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## The influence of a state law enforcement training academy on future performance of law enforcement officers in a Southeastern state of the United States

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THE INFLUENCE OF A  
STATE LAW ENFORCEMENT TRAINING ACADEMY  
ON FUTURE PERFORMANCE  
OF LAW ENFORCEMENT OFFICERS  
IN A SOUTHEASTERN STATE OF THE UNITED STATES

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements of the degree of  
Doctor of Philosophy

in

The School of Human Resource Education  
And Workforce Development

by  
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December 2010

## **DEDICATION**

This work is dedicated to my parents, Juan and Carmen Caro for their unwavering support of my education. At the earliest of ages, they sought to ensure that every educational opportunity was available for me. This document is a testament to their incessant dedication, their steadfast sacrifice, and their unending love.

## **ACKNOWLEDGEMENTS**

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## **ABSTRACT**

This dissertation examines the influence of the state police law enforcement academy on the performance of commissioned officers in the field training officer (FTO) program in a state in the Southeastern region of the United States. The law enforcement training academy is paramount in preparing cadets for the roles, responsibilities, and activities that graduates assume independently in the field. As such, it is important to understand the value added to future performance in the field through adequate preparation in the training academy. This dissertation analyzes a sample of officers in the Southeastern region of the United States and explores the relationship between their performance as cadets in the academy and their performance as commissioned officers in the field training officer program. Further, this study examines the existence of differences in performance among the various troops of the selected state law enforcement agency.

Through stepwise regression, the researcher concluded that the law enforcement training academy accounts for between 2.3% and 17.6% of the performance variance of newly commissioned officers in the field officer training program. Further, through an analysis of variance, the researcher concluded that there are significant differences in at least one of the performance variables selected throughout the troops of the agency.

The researcher recommended further analysis of the law enforcement curriculum and of the field training officer program. This research should focus on the specific goals and objectives of the FTO program to ensure that the curriculum taught in the academy is properly aligned with the performance measures of the FTO program. Further, it was recommended that a systematic training methodology be implemented to ensure that all field training mentors are fully educated on the program's goals, objectives, and evaluation system. Finally, it was recommended that a

structural equation model be developed to allow the agency to understand the unique contribution of their current recruiting, selection, and training programs to the performance of their officers in the field.

## **CHAPTER 1.**

### **INTRODUCTION**

#### **Rationale**

##### **Importance of Law Enforcement**

Stone and DeLuca (1994) expressed that officers today are expected to possess self-discipline, patience, attention to detail, knowledge of the law, superior communication skills, and an understanding of the scientific principles grounded in several disciplines. An important charge of police agencies is to protect life, property, and to maintain the balance of order in society; at the same time, law enforcement officers are solely responsible for the enforcement of laws, not enactment or ratification. As such, the role of the law enforcement agent, the characteristics of the individuals who are commissioned to these positions, is important to understand as officers maintain the authority and discretion to apply the law in society. Law enforcement officers at the local, state, and federal level perform a myriad of roles in society: enforcement of local, state, and federal laws; investigating crime and criminals; and, providing for the well-being of the citizens they are sworn to protect. It is the variance in these roles, and the overall mission to protect life and property, that makes law enforcement work, at any level, so important to the maintenance of a civil society.

##### **Law Enforcement Agencies**

Just as the role of law enforcement agents can vary, so too can their classification. Law enforcement agencies span the gamut from local sheriff, parish, or county officers, to federal marshals or agents. At every level, the role and jurisdiction can be very specific with local officers responsible for a city, a parish or county, or municipality, and federal officers responsible for crime and criminals across the United States. The classification of the officers is varied, so too are the responsibilities and liabilities shared by those officers. State police officers,

however, are unique in the scope and responsibility that they share. The role and function of the state police extend throughout the state and can be called in to assist with federal cases as necessitated by federal agents. More than crime-fighters, state police agencies are problem-oriented agencies that execute a variety of tasks and services. In this aspect, state police officers, and their roles, are extraordinarily unique.

### **State Police Officers**

The function of a state police officer is to provide for the welfare and well-being of the citizens which they are sworn to protect. The role of said officers varies from state to state, but the performance criterion for each center on specific roles. State police officers are responsible for enforcing state and national laws, and upholding the protections provided citizens in the United States Constitution. The broad range of services provided by state police agencies throughout the United States carries an overall theme of protection of citizens, upholding the laws and constitution of the state, prevention of loss of goods and services for the citizens of the state, and providing for the safety and well-being of all entrusted in their care. In many instances, the diversity that is experienced in the services provided for the general public will largely depend on the needs of the specific state.

Given this diversity in services, one expects variety in the qualities and characteristics of the individuals who perform these tasks. However, for any individual differences that may arise among officers, there are standardized and uniform methods of training which bring a consistent level of teaching and education to the role of state police officers. These lessons are introduced through the state police training academy. These curricula, when combined with benchmarked levels of performance, are used to standardize and provide consistency in the performance function. This curriculum notwithstanding, there are many factors that can influence job performance in the field.

### **Factors that Influence Officer Performance**

The academy provides formal training for new officers (White, 2008). This formal training includes both technical skills, and criminal and constitutional law (Walker and Katz, 2002). As White (2008) reported, academy training provides the formative knowledge and experience for recruits and represents a critical first step in fielding professional and skilled officers. Still, there are factors outside of the academy that affect officer performance.

Demographic factors are important to consider when examining officer performance in the field. Age, gender, race, education, previous military experience, previous law enforcement experience, and other demographic factors can all influence the performance of an officer in the field. Officer selection methods are also important in establishing a baseline for performance as there are skills that future cadets must possess in order to be accepted into the academy. It makes sense then that law enforcement departments are increasingly using more sophisticated methods of selecting law enforcement officers (Cochrane, Tett, & Vandecreek, 2003). Still, the law enforcement training academy, through its curriculum and repetition of tasks, provides an avenue to the enhancement of the skills required to successfully perform the policing function.

### **The Importance of the State Police Academy**

There exists congruence in the role of the state law enforcement officer in the literature, and the role is echoed in the mission and visions statements of a myriad of state police agencies throughout the United States. Absent, however, is a consensus on the most effective training and education curriculum to produce well-balanced, well-trained, and well-prepared law enforcement officers. Fully training cadets is imperative to the success of a state law enforcement agency. Law enforcement agencies make a substantial investment to train cadets; the financial burden of conducting a law enforcement training academy can be taxing for any state. The benefits of a comprehensive training academy, followed by an opportunity to transfer the learned knowledge,

however, is a creditable investment when one examines the negative ramifications of commissioning an unprepared officer.

The advantages of a comprehensive academy training program are clear; what must be explored, however, are the ramifications of a mediocre academy system. First, having unqualified employees may lead to poor publicity, costly disciplinary interviews, court litigation from irresponsible officer behavior, and lower levels of community trust (Carless, 2006). Moreover, the literature reports that negative perceptions of the law enforcement agency hinder public support, cooperation, and even reliance on the agency, even when truly needed (Gainey & Payne, 2009). Finally, negative perceptions of the agency deter individuals from supporting agency activities or even reporting crime (Sun, Triplett, & Gainey, 2004; Triplett, Sun, & Gainey, 2005). It stands to reason that a comprehensive and exhaustive training program is paramount in the evolution of a state police agency as the investment in training and education today will shape the fabric of the organization into the future.

### **The Law Enforcement Academy**

The law enforcement agency is responsible for providing a systematic, methodological approach to an officer's training and development. The law enforcement academy serves several functions for the incoming cadet. First, the academy serves as a formal training program where cadets learn the theory and policy, and exercise the tasks necessary to become a commissioned officer. In addition, the academy supports the process for weeding out those who are either ill-prepared or unqualified to become law enforcement officers by exposing them to challenging physical and academic rigor. Finally, the academy serves as a socialization mechanism to indoctrinate the candidate into the organizational culture and climate; the academy strips cadets of their identity and forges an organizational identity in order to instill loyalty and camaraderie. Notwithstanding, the state police academy provides the formative knowledge and experience for

recruits and represents a critical first step in fielding professional and skilled officers (White, 2008). State police academy training will vary from agency to agency in length and amount of time devoted to each phase of the academy curriculum. Despite these individual differences, the state police academy is structured to provide cadets with a theoretical foundation, practical experience, and the formative knowledge necessary to enter into the formal field training officer program. As with any form of training, there must be a system for the participant to assimilate and practice the information learned in training outside of the classroom. For many law enforcement agencies, the transfer and application of knowledge is found in the field training officer program.

### **The Field Training Officer Program**

Most recruit training programs leave a wide gap between the classroom and the “real world” of law enforcement work (McC Campbell, 1987). To fill this void, and to reinforce and complete the developmental process, a vast majority of state police agencies have employed a field training officer program. The field training officer (FTO) program allows a cadet an opportunity to use and apply the theoretical skills learned in the classroom portion of the academy to real life scenarios on the job. The FTO program joins an academy graduate with a field training officer who serves as a mentor who monitors their on-the-job performance, and provides ongoing feedback to the newly graduated officer. The most widely accepted and utilized FTO program model was developed by the San Jose Police Department.

The San Jose Model, in one variation or another, is used extensively throughout the United States (McC Campbell, 1987). Most law enforcement departments who follow this model are known to vary the time that an officer spends in the FTO program, the number of field training officers that are used, and the classification of the officer while in the program as some are newly commissioned graduates, while others participate in the FTO program as cadets. All

newly commissioned graduates rotate through various FTO mentors and are given progressively more challenging assignments allowing them to continue gaining knowledge and applying their learned skills. Throughout the course of the program, the mentor will record the newly commissioned graduate's performance using a daily activity record which is used to document performance and track growth in independence and autonomy. These records substantiate the release of the newly commissioned graduate from the FTO program and grant them full participation and employment in the state police organization. In essence, the FTO program serves as a learning transfer system, helping to advance performance through continuous practice and timely feedback.

### **Measuring Performance**

An important point to consider is the measurement of law enforcement officer performance on the job. The challenge is establishing a consistent, standardized, and quantitative measure of performance. According to Falkenberg, Gaines, and Corner (1991) however, there is "no consistent pattern in the research findings on which a coherent theory of performance appraisals can be based" (p.356). Falkenberg *et al.* (1991) suggested that good policing is not trait-based; rather, specific, important tasks should be identified through job analysis, and officers should be rated on those tasks. Therefore, many law enforcement agencies must develop their own system of measuring performance based on the qualities and characteristics of performance that are key elements to organizational success. A review of the literature proved that the amount of time spent on activities relating to traditional policing performance measures (crime or law enforcement activities) is actually relatively small (Bond, 1996). The role of state police officers is even more difficult to capture due to the varied responsibilities that they share. Measurement solely on law and traffic enforcement would neglect the other dimensions of the job – e.g. public relations, special details, and investigations. Nonetheless, each officer in state



police agencies begins as a road officer, responsible for the enforcement of laws to the areas which they patrol. As their experience level and proficiency grow, these officers have the ability to promote into specialized roles in a myriad of departments within the agency.

Still, the issue for many departments is performance measurement. The literature reported ways law enforcement departments struggle to effectively measure, and in many ways, promote high-quality performance (White, 2008). Law enforcement agencies have long relied on crime-related activity measures such as arrests and tickets to quantify “good performance.” This approach has been called the “numbers game” by Skolnick and Fyfe (1993). This approach, however, has failed to evolve with the changes in police work. It is no surprise, then, that there have been multiple approaches to the measurement of individual officer performance. Sanders (2008) in her comparison of personality traits and law enforcement performance introduced a standardized performance evaluation system used by the supervisors in her sample. Simmers, Bowers, and Ruiz (2003) compared personality inventory scores to general measures of performance including: absence, academy success, positive reports, demeanor/attitude, negative reports, tardiness, and reprimands. Lough and Ryan (2005) measured performance as the number of sick days, stress claims, non-stress claims, days off due to stress claims, days off due to non-stress claims, public complaints, internal investigations, and moving vehicle accidents. Finally, White (2008) used academy performance in the classroom as a measure of performance to help to later predict performance in the field.

### **From Performance to Prediction**

Measuring officer performance has been varied, as too have been the approaches to predicting officer performance in the field. The literature approaches the process of predicting officer performance based on measures of personality or personal characteristics. In addition, the literature presents using performance to categorize individuals into levels of performance. The

majority of studies have focused on aspects of personality to predict performance in the field. Personality inventories such as Minnesota Multiphasic Personality Inventory (MMPI), the Inwald Personality Inventory (IPI), the Personality Assessment Inventory (PAI), and the California Personality Inventory (CPI), have all been utilized in an effort to extrapolate personal characteristics into on-the-job or in-the-field performance. These approaches, however, fail to yield consistent predictive power, and many of the studies cannot be generalized to a universal population. In essence, the lack of a meta-analysis which incorporates full power of random selection has limited research to very specific samples of the population which lack full predictive power.

Prior research has also examined intelligence and education as predictors of law enforcement performance. These results have not yielded a consistent result as many studies find no difference in performance among college-educated and non-college-educated officers, while a few others have found an association between college education and positive performance (Walker & Katz, 2002; White, 2007).

Recently, prediction in the academy has become a central focus for research. Detrick, Chibnall, and Luebbert (2004) used the Neuroticism-Extroversion-Openness Inventory (NEO) Personality Inventory and found that high scores on values and low scores on excitement-seeking were associated with better academic performance, while lower anxiety scores were associated with improved performance in the firing range. Cuttler and Muchinsky (2006) reported that a negative life history index (work history, drug use, and criminal history) was negatively associated with training academy performance.

The importance of academy training, performance measurement, and prediction of performance is logical in that a poor performer in the academy is at greater risk of performing poorly during his/her initial time on the job. To this end, the literature is incomplete in exploring

the link between academy performance and field performance (White, 2008). The vast majority of the literature has focused on personality characteristics as a means to predict performance either in the training academy or on the job. A psychological or sociological approach has been used to provide for the prediction of future performance.

This study seeks to predict performance based on human resource education theory, focusing on the elements of training, development, and curriculum as predictors of future performance in the field training officer program. The academy provides a genuine opportunity to predict performance in the field as it serves as a consistent mechanism by which to educate and train officers for future performance. Goals of the academy are to indoctrinate cadets into the ways and means of the organization; to instill the shared mission and values; and, to break cadets of any previously learned practices that are not applicable to their new environment. Through this logic, any of the other predictors of performance discussed above should be overshadowed by the role that the academy curriculum plays in determining future performance.

Furthermore, focusing on the FTO program as a measure of performance presents an opportunity to use a substantiated method of performance measurement, which may be lost with performance appraisals later in the officer's career. The fact remains that as one moves away from the FTO program, objective measures of performance may be lost. In addition, the San Jose Model introduces a systematic appraisal system adopted by agencies that employ the model for the FTO program; and the rotation through officers in the FTO program helps to lessen the subjectivity found in other forms of performance appraisal systems. The outcome of this study will have a practical impact on the curriculum of the state police training academy, the preparation and training provided to field training officers, will add a dimension for retention of new academy graduates, and provide an understanding of the knowledge, skills, and abilities that must be learned in the academy to demonstrate acceptable performance in the field.

### **Purpose of Study**

The primary purpose of this study was to determine the influence of selected academic and training factors on the performance in the field training officer program of law enforcement officers of a state police agency in the Southeastern region of the United States.

### **Dependent Variable**

The dependent variable of this study was the performance of newly commissioned law enforcement officers in the structured field training officer program following graduation from the state police training academy as measured through the daily operations record by the field training officer program mentor. This included individual measures of appearance, knowledge, performance, relationships, and attitude, as well as an overall officer measure as calculated by taking the mean of the mean of each of the individual categories of appearance, knowledge, performance, relationships, and attitude.

### **Specific Objectives**

The following specific objectives were formulated to guide this research study:

1. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics:

- a. Appearance as measured in the daily operations log;
- b. Knowledge as measured in the daily operations log;
- c. Performance as measured in the daily operations log;
- d. Relationships as measured in the daily operations log;
- e. Attitude as measured in the daily operations log; and,
- f. Overall performance as defined by the mean of the means of appearance, knowledge, performance, relationships, and attitude from the daily operations log.

2. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic performance as measured by scores on law enforcement training academy exams on the following performance measures:

- a. Report Writing
- b. Orientation to Criminal Justice (OCJ)
- c. Firearms
- d. Oleoserin Chemical Spray (OC Spray)
- e. Monadnock Defensive Tactics System (MDTS)
- f. Monadnock Expandable Baton System (MEBS)
- g. Legal Aspects
- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam
- r. Final cumulative average

3. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on the following demographic characteristics:

- a. Gender

- b. Age
  - c. Whether or not they have military experience
  - d. Highest level of education completed
4. Determine if there was a significant difference in the variance of the performance ratings of newly commissioned law enforcement officers in field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the cumulative measure of total performance among the different troops of the selected Southeastern region state police agency.
5. Determine if a model existed explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the cumulative measure of total performance, from the following academy training measures:
- a. Report Writing
  - b. Orientation to Criminal Justice
  - c. Firearms
  - d. OC Spray
  - e. MDTs
  - f. MEBS
  - g. Legal Aspects
  - h. Patrol Activities
  - i. Traffic Services
  - j. Investigations
  - k. Intoxilyzer 5000

- l. Standard Field Sobriety Testing
  - m. Specialized Activities
  - n. Radar
  - o. Lidar
  - p. NUCI
  - q. Post/Final Exam
  - r. Final cumulative average
6. Determine if a model existed explaining a significant portion of the variance of the performance of newly commissioned law enforcement officers in field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the cumulative measure of total performance, from the following academy training and demographic characteristics:
- a. Gender
  - b. Age
  - c. Prior military experience
  - d. Level of education
  - e. Report Writing
  - f. Orientation to Criminal Justice
  - g. Firearms
  - h. OC Spray
  - i. MDTs
  - j. MEBS
  - k. Legal Aspects
  - l. Patrol Activities

- m. Traffic Services
- n. Investigations
- o. Intoxilyzer 5000
- p. Standard Field Sobriety Testing
- q. Specialized Activities
- r. Radar
- s. Lidar
- t. NUCI
- u. Post/Final Exam
- v. Final cumulative average

### **Definition of Terms**

Classification information as determined by the researcher for the reader:

1. Newly commissioned officer or newly commissioned graduate – a law enforcement officer who has successfully completed and graduated from the law enforcement training academy.
2. Cadet – a potential law enforcement officer who participates in the law enforcement training academy.
3. Field training officer – a law enforcement officer who through designation and training of the agency acts as a training officer for the newly commissioned officer while participating in the field training officer program.

