement has historically been ruled by men and designed in a way that privileges and favors masculine characteristics. Women have been increasingly symbolically and physically excluded from various aspects of law enforcement (Murray, 2020). Gendering occurs mainly through the construction of gendered symbols and signs,



division of labor, and placement of obstacles that exacerbate existing inequalities (Bevan & MacKenzie, 2012). As a result, female officers' abilities to do policing are restricted by structural and cultural factors, which can adversely affect job performance regardless of education.

The finding also differed from Rief and Clinkinbeard (2020), who noted that women remained underrepresented in law enforcement as police culture is reluctant to accept female police officers. Female officers often fit in with their job and the wider agency but are less likely than male officers to feel a sense of belonging within workgroups (Rief & Clinkinbeard, 2020). The relationship is partly mediated by workplace incivilities, showing that female officers' experiences of slight types of discrimination partially explain their low fit levels within working groups (Rief & Clinkinbeard, 2020). Policing is facing intense pressure to increase women's representation (Angehrn et al., 2021). However, females and males differ in their perspectives on the barriers to police work (Rossler et al., 2021). The different perceptions about police work between males and females may be a significant determinant of the choice to enter the police force than education status.

Lastly, the finding contradicted existing literature regarding perceptions among male and female police officers about job performance (Bishu & Headley, 2020). According to Ba et al. (2021), male and female officers perceived themselves as equally qualified to accomplish tasks and duties required in policing, including supervision and administration (Ba et al., 2021). Both genders worked equally in their roles, and there were no significant variations in job capabilities, job performance, and administrative skills even when experience and education were controlled (Ba et al., 2021; Lee et al., 2021). As a result, education status may not have a noteworthy effect on the academic performance of police recruits regardless of gender.

**RQ3.** To what extent does the academic performance, as measured through the overall GPA, of recruits in basic police training at Illinois State Police Academy differ based on education status while controlling for race?

In RQ3, the independent variable was education status, the dependent variable was academic performance measured through the overall GPA, and the covariate was race. The results showed no statistically significant difference between adjusted means ( $p = .639$ ), suggesting that introducing race as a covariate did not affect the relationship between education status and overall GPA. The researcher found that education status had a significant effect on academic performance, as measured through the overall GPA of recruits in basic police training at Illinois State Police Academy, based on education status while controlling for race. The finding supported Edwards (2019), who suggested that college-level education increases officers' problem-solving skills.

The finding also supported Chapman (2012), who suggested that the level of education predicted lower levels of police performance. According to Chapman (2012), the use of police force in minority neighborhoods was associated with police age, experience, education, and ethnicity. A study by White (2008) to identify the factors that determined superior performance in police academies suggested that race, gender, age, and reading levels offered a predictive value of superior performance, while residency, military experience, and college education did not determine superior performance among recruits. Regardless of educational status, racial and ethnic background remains a significant barrier to the performance of police officers in the United States in both academies and workplaces.

However, the finding contradicted Gau and Paoline (2020), who noted that there is much literature examining public perceptions regarding the fair treatment of people by law enforcement but limited studies regarding police officers' perspectives on justice and impartiality within their

police forces. Efforts to enhance minority representation are often hampered since a majority of African American officers believe law enforcement rarely treats citizens in fair, neutral, and unbiased ways (Gau & Paoline, 2020). The perceived inequity among African Americans diminishes their belief that law enforcement constantly participates in procedurally just policing (Gau & Paoline, 2020). Race plays a significant role in policing, as can be seen in racially biased actions, such as traffic stops by law enforcement agents (Carvalho et al., 2021). Therefore, race likely impacts police performance.

### **Implications**

The results for the first research question revealed that there was no significant difference in academic performances, as measured through the overall GPA of recruits in basic police training at Illinois State Police Academy. The findings have implications for administrators and managers of police agencies in the United States. Professionalizing law enforcement is a principled drive that police forces should strive to implement through increasing educational standards (Ryan & Ollis, 2023). However, based on the findings of this research, requiring a college education may prove detrimental. Police departments should consider alternative means of professionalizing the force, including through the use of better training and rewards.