Demographic information, as reported by the law enforcement officer to the study's state police agency in the Southeastern region of the United States through their application for selection, are as follows:



1. Gender – as reported by the cadet as male or female. Gender will be coded as 0 for males and 1 for females.
2. Age – as reported by the cadet at time of enrollment in the academy through their date of birth.
3. Military Experience - as reported by the cadet at time of enrollment in the academy as to whether or not they have served in any of the branches of the United States military. Military experience will be coded as 0 for no previous military experience and 1 for having previous military experience.
4. Highest level of education completed – as reported by the cadet at time of enrollment in the academy as to the highest level of education they have completed: high school or GED, some college, Associate's degree, Bachelor's degree, Master's degree, or Doctoral degree. Education level completed will be coded as 0 for not having earned a college degree and 1 for having earned a college degree.

Measures of cadet performance in the academy as provided by the study's state law enforcement agency from the Southeastern region of the United States are as follows:

1. Report Writing – teaches the importance and mechanics of report writing in law enforcement. The course emphasizes the characteristics of a well-written report, including organization, grammar, and spelling.
2. Orientation to Criminal Justice – provides an overview of the criminal justice system at the federal and state level. The overview includes the structure as well as the inter-relationships of the agencies associated with the criminal justice system.
3. Firearms – emphasizes the legal restraints regarding the use of deadly force and explores the moral responsibility associated with firearms. The course teaches basic

- marksmanship and combat shooting techniques. Cadets are also instructed on shooting range conduct, safety, and discipline.
4. Oleoserin Chemical Spray – introduces to the use of chemical weapons used by law enforcement officers.
  5. Monadnock Defensive Tactics System – equips participants with the necessary skills needed to defend himself/herself and control a resistant or aggressive subject.
  6. Monadnock Expandable Baton System – cadets demonstrate the ability of basic self-defense and the ability to control a resistive subject utilizing either a straight baton or side handle baton.
  7. Legal Aspects – explores the requirements and validity of making an arrest, including the types of arrests and what must be done concurrent with and after an arrest.
  8. Patrol Activities – explores the proper manner to respond to emergencies and/or crimes that are in progress. Cadets gain an understanding of the functions of patrol and how patrol time, organization and delivery of patrol, methods of patrol, aspects of patrol, and styles of patrol affect an officer's daily duties.
  9. Traffic Services – exposes cadets to basic crash investigation procedures. The goal is to bring clear understanding to law enforcement officers of the difficulties associated with conducting a thorough crash investigation.
  10. Investigations – familiarizes cadets with the methods and techniques of conducting an effective investigation such as in dealing with burglaries, how to locate and identify drugs, and the effects of drugs on abusers. The course covers fingerprinting, dealing with homicides, identity theft, and sexual crimes.
  11. Intoxilyzer 5000 – cadets are instructed on the machine used to detect alcohol on a violator's breath analysis test.

12. Standard Field Sobriety Testing – reviews the effects of alcohol, and how to detect and process a potential DWI offender.
13. Specialized Activities – reviews auto theft methods, how to detect a stolen vehicle, and the investigative process involved in auto theft cases. The cadet also learns how to prepare to testify in court, gains an understanding of mental disorders most encountered by law enforcement officers, and be aware of the legal and mental aspects of a critical incident as well as his/her rights and responsibilities in making a full account of critical incidents. The cadet is instructed in methods dealing with snipers, active shooters, explosive devices, and crowd control.
14. Radar – cadets learn the correct operation of the police traffic speed measurement devices.
15. Lidar - cadets learn the correct operation of the police traffic speed measurement devices.
16. Northwestern University Crash Investigation – provides cadets a comprehensive examination on the principles and methodology of conducting a traffic accident investigation.
17. POST/Final Exam – students complete either a comprehensive final examination or score on the Police Officer Selection Test.
18. Final cumulative average – the cadet’s final average in the academy based on scores on selected exams from the academy.

Measures of cadet performance in the field officer training program were provided by the study’s state police agency from the Southeastern region of the United States. These measures of cadet performance are as follows:

1. Appearance - as calculated in the daily operations log on a scale of 1 to 5: a measure of the appearance of the newly commissioned officer including uniform and personal grooming.
2. Knowledge - as calculated in the daily operations log on a scale of 1 to 5: a measure of the knowledge demonstrated by the newly commissioned officer in: criminal codes, department policies and procedures, traffic codes, and codes of criminal procedure.
3. Performance - as calculated in the daily operations log on a scale of 1 to 5: a measure of the performance demonstrated by the newly commissioned officer in: driving skills in normal conditions, driving skills in moderate and high stress conditions, orientation and response time to calls, accuracy and completeness of routine forms, the organization and detail of written reports, the grammar, spelling and neatness of written reports, the use of appropriate time in completion of written reports, field performance in non-stress conditions, field performance in stress conditions, problem solving and decision making ability, investigative skills, interview and interrogation skills, self-initiated field activity, general officer safety procedures, safety with respect to suspects, suspicious persons or prisoners, voice control in conflict situations, physical control in conflict situations, use of force, use of appropriate codes and procedures on the radio, listening and comprehension skills on the radio, articulation skills on the radio, and use of technology.
4. Attitude - as calculated in the daily operations log on a scale of 1 to 5: a measure of the attitude demonstrated by the newly commissioned officer with respect to their acceptance of feedback and attitude toward police work.
5. Relationships – as calculated in the daily operations log on a scale of 1 to 5: a measure of the relationship building ability demonstrated by the newly commissioned officer toward

citizens, toward ethnic groups other than their own, and toward other department members.

6. Overall performance – a cumulative measure of the newly commissioned officer's score on appearance, knowledge, performance, attitude and relationships. The range is 0 to 25.

### **Significance of Study**

This study sought to bridge the understanding and add to the research and literature regarding the impact of academy training and preparation on the performance by newly commissioned officers in the field officer training program for state law enforcement officers. The majority of research has used a psychological or sociological theory focus when examining the relationship between the characteristics of a newly commissioned officer and their performance in the field. The extant data presented by the literature cannot be ignored; however, the significant investment made by state police agencies in the training and development of their officers requires a more extensive examination of the relationship between the training academy and the skills necessary for successful performance in the field. In other words, are cadets being taught what is necessary for them to perform adequately in the field, and are individuals provided with ample opportunities to assimilate this body of knowledge?

From these findings, the researcher hoped to discern the unique contribution that the police training academy makes to an officer's field performance. As such, definitive recommendations regarding academy curriculum, academy structure, course content delivery, and the training of academy instructors and field training officers were made in an effort to more effectively impact officer performance. The impact of training and development on field performance had largely been ignored in the literature, with most models focusing on personality, demographic, or psychological characteristics. This study aimed to establish a model for field performance based on the cadet's performance in the training academy. These models

can then be used by state police agencies that have the same academic performance standards in the academy and who employ the San Jose model for field training to assist them in graduating and retaining only the most qualified cadets.

The review of the literature will present the importance of academy training, how the training academy acts as a corporate university, and how previous authors have taken to predicting officer performance in the field. The investment made by a law enforcement agency is magnified when one considers the potential negative impact of an undertrained, unprepared, or unqualified state law enforcement officer to the agency's mission, effectiveness, and reputation. To this end, the model proposed by the researcher allows state police agencies to make a more qualified, objective decision about which cadets continue into the field, and which must either be remediated or terminated. These models enable state police agencies to better qualify their decisions, provide objective measures of performance to isolate themselves from the potential of lawsuits, and enable administrators to employ another dimension in their decision to graduate and commission a cadet from their academy.

## **CHAPTER 2.**

### **REVIEW OF LITERATURE**

#### **State Police Agencies**

The role of a state police officer varies from state to state. A review of the mission and functions of state police agencies throughout the United States indicated that the power and jurisdiction of a state officer encompasses the entire state in which they operate, being responsible for enforcing traffic laws on highways, expressways, and interstates. The state police officer function, however, extends beyond the daily operations of a local, city, or sheriff officer in the scope and depth of responsibility. In addition to traffic law enforcement, many state police agencies are charged with special duties including but not limited to state capitol protection, special detailing of the governor, narcotics and immigration patrol under the umbrella of Governor's Office of Homeland Security, and the specialized investigation of a myriad of criminals and crimes when assistance is requested from other law enforcement agencies at every level of jurisdiction. State police officers are also responsible for enforcing gaming laws (in states where gaming is legal), investigating cyber-crimes, and providing for the overall welfare and well-being of the citizens of their state.

The missions of state police agencies provide insight to the role that they play. The mission of the Alabama Department of Public Safety (2010) is, "To protect and serve Alabama's residents equally and objectively, enforce state laws and uphold the constitutions of the United State and State of Alabama." The mission of the Mississippi Highway Safety Patrol (2010) is to:

- Encourage and promote the safe operation of vehicles on Mississippi's state and federal highways;
- Enforce traffic laws and other applicable laws in a fair, impartial and courteous manner;
- Function as guardians of public safety in a professional capacity;

- Assist other law enforcement and criminal justice agencies; and,
- Enhance the public esteem for law enforcement by precept and example of each member of the department.

The Louisiana State Police provides, "The Louisiana State Police is a statutorily mandated, statewide law enforcement agency. We will ensure the safety and security of the people in the state through enforcement, education, and providing of other essential public safety services. " (State of Louisiana, 2010). Further, the mission of the Arkansas State Police (2010) is "to protect human life and property in the State of Arkansas by providing the highest quality of law enforcement services to the citizens of Arkansas."

The Texas Highway Patrol offers a broader mission:

1. To secure and maintain order in traffic on highways of assigned responsibility within existing regulations to make the use of those highways safe and expeditious;
  2. To educate the citizens of Texas in matters of public safety, crime prevention and detection and law observance; and
  3. To supervise police security of the Capitol complex and assigned areas of responsibility.
- (State of Texas, 2010)

Finally, the Georgia State Police (2010) states, "The mission of the Georgia Department of Public Safety is to work cooperatively with all levels of government to provide a safe environment for residents and visitors to our state."

The broad range of services provided by state police agencies throughout the United States carries an overall theme of protection of citizens, upholding the laws and constitution of the state, prevention of loss of goods and services for the citizens of the state, and providing for the safety and well-being of all entrusted in their care. As such, it is imperative to adequately and



successfully train all officers prior to their graduation from the academy on the theory and practice of policing, and the nuances in fighting and preventing crime in their state.

### **Importance of the Law Enforcement Training Academy**

The literature reported that law enforcement departments face greater challenges with respect to public perception and trust. The quality of police personnel has perhaps become the key element in the effective execution of police goals (Grant & Grant, 1995; Roberg, Kuykendall, & Novak, 2002). As such, the importance of a systematic training program to fully prepare cadets is of vital importance. The ramifications of graduating an unprepared or unqualified cadet from the academy and having them assume the role of a fully commissioned officer can have a monumental negative impact on the law enforcement agency.

First, the negative impact of having unqualified employees may lead to poor publicity, costly disciplinary interviews, court litigation from irresponsible officer behavior, and lower levels of community trust (Carless, 2006). The importance of the mission and the value system of the law enforcement organization is important in the eyes of the public, of public perception, and of protection of resources and image. Any form of negative publicity can have a profound effect on the sustainability of organizational outputs and organizational image. Gainey and Payne (2009) reported that in most jurisdictions, the success of a law enforcement department is at least partially defined by the way that the public perceives, and supports the law enforcement organization. Theory and research suggested that those who doubt the legitimacy of the system are less likely to abide by it (Piquero & Bouffard, 2003; Sherman, 1993; Tyler & Degoey, 1995). Negative perceptions of the law enforcement agency will hinder public support, cooperation, and even reliance on the agency, even when truly needed (Gainey & Payne, 2009). Finally, negative perceptions of the agency deter individuals from supporting agency activities or even reporting crime (Sun, Triplett, & Gainey, 2004; Triplett, Sun, & Gainey, 2005). These problems can arise

from commissioning officers who are not fully trained and prepared for law enforcement work. The second and equally important impact of a comprehensive training program is that training cadets is expensive. Saks and Belcourt (2006) reported that organizations spend billions of dollars each year on formal training and development programs with the expectation that this training and investment will lead to improvements in organizational performance. This is supported by the work of Cascio (1999) and Malouff and Schutte (1986). This statistic adds to the importance of a thorough training academy from which only the top cadets can emerge. In addition, the power and authority granted to law enforcement officers is unlike that granted on most employees hired. As Sanders (2008) indicated, the job of policing is unique in the amount of power and authority its entry-level employees are given; thus, law enforcement agencies are expected to implement comprehensive training procedures that protect the community from underprepared or incompetent law enforcement officers. Moreover, the community expects greater competency from its law enforcement organization officers (Whetstone, Reed Jr., & Turner, 2005). Stone and DeLuca (1994) expressed that officers today are expected to possess self-discipline, patience, attention to detail, knowledge of the law, superior communication skills, and an understanding of the scientific principles grounded in several disciplines. These are skills which must be assimilated in the training academy.

Perhaps the most effective tool in the training of cadets is to conduct a specific job analysis for the organization. Through the identification of the competencies and personal attributes of a successful officer within the law enforcement agency, the organization can then train cadets in a manner that is specific to their new role. Every work environment is different. Furthermore, each state is different and faces different dimensions of crime. As such, each agency must prepare their cadets to specifically meet the needs of their state.

### **The Law Enforcement Academy**

August Vollmer established the Berkley Police School in 1908. This school is largely considered to be the first formal school for law enforcement officers in the United States (Carte & Carte, 1975; Conser, Russell, Paynich, & Gingerich, T., 2005). While other academies such as the Cincinnati Police Academy (1888) and the New York City Police Department's School of Pistol Practice (1895) preceded the Berkley Police School, the Berkley Police School was regarded as the first comprehensive academy (Conser *et al.*, 2005; Walker & Katz, 2002). In the same historical span, the Pennsylvania State Police opened their academy in 1906. While these schools provided training to law enforcement officers, pre-service training for new recruits was not initiated until 1909 when New York City established the first formal law enforcement training academy (Conser, *et al.*, 2005).

The law enforcement academy experience serves several functions for new cadets in law enforcement occupations. First, the academy provides formal training for new officers (White, 2008). This formal training includes both technical skills such as self-defense and use of weapons, as well as knowledge skills training such as criminal and constitutional law and policing in the community (Walker & Katz, 2002). During this time, cadets are exposed to a myriad of educational experiences from which they are taught the basics of the policing role. Second, the academy experience serves as the process for weeding out those who are either ill-prepared or unqualified to become law enforcement officers. A final function, as reported by Walker and Katz (2002) is that the academy serves as, "a rite of passage that socializes recruits into the law enforcement culture. This subculture includes a strong ethos of identification with the profession, the department, and fellow officers" (p. 410). Goals of the academy are to indoctrinate cadets into the ways and means of the organization; to instill the shared mission and values; and, to break cadets of any previously learned practices that are not applicable to their

new environment. In the academy, the cadet has an opportunity to build his/her technical and interpersonal skills, as well as establish a social capital from which to draw upon throughout his/her career.

Bradford and Pynes (1999) contended that academy curriculum has not changed in practice since 1986. Bradford and Pynes (1999) further reported that less than 3% of basic-training academy time is spent on cognitive and decision-making domains, and more than 90% of basic training academy time is spent on task-oriented training that instructs cadets in the basic repetitive skills and conditioned responses necessitated for field performance. This speaks to the consistency present in most training academies, and to the action-based curriculum necessitated for adequate field performance. Buerger (1998) captured similar results in his report that recruit training skills tend to focus on the basic everyday skills and legal training – use of criminal and motor vehicle codes, defensive tactics, firearms, defensive and pursuit driving, report writing – needed to perform law enforcement work.

In most states academy curriculum is established by following state and training board standards which benchmark the minimum number of training hours required to certify curricula. Many state law enforcement agencies exercise full control over how the academy curriculum is delivered, and by whom the cadets are instructed. In some states, colleges, universities, law enforcement agencies, and state agencies sponsor training academies, while in other states training boards may oversee regional training academies and mobile training units (Bradford & Pynes, 1999). Thus, despite the efforts to provide a national academy curriculum and a benchmarked number of training hours required for certification, there is great variation in the amount of training, the courses offered, and the minimum number of hours of training from state to state and from agency to agency. The Law Enforcement Foundation (2001) identified 12 important officer competencies through a job analysis conducted for university police, municipal

police, and state patrol officers. These competencies were: high moral/ethical standards; unbiased and understanding of diversity; service orientation; team orientation; good oral communication and listening skills; good written communication skills; high levels of motivation, strong decision-making and problem-solving skills; good human relations skills; self-control and discipline; good planning and organization skills; and, a performance-driven attitude. Corporate universities are one of the most fundamental and cost-effective ways to train employees with the skills required to remain competitive in the new economy and the rapidly changing environment (Gerbman, 2000). In this sense, the training academy must work to instill these competencies in the cadets it is charged to education and train.

Academy training provides the formative knowledge and experience for recruits and represents a critical first step in fielding professional and skilled officers (White, 2008). The focused learning of the formal work processes established in the academy provides established indicators of recruit performance in the academy. Thus, focusing on the academy stage creates an opportunity to address the identification of predictors of high-quality law enforcement performance in the field (White, 2008). Academy training will vary by state, with the length of time dependent on several factors, among which are the number of cadets, the region of the country, the operational budget, and the size of the cadet class. Despite this variance, the academy training structure provides participants with classroom experiences and practical application opportunities to learn job specific skills that are required for on-the-job application.