For the second research question, the researcher found that education status had a significant effect on academic performance as measured through the overall GPA of recruits in basic police training at Illinois State Police Academy, based on education status while controlling for gender. This finding implied that more educated male and female officers performed better at policing, but educational requirements usually eliminated prospective female applicants from joining the police force. Police agencies should customize educational requirements for males and females for various job positions as a means of increasing female recruitment in police academies.

For the third research question, the researcher found that education status had a significant effect on academic performance as measured through the overall GPA of recruits in basic police training at Illinois State Police Academy based on education status while controlling for race. This finding had implications for local, state, and federal policymakers. The police force needs policies that can help to address existing systemic barriers to police work that stem from racial and ethnic prejudices.

In this study, the researcher arrived at the conclusion that education status did not influence police performance. This finding may be unique to the Illinois State Police Academy. However, the finding reflected expectations of the researcher based on the Adult Learning Theory. According to Subedi and Pandey (2021), adults need to understand why they are learning something, learn best when intrinsically motivated, and have to see a connection between the lesson and real-world problems. It is likely that the learning pedagogy used at the Illinois State Police Academy does not reflect the unique circumstances of adult police recruits regarding experiences, motivations, and challenges.

Lastly, introducing gender and race as covariates did not alter the finding that education status did not influence police performance. Going forward, researchers should not overemphasize race and gender when assessing police performance. In a multicultural society that increasingly abhors racism and gender, it is likely that the two concepts no longer matter, as people of all races and genders are now accepted by the majority as equals.

### **Limitations**

This research had several limitations. First, studies assessing complications relating to four-year college courses among law enforcement are limited (Hyland & Davis, 2019). Hyland and Davis (2019) noted that less than 2% of police agencies in the United States required a four-year

college certification for incoming police recruits, leading to a small sample for comparative data. Owing to this limitation, the researcher did not factor in educational requirements when selecting cities or police departments. Instead, the researcher limited the study to large law enforcement agencies serving a population of at least 150,000 people. This limitation was a threat to internal validity as the study design introduced researcher bias during data collection (Andrade, 2018). However, the researcher used appropriate statistical controls, including ANCOVA, to control for the effects of confounding variables, such as gender and race, by comparing similar groups except for the variable of interest (education status). The researcher also used appropriate groups to isolate potential employment challenges regarding education, college attainment variations, recruitment, and the significance of police diversity.

The other limitation was the lack of diversity within local law enforcement ranks. Roughly 72% of local law enforcement departments were white, which was disproportionate to minority racial and ethnic groups' representation (Hyland & Davis, 2019). The statistics represented a high probability that the interviewed subjects lacked the diversity required to be fully representative of the general population. This limitation was a threat to external validity since the study's findings may not be generalizable to police departments in the entire country (Andrade, 2018). To mitigate this limitation, the researcher employed purposive sampling to ensure that the participants and the data obtained were reasonably diverse to prevent members of one race or gender from dominating the list of participants.

### **Recommendations for Future Research**

- There is a need for further research concerning the impacts of educational attainment for law enforcement on job performance. More nuanced studies are needed to complement this quantitative correlational-predictive study by identifying the risks related to applying

educational requirements in law enforcement. Introducing a new policy without a full understanding of its consequences could destroy public trust in policing methods in the country.

- Future researchers should examine the impact of educational requirements on minorities' chances of getting recruited. The security sectors of this country serve as reliable passageways for minorities to enter into public service, and educational requirements may eliminate this opportunity since minorities tend to have lower college-level education (Zorlu, 2013).
- Future researchers should examine whether the curriculum designs in use at some police academies need improvement. It is likely that the learning pedagogy used at the Illinois State Police Academy did not reflect the unique circumstances of adult police recruits regarding experiences, motivations, and challenges.
- Future researchers should examine the impact of young people increasingly not attending higher education and its influence on the quality of police recruits and subsequent policing. It is crucial to learn whether large numbers of basic education-level officers can significantly change the quality of policing.
- Future studies should consider employing qualitative research methods to gain insights from relevant players, including police officers and the public. Assessing the feelings of the public and police officers can enrich the findings of this quantitative research. It would be interesting to know whether police officers feel empowered by higher education or find it to be of no value. Similarly, it is crucial to understand what the public thinks about education status among police officers.