Reaves (2009) gathered the following statistics from state and local law enforcement academies in the United States for the U.S. Department of Justice:

- State and local law enforcement training academies employed about 10,000 full-time instructors and 28,000 part-time instructors during 2006;

- Academy operating expenditures averaged about \$1.3 million, with an average of \$16,000 spent per recruit who completed training in 2005 (cost in the Southeastern region of the United States for a cadet to complete a training academy was calculated near \$9,000 per cadet with the total cost to the department of nearly \$500,000). Academies operated by state Peace Officer Standards and Training (POST) commissions spent an average of \$3.6 million, while those operated by state police or highway patrol agencies averaged \$2.9 million;
- An estimated 57,000 recruits entered basic training programs during 2005. On average these programs included 761 hours of classroom training, 33% had additional mandatory field training components which averaged 453 hours, and 86% of recruits completed their basic training program and graduated from the academy. State police academies averaged 881 hours of training while POST commissions had an average of 604 hours;
- 57% of state police academies included a field training program in their requirements to finish basic training where 8% of POST commission academies had the same requirement;
- State POST academies had a completion rate of 95% while state police academies averaged a rate of 81%;
- In 2006 there were 44 state police academies and 25 POST academies;
- Recruits spent the most time learning firearms skills (median of 60 hours) and self-defense skills (51 hours). Nearly all academies also trained recruits in procedures related to patrol, investigations, and emergency vehicle operations with a median instruction time of 40 hours each; and,

- A majority of academies used knowledge tests constructed by a state POST commission or other state-level agency (59%) and state competency exams (56%).

Problem-oriented policing requires officers to seek out unique solutions that are most appropriate for specific problems encountered (Eck & Spelman, 1987; Goldstein, 1979). As such, the training academy must present to cadets an opportunity to think critically, solve complex problems, and develop the self-efficacy needed for future job performance. The balance, however, must come in presenting to cadets the theory and practice that makes responses in critical situations rote and automatic and the opportunity to establish a foundation for the discretion necessary to act and react appropriately. The academy, therefore, must act to provide job-specific knowledge in an environment that most closely resembles the job climate in which it will be utilized.

### **The Academy as a Corporate University**

In many ways, the law enforcement academy has modeled corporate university training programs in the private and public sector of American business. General Motors is believed to have launched the first corporate university when it acquired a night school that trained workers from the automobile industry in the 1920's. The General Motors Institute (GMI) served GM exclusively for 56 years with a focus on engineering and management skills (Morin & Renaud, 2004). Subsequently, many corporations launched their own in-house training programs to help develop their employees. Offering a global and structured training plan rather than focusing on isolated actions, corporate university training represents a better tool than off-the-shelf training when it comes to allowing an organization to adapt to the constant changes required to survive in the business environment (Morin & Renaud, 2004). Gallagher (2000) indicated that most U.S. organizations value a corporate university because, in addition to "sharpening the competitive edge of their own companies through improved individual and group performance" (p. 9), a

corporate university answers the need to “encourage employee loyalty in a tight labor market...and...to reduce turnover and labor costs” (p. 12).

Organizations have been investing in training activities at an increasing rate, partly due to a shift towards a knowledge economy that requires a high level of competency development (Tannenbaum, 2002). The role of the law enforcement academy is no different in its purpose – to build and refine the knowledge, skill, and competencies required for law enforcement work within a particular department or agency. A review of the literature showed that there is no one commonly accepted definition for a corporate university mainly due to the diversity in their structure. Martel (2001) asserted that a corporate university is a means for organizational transformation that is used to develop knowledge and skills, implement organizational changes and strategies, and share corporate vision and values. Panczuk (2001) suggested that a corporate university is a strategic tool to be used to develop, reinforce, and share an organization’s culture as well as a place to exchange, reflect, and challenge ideas. Meister (1998) previously added that the corporate university represents a strategic action aimed at developing and educating the value chain of the organization – namely employees, customers and suppliers – in order to sustain a competitive advantage. Wheeler (2002) provided a more practical perspective on the definition by adding that a corporate university is a function or department that is strategically oriented toward integrating the development of people as individuals with their performance as teams, and ultimately as an entire organization. The law enforcement academy, in its systematic approach to learning and holistic perspective in teaching, models the corporate university as a means of delivering a consistent, methodological curriculum from which all of its incoming cadets can be prepared to transfer and apply the new knowledge they have gained in a practical setting after completion of the academy courses. As such, the academy is an investment by the



law enforcement organization in its human capital and it ensures that the agency continues to evolve with the needs of its workforce as dictated by the demands of a changing society.

### **The Academy, Human Capital and the Transfer of Knowledge**

Human capital is most valuable and most inimitable when it is firm-specific and resides in the environment where it was originally developed (Hitt, Bierman, Shimizu, & Kochhar, 2001; Klein, Crawford, & Alchian, 1978; Lepak & Snell, 1999). To this end, the law enforcement academy succeeds when it instills in cadets the knowledge, values, and ethos of its organization specific to the needs and developmental values necessary for the organization to continue to survive, evolve, and thrive in its existing environment. The ability of cadets to learn is enhanced by their human capital investments in experience and problem solving (Hitt *et al.*, 2001). This becomes important as the cadet graduates from the academy and moves to the field officer training program. The organization benefits by creating a specialized level of human capital, which when applied to the system, can lead to greater organizational learning, knowledge, and progress. As employees acquire increasingly firm-specific knowledge, they are capable of making increasingly unmatched contributions to the learning performance of the firm (Hatch & Dyer, 2004). The key process, however, is learning transfer – the movement of learning to action and application.

Fitzpatrick (2001) reported that in general learning interventions, only about 10% of what is learned in training is applied on the job. This is a serious problem for the law enforcement academy, especially given the highly technical and specialized curriculum to which cadets are subjected. Add to this the seriousness of the law enforcement role, and learning transfer bears a significant influence on organizational outcomes and results. According to Baldwin and Ford (1988), transfer of training involves the generalization of learning, trained skills, and behaviors from the training environment to the work environment, and the maintenance of trained skills

and behaviors or the length of time that trained material is used on the job following a training program.

Holton, Bates, and Ruona (2000) identified the transfer system as “all factors in the person, training, and organization that influence transfer of learning to job performance” such as supervisor support, peer support, perceived content validity, transfer design, and opportunity to use new skills on the job (pp. 335-336). For the law enforcement academy, a measure of training transfer can be found in the field training officer program, the time in which the cadet, under the supervision of a training officer, is allowed to autonomously apply their learned knowledge and skill on the job. In this, one may find a measure of the transfer system as described by Holton et al.

### **Field Training Officer Program**

When a cadet is selected for participation in the academy, it signals the beginning of an extensive and intense basic training program in which the cadet is to learn the fundamentals of his/her new role and acquire the basic competencies required to perform the job of a patrol officer. However, most cadet training programs leave a wide gap between the classroom and the “real world” of law enforcement work (McC Campbell, 1987). Field training officer programs should play an important part in the effective training of new recruits and in facilitating the transfer of knowledge gained in the academy through exposure to real experiences where the learned knowledge is applied. Field training is also used to see if a new recruit can function effectively as a law enforcement officer; the result is a better-trained and better-qualified law enforcement officer (McC Campbell, 1987). In combination with proper recruiting, selection, and training processes, field training programs can reduce the number of civil liability complaints and lawsuits against the law enforcement department (McC Campbell, 1987). Sanders (2003) stressed the importance of training recruits well, teaching them the correct skills, and evaluating

them early and often as poor training or bad first experiences can ruin new recruits. Ellison and Getz, (1983) surmised that early socialization, on-the-job training, and the selection of field training officers are imperative in the success of any training program.

The first formalized training officer program was designed and implemented in 1972 in San Jose, California. The program was considered a mentorship program, and involved assigning experienced law enforcement officers, known as Field Training Officers (FTO's) to newly commissioned officers. The goal was to provide tangible, on-the-street training, evaluation, and retraining when necessitated. The ultimate goal was to ensure that the recruit cadet officer not only knew the law and departmental policies, but also was capable of handling responsibilities on the street before being allowed to work alone in the field (McC Campbell, 1987). The current adaptation of the model, which has not changed very much from the original, consists of some formalized and standardized method of training and performance evaluation by the FTO. The field training program continues until the trainee successfully makes the transition to an independent patrol officer or is dismissed for failure to meet the requirements of the job.

The San Jose Model of field training is divided into phases in which the trainee will rotate through a number of FTO's who independently measure the newly graduated officer's performance and provide them with continuous feedback. During each phase, the new officer is introduced to more complex tasks of law enforcement. During the final phase, the new officer is evaluated on his/her performance by the FTO while he/she performs his/her actions independently. If the officer is successful, he/she exits the probationary period.

It was not until the early 1970s that reformers in law enforcement administration began to call for an organized and systematic approach to field training programs. Wilson and McLauren (1972) surmised that a field-training program should be an integral part of recruit training, and that training should provide a smooth transition from the classroom to practical application.

Goldstein (1977) added that recruit training programs would make a substantial advancement if they were realistically designed to equip an officer to perform required functions. Roberg (1976) recommended that following academy training, a new officer should experience a minimum of four months in a myriad of field experiences. Territo, Swanson, and Chamelin (1977), viewed the training as a human resource development intervention that would serve to close the gap between the classroom experience, and actual on-the-job application. They believed that the FTO program should not supplement academy training, but rather synergize the learning experience into a more holistic representation of the policing function.

The seminal FTO research was presented by McCampbell (1987) in which he summarized a sample of data with respect to field officer training programs. McCampbell found:

- Field training programs have become institutionalized in American law enforcement practices;
- FTO programs (at the time) were relatively new;
- Over 57% of the institutions that used an FTO program used the San Jose Model as the foundation of their program;
- Over 94% of respondents reported that field training programs originated from recognized personnel problems and the need to improve the recruit training process;
- FTO programs are associated with a reduction in civil liability complaints;
- FTO programs are associated with a significant decrease in the number of successful EEO judgments made against law enforcement agencies;
- FTO programs were being used as a continuation of the recruit selection process;
- Evaluation is an important part of most FTO programs;

- The field training officer is the single most critical position within the field training program; and,
- The major benefits of FTO programs are: standardization of the training process, better documentation of recruit performance and nonperformance, and a resultant ease of dismissal of recruits who fail to perform during the program.

In the end, McCampbell concluded that the FTO program is an excellent way to bridge the gap between the classroom and performing the actual job while offering the agency a better opportunity to evaluate a new employee's suitability for law enforcement work.

### **Performance Measurement**

Most professions observed have some tangible, objective measure of productivity by which performance is measured, and thus labeled according to quality of performance. The fire department, the occupation considered to be most closely related to policing, has such a clear mandate of performance: to prevent fires and to extinguish as quickly and safely as possible those fires it could not prevent (Skolnick & Fyfe, 1993). The problem for law enforcement work is that no such simple measure can be established and reported. Several studies have measured field performance with supervisor ratings or peer ratings, while other research has focused on training academy graduation or training exam scores (Falkenberg *et al.*, 1991; Burkhart, 1980). Still other research has focused on the amount of turnover experienced through reports on troopers quitting or being fired (Burkhart, 1980). According to Falkenberg *et al.* (1991), there is "no consistent pattern in the research findings on which a coherent theory of performance appraisals can be based" (p. 356). Falkenberg *et al.* (1991) suggested that good policing is not trait-based, rather that specific, important tasks should be identified through job analysis and officers should be rated on those recognized tasks.

In reviewing the performance activities of law enforcement officers, it becomes clear that the amount of time spent on work-tasks relating to the traditional policing performance measures (crime or law enforcement activities) is actually relatively small (Bond, 1996). Law enforcement officers also provide a service role to the community in at least half of their tasks. The amount of time spent on these essential, but non-traditional work tasks which do not relate to core functions, often makes law enforcement agencies appear inefficient (Edwards, 1999). As reported by Scott (1981) and Wilson (1968), the traditional view of the law enforcement performance mandate – preventing and controlling crime-related activities – is inadequate, as law enforcement officers spend only 10% to 20% of their time on such crime-related activities. As reported in the mission statements provided previously, there are many avenues to measure officer performance and form a basis of what performance measurement should be.

Law enforcement departments have long struggled with how to effectively measure, and in many ways, promote high-quality performance (White, 2008). Departments have traditionally relied on crime-related activity measures such as arrests and tickets to quantify “good performance”. This approach was labeled the “numbers game” by Skolnick and Fyfe (1993). White (2008) stated, “the issue here is that high-quality law enforcement performance is typically determined by measuring an activity where two-thirds of the work is missed (because of unreported crime), which represents only a small part of their overall responsibilities (noncriminal duties compose the majority of the work), which often does not involve the best course of action (proper use of discretion often dictates against generating numbers), and for which the causes far exceed their purview (social disorganization, family disruption, peer influence, etc.).” At the department level, performance is seen as a function of changing crime levels: if crime decreases, then the law enforcement agencies are performing accurately (White, 2008; Skolnick & Fyfe, 1993). While much has been written in the literature on law enforcement

performance in the last few decades, much of that research has focused on organizational effectiveness rather than individual officer job performance (Sanders, 2008). This fact further complicates individual performance measurement.

It would make sense that organizational effectiveness and individual effectiveness would be measured in a similar fashion: high activity equates to acceptable performance. Rubinstein (1973) stated:

Activity is the internal product of police work. It is the statistical measure that the sergeant uses to judge the productivity of his men, the lieutenant uses to assure himself that the sergeant is properly directing his men, the captain uses to assure superiors that he is capably administering his district, and the department administrators use to assure the public that their taxes are not squandered (p. 44).

Within the law enforcement performance appraisal literature, there is disagreement about how officers should be evaluated and by whom (Falkenbert *et al.*, 1991). Further complicating the measurement of performance is the fact that appraisal systems tend to vary between agencies and research studies (Falkenbert *et al.*, 1991). Many agencies rely on annual personnel assessments made by supervisors that are designed to account for street-level enforcement activity, compliance with agency rules, and general work history. Two criticisms have been regularly voiced concerning annual evaluation processes. First, questions have been raised over whether the evaluation instruments measure the tasks officers regularly perform during their typical work shift. As an example, are the assessments used fluid enough to adapt to the changing daily demands placed on officers under problem-oriented policing? Are the assessments reliable given the complexity of the job and the variation seen from officer to officer by geographic location, time, and situational organizational attributes? Second, there are questions about whether ratings reflect supervisor perceptions or actual police performance (Doerner & Hunter, 2006). There is agreement, however, in the realization that policing is more of a craft than a science, and good

policing is not neatly measured by counting arrests (Bayley & Bittner, 1997; Fyfe, 1999; Muir, 1977).

White (2008) added that in order to supplement and improve existing performance measures, the following measures should be considered:

- Expanded or enhanced performance evaluations that consider a broader range of performance indicators;
- Peer evaluations;
- Community satisfaction and community contracts;
- Relying on the natural performance measuring capacity involved in problem-oriented policing and CompStat-like strategies, where assessment is an integral component; and,
- Peer comparisons (Walker, 2005; White, 2007).

Moore and Braga (2003) argued that the only way law enforcement manages to acquire a strong current of accountability throughout the organization is to build behind them a powerful, persistent constituency that demands from their organization the same things that they are demanding, and to attach a measurement system to those particular values. One of the key issues in using performance measurement has been whether the measures should focus on the ultimate results of policing, the organization's efforts to produce these results, or the investments made in the public (Walters, 1998). Recently, those advising public organizations about how to improve their accountability and performance have emphasized the use of outcome measures rather than activities or outputs (Moore & Braga, 2003). This has grown from the fact that the nature of law enforcement work has evolved substantially to the point where the general public expects and demands more than just crime-fighting actions from officers. Add to this the idea that law enforcement officers are given so much authority, especially for new cadets: the powers to stop,



to detain, to arrest, and to use force to accomplish these goals, and the measurement of performance becomes increasingly important, and difficult (Moore & Braga, 2003).

### **Approaches to Law Enforcement Performance Measurement**

Given the varying opinions on the measurement of performance, it is no surprise that the literature has taken several different approaches when reporting performance measurements. Sanders (2008) in her comparison of personality traits and law enforcement performance utilized a standardized performance evaluation system used by the supervisors in her sample. The evaluation captured performance on the scales of job knowledge, quality of work, cooperation, responsibility, initiative, quality of work, dependability, and interaction with the public. Sanders (2008) further measured performance by asking law enforcement chiefs to rank from 1 to n, all of the law enforcement officers in the department. Forero, Gallardo-Pujol, Maydeu-Olivares, and Andres-Pueyo, (2009) examined the categories of training attitude, job efficacy, motivation for law enforcement tasks, responsibility, practical judgment, initiative and autonomy, adaptation to norms, integration in the team, social skills, and tolerance and flexibility.

Simmers, *et al.*, (2003) compared personality inventory scores to more general measures of performance including, but not limited to, absence, academy success, positive reports, demeanor/attitude, negative reports, lateness, and reprimands. Lough and Ryan (2005) categorized performance as the number of sick days, stress claims, non-stress claims, days off due to stress claims, days off due to non-stress claims, public complaints, internal investigations, and moving vehicle accidents in their study comparing performance to the effectiveness of psychological profiling. Finally, White (2008) used academy performance in the classroom as a measure of performance to help predict performance in the field.

Burkhart (1980) reported that most law enforcement performance studies have focused on one of three categories: academy training performance, job retention, or supervisor ratings.

Burkhart (1980) also acknowledged problems with each of the measures. First, because the academy is somewhat unrelated to the demands of law enforcement work and it operates in a controlled environment, there is no clear evidence that shows that academy training performance can be generalized to job performance. Job retention, while an important and useful measure because of its potential cost savings to state patrol agencies, does not measure what qualities make a good trooper. Finally, supervisor ratings have been called into question by various studies where a negative relationship was found between intelligence scores and supervisor's ratings of intelligence and common sense (Burkhart, 1980).

### **Predicting Law Enforcement Performance**

Moving from performance measurement to performance prediction is a substantial step in the literature, and one that has practical application for law enforcement departments. There are different approaches to this process delineated in the literature; however, there is no consistent pattern of performance measurement methodology which to use (Falkenberg *et al.*, 1991). Choosing what to measure is difficult, and measures vary widely even within the law enforcement performance literature (Sanders, 2003).

Approaches to the prediction of officer performance have been based on measures of personality and individual characteristics. These approaches have produced varied results, in part due to limitations in measurement. There have been a number of efforts at predicting performance or at least identifying factors associated with either poor or exceptional performance with mixed results (White, 2008). The vast majority of this work has focused on personality traits measured through tests such as the Minnesota Multiphasic Personality Inventory (MMPI), the Inwald Personality Inventory (IPI), the Personality Assessment Inventory (PAI), and the California Personality Inventory (CPI). These tests generally capture the "Big Five" personality constructs: extroversion, neuroticism, agreeableness, conscientiousness, and

openness to experience (Costa & McCrae, 1992; Sanders, 2003). There has been some success in linking various subscales of tests to specific negative outcomes such as termination and turnover (Weiss, Zehner, Davis, Rostow, & DeCoster-Martin, 2005). However, several researchers have concluded that such tests hold little predictive value particularly with regard to identifying good performers (Ash, Slora, & Britton, 1990; Aylward, 1985; Dwyer, Prien, & Bernard, 1990). Sarchione, Cuttler, Muchinsky, and Nelson-Gray (1998) and Ones, Viswesvaran, Cullen, Drees, and Langkamp (2003) indicated that selected psychological constructs may be useful in predicting a wide range of law enforcement behavior.

Roberts, Chernyshenko, Stark, and Goldberg, (2005) found that those traits which make up the conscientious factor (industriousness, self-control, responsibility, traditionalism) have been shown to predict work dedication as well as social and health-related behavior. Sanders (2008) found that the Big Five traits did not predict officer job performance, regardless of how performance was measured. Sanders (2008), however, did find that officer age was an important predictor of performance. Bartol (1982), Bartol (1991), and Daniels and King (2002) found that certain subscales and certain questions of the MMPI were decent predictors of unsatisfactory policing. Simmers, *et al.*, (2003) found that there is a significantly greater correlation between the IPI and law enforcement officer job performance (see above) than there is between the MMPI and law enforcement officer job performance. Cortina, Doherty, Schmitt, Kaufman, and Smith (1992) found no evidence that the MMPI added significantly to the predictive process. Hiatt and Hargrave (1988) reported that the MMPI is not an accurate predictor of good performance; Pallone (1992), however, refuted the finding. Such findings, using the MMPI and the CPI, make it evident that there is little to no consensus regarding the ideal profile for law enforcement officers (Lough & Ryan, 2005).

Black (2000) found significant univariate correlations between the neuroticism, extraversion, and conscientiousness domains of the NEO Personality Inventory Revised, and a global measure of performance that included academic performance, physical performance, the handling of firearms, driving, and other skills. When considering a multivariate approach, Black (2000) found that the conscientiousness domain added predictive power to the isolated measures of cognitive ability used, attaining a multiple correlation of .42 when using both sources of information. Detrick *et al.*, (2004) extended the work of Black, finding there were more specific relations between personality and individual skills (e.g. academy performance, firearms performance, physical performance, respectively and individually).

Prior research also examined intelligence and education level as predictors of law enforcement performance. White (2008) reported that there is a fair amount of research suggesting that intelligence (measured through IQ) is related to performance in the law enforcement academy. However, Burbeck and Furnham (1985) illustrated that there is little evidence of a relationship between intelligence and street performance. Burkhart (1980) and Rafilson and Sison (1996) suggested that intelligence testing can serve as a good screener for selection and training by weeding out those “with the most glaring emotional, cognitive, or background problems,” but such a test is much less effective at differentiating among those who will perform at various tiers of structured performance (Sanders, 2003, p. 314). Studies find no difference in performance among college-educated and non-college-educated officers, while others have found an association between college education and positive performance (Walker & Katz, 2002; White, 2007). Goldstein (1977) found that college-educated individuals tend to be more flexible, less authoritarian, and less dogmatic in their beliefs. Further, it was shown that law enforcement officers with some college experience (Smith, Locke, & Walker, 1968) and those with college degrees (Smith, Locke, & Fenster, 1970) were significantly less authoritarian

than their non-college-educated colleagues. There is some evidence to indicate that college-educated officers have a greater acceptance of minorities (Weiner, 1976), are more professional in their attitudes (Miller & Fry, 1978) and ethical in their behaviors (Tyre & Braunstein, 1992). Paoline and Terrill (2007) found that a four-year education significantly reduced the reliance on force used by officers in the day-to-day interaction with the public. Roberg (1978) indicated that officers with “college degrees had the most open belief systems and the highest levels of job performance, indicating that college-educated officers were better able to adapt to the complex nature of the police role” (Roberg, 1978, p. 344).

White (2008) found that the best predictor of being a top performer is reading level, specifically reading at the 12<sup>th</sup>-grade level or higher. Finally, Henson, Reynes, Klahm, and Frank (2010) found a significant relationship between overall academy performance as measured through a cumulative score in various academy factors, to be significantly related to the first year officer performance in the field. These findings are not surprising and suggest that higher education is simply another tool, along with training and experience, which allows officers to become more effective performers (Roberg & Bonn, 2004).

### **Predicting Performance in the Academy**

White (2008) reported that there has been little research examining predictors of law enforcement academy performance, and that when such research takes place, the emphasis has been on personality traits. As such, there has been some disagreement over the value of academy training, and consequently, its relationship to job performance. Many researchers argue that the role of policing is more of a craft than a profession. The challenge for the academy is to link the learning interventions to the specific situations and circumstances that officers will face in the field. The creation of the field training officer program has worked to bridge the gap between what is learned in the formal setting and what is seen on the job. Bayley and Bittner (1997)

argued that even if policing is a craft where formative experiences occur on the street, learning can be “accelerated and made more systematic” by relevant academy training. The importance of academy training, performance measurement, and prediction of performance is logical in that a poor performer in the academy is at greater risk of performing poorly during their initial time on the job. Proponents of experience, and the “policing as a craft” argument (Bayley & Bittner, 1997), focus on the benefits of repetitive exposure to the various situational contingencies of policing. Given that the most powerful explanatory factors of police behavior are the situational characteristics of police-citizen encounters (Riksheim & Chermak, 1993), it would make sense that varying levels of situational experiences will result in differences in the way encounters are handled by officers. This only adds to the importance of academy training and the variety of experiences that the newly commissioned officer is exposed to during the FTO program. In the same breath, it strengthens the importance of the relationship between the training academy and field performance. To this end, however, the literature is incomplete in exploring the link between academy performance and field performance (White, 2008).

### **Law Enforcement Social Capital**

Like employees in other work organizations, law enforcement officers rely on work relationships for information, access to opportunities, and support to increase the likelihood of productivity (Robinson, 2003). The cadet has an opportunity to establish a social support network through participation in the law enforcement academy and through participation in the field training officer program. Social capital posits that relationships allow individuals to gain access to resources they would not be able to access on their own (Coleman, 1988; Kao, 2004). Social capital is considered a resource that a person can accumulate over his or her lifetime and that can be operationalized in an effort to benefit the self (Wall, Ferrazzi, & Schryer, 1998). In the sociology literature, social capital refers to relationships among individuals, networks of

relationships, and people's "ability to mobilize a wide range of personal social contracts" (Newton, 1997, p. 577). The literature has identified four dimensions of relationships that should be assessed when studying social capital: level of trust, cooperative exchanges, group cohesion, and social support (Robinson, 2003).

In the academy, a cadet is to build trust with the other cadets in the class and establish a trusting relationship with the officers in charge of their development. Further, the cadet entrusts the FTO with teaching him/her the technical and cultural dimensions of the job once he/she completes academy training. The relationship between the FTO and the cadet is vital in helping to assimilate what has been learned in the academy and helps to provide future organizational effectiveness.

Social capital researchers often refer to "norms of reciprocity," that when present in social relationships increase the potential of those relationships to be a resource (Robinson, 2003). The underlying logic is that this type of norm makes people give back in exchange for taking. Past researchers have investigated norms of reciprocity, or cooperative exchanges by looking at patterns of giving and receiving in a community (Hofferth & Iceland, 1998), or analyzing actions one person in a relationship took that helped the other person maintain or acquire certain resources (Frank & Yasumoto, 1998). In policing, these cooperative exchanges help to breed the level of trust and "all-for-one" attitude that is pervasive in the law enforcement culture. At the academy level, cadets must learn to not only take from the system, but also provide something in exchange to help strengthen the overall effectiveness of the organization and build better teams and troops. For the FTO the program is seen as a cooperative exchange where the FTO provides training, coaching and mentoring, and in return hopes that the cycle can perpetuate itself into the future.

It is assumed that cohesive groups, or groups that have members who are supportive or trustworthy of each other, share norms, and/or have similar beliefs, will have more social capital (Robinson, 2003). Social ties that have emotional density, for example, with a high level of mutual confiding and intimacy, are believed to increase social capital (Granovetter, 1973). The assumption is that groups that get along and share similar beliefs and characteristics will have more social capital than groups whose members are antagonistic or have very different beliefs or values (Bursick, 1999). The importance of the law enforcement academy then comes into full view. The academy is seen as a place to break individuals down and build them back up in the mold of the organization. This is part of the importance of academy training, why cadets may be required to room at the academy, and why team cohesion and group identity are such important characteristics of a successful academy class.

Social support is the dimension of social capital that has been closely tied to the actions of people in a social relationship that help one member accomplish a particular goal. Social support is usually measured in the context of the family, the workplace, or the community. It is expected that high levels of social support make positive outcomes more likely, while these outcomes are more difficult to obtain in its absence (Robinson, 2003). At the FTO program level, new officers are able to forge a social network with their FTO and other officers; moreover, they receive job and performance feedback that allows them to reinforce their strengths and redirect areas of negative behavior and performance. It is important for this social support to be timely, accurate, job-specific, and genuine or the new officer may lose the motivation to serve and to perform.

The literature revealed the importance of law enforcement groups on law enforcement behavior – the exchange of social capital and performance. Research has shown that officers marginalized or excluded from their peer group have suffered a lack of acceptance, a denial of



needed information, sponsorship, and promotion opportunities (Buzawa, 1981; Ellison & Genz, 1983; Holdaway & Barron, 1997). These issues can subsequently affect work experiences, performance, and advancement within law enforcement organizations (Robinson, 2003). Without the benefit of social capital in their work relationships, officers face tougher performance challenges than those officers with a greater amount of social capital. As Robinson (2003) hypothesized, officers who have relationships with peers and supervisors that are rich in social capital will be more productive than officers without similar levels of trust, cooperation, or support to engage in various activities.

Social capital theory identifies people with decision-making authority, such as supervisors, as targets who may be especially important contributors to one's stock of social capital (Wood, 1997). Positive relationships between officers and supervisors are so vital to efficient law enforcement work that programs specifically designed to increase positive interaction between the ranks have been suggested (Beck and Wilson, 1997). As documented by Van Maanen (1983), officers rely on supervisors for much more than just information. They also seek support and evaluations of their performance.

Mills and Stratton (1982) reported that personality explanations of behavior may not be as important as the effect of the organization and the job environment. Mills and Stratton (1982) and Dwyer *et al.* (1990) found that normal individuals can act rather abnormally given a stressful or difficult situation. Similarly Aylward (1985) and Walker (1986) stressed the impact that job environment, occupational socialization, and job stress can change individuals and their behavior. Walker (1986) cautioned that blaming misbehavior on individual officers or a flawed selection process ignores the socialization impact on behavior. Walker argued that honest, moral officers with desirable personality traits at the onset of their appointment can find themselves engaging in misbehavior if the law enforcement organization supports, condones and socializes

officers into such behaviors. Moreover, Aylward (1985) found that it was the job of policing that accounted for officers' social adjustment problems. Burkhart (1980) also found that one of the unique features of law enforcement work is the power of peer groups. Burkhart continued that those who do not fit in with peers may find themselves isolated, alienated, and eventually quit the force. Sanders (2003), concluded that organizations that stress good behavior have officers with good personality traits and they are free to follow those predispositions.

### **Performance Appraisal Systems**

The evaluation process is a key component of the field training officer program. McCampbell (1987) suggested that in order for FTO evaluation to be most successful, the areas of evaluation should be based on a task analysis of the patrol officer's job. This is a starting point for the evaluation conversation. In addition, Coutts and Schneider (2004) identified five key components of effective performance appraisal.

The first factor for an effective performance appraisal system is to ensure that the system focuses on performance variables as opposed to personal traits (Smither, 1998). Jewell (1998) noted that the validity and reliability of trait-based performance appraisals is highly suspect because the rater's perceptions may bias the appraisal process and thus have little to do with the actual performance of the individual. The event of documenting and providing feedback on non-performance traits weakens the appraisal process and denies the supervisor the credibility necessary to actually correct performance problems when they do arise. Further, keeping the appraisal process focused on job-specific outcomes protects the process from legal recourse (Malos, 1998). McCampbell (1987) recommended that an FTO recruit be assigned to multiple FTO's during the field training experience to prevent the possibility of bias and personality conflicts that could interfere with the rating and training process.

Second, employees must believe that they have an opportunity for meaningful input into the appraisal process (Gilliand & Langdon, 1998). Giving the employee a voice in the process, helping to map out goals and objectives, or providing feedback into the actual appraisal helps to engage the employee in the process, and creates a cooperative trust between the supervisor and the employee. This also helps to ensure that the process remains fair in the eyes of the employee. Without this, “a system that is designed to appraise, reward, motivate, and develop can actually have the opposite effect and create frustration and resentment” (Gilliand & Langdon, 1998, p. 211).

A third component of effective performance appraisal systems relates to the frequency and nature of FTO feedback. For maximum effectiveness, a continuous performance-based feedback process should exist (Henderson, 1984). The effectiveness of feedback is reliant upon candid, job-specific, timely feedback by the FTO to reinforce quality performance and correct poor performance. This process will involve trust on both sides of the evaluation process. McCampbell (1987) recommended that FTO’s should evaluate the new officers daily so that they can have immediate feedback on performance through daily evaluation.

An effective performance appraisal should provide the opportunity for the supervisor and employee to promote the achievement of individual and organizational goals (Coutts & Schneider, 2004). Thus, the appraisal serves to clarify performance standards and expectations (Lowenberg & Conrad, 1998) and provides the medium for supervisors and employees to negotiate mutually agreed-upon goals (Katzell, 1994). In the law enforcement organization, this should serve to align the mission and goals of the organization with the tasks performance expectations of the officer and to align the developmental activities of the officer with his/her future goals and aspirations. To this end, this process should also take a systems theory approach, and consider the changes in the job which may be experienced in the near future. McCampbell

(1987) suggested that agencies should use standardized guidelines to reduce FTO discretion in the evaluation of recruits and provide for more consistency in the evaluation process.

Finally, performance appraisal will only be as effective as the task-relevant skills and knowledge of those responsible for using it, and the attainment of such skills and knowledge will require training (Coutts & Schneider, 2004). Thus, it is important to train the FTO in the evaluation process, the specific tasks in which they are rating their employees, and proper use of the evaluation process and forms. This will ensure consistency in the process throughout the organization. McCampbell (1987) recommended that all FTO undergo a complete training and development with a minimum of 40 hours of training before they are allowed to assume their duties in the FTO program. This will also help ensure that all evaluation models are consistent and the FTO understands the systematic approach to evaluation that is required for proper documentation and appraisal.

### **Summary of the Literature**

State law enforcement agencies span a varied role in the United States, and their responsibilities extend beyond traffic patrol and services. As such, training processes factor significantly on the sustainability of organizational outputs, fulfillment of the departmental mission, and reputation of the agency as a whole. As reported by Carless (2006), the negative impact of having unqualified employees may lead to poor publicity, disciplinary interviews that are costly, court litigation from irresponsible officer behavior, and lower levels of community trust. Thus, the importance of the academy system is evident on a systematic level.

The law enforcement academy experience serves several functions for all new cadets in law enforcement occupations. The academy provides formal training for new officers (White, 2008) Training includes both technical tactical skills, such as self-defense and use of weapons, as well as knowledge, such as criminal and constitutional law (Walker & Katz, 2002). Academy

training provides the formative knowledge and experience for cadets and represents a critical first step in fielding professional and skilled officers (White, 2008). Through focused learning and formal processes established in the academy, there are concrete indicators of recruit performance in the academy. Thus, focusing on the academy stage creates an opportunity to address the identification of predictors of high-quality law enforcement performance (White, 2008).

The literature did not present a unified model of measuring officer performance. Sanders (2008), Robinson (2003), Simmers, *et al.*, (2003), White (2008), and Forero, *et al.*, (2009) illustrated various performance measurement systems, all of which are unique to the individual law enforcement agency.

Prediction of officer performance proves to be just as difficult for researchers, with most approaches examining psychological or sociological characteristics of the cadet. The literature was split in predicting performance on measures of personal characteristics, intelligence, emotional well-being, and selected demographic characteristics. McCampbell (1987) illustrated the importance of the field training officer program, with its focus on learning transfer and performance of academic theory. White (2008) concluded that the literature was incomplete in exploring the link between academy performance and field performance.

## **CHAPTER 3.**

### **METHODOLOGY**

#### **Purpose of Study**

The primary purpose of this study was to determine the influence of selected academic and training factors on the performance in the field training officer program of law enforcement officers of a state police agency in the Southeastern region of the United States.

#### **Dependent Variable**

The dependent variable of this study was the performance of newly commissioned law enforcement officers in the structured field training officer program following graduation from the state police training academy as measured through the daily operations record by the field training officer program mentor. This included individual measures of appearance, knowledge, performance, relationships, and attitude, as well as overall performance measure as calculated by taking the mean of the means each of the individual categories of appearance, knowledge, performance, relationships, and attitude.