## **Conclusion**

The analysis of the collected data revealed that college degrees were not the sole factor in academic performance while attending the training academy. A longer more in-depth advanced study may reveal may consider if other influences play a role. Influences such as military background, or other security training prior to attending the academy. If agencies impose restrictions on hiring officers with higher education levels, it could have negative implications for the community.

Many agencies nationwide struggle to fill open police officer positions, primarily because of these education requirements that limit the pool of eligible candidates. This could disproportionately impact specific groups, particularly minorities, who may have barriers to obtaining a college education.

Investing in education can significantly impact police organizations and serve as a valuable tool for career advancement. Additional strategies to improve educational standards include offering incentives to officers, such as bonuses for pursuing further education and providing tuition reimbursement for completed courses.

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**APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER**

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**LIBERTY UNIVERSITY**  
INSTITUTIONAL REVIEW BOARD

February 9, 2024

Mark Lahr  
Jarrod Sadulski

Re: IRB Exemption - IRB-FY23-24-1027 DOES EDUCATION ENHANCE A RECRUIT'S ACADEMIC PERFORMANCE DURING ACADEMY TRAINING

Dear Mark Lahr, Jarrod Sadulski,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

- (4) Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met:
- (ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects;

**For a PDF of your exemption letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your Information sheet and final versions of your study documents can also be found on the same page under the Attachments tab.**

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at [irb@liberty.edu](mailto:irb@liberty.edu).

Sincerely,  
**G. Michele Baker, PhD, CIP**  
*Administrative Chair*  
**Research Ethics Office**

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**APPENDIX B: Approval Letter from Illinois State Police Division of Academy and Training****Approval Letter****ILLINOIS STATE POLICE**  
*Division of the Academy and Training*JB Fritzker  
*Governor*Brendan F. Kelly  
*Director*

July 13, 2023

Helms School of Government/Doctorial Committee  
Liberty University  
1971 University Boulevard  
Lynchburg, VA. 24515

Dear Doctorial Committee:

The purpose of this correspondence is to inform you the Illinois State Police (ISP) - Division of the Academy and Training can accommodate Doctorial Candidate Mark A. Lahr with his research regarding his dissertation for Ph.D. beginning in August 2023.

An ISP Non-Disclosure Agreement has been provided for Mr. Lahr's review and signature. This agreement expresses the strict confidentiality with respect to personal data he will have access to, and his understanding of unauthorized disclosure or negligent handling of this information is prohibited by law.

As a current contractual employee with the ISP, Mr. Lahr's background investigation revealed no information that would prevent participation with the Illinois State Police Program.

Mr. Lahr will not necessarily be entitled to a job with the Illinois State Police at the conclusion of this study and he is not entitled to wages from the ISP for the time spent working on his dissertation.