#### **Specific Objectives**

The following specific objectives were formulated to guide this research study:

1. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics:

- a. Appearance as measured in the daily operations log;
- b. Knowledge as measured in the daily operations log;
- c. Performance as measured in the daily operations log;
- d. Relationships as measured in the daily operations log;

- e. Attitude as measured in the daily operations log; and,
  - f. Overall performance as defined by the mean of the means of appearance, knowledge, performance, relationships, and attitude from the daily operations log.
2. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic performance as measured by scores on law enforcement training academy exams on the following performance measures:
- a. Report Writing
  - b. Orientation to Criminal Justice (OCJ)
  - c. Firearms
  - d. Oleoserin Chemical Spray (OC Spray)
  - e. Monadnock Defensive Tactics System (MDTS)
  - f. Monadnock Expandable Baton System (MEBS)
  - g. Legal Aspects
  - h. Patrol Activities
  - i. Traffic Services
  - j. Investigations
  - k. Intoxilyzer 5000
  - l. Standard Field Sobriety Testing
  - m. Specialized Activities
  - n. Radar
  - o. Lidar
  - p. NUCI
  - q. Post/Final Exam

- r. Final cumulative average
3. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on the following demographic characteristics:
- a. Gender
  - b. Age
  - c. Whether or not they have military experience
  - d. Highest level of education completed
4. Determine if there was a significant difference in the variance of the performance ratings of newly commissioned law enforcement officers in field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the cumulative measure of total performance among the different troops of the selected Southeastern region state police agency.
5. Determine if a model existed explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the cumulative measure of total performance, from the following academy training measures:
- a. Report Writing
  - b. Orientation to Criminal Justice
  - c. Firearms
  - d. OC Spray
  - e. MDTs
  - f. MEBS



- g. Legal Aspects
  - h. Patrol Activities
  - i. Traffic Services
  - j. Investigations
  - k. Intoxilyzer 5000
  - l. Standard Field Sobriety Testing
  - m. Specialized Activities
  - n. Radar
  - o. Lidar
  - p. NUCI
  - q. Post/Final Exam
  - r. Final cumulative average
6. Determine if a model existed explaining a significant portion of the variance of the performance of newly commissioned law enforcement officers in field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the cumulative measure of total performance, from the following academy training and demographic characteristics:
- a. Gender
  - b. Age
  - c. Prior military experience
  - d. Level of education
  - e. Report Writing
  - f. Orientation to Criminal Justice

- g. Firearms
- h. OC Spray
- i. MDTs
- j. MEBS
- k. Legal Aspects
- l. Patrol Activities
- m. Traffic Services
- n. Investigations
- o. Intoxilyzer 5000
- p. Standard Field Sobriety Testing
- q. Specialized Activities
- r. Radar
- s. Lidar
- t. NUCI
- u. Post/Final Exam
- v. Final cumulative average

### **Population and Sample**

The target population for this study was defined as all individuals who have completed a state police academy program and a field training officer program in the Southeastern region of the United States. The accessible population for this study was individuals who have completed a state police academy program and a field training officer program in one selected state in the Southeastern region of the United States. The sampling plan for this study was as follows:

- Identification of cadets who were selected to this state police academy and who were retained through completion of the field training officer program portion of their training from 2008 to 2009, who thus became newly commissioned officers. This sample totaled 178 newly commissioned officers.

### **Instrumentation**

The instrument used to collect data for this study was a researcher-designed electronic recording form. The selected variables were taken from the information captured through the cadet selection process, from the information captured by participation in the state police training academy, and from the information captured through participation in the field training officer program after becoming newly commissioned law enforcement officers. Content validity of the recording instrument was established through a review by a panel of experts consisting of four members of the administrative staff from the state police agency participating in the study, and by two individuals with expertise in the area of instrument design.

### **Data Collection**

Data for this study were collected electronically through the transfer of the files from the participating state law enforcement agency to the researcher. The participating state law enforcement agency gathered all data from three separate electronic databases, merged them onto a spreadsheet, removed all personal identifiers from the files, and then provided an electronic copy for the researcher. Data concerning the variable of race was not available to the researcher and is therefore not included in this study. Data for this study was gathered by the participating state law enforcement agency from the following:

1. The demographic variables from the cadet selection process were provided by the participating state law enforcement agency from the cadet file.

2. The academic measures from the curricular portion of the training academy, including all exam scores, were provided by the participating state law enforcement agency from the cadet file.
3. The information from the field training officer program, including all measures of the dependent variable of performance, were provided by the participating state law enforcement agency from the daily operations record maintained by the agency.

### **Data Analysis**

The first objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics:

- a. Appearance as measured in the daily operations log;
- b. Knowledge as measured in the daily operations log;
- c. Performance as measured in the daily operations log;
- d. Relationships as measured in the daily operations log;
- e. Attitude as measured in the daily operations log; and,
- f. Overall performance as defined by the mean of the means of appearance, knowledge, performance, relationships, and attitude from the daily operations log.

The variables of this objective were descriptive and measured on an interval or higher scale; thus the variables were analyzed using descriptive statistics. Measures of central tendency and variability were calculated for each of the individual measures. Overall performance was a mean of the means of the new officer's individual scores on appearance, knowledge, performance, relationships, and attitudes; the same descriptive measures of central tendency were calculated for overall performance.

The second objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic performance as measured by scores on law enforcement training academy exams on the following academic performance measures:

- a. Report Writing
- b. Orientation to Criminal Justice
- c. Firearms
- d. OC Spray
- e. MDTs
- f. MEBS
- g. Legal Aspects
- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

The variables of this objective were descriptive and measured on an interval or higher scale, thus the variables were analyzed using descriptive statistics. Measures of central tendency were calculated for each of the individual measures.

The third objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on the following demographic characteristics:

- a. Gender
- b. Age
- c. Whether or not they have military experience
- d. Highest level of education completed

This objective was descriptive and analyzed using descriptive statistics. Frequencies and percentages were used for these categorical (nominal and interval) measures. Gender was coded as 0 for males and 1 for females, military experience was coded as 0 for no previous military experience and 1 for having previous military experience, and education level completed was coded as 0 for not having earned a college degree and 1 for having earned a college degree.

The fourth objective of this study was to determine if there is a significant difference in performance ratings of newly commissioned law enforcement officers in the field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance among the different troops of the selected Southeastern region state police agency. An analysis of variance (ANOVA) was conducted to compare the scores of members of each of the respective troops in the selected state law enforcement agency. After inputting the data and running the one-way ANOVA, the researcher discovered that the assumption of homogeneity of

variance was violated for the ANOVA test; therefore, the researcher also conducted the Welch test of equality of means and the Brown-Forsythe test of equality of means to verify the validity of the results of the F-test conducted through ANOVA. The Games-Howell post-hoc test was used to detect significant differences among the multilevel factors (troops). This test was used as it does not assume equal variances. The literature suggested that the Games-Howell procedure is appropriate when the homogeneity of variance assumption is violated, when the sample sizes within cells of the ANOVA design are unequal, and when the dependent variable is not normally distributed (Games & Howell, 1976; Jaccard, Becker, & Wood, 1984). Games-Howell is recognized as a robust post-hoc tests that maintains the experimentwise alpha near its nominal level when the assumptions of ANOVA are violated, while also demonstrating more power against Type II errors than other post-hoc procedures (Sullivan, Riccio, & Reynolds, 2008).

The fifth objective of this study was to determine if a model exists explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training measures:

- a. Report Writing
- b. Orientation to Criminal Justice
- c. Firearms
- d. OC Spray
- e. MDTs
- f. MEBS
- g. Legal Aspects

- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

To accomplish this objective, exploratory (forward) regression was used with each of the measures of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance as the dependent variable and the variables listed a through q as the independent variables. All of these variables were measured on an interval or higher scale. The researcher tested the overall significance of the model using an a priori alpha level of 0.05 and proceeded to fit a model that accounted for the greatest variance in the dependent variable using the  $R^2$  statistic while ensuring that each of the beta coefficients was statistically significant at the a priori alpha level of 0.05. When a model was found, the researcher reported a linear equation which can be used to predict the new officer's performance in the field training officer program based on the demographic and academy performance variables listed above in a through q.

The sixth objective of this study was to determine if a model exists explaining a significant portion of the variance of the performance of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily



operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training and demographic characteristics:

- a. Gender
- b. Age
- c. Prior military experience
- d. Level of education
- e. Report Writing
- f. Orientation to Criminal Justice
- g. Firearms
- h. OC Spray
- i. MDTs
- j. MEBS
- k. Legal Aspects
- l. Patrol Activities
- m. Traffic Services
- n. Investigations
- o. Intoxilyzer 5000
- p. Standard Field Sobriety Testing
- q. Specialized Activities
- r. Radar
- s. Lidar
- t. NUCI

u. Post/Final Exam

To accomplish this objective, exploratory (forward) regression was used with each of the measures of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance as the dependent variable and the variables listed a through u as the independent variables. Dummy coding was used for the categorical variables of gender, prior military experience, and level of education; the remaining variables were measured on an interval or higher scale. The researcher tested the overall significance of the model using an a priori alpha level of 0.05 and proceeded to fit a model that accounted for the greatest variance in the dependent variable using the  $R^2$  statistic while ensuring that each of the beta coefficients were statistically significant at the a priori alpha level of 0.05. If a model was found, the researcher reported a linear equation which can be used to predict the new officer's performance in the field training officer program based on the demographic and academy performance variables listed above in a through u.

## **CHAPTER 4.**

### **RESULTS**

The primary purpose of this study was to determine the influence of selected academic and training factors on the performance in the field training officer program of law enforcement officers of a state police agency in the Southeastern region of the United States. The dependent variable of this study was the performance of newly commissioned law enforcement officers in the structured field training officer program following graduation from the state police training academy as measured through the daily operations record by the field training officer program mentor. This included the individual measures of appearance, knowledge, performance, relationships, and attitude, as well as an overall performance measure as calculated by the mean of the means of the individual categories of appearance, knowledge, performance, relationships, and attitude.

The following specific objectives were formulated to guide this research study:

1. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics:
  - a. Appearance as measured in the daily operations log;
  - b. Knowledge as measured in the daily operations log;
  - c. Performance as measured in the daily operations log;
  - d. Relationships as measured in the daily operations log;
  - e. Attitude as measured in the daily operations log; and,
  - f. Overall performance as defined by the mean of the means of appearance, knowledge, performance, relationships, and attitude from the daily operations log.

2. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic performance as measured by scores on law enforcement training academy exams on the following performance measures:

- a. Report Writing
- b. Orientation to Criminal Justice (OCJ)
- c. Firearms
- d. Oleoserin Chemical Spray (OC Spray)
- e. Monadnock Defensive Tactics System (MDTS)
- f. Monadnock Expandable Baton System (MEBS)
- g. Legal Aspects
- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

3. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on the following demographic characteristics:

- a. Gender

- b. Age
  - c. Whether or not they have military experience
  - d. Highest level of education completed
4. Determine if there is a significant difference in the performance ratings of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance among the different troops of the selected Southeastern region state police agency.
5. Determine if a model exists explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training measures:
- a. Report Writing
  - b. Orientation to Criminal Justice
  - c. Firearms
  - d. OC Spray
  - e. MDTs
  - f. MEBS
  - g. Legal Aspects
  - h. Patrol Activities
  - i. Traffic Services
  - j. Investigations

- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

6. Determine if a model exists explaining a significant portion of the variance of the performance of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training and demographic characteristics:

- a. Gender
- b. Age
- c. Prior military experience
- d. Level of education
- e. Report Writing
- f. Orientation to Criminal Justice
- g. Firearms
- h. OC Spray
- i. MDTs
- j. MEBS
- k. Legal Aspects

- l. Patrol Activities
- m. Traffic Services
- n. Investigations
- o. Intoxilyzer 5000
- p. Standard Field Sobriety Testing
- q. Specialized Activities
- r. Radar
- s. Lidar
- t. NUCI
- u. Post/Final Exam

The researcher defined a “newly commissioned law enforcement officer” as one who had successfully graduated from the law enforcement training academy and therefore entered the structured field training officer program. The data for this study were captured from the examination scores on the academic exams administered in the law enforcement academy and from the daily operations log as maintained for each newly commissioned law enforcement officer throughout the structured field training officer program. This set of 178 officers served as the accessible population; the sample was defined as 100% of the accessible population. Thus, there were 178 newly commissioned officers who were selected as the sample for this study. This chapter presents the results of the study by objective.

### **Objective One Results**

The first objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics:

- a. Appearance as measured in the daily operations log;
- b. Knowledge as measured in the daily operations log;
- c. Performance as measured in the daily operations log;
- d. Relationships as measured in the daily operations log;
- e. Attitude as measured in the daily operations log; and,
- f. Overall performance as defined by the mean of the means of appearance, knowledge, performance, relationships, and attitude from the daily operations log.

There were 178 newly commissioned law enforcement officers who met the criteria for inclusion in this study. The results for each of these variables are as follows:

### **Appearance**

The variable of appearance was calculated from the ratings given to the newly commissioned officer by the field training officer in the category of appearance. This singular rating was captured in the daily operations log on a scale of 1 to 5 and was a measure of the appearance of the newly commissioned officer's uniform presentation and personal grooming (see Table 4.1). The mean for the 178 newly commissioned officers was 4.08 (SD = 0.15).

Table 4.1 Appearance Scores of Newly Commissioned Law Enforcement Officers in a Southeastern State as Rated by their Field Training Officers While Participating in the Field Officer Training Program

Variable	N	Mean	Standard Deviation	Minimum	Maximum
<b>Appearance</b>	<b>178</b>	<b>4.08</b>	<b>0.15</b>	<b>3.86</b>	<b>4.68</b>

### **Knowledge**

The variable of knowledge was calculated by computing the mean of all of the individual item ratings given to the newly commissioned officer by the field training officer in the category of knowledge. These ratings were recorded in the daily operations log on a scale of 1 to 5 and



were a measure of the knowledge demonstrated by the newly commissioned officer in each of the following individual areas: criminal codes, department policies and procedures, traffic codes, and codes of criminal procedure. These four individual measures and the overall knowledge measure are presented in Table 4.2. The overall knowledge mean for the 178 newly commissioned officers was 3.75 (SD = 0.20). The range for these scores was 0.92 with a minimum value of 3.18 and a maximum value of 4.10.

Table 4.2 Knowledge Scores of Newly Commissioned Law Enforcement Officers in a Southeastern State as Rated by their Field Training Officers While Participating in the Field Officer Training Program

Variable	N	Mean	Standard Deviation	Minimum	Maximum
<b>Knowledge</b>	<b>178</b>	<b>3.75</b>	<b>0.20</b>	<b>3.18</b>	<b>4.10</b>
Codes of Criminal Procedure	178	3.79	0.22	3.12	4.10
Criminal Codes	178	3.77	0.23	3.06	4.17
Traffic Codes	178	3.76	0.20	3.17	4.13
Dept. Policy & Procedure	178	3.66	0.23	2.97	4.00

### **Performance**

The variable of performance was calculated by computing the mean of all of the individual item ratings given to the newly commissioned officer by the field training officer in the category of performance. These ratings were recorded in the daily operations log on a scale of 1 to 5 and were a measure of the performance demonstrated by the newly commissioned officer in each of the following individual areas: driving skills in normal conditions; driving skills in moderate and high stress conditions; orientation and response time to calls; accuracy and completeness of routine forms; the organization and detail of written reports; the grammar, spelling and neatness of written reports; the use of appropriate time in completion of written

reports; field performance in non-stress conditions; field performance in stress conditions; problem solving and decision making ability; investigative skills; interview and interrogation skills; self-initiated field activity; general officer safety procedures; safety with respect to suspects; suspicious persons or prisoners; voice control in conflict situations; physical control in conflict situations; use of appropriate codes and procedures on the radio; listening and comprehension skills on the radio; and, and articulation skills on the radio. These 20 individual item ratings and the overall measure are presented in Table 4.3. The performance mean was computed as the mean of the 20 individual item ratings for the 178 newly commissioned officers. This overall mean was 3.90 (SD = 0.12). The specific areas in which the officers received the highest ratings were Driving Skills: Normal Conditions ( $\bar{x}$  = 3.98, SD = 0.09) and Field Performance: Stress Conditions ( $\bar{x}$  = 3.97, SD = 0.22). In contrast, the specific areas on which the officers received the lowest ratings were Routine Forms: Accuracy/Completeness ( $\bar{x}$  = 3.79, SD = 0.22) and Report Writing: Appropriate Time Used ( $\bar{x}$  = 3.80, SD = 0.25).

Table 4.3 Performance Scores of Newly Commissioned Law Enforcement Officers in a Southeastern State as Rated by their Field Training Officers While Participating in the Field Officer Training Program

Variable	N	Mean	Standard Deviation	Minimum	Maximum
<b>Performance</b>	<b>176</b>	<b>3.90</b>	<b>0.12</b>	<b>3.38</b>	<b>4.31</b>
Driving Skill: Normal Conditions	178	3.98	0.09	3.58	4.24
Field Performance: Stress Conditions	178	3.97	0.22	3.00	5.00
Field Performance: Non-Stress Conditions	178	3.96	0.09	3.58	4.19
Driving Skill: Moderate & High Stress Conditions	177	3.96	0.17	3.25	4.67
Control of Conflict: Voice Control	177	3.96	0.14	3.00	4.67
Officer Safety: General	178	3.96	0.11	3.41	4.31

Table continues

Table 4.3 continued

Control of Conflict: Physical Control	178	3.96	0.22	2.00	5.00
Officer Safety: Suspects/Suspicious Persons/Prisoners	178	3.95	0.17	3.10	4.30
Self-Initiated Field Activity	178	3.92	0.17	3.04	4.51
Report Writing: Grammar / Spelling / Neatness	178	3.91	0.15	3.27	4.32
Problem Solving and Decision Making	178	3.91	0.15	3.26	4.21
Investigative Skill	178	3.90	0.15	3.30	4.26
Interview / Interrogation Skill	178	3.90	0.16	3.18	4.27
Radio: Appropriate Use of Codes/Procedures	178	3.90	0.16	3.21	4.19
Radio: Listens and Comprehends	178	3.90	0.15	3.31	4.19
Radio: Articulation of Transmissions	178	3.89	0.16	3.15	4.19
Orientation/Response Time	178	3.85	0.20	2.88	4.26
Report Writing: Organization/Details	178	3.84	0.19	3.16	4.27
Report Writing: Appropriate Time Used	178	3.80	0.25	3.00	4.35
Routine Forms: Accuracy/Completeness	178	3.79	0.22	3.04	4.26

### **Relationships**

The variable of relationships was calculated by computing the mean of all of the individual item ratings given to the newly commissioned officer by the field training officer in the category of relationships. These ratings were recorded in the daily operations log on a scale of 1 to 5 and were a measure of the relationship building ability demonstrated by the newly commissioned officer in each of the following individual areas: with citizens in general, with ethnic groups other than their own, and with other department members. These three individual item scores and the overall measure are presented in Table 4.4. The relationships mean for the

178 newly commissioned officers was 4.02 ( $SD = 0.07$ ). The range for these scores was 0.62 with a minimum value of 3.92 and a maximum value of 4.54.

Table 4.4 Relationship Scores of Newly Commissioned Law Enforcement Officers in a Southeastern State as Rated by their Field Training Officers While Participating in the Field Officer Training Program

Variable	N	Mean	Standard Deviation	Minimum	Maximum
<b>Relationships</b>	<b>178</b>	<b>4.02</b>	<b>0.07</b>	<b>3.92</b>	<b>4.54</b>
With Citizens in General	178	4.03	0.08	3.89	4.57
With Ethnic Groups Other Than Own	178	4.02	0.07	3.94	4.54
With Other Department Members	178	4.02	0.07	3.84	4.50

### **Attitude**

The variable of attitude was calculated by computing the mean of all of the individual item ratings given to the newly commissioned officer by the field training officer in the category of attitude. These ratings were recorded in the daily operations log on a scale of 1 to 5 and were a measure of the attitude demonstrated by the newly commissioned officer with respect to their acceptance of feedback and attitude toward police work. These two individual item ratings and the overall rating are presented in Table 4.5. The attitude mean for the 178 newly commissioned officers was 4.05 ( $SD = 0.13$ ). The range for these scores was 0.84 with a minimum value of 3.85 and a maximum value of 4.69.

Table 4.5 Attitude Scores of Newly Commissioned Law Enforcement Officers in a Southeastern State as Rated by their Field Training Officers While Participating in the Field Officer Training Program

Variable	N	Mean	Standard Deviation	Minimum	Maximum
<b>Attitude</b>	<b>178</b>	<b>4.05</b>	<b>0.13</b>	<b>3.85</b>	<b>4.69</b>

Table Continues

Table 4.5 continued

Attitude Toward Police Work	178	4.06	0.13	3.84	4.75
Acceptance of Feedback	178	4.05	0.13	3.82	4.86

### **Overall Performance**

The variable of overall performance was an overall measure of the newly commissioned officer's score on appearance, knowledge, performance, attitude and relationships. This variable was calculated by taking the mean of the mean of each of the officer's score on appearance, knowledge, performance, attitude and relationships. The overall performance mean (Table 4.6) for the 178 newly commissioned officers was 3.96 (SD = 0.09). The range for these scores was 0.60 with a minimum value of 3.68 and a maximum value of 4.28. The individual item rating of appearance ( $\bar{x}$  = 4.08, SD = 0.09) had the highest recorded mean. The individual item rating of knowledge ( $\bar{x}$  = 3.75, SD = 0.20), on the other hand, had the lowest recorded mean of the individual item measures.

Table 4.6 Overall Performance Score of Newly Commissioned Law Enforcement Officers in a Southeastern State as Rated by their Field Training Officers While Participating in the Field Officer Training Program

Variable	N	Mean	Standard Deviation	Minimum	Maximum
<b>Overall Performance</b>	<b>178.00</b>	<b>3.96</b>	<b>0.09</b>	<b>3.85</b>	<b>4.69</b>
Appearance	178.00	4.08	0.15	3.86	4.68
Attitude	178.00	4.05	0.13	3.85	4.69
Relationships	178.00	4.02	0.07	3.92	4.54
Performance	176.00	3.90	0.12	3.38	4.31
Knowledge	178.00	3.75	0.20	3.18	4.10

## **Objective Two Results**

The second objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic performance as measured by scores on law enforcement training academy exams on the following performance measures:

- a. Report Writing
- b. Orientation to Criminal Justice (OCJ)
- c. Firearms
- d. Oleoserin Chemical Spray (OC Spray)
- e. Monadnock Defensive Tactics System (MDTS)
- f. Monadnock Expandable Baton System (MEBS)
- g. Legal Aspects
- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

### **Academic Performance**

The variable of academic performance was based on the newly commissioned officer's score on specific examinations while enrolled in the academy. There were 16 objective-based exams that were specific to content learned in each subject area and one comprehensive objective-based final examination. The exams on which the cadets scored the highest were the Investigations examination ( $\bar{x} = 98.94$ ,  $\underline{SD} = 4.24$ ), the MDTs examination ( $\bar{x} = 98.39$ ,  $\underline{SD} = 2.50$ ), and the SFST examination ( $\bar{x} = 96.25$ ,  $\underline{SD} = 4.43$ ) (see Table 4.7). The exams on which the cadets scored the lowest were the OCJ examination ( $\bar{x} = 86.35$ ,  $\underline{SD} = 6.13$ ), the NUCI ( $\bar{x} = 87.12$ ,  $\underline{SD} = 4.82$ ), and the Traffic Services examination ( $\bar{x} = 88.93$ ,  $\underline{SD} = 4.72$ ). The POST/Final examination, the comprehensive examination at the conclusion of the academy, had the lowest mean of all examinations completed by the cadets ( $\bar{x} = 84.77$ ,  $\underline{SD} = 4.61$ ).

Table 4.7 Examination Scores of Cadets in a Southeastern State as Earned in the Law Enforcement Training Academy

<b>Examination</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Investigations	178.00	98.94	4.24	80.00	98.28
Monadnock Defensive Tactics System	178.00	98.39	2.50	87.80	100.00
Standard Field Sobriety Testing	178.00	96.25	4.43	80.00	100.00
Monadnock Expandable Baton System	178.00	95.62	3.99	84.00	100.00
Firearms	178.00	95.37	3.79	83.00	100.00
Oleoserin Chemical Spray	178.00	93.34	5.42	80.00	100.00
Intoxilyzer 5000	178.00	92.81	5.20	80.00	100.00
Specialized Act.	178.00	91.80	4.56	80.00	100.00
Patrol Activities	178.00	91.70	5.21	80.00	100.00
Radar	178.00	91.68	5.32	75.10	100.00
Legal Aspects	178.00	91.60	5.32	73.68	100.00

Table continues

Table 4.7 continued

Lidar	178.00	91.42	6.69	80.00	100.00
Report Writing	178.00	90.53	5.54	80.00	100.00
Traffic Services	178.00	88.93	4.72	80.00	100.00
Northwestern University Crash Investigation	178.00	87.12	4.82	74.27	97.32
Orientation to Criminal Justice	178.00	86.35	6.13	80.00	100.00
<b>Post/Final</b>	<b>178.00</b>	<b>84.77</b>	<b>4.61</b>	<b>73.00</b>	<b>96.00</b>

### **Objective Three Results**

The third objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on the following demographic characteristics:

- a. Gender
- b. Age
- c. Whether or not they have military experience
- d. Highest level of education completed

### **Gender**

The variable of gender was self-reported by the cadets at the time they entered the law enforcement training academy. Of the 178 cadets who enlisted in the academy, 97.7% (N = 169) were identified as male and 2.3% (N = 4) were identified as female.

Table 4.8 Gender of Newly Commissioned Law Enforcement Officers from a Southeastern State as Self-Reported at Enrollment in the Law Enforcement Training Academy

<b>Gender</b>	<b>N</b>	<b>Percentage</b>
Male	169	97.7
Female	4	2.3
<b>Total</b>	<b>173<sup>a</sup></b>	<b>100</b>
<sup>a</sup> Data regarding gender was not available for 5 of the cadets who participated in this study.		



## **Age**

Information regarding the cadet's date of birth was requested at the time of their entrance into the training academy. This information was used to determine the age of the study participants. Data regarding date of birth were available for 83.1% (n = 148) of the participants; therefore, age was unable to be determined for 16.9% (n = 30) of the newly commissioned law enforcement officers. The mean age of the subjects for whom data was available was 28.16 years ( $SD = 5.45$ ). To further examine the data on age of the participants, the information was grouped into age categories (see Table 4.9). The majority (68.9%, n = 102) of participants for which data were available were under the age of 30 years old.

Table 4.9 Age Distribution for Newly Commissioned Officers from a Southeastern State as Self-Reported at the Time of Enrollment in the Law Enforcement Training Academy

<b>Age Range</b>	<b>N</b>	<b>Percent</b>
20-24	35	23.6
25-29	67	45.3
30-34	29	19.6
35+	17	11.5
<b>Total</b>	<b>148<sup>a</sup></b>	<b>100</b>
Note: $\bar{x} = 28.16$ , s.d. = 5.45, minimum age = 20 y.o., maximum age = 47 y.o.		
<sup>a</sup> Data regarding age was not available for 30 of the cadets who participated in this study.		

## **Military Experience**

Information regarding the cadet's previous military experience was requested at the time of their entrance into the training academy. The variable of military experience was self-reported as to whether or not they had served in any of the branches of the United States military. Of the 178 newly commissioned officers 18% (n = 32) reported having previous military experience and 82% (n = 146) reported not having any previous military experience.

Table 4.10 Military Experience of Newly Commissioned Officers from a Southeastern State as Self-Reported at the Time of Enrollment in the Law Enforcement Training Academy

<b>Military Experience</b>	<b>N</b>	<b>Percentage</b>
Previous Military Experience	32	18
No Previous Military Experience	146	82
<b>Total</b>	<b>178</b>	<b>100</b>

### **Highest Level of Education Completed**

The variable of highest level of education completed was self-reported at the time of enrollment in the academy. The cadets reported their highest level of education completed by selecting one of the following categories: high school or GED, some college, associate's degree, bachelor's degree, master's degree, or doctoral degree. Nearly 80% (n = 142) of cadets entering the law enforcement academy were represented in the categories of individuals who had completed high school only (22.4%, n = 40) and individuals who had some college level courses completed (57.3%, n = 102). In contrast, 20.3% (n = 36) had earned a bachelor's degree or higher at their time of enrollment in the academy.

Table 4.11 Educational Level Completed Distribution for Newly Commissioned Officers from a Southeastern State as Self-Reported at Enrollment in the Law Enforcement Training Academy

<b>Educational Level</b>	<b>N</b>	<b>Percentage</b>
Some College	102	57.3
High School/GED	40	22.4
Bachelor's Degree	30	16.9
Associate's Degree	3	1.7
Master's Degree	3	1.7
<b>Total</b>	<b>178</b>	<b>100</b>

### **Objective Four Results**

The fourth objective of this study was to determine if there was a significant difference in performance ratings of newly commissioned law enforcement officers in the field training officer

program as measured through their mean scores on the daily operations log categories of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance among the different troops of the selected Southeastern region state police agency. A one-way analysis of variance (ANOVA) was conducted to compare the scores of members of each of the respective troops in the selected state law enforcement agency. The ANOVA was followed by the Tukey's HSD test to determine where individual differences may arise.

The a priori alpha level was established at 0.05. After conducting the initial analysis, the researcher discovered that the assumption of homogeneity of variance was violated for the ANOVA test; therefore, the researcher also conducted the Welch test of equality of means and the Brown-Forsythe test of equality of means to verify the validity of the results of the F-test conducted through ANOVA. Further, it was determined that conducting the Tukey HSD post-hoc test was no longer appropriate given the violation of the homogeneity of variance assumption. The Games-Howell post-hoc test was used to detect significant differences among the multilevel factors (troops). This test was used as it does not assume equal variances. The literature suggested that the Games-Howell procedure is appropriate when the homogeneity of variance assumption is violated, when the sample sizes within cells of the ANOVA design are unequal, and when the dependent variable is not normally distributed (Games & Howell, 1976; Jaccard, Becker, & Wood, 1984). Games-Howell is recognized as a robust post-hoc test that maintains the experimentwise error near its nominal level when the assumptions of ANOVA are violated, while also demonstrating more power against Type II errors than other post-hoc procedures (Sullivan, Riccio, & Reynolds, 2008).

## **Appearance**

To begin the analysis, the assumption of homogeneity of variance was analyzed. The Levene's test of homogeneity of variance indicated that the assumption had been violated (Levene's statistic 8.17,  $p < 0.001$ ) (see Table 4.12). The ANOVA results ( $F = 2.58$ ,  $p < 0.05$ ) indicated that there was a significant difference among the various troops with respect to the mean appearance ratings (see Table 4.12); the Welch ( $p < .05$ ) and Brown-Forsythe ( $p < .05$ ) (Table 4.12) tests confirmed the ANOVA results. The Games-Howell post-hoc comparisons (Table 4.13) showed that there was a statistically significant difference in mean scores between troops 1 and troop 4 ( $\Delta\bar{X} = .11$ ,  $p = 0.02$ ).

Table 4.12 ANOVA Statistics on the Appearance Ratings Provided for Newly Commissioned Officers in a Southeastern State in the Field Training Officer Program

Variable	Levene's Statistic	Levene's Statistic $p$ .	ANOVA $F$	ANOVA $p$ .	Welch Statistic	Welch Statistic $p$ .	Brown- Forsythe Statistic	Brown- Forsythe Statistic $p$ .
Appearance	8.17	<.001	2.58	0.01	4.84	<.001	2.80	<.001
Attitude	11.48	<.001	3.98	<.001	4.54	<.001	4.66	<.001
Knowledge	2.19	0.03	3.59	0.01	4.17	<.001	3.59	<.001
Performance	2.70	<.001	2.83	<.001	2.59	0.02	3.04	<.001
Relationships	23.07	<.001	4.88	<.001	3.74	<.001	4.26	<.001
Cumulative Performance	2.31	0.02	3.97	<.001	3.74	<.001	4.26	<.001

Table 4.13 Mean Ratings on the Variable of Appearance of Newly Commissioned Officers by Troop in a Southeastern State as Recorded in the Field Training Officer Program

Troop	N	Mean	Std. Deviation
5	10	4.21	0.17
3	15	4.14	0.20
1	40	4.12 <sup>a</sup>	0.18
7	17	4.10	0.13

Table continues

Table 4.13 continued

9	22	4.10	0.16
2	27	4.07	0.15
6	7	4.04	0.10
8	23	4.02	0.06
4	17	4.01 <sup>a</sup>	0.04
<b>Total</b>	<b>178</b>	<b>4.09</b>	<b>0.15</b>
Note: Comparisons of means based on the Games-Howell post-hoc procedure.			
<sup>a</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.11$ , $p = 0.02$ )			

### Attitude

To begin the analysis, the assumption of homogeneity of variance was analyzed. The Levene's test of homogeneity of variance indicated that the assumption had been violated (Levene's statistic 11.48,  $p < .001$ ) (see Table 4.12). The ANOVA results ( $F = 3.98$ ,  $p < 0.001$ ) indicated that there was a significant difference among the various troops with respect to the mean attitude ratings (see Table 4.12); the Welch ( $p < .001$ ) and Brown-Forsythe ( $p < .001$ ) (Table 4.12) tests confirmed the ANOVA results. The Games-Howell post-hoc comparisons (Table 4.14) showed that there was a statistically significant difference in mean scores between troops 1 and 4 ( $\Delta\bar{X} = .11$ ,  $p = 0.01$ ); between troops 1 and 6 ( $\Delta\bar{X} = .11$ ,  $p = 0.01$ ); and, between troops 1 and 8 ( $\Delta\bar{X} = .11$ ,  $p < 0.001$ ).

Table 4.14 Mean Ratings on the Variable of Attitude of Newly Commissioned Officers by Troop in a Southeastern State as Recorded in the Field Training Officer Program

<b>Troop</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
5	10	4.17	0.18
1	40	4.11 <sup>abc</sup>	0.17
9	22	4.08	0.17
7	17	4.05	0.08
3	15	4.03	0.09
2	27	4.02	0.08
8	23	4.00 <sup>c</sup>	0.03
6	7	4.00 <sup>b</sup>	0.01
4	17	4.00 <sup>a</sup>	0.02

Table continues

Table 4.14 continued

<b>Total</b>	<b>178</b>	<b>4.05</b>	<b>0.13</b>
Note: Comparisons of means based on the Games-Howell post-hoc procedure.			
<sup>a</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.11$ , $p = 0.01$ )			
<sup>b</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.11$ , $p = 0.01$ )			
<sup>c</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.11$ , $p = <0.001$ )			

### **Knowledge**

To begin the analysis, the assumption of homogeneity of variance was analyzed. The Levene's test of homogeneity of variance indicated that the assumption had been violated (Levene's statistic 2.19,  $p = 0.03$ ) (Table 4.12). The ANOVA results ( $F = 3.59$ ,  $p = 0.01$ ) indicated that there was a significant difference among the various troops with respect to the mean knowledge ratings (see Table 4.12); the Welch ( $p < .001$ ) and Brown-Forsythe ( $p < .001$ ) (Table 4.12) tests confirmed the ANOVA results. The Games-Howell post-hoc comparisons (Table 4.15) showed that there was a statistically significant difference in mean scores between troops 2 and 3 ( $\Delta\bar{X} = -.17$ ,  $p = 0.03$ ); between troops 2 and 6 ( $\Delta\bar{X} = -.24$ ,  $p = 0.04$ ); between troops 3 and 4 ( $\Delta\bar{X} = .26$ ,  $p < 0.001$ ); and, between troops 4 and 6 ( $\Delta\bar{X} = -.33$ ,  $p < 0.001$ ).

Table 4.15 Mean Ratings on the Variable of Knowledge of Newly Commissioned Officers by Troop in a Southeastern State as Recorded in the Field Training Officer Program

<b>Troop</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
6	7	3.92 <sup>bd</sup>	0.14
3	15	3.85 <sup>ac</sup>	0.11
5	10	3.79	0.23
9	22	3.79	0.15
8	23	3.78	0.18
1	40	3.74	0.18
7	17	3.72	0.25
2	27	3.68 <sup>ab</sup>	0.21
4	17	3.59 <sup>cd</sup>	0.22
<b>Total</b>	<b>178</b>	<b>3.75</b>	<b>0.20</b>
Note: Comparisons of means based on the Games-Howell post-hoc procedure.			
<sup>a</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.17$ , $p = 0.03$ )			

Table continues

Table 4.15 continued

<sup>b</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.24$ , $p = 0.04$ )
<sup>c</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.26$ , $p = <0.001$ )
<sup>d</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.33$ , $p = <0.001$ )

### **Performance**

To begin the analysis, the assumption of homogeneity of variance was analyzed. The Levene's test of homogeneity of variance indicated that the assumption had been violated (Levene's statistic 2.70,  $p < .001$ ) (Table 4.12). The ANOVA results ( $F = 2.83$ ,  $p < .001$ ) indicated that there was a significant difference among the various troops with respect to the mean performance ratings (see Table 4.12); the Welch ( $p < .001$ ) and Brown-Forsythe ( $p < .001$ ) (Table 4.12) tests confirmed the ANOVA results. The Games-Howell post-hoc comparisons (Table 4.16) showed that there was a statistically significant difference in mean scores between troops 2 and 3 ( $\Delta\bar{X} = -.13$ ,  $p = 0.04$ ); between troops 2 and 6 ( $\Delta\bar{X} = -.16$ ,  $p = 0.02$ ); and between troops 2 and 9 ( $\Delta\bar{X} = -.14$ ,  $p = 0.03$ ).