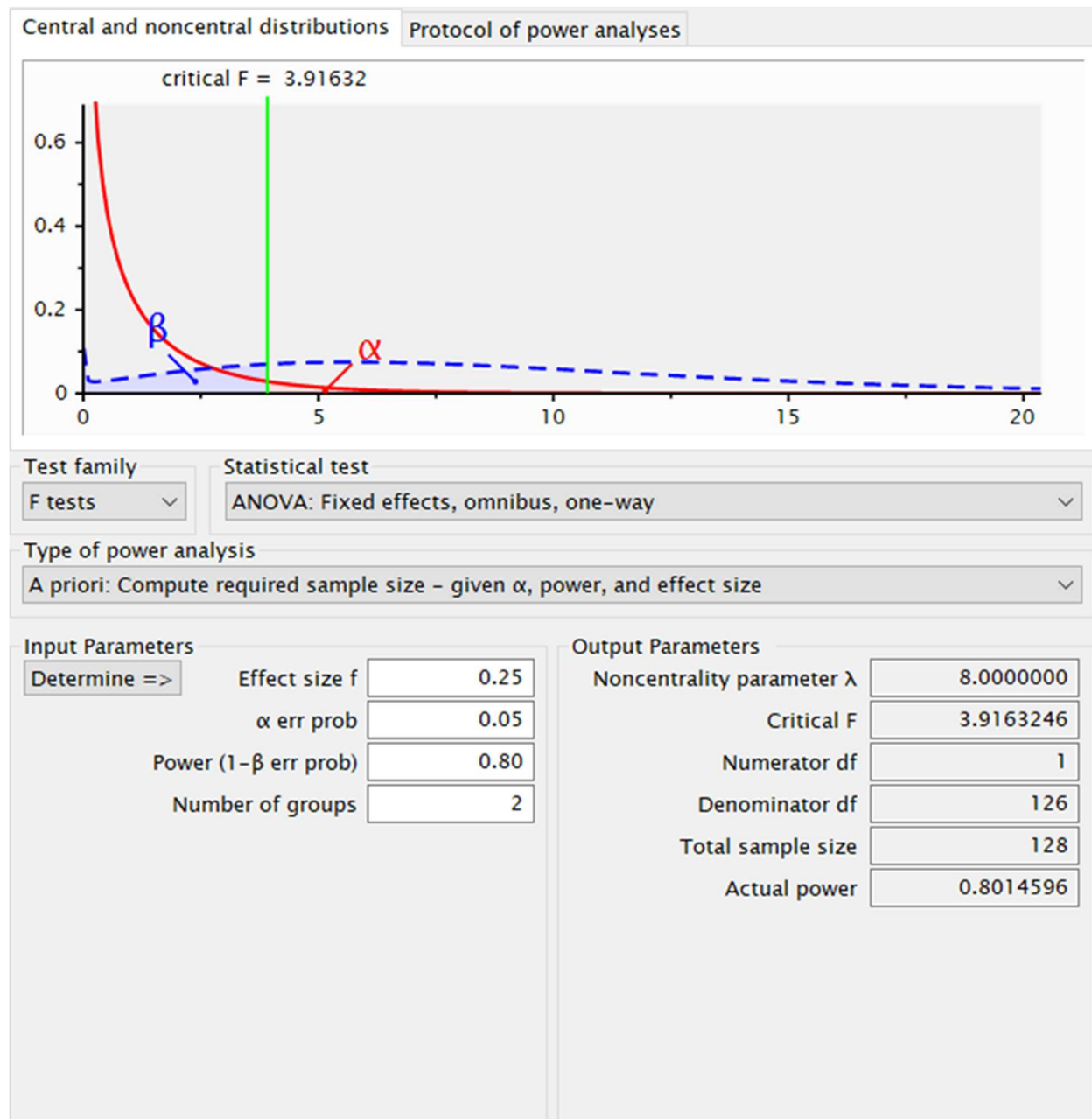
Thank you for your support of the Illinois State Police. Please feel free to contact me at (217) 204-7879 or [Kerrick.Leatherwood@illinois.gov](mailto:Kerrick.Leatherwood@illinois.gov) if you have any questions or require further assistance.

Respectfully,

*Kerrick Leatherwood*

Lieutenant Kerrick Leatherwood  
Chief of Staff

## APPENDIX: C: A PRIORI POWER ANALYSIS USING G\*POWER (ANOVA)



## APPENDIX D: A PRIORI POWER ANALYSIS USING G\*POWER (ANCOVA)

Central and noncentral distributions    Protocol of power analyses

critical F = 3.91693

Test family: F tests

Statistical test: ANCOVA: Fixed effects, main effects and interactions

Type of power analysis: A priori: Compute required sample size - given  $\alpha$ , power, and effect size

Input Parameters		Output Parameters	
Determine =>	Effect size f	Noncentrality parameter $\lambda$	8.0000000
	$\alpha$ err prob	Critical F	3.9169322
	Power ( $1-\beta$ err prob)	Denominator df	125
	Numerator df	Total sample size	128
	Number of groups	Actual power	0.8014112
	Number of covariates		