Table 4.16 Mean Ratings on the Variable of Performance of Newly Commissioned Officers by Troop in a Southeastern State as Recorded in the Field Training Officer Program

<b>Troop</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
6	7	3.95 <sup>b</sup>	0.07
9	22	3.93 <sup>c</sup>	0.11
3	15	3.92 <sup>a</sup>	0.07
7	17	3.92	0.18
1	40	3.90	0.10
5	10	3.90	0.12
8	23	3.88	0.15
4	17	3.85	0.10
2	27	3.79 <sup>abc</sup>	0.17
<b>Total</b>	<b>178</b>	<b>3.88</b>	<b>0.13</b>
Note: Comparisons of means based on the Games-Howell post-hoc procedure.			
<sup>a</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.13$ , $p = 0.04$ )			
<sup>b</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.16$ , $p = 0.02$ )			
<sup>c</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.14$ , $p = 0.03$ )			

## **Relationships**

To begin the analysis, the assumption of homogeneity of variance was analyzed. The Levene's test of homogeneity of variance (Table 4.12) indicated that the assumption had been violated (Levene's statistic 23.07,  $p < .001$ ). The ANOVA results ( $F = 4.88$ ,  $p < .001$ ) indicated that there was a significant difference among the various troops with respect to the mean relationships ratings (see Table 4.12); the Welch ( $p < .001$ ) and Brown-Forsythe ( $p < .001$ ) (Table 4.12) tests confirmed the ANOVA results. The Games-Howell post-hoc comparisons (Table 4.17) showed that there was a statistically significant difference in mean scores between troops 2 and 8 ( $\Delta\bar{X} = .02$ ,  $p = 0.04$ ).

Table 4.17 Mean Ratings on the Variable of Relationships of Newly Commissioned Officers by Troop in a Southeastern State as Recorded in the Field Training Officer Program

<b>Troop</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
9	22	4.09	0.15
5	10	4.07	0.12
7	17	4.02	0.05
2	27	4.01 <sup>a</sup>	0.03
1	40	4.00	0.03
3	15	4.00	0.01
6	7	4.00	0.01
4	17	3.99	0.01
8	23	3.99 <sup>a</sup>	0.01
<b>Total</b>	<b>178</b>	<b>4.02</b>	<b>0.07</b>

Note: Comparisons of means based on the Games-Howell post-hoc procedure.

<sup>a</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.02$ ,  $p = 0.04$ )

## **Overall Performance**

To begin the analysis, the assumption of homogeneity of variance was analyzed. The Levene's test of homogeneity of variance (Table 4.12) indicated that the assumption had been violated (Levene's statistic 2.31,  $p = 0.02$ ). The ANOVA results ( $F = 3.91$ ,  $p < .001$ ) indicated that there was a significant difference among the various troops with respect to the mean



cumulative performance scores (see Table 4.12); the Welch ( $p < .001$ ) and Brown-Forsythe ( $p < .001$ ) (Table 4.12) tests confirmed the ANOVA results. The Games-Howell post-hoc comparisons (Table 4.18) showed that there was a statistically significant difference in mean scores between troops 1 and 4 ( $\Delta\bar{X} = .08$ ,  $p < .001$ ); between troops 3 and 4 ( $\Delta\bar{X} = .01$ ,  $p < .001$ ); between troops 4 and 6 ( $\Delta\bar{X} = -.01$ ,  $p = 0.02$ ); and, between troops 4 and 9 ( $\Delta\bar{X} = -.10$ ,  $p = 0.01$ ).

Table 4.18 Mean Ratings on the Variable of Cumulative Performance of Newly Commissioned Officers by Troop in a Southeastern State as Recorded in the Field Training Officer Program

<b>Troop</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
5	10	4.03	0.11
3	15	3.99 <sup>b</sup>	0.05
6	7	3.99 <sup>c</sup>	0.05
9	22	3.99 <sup>d</sup>	0.11
1	40	3.97 <sup>a</sup>	0.09
7	17	3.96	0.11
8	23	3.93	0.06
2	27	3.91	0.10
4	17	3.89 <sup>abcd</sup>	0.08
<b>Total</b>	<b>178</b>	<b>3.96</b>	<b>0.09</b>
Note: Comparisons of means based on the Games-Howell post-hoc procedure.			
<sup>a</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.08$ , $p = <0.001$ )			
<sup>b</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.01$ , $p = <0.001$ )			
<sup>c</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.01$ , $p = 0.02$ )			
<sup>d</sup> Troops found to be significantly different ( $\Delta\bar{X} = 0.10$ , $p = 0.01$ )			

## **Summary**

The data revealed that there exists at least one statistically significant difference amongst the various troops from the law enforcement agency in the Southeastern region of the United States. Notably, the troop identified as troop 2 had the highest percentage (12.5%,  $n = 6$ ) of statistically significant differences among the various troops across the state (48 possible differences, where there are nine troops and six performance ratings). It further should be mentioned that the troop identified as troop 4 possessed the lower scores in all four of the

categories for which it had a significant difference. The percentage differences are illustrated in Table 4.19.

Table 4.19 Summary of the Total Number of Statistically Significant Differences Among the Various Troops of a Law Enforcement Agency in a Southeastern State as Calculated on the Mean Scores on the Various Levels of the Dependent Variable

<b>Troop</b>	<b>Differences</b>	<b>Percent</b>
2	6	12.50%
1	4	8.33%
4	4	8.33%
6	4	8.33%
9	4	8.33%
3	3	6.25%
8	2	4.17%
5	0	0.00%
7	0	0.00%
<b>Total</b>	<b>27</b>	<b>100%</b>

### **Objective Five Results**

The fifth objective of this study was to determine if a model exists explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training measures:

- a. Report Writing
- b. Orientation to Criminal Justice
- c. Firearms
- d. OC Spray
- e. MDTs
- f. MEBS

- g. Legal Aspects
- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

To accomplish this objective, forward regression was used with each of the measures of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance as the dependent variable and the selected academy training measures as the independent variables. All of these variables were measured on an interval or higher scale. The researcher tested the overall significance of the model using an a priori alpha level of 0.05 and proceeded to fit a model that accounted for the greatest variance in the dependent variable using the  $R^2$  statistic while ensuring that each of the beta coefficients were statistically significant at the a priori alpha level of 0.05.

### **Appearance**

The first FTO performance measure entered as a dependent variable for regression analysis was the measure of appearance. All independent variables included in a regression analysis must either be measured on a continuous scale (interval or higher) or be dichotomous in

nature; these were measured on an interval scale. Pearson's Product Moment Correlation Coefficient (Pearson's  $r$ ) was used to examine the correlations between the independent and dependent variables. The bivariate correlations (Table 4.20) between the selected academy measures and the dependent variable were examined. These correlations produced no significant relationships. Concomitantly, the regression analysis did not yield a significant model. None of the selected law enforcement academy measures explained a significant portion of the variance in the newly commissioned officer's appearance score as measured through the field training officer program.

Table 4.20 Relationship Between the Appearance Score in the Field Training Officer Program and the Academy Examination Scores Among Newly Commissioned Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>Strength of Relationship</b>
Traffic Services	0.12	0.10	Low
Intoxilyzer 5000	0.10	0.18	Low
MEBS	-0.08	0.28	Negligible
POST/Final	0.07	0.39	Negligible
Standardized Field Sobriety Testing	0.06	0.41	Negligible
MDTS	-0.06	0.40	Negligible
Patrol Activities	-0.05	0.51	Negligible
Specialized Activities	-0.03	0.71	Negligible
Radar	-0.03	0.74	Negligible
Report Writing	0.02	0.76	Negligible
Lidar	0.02	0.81	Negligible
OC Spray	0.01	0.94	Negligible
Legal Aspects	0.01	0.89	Negligible
Northwest	0.01	0.87	Negligible
Orientation to Criminal Justice	-0.01	0.93	Negligible
Firearms	-0.01	0.88	Negligible
Investigations	-0.01	0.92	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient			
Note: There were a total of 178 observations for each of the variables.			

## **Attitude**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of attitude. Pearson's  $r$  was used to calculate the correlations between the independent variables and the dependent variable. The bivariate correlations (Table 4.21) between the selected academy measures and the dependent variable were examined; these correlations produced no significant relationships. Consequently, the regression analysis did not yield a significant model. None of the selected law enforcement academy measures explained a significant portion of the variance in the newly commissioned officer's attitude score as measured through the field training officer program.

Table 4.21 Relationship Between the Attitude Score in the Field Training Officer Program and the Academy Examination Scores Among Newly Commissioned Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>Strength of Relationship</b>
Standardized Field Sobriety Testing	0.14	0.07	Low
Intoxilyzer 5000	0.12	0.10	Low
Traffic Services	0.10	0.17	Low
POST/Final	0.09	0.23	Negligible
Investigations	0.06	0.45	Negligible
Lidar	0.06	0.44	Negligible
Firearms	-0.05	0.55	Negligible
Legal Aspects	-0.05	0.54	Negligible
OC Spray	0.04	0.64	Negligible
Orientation to Criminal Justice	0.03	0.72	Negligible
Radar	0.03	0.71	Negligible
Report Writing	-0.03	0.73	Negligible
Specialized Activities	0.02	0.76	Negligible
MDTS	-0.02	0.79	Negligible
MEBS	-0.02	0.83	Negligible
Patrol Activities	-0.01	0.85	Negligible
Northwest	-0.01	0.90	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient			
Note: There were a total of 178 observations for each of the variables.			

## **Knowledge**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of knowledge. Pearson's  $r$  was used to calculate the correlations between the independent and dependent variable. The bivariate correlations (Table 4.22) between the selected academy measures and the dependent variable were examined. The results indicated that the following correlations were significant: Orientation to Criminal Justice ( $r = .15$ ,  $p = 0.05$ ) indicated a low, positive association with the dependent variable; Firearms ( $r = .20$ ,  $p = 0.01$ ) indicated a low, positive association with the dependent variable; Legal Aspects ( $r = .18$ ,  $p = 0.02$ ) indicated a low, positive association with the dependent variable; Intoxilyzer 5000 ( $r = .20$ ,  $p = 0.01$ ) indicated a low, positive association with the dependent variable; Standard Field Sobriety Testing ( $r = .19$ ,  $p = 0.01$ ) indicated a low, positive association with the dependent variable; and, the POST/Final exam ( $r = .30$ ,  $p < 0.001$ ) indicated a moderate, positive association with the dependent variable.

Table 4.22 Relationship Between the Knowledge Score in the Field Training Officer Program and the Academy Examination Scores Among Newly Commissioned Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>Strength of Relationship</b>
POST/Final	0.30	< 0.001	Moderate
Firearms	0.20	0.01	Low
Intoxilyzer 5000	0.20	0.01	Low
Standardized Field Sobriety Testing	0.19	0.01	Low
Legal Aspects	0.18	0.02	Low
Orientation to Criminal Justice	0.15	0.05	Low
Radar	0.14	0.06	Low
Northwest	0.14	0.07	Low
Traffic Services	0.13	0.09	Low
Investigations	0.13	0.08	Low

Table continues

Table 4.22 continued

Specialized Activities	0.13	0.09	Low
MDTS	0.12	0.11	Low
Patrol Activities	0.12	0.11	Low
Lidar	0.09	0.24	Negligible
MEBS	0.07	0.33	Negligible
Report Writing	-0.04	0.57	Negligible
OC Spray	-0.02	0.76	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient			
Note: There were a total of 178 observations for each of the variables.			

Following the examination of the bivariate correlations was an examination of the presence of multicollinearity among the independent variables. Multicollinearity refers to the excessive correlation among the predictor variables (independent variables). When said correlation is excessive, standard errors of the slope and beta coefficients become large, making it nearly impossible to assess the relative importance of the predictor variables. Tolerance levels were used to test for multicollinearity. The higher the intercorrelation of the independent variables, the more the tolerance level will approach zero. According to Hair, Black, Babin, Anderson, and Tatham (2006) “a common cutoff threshold tolerance value is 0.10” (p.230). The tolerance levels (Table 4.23) were well above the threshold value (range from 0.849 to 0.997) and therefore not a concern with this model of regression analysis. Testing knowledge as the dependent variable against the independent variables from the law enforcement academy produced a Pearson’s  $r$  value of .299 and an  $R^2$  value of .089. Despite the correlations explained above, the POST/Final exam was the only independent variable to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 17.272$ ,  $p < .001$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the POST/Final was a useful predictor of the law enforcement officer’s knowledge

score. The model summary is found in Table 4.23. The resulting linear equation for this model was  $y = .299X_1 + 2.643$  where  $X_1$  is the law enforcement officer's score on the POST/Final examination. The relationship is such that for every unit increase in a cadet's score on the POST/Final examination, all other variables being held constant, there is a .299 increase in the knowledge score attained by the newly commissioned officer in the field training officer program.

Table 4.23 Regression of Selected Training Academy Examination Scores on the Knowledge of Newly Commissioned Law Enforcement Officers in the Field Training Officer Program in a Southeastern State

Model		Sum of Squares	df	Mean Square	F	Sig.			
Post/Final Exam	Regression	0.638	1	.638	17.242	<.001			
	Residual	6.515	176	.037					
	Total	7.153	177						
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
Post/Final Exam	.299	.089	.084	.192399	.089	17.242	1	176	<.001
Coefficients									
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.		
		B	Std. Error	Beta					
1 <sup>a</sup>	(Constant)	2.643	.266			9.929	<.001		
	POST/Final	.013	.003	.299		4.152	<.001		
<sup>a</sup> Predictors: (Constant), POST/Final									
Excluded Variables									
Variable		t	Sig.	Collinearity Statistics					
				Tolerance	VIF	Minimum Tolerance			
Report Writing		-1.324	.187	.971	1.030	.971			

Table continues



Table 4.23 continued

Orientation to Criminal Justice	.734	.464	.888	1.126	.888
Firearms	1.625	.106	.911	1.098	.911
OC Spray	-.553	.581	.997	1.003	.997
MDTS	1.145	.254	.984	1.017	.984
MEBS	.107	.915	.950	1.052	.950
Legal Aspects	.888	.376	.849	1.178	.849
Patrol Activities	.867	.387	.960	1.042	.960
Traffic Services	1.280	.202	.985	1.015	.985
Investigations	.673	.502	.920	1.087	.920
Intoxilyzer 5000	1.733	.085	.936	1.069	.936
Standardized Field Sobriety Testing	1.933	.055	.962	1.040	.962
Specialized Activities	1.024	.307	.963	1.038	.963
Radar	.866	.388	.924	1.082	.924
Lidar	.834	.406	.991	1.009	.991
Northwest	.562	.575	.893	1.120	.893

### **Performance**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of performance. Pearson's  $r$  was used to calculate the correlations between the independent and dependent variable. The bivariate correlations between the selected academy measures and the dependent variable were examined (Table 4.24). The results indicated that the following correlations were significant: OC Spray ( $r = -.19$ ,  $p = 0.01$ ) indicated a negative, low association with the dependent variable; MDTS ( $r = .21$ ,  $p = <.001$ ) indicated a positive, low association with the dependent variable; Traffic Services ( $r = -.19$ ,  $p = 0.01$ ) indicated a negative, low association with the dependent variable; Intoxilyzer 5000 ( $r = .16$ ,  $p =$

0.04) indicated a positive, low association with the dependent variable; Standard Field Sobriety Testing ( $r = .20$ ,  $p = 0.01$ ) indicated a positive, low association with the dependent variable; Radar ( $r = .16$ ,  $p = 0.04$ ) indicated a positive, low association with the dependent variable; and POST/Final exam ( $r = .28$ ,  $p = <.001$ ) indicated a positive, low association with the dependent variable.

Table 4.24 Relationship Between the Performance Score in the Field Training Officer Program and the Academy Examination Scores Among Newly Commissioned Law Enforcement Officers in a Southeastern State

Variable	Correlation <sup>a</sup>	Sig. (2-tailed)	Strength of Relationship
POST/Final	0.28	<.001	Low
MDTS	0.21	<.001	Low
Standardized Field Sobriety Testing	0.20	0.01	Low
Traffic Services	-0.19	0.01	Low
OC Spray	-0.19	0.01	Low
Intoxilyzer 5000	0.16	0.04	Low
Radar	0.16	0.04	Low
Legal Aspects	0.11	0.13	Low
Firearms	0.11	0.14	Low
Northwest	0.08	0.32	Negligible
Lidar	0.07	0.34	Negligible
MEBS	0.06	0.41	Negligible
Investigations	-0.04	0.64	Negligible
Patrol Activities	0.03	0.74	Negligible
Report Writing	-0.02	0.84	Negligible
Specialized Activities	-0.02	0.76	Negligible
Orientation to Criminal Justice	-0.01	0.93	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient			
Note: There were a total of 178 observations for each of the variables.			

The tolerance levels (Table 4.25) were then examined to test for multicollinearity. Tolerance levels less than 0.20 can indicate a problem with multicollinearity. Examination of the tolerance levels (range from 0.755 to 0.897) did not raise a significant concern of collinearity

amongst the variables as they were well above the threshold value. Testing performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .419 and an  $R^2$  value of .176. The POST/Final exam, the Traffic Services exam, the MDTs exam, and the OC Spray exam were the only independent variables to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 9.208$ ,  $p < .001$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the POST/Final exam, the Traffic Services exam, the MDTs exam, and the OC Spray exam were useful predictors of the law enforcement officer's performance score. The model summary is found in Table 4.25. The resulting linear equation for this model was  $y = .291X_1 - .166X_2 + .162X_3 - .154X_4 + 3.090$  where  $X_1$  is the law enforcement officer's score on the POST/Final examination,  $X_2$  is the law enforcement officer's score on the Traffic Services examination,  $X_3$  is the law enforcement officer's score on the MDTs examination, and  $X_4$  is the law enforcement officer's score on the OC Spray examination. The relationship is such that for every unit increase in a cadet's score on the POST/Final examination, all other variables being held constant, there is a .291 increase in the performance score attained by the newly commissioned officer in the field training officer program; for every unit increase in a cadet's score on the Traffic Services examination, all other variables being held constant, there is a .166 decrease in the performance score attained by the newly commissioned officer in the field training officer program; for every unit increase in a cadet's score on the MDTs examination, all other variables being held constant, there is a .162 increase in the performance score attained by the newly commissioned officer in the field training officer program; and for every unit increase in a cadet's score on the OC Spray examination, all other

variables being held constant, there is a .154 decrease in the performance score attained by the newly commissioned officer in the field training officer program.

Table 4.25 Regression of Selected Training Academy Examination Scores on the Performance of Newly Commissioned Law Enforcement Officers in the Field Training Officer Program in a Southeastern State

Model		Sum of Squares		df	Mean Square	F	Sig.		
Regression		.557		4	.139	9.208	<.001		
Residual		2.616		173	.015				
Total		3.173		177					
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1 <sup>a</sup>	.282	.079	.074	.128814	.079	15.198	1	176	<.001
2 <sup>b</sup>	.358	.128	.118	.125707	.049	9.807	1	175	.002
3 <sup>c</sup>	.392	.154	.139	.124202	.026	5.267	1	174	.023
4 <sup>d</sup>	.419	.176	.156	.122961	.022	4.530	1	173	.035
<sup>a</sup> Predictors: (Constant), POST/Final									
<sup>b</sup> Predictors: (Constant), POST/Final, Traffic Services									
<sup>c</sup> Predictors: (Constant), POST/Final, Traffic Services, MDTs									
<sup>d</sup> Predictors: (Constant), POST/Final, Traffic Services, MDTs, OC Spray									
Coefficients									
Variable		Unstandardized Coefficients		Standardized Coefficients		t	Sig.		
		B	Std. Error	Beta					
	(Constant)	3.090	.438			7.054	<.001		
	POST/Final	.008	.002	.291		4.137	<.001		
	Traffic Services	-.005	.002	-.166		-2.283	.024		
	MDTs	.009	.004	.162		2.323	.021		
	OC Spray	-.004	.002	-.154		-2.128	.035		
Excluded Variables									
Variable		t	Sig.	Collinearity Statistics					
				Tolerance	VIF	Minimum Tolerance			
Report Writing		.069	.945	.902	1.109	.869			

Table continues

Table 4.25 continued

Orientation to Criminal Justice	-1.053	.294	.792	1.262	.792
Firearms	1.419	.158	.857	1.167	.857
MEBS	-.099	.922	.881	1.134	.881
Legal Aspects	.927	.355	.793	1.261	.793
Patrol Activities	.736	.463	.876	1.142	.865
Investigations	-.785	.434	.868	1.152	.863
Intoxilyzer 5000	1.171	.243	.882	1.134	.882
Standardized Field Sobriety Testing	1.687	.093	.949	1.054	.897
Specialized Activities	-.174	.862	.877	1.140	.864
Radar	1.086	.279	.853	1.172	.853
Lidar	1.150	.252	.918	1.089	.854
Northwest	.611	.542	.755	1.324	.755

### **Relationships**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of relationships. Pearson's  $r$  was used to calculate the correlations between the independent and dependent variable. The bivariate correlations (Table 4.26) between the selected academy measures and the dependent variable were examined. The MEBS exam ( $r = .16$ ,  $p = 0.04$ ) indicated a significant positive, low association with the dependent variable.

Table 4.26 Relationship Between the Relationships Score in the Field Training Officer Program and the Academy Examination Scores Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>Strength of Relationship</b>
MEBS	0.16	0.04	Low
Intoxilyzer 5000	0.14	0.06	Low

Table continues

Table 4.26 continued

Standardized Field Sobriety Testing	0.13	0.08	Low
POST/Final	0.12	0.10	Low
Patrol Activities	0.09	0.23	Negligible
Legal Aspects	0.08	0.28	Negligible
Radar	-0.08	0.29	Negligible
Report Writing	0.07	0.33	Negligible
Traffic Services	0.07	0.37	Negligible
Investigations	0.07	0.39	Negligible
Orientation to Criminal Justice	0.06	0.42	Negligible
Firearms	0.04	0.59	Negligible
Specialized Activities	0.04	0.62	Negligible
MDTS	0.02	0.79	Negligible
Lidar	-0.02	0.80	Negligible
OC Spray	0.01	0.92	Negligible
Northwest	0.01	0.95	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient			
Note: There were a total of 178 observations for each of the variables.			

Following the examination of the bivariate correlations was an examination of the presence of multicollinearity among the independent variable. Tolerance levels were used to test for multicollinearity. The tolerance levels (Table 4.27) were well above the threshold value (range from 0.947 to 1.00) and therefore not a concern with this model of regression analysis. Testing relationships as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .157 and an  $R^2$  value of .025. The MEBS exam was the only independent variable to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 4.474$ ,  $p = .036$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the MEBS exam was a useful predictor of the law enforcement officer's relationship score. The model summary is found in Table 4.27. The resulting linear equation for this model was  $y = .157X_1 + 3.754$  where

$X_1$  is the law enforcement officer's score on the MEBS examination. The relationship is such that for every unit increase in a cadet's score on the MEBS examination, all other variables being held constant, there is a .157 increase in the relationships score attained by the newly commissioned officer in the field training officer program.

Table 4.27 Regression of Selected Training Academy Examination Scores on the Relationship Scores of Newly Commissioned Law Enforcement Officers in the Field Training Officer Program in a Southeastern State

Model		Sum of Squares		df	Mean Square	F	Sig.		
Regression		.021		1	.021	4.474	.036		
Residual		.825		176	.005				
Total		.845		177					
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1 <sup>a</sup>	.157	.025	.019	.068445	.025	4.474	1	176	.036
<sup>a</sup> Predictors: (Constant), MEBS									
Coefficients									
Variable		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
(Constant)		3.754	.126		29.725	.000	3.504	4.003	
MEBS		.003	.001	.157	2.115	.036	.000	.005	
Excluded Variables									
Variable		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
						Tolerance			
Report Writing		.065	.865	.388	.065	.997			
Orientation to Criminal Justice		.038	.509	.611	.038	.978			
Firearms		.026	.343	.732	.026	.991			
OC Spray		-.006	-.082	.934	-.006	.992			
MDTS		-.020	-.261	.795	-.020	.937			

Table continues

Table 4.27 continued

Legal Aspects	.066	.877	.382	.066	.989
Patrol Activities	.077	1.036	.302	.078	.993
Traffic Services	.047	.624	.533	.047	.980
Investigations	.059	.788	.432	.059	.999
Intoxilyzer 5000	.118	1.573	.118	.118	.978
Standardized Field Sobriety Testing	.111	1.477	.142	.111	.982
Specialized Activities	.010	.126	.900	.009	.968
Radar	-.106	-1.407	.161	-.106	.978
Lidar	-.021	-.284	.776	-.021	1.000
POST/Final	.094	1.232	.220	.093	.950
Northwest	-.033	-.426	.671	-.032	.947

### **Overall Performance**

The final FTO performance measure entered as a dependent variable for regression analysis was the measure of overall performance. Pearson's  $r$  was used to calculate the correlations between the independent and dependent variable. The bivariate correlations (Table 4.28) between the selected academy measures and the dependent variable were examined. The results indicated that the following correlations were significant: Intoxilyzer 5000 ( $r = .21$ ,  $p = <.001$ ) indicated a positive, low relationship with the dependent variable; Standard Field Sobriety Testing ( $r = .22$ ,  $p = <.01$ ) indicated a positive, low relationship with the dependent variable; and, POST/Final exam ( $r = .27$ ,  $p = <.001$ ) indicated a positive, low relationship with the dependent variable.

Table 4.28 Relationship Between the Cumulative Performance in the Field Training Officer Program and the Academy Examination Scores Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>Strength of Relationship</b>
POST/Final	0.27	<0.001	Low

Table continues



Table 4.28 continued

Standardized Field Sobriety Testing	0.22	<0.001	Low
Intoxilyzer 5000	0.21	<0.001	Low
Legal Aspects	0.11	0.15	Low
Firearms	0.11	0.16	Low
Radar	0.09	0.22	Negligible
MDTS	0.09	0.25	Negligible
Northwest	0.08	0.28	Negligible
Traffic Services	0.08	0.29	Negligible
Lidar	0.08	0.31	Negligible
Orientation to Criminal Justice	0.08	0.32	Negligible
Investigations	0.07	0.37	Negligible
Patrol Activities	0.05	0.50	Negligible
Specialized Activities	0.05	0.50	Negligible
OC Spray	-0.05	0.51	Negligible
MEBS	0.04	0.58	Negligible
Report Writing	-0.01	0.88	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient			
Note: There were a total of 178 observations for each of the variables.			

The tolerance levels (Table 4.29) were then examined to test for multicollinearity; examination of the tolerance levels did not raise a significant concern of collinearity amongst the variables as they were well above the threshold value. The range of the tolerance levels was 0.808 to 0.952. Testing overall performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .316 and an  $R^2$  value of .100. The POST/Final exam and the SFST exam were the only independent variables to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 9.715$ ,  $p < .001$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the POST/Final exam and the SFST exam were useful predictors of the law enforcement officer's overall performance score. The model summary is

found in Table 4.29. The resulting linear equation for this model was  $y = .237X_1 + .168X_2 + 3.198$  where  $X_1$  is the law enforcement officer's score on the POST/Final examination and  $X_2$  is the law enforcement officer's score on the Standardized Field Sobriety examination. The relationship is such that for every unit increase in a cadet's score on the POST/Final examination, all other variables being held constant, there is a .237 increase in the overall performance score attained by the newly commissioned officer in the field training officer program; and, for every unit increase in a cadet's score on the Standardized Field Sobriety examination, all other variables being held constant, there is a .168 increase in the overall performance score attained by the newly commissioned officer in the field training officer program.

Table 4.29 Regression of Selected Training Academy Examination Scores on the Cumulative Performance Scores of Newly Commissioned Law Enforcement Officers in the Field Training Officer Program in a Southeastern State

Model	Sum of Squares	df	Mean Square	F	Sig.				
Regression	.160	2	.080	9.715	<.001				
Residual	1.437	175	.008						
Total	1.597	177							
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1 <sup>a</sup>	.270	.073	.067	.091725	.073	13.789	1	176	<.001
2 <sup>b</sup>	.316	.100	.090	.090624	.027	5.303	1	175	.022
<sup>a</sup> Predictors: (Constant), POST/Final									
<sup>b</sup> Predictors: (Constant), POST/Final, Standardized Field Sobriety Testing									
Coefficients									

Table continues

Table 4.29 continued

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.198	0.178		18.001	<.001
POST/Final	0.005	0.002	0.237	3.237	0.001
Standardized Field Sobriety Testing	0.004	0.002	0.168	2.303	0.022
<b>Excluded Variables</b>					
Variables	t	Sig.	Collinearity Statistics		
			Tolerance	VIF	Minimum Tolerance
Report Writing	-1.139	.256	.953	1.050	.943
Orientation to Criminal Justice	-.315	.753	.887	1.128	.862
Firearms	.127	.899	.900	1.111	.889
OC Spray	-.680	.497	.986	1.014	.952
MDTS	.634	.527	.982	1.019	.949
MEBS	-.489	.625	.942	1.062	.922
Legal Aspects	-.454	.650	.808	1.237	.808
Patrol Activities	-.084	.933	.960	1.042	.926
Traffic Services	.793	.429	.981	1.019	.945
Investigations	-.355	.723	.911	1.098	.896
Intoxilyzer 5000	1.565	.119	.875	1.143	.875
Specialized Activities	-.090	.928	.962	1.039	.930
Radar	-.011	.992	.912	1.097	.900
Lidar	.244	.807	.949	1.054	.921
Northwest	-.099	.921	.893	1.120	.862

### **Objective Six Results**

The sixth objective was to determine if a model existed which explained a significant portion of the variance of the performance of newly commissioned law enforcement officers in field

training officer program as measured through their average scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training and demographic characteristics:

- a. Gender
- b. Age
- c. Prior military experience
- d. Level of education
- e. Report Writing
- f. Orientation to Criminal Justice
- g. Firearms
- h. OC Spray
- i. MDTs
- j. MEBS
- k. Legal Aspects
- l. Patrol Activities
- m. Traffic Services
- n. Investigations
- o. Intoxilyzer 5000
- p. Standard Field Sobriety Testing
- q. Specialized Activities
- r. Radar
- s. Lidar
- t. NUCI

u. Post/Final Exam

To accomplish this objective, forward regression was used with each of the measures of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance as the dependent variable and the selected demographic and academy training measures as independent variables. Dummy coding was used for the categorical variables of gender, prior military experience, and level of education; the remaining variables are measured on an interval or higher scale. The researcher tested the overall significance of the model using an a priori alpha level of 0.05 and proceeded to fit a model that accounted for the greatest variance in the dependent variable using the  $R^2$  statistic while ensuring that each of the beta coefficients were statistically significant at the a priori alpha level of 0.05.

**Appearance**

The first FTO performance measure entered as a dependent variable for regression analysis was the measure of appearance. The first step in a multiple regression analysis is to examine the bivariate correlations. All independent variables except gender, education, and military experience were measured on an interval scale. The variables of gender, education, and military experience were measured on a dichotomous scale by which gender was coded as 1 for male and 0 for female; education was coded as 1 for having earned a college degree and 0 for not having earned a college degree; and, military experience was coded as 1 for having previous military experience and 0 for not having previous military experience. Pearson's  $r$  was used to measure the correlations between the measures on an interval scale and the dependent variable; Spearman's Rho was used to calculate the correlations between the dichotomous variables and the dependent variable. The bivariate correlations (Table 4.30) between the selected academy measures, the selected demographic variables, and the dependent variable were examined and

produced no significant relationships. Concomitantly, the regression analysis did not yield a significant model. None of the selected law enforcement academy measures and demographic variables explained a significant portion of the variance in the newly commissioned officer's appearance score as measured through the field training officer program.

Table 4.30 Relationship Between the Appearance Score in the Field Training Officer Program, the Academy Examination Scores, and Selected Demographic Variables Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Traffic Services	0.12	0.10	178.00	Low
Intoxilyzer 5000	0.10	0.18	178.00	Low
MEBS	-0.08	0.28	178.00	Negligible
POST/Final	0.07	0.39	178.00	Negligible
MDTS	-0.06	0.40	178.00	Negligible
Standardized Field Sobriety Testing	0.06	0.41	178.00	Negligible
Patrol Activities	-0.05	0.51	178.00	Negligible
Age	0.04	0.61	148.00	Negligible
Radar	-0.03	0.74	178.00	Negligible
Specialized Activities	-0.03	0.71	178.00	Negligible
Report Writing	0.02	0.76	178.00	Negligible
Lidar	0.02	0.81	178.00	Negligible
Northwest	0.01	0.87	178.00	Negligible
Legal Aspects	0.01	0.89	178.00	Negligible
OC Spray	0.01	0.94	178.00	Negligible
Orientation to Criminal Justice	-0.01	0.93	178.00	Negligible
Investigations	-0.01	0.92	178.00	Negligible
Firearms	-0.01	0.88	178.00	Negligible
<b>Demographic Variable</b>	<b>Correlation<sup>b</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Sex	-0.05	0.49	173.00	Negligible
Military	-0.07	0.33	178.00	Negligible
Education	-0.11	0.15	178.00	Low
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient				
<sup>b</sup> Measured using Spearman's Rho Correlation Coefficient				

## **Attitude**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of attitude. Pearson's  $r$  was used to calculate the correlation between the interval variables and the dependent variable. Spearman's Rho was used to calculate the correlations between the dichotomous variables and the dependent variable. The bivariate correlations (Table 4.31) between the selected academy measures, the selected demographic variables, and the dependent variable were examined and produced no significant relationships. Despite these correlations results, a regression model was found to be significant.

Table 4.31 Relationship Between the Attitude Score in the Field Training Officer Program, the Academy Examination Scores, and Selected Demographic Variables Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Standardized Field Sobriety Testing	0.14	0.07	178.00	Low
Intoxilyzer 5000	0.12	0.10	178.00	Low
Traffic Services	0.10	0.17	178.00	Low
POST/Final	0.09	0.23	178.00	Negligible
Age	0.09	0.28	148.00	Negligible
Lidar	0.06	0.44	178.00	Negligible
Investigations	0.06	0.45	178.00	Negligible
Firearms	-0.05	0.55	178.00	Negligible
Legal Aspects	-0.05	0.54	178.00	Negligible
OC Spray	0.04	0.64	178.00	Negligible
Radar	0.03	0.71	178.00	Negligible
Orientation to Criminal Justice	0.03	0.72	178.00	Negligible
Report Writing	-0.03	0.73	178.00	Negligible
Specialized Activities	0.02	0.76	178.00	Negligible
MEBS	-0.02	0.83	178.00	Negligible
MDTS	-0.02	0.79	178.00	Negligible
Northwest	-0.01	0.90	178.00	Negligible
Patrol Activities	-0.01	0.85	178.00	Negligible

Table continues

Table 4.31 continued

<b>Demographic Variable</b>	<b>Correlation<sup>b</sup></b>	<b>Sig. (2-tailed)</b>		<b>Strength of Relationship</b>
Sex	0.00	0.97	173.00	Negligible
Military	-0.06	0.44	178.00	Negligible
Education	-0.08	0.26	178.00	Low
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient				
<sup>b</sup> Measured using Spearman's Rho Correlation Coefficient				

The tolerance levels (Table 4.32) were then examined to test for multicollinearity; examination of the tolerance levels did not raise a significant concern of collinearity amongst the variables as they were well above the threshold value. The range of the tolerance levels was 0.880 to 1.00. Testing attitude as the dependent variable against the independent variables from the law enforcement academy and selected demographic variable produced a Pearson's  $r$  value of .173 and an  $R^2$  value of .030. The Specialized Activities examination was the only independent variable to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 4.451$ ,  $p = .037$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the Specialized Activities examination was useful predictors of the law enforcement officer's attitude score. The model summary is found in Table 4.32. The resulting linear equation for this model was  $y = .173X_1 + 3.654$  where  $X_1$  is the law enforcement officer's score on the Specialized Activities examination. The relationship is such that for every unit increase in a cadet's score on the Specialized Activities examination, all other variables being held constant, there is a .173 increase in the attitude score attained by the newly commissioned officer in the field training officer program.



Table 4.32 Regression of Selected Training Academy Examination Scores and Selected Demographic Variables on the Attitude Scores of Newly Commissioned Law Enforcement Officers in the Field Training Officer Program in a Southeastern State

Model		Sum of Squares		df		Mean Square		F		Sig.	
Regression		.058		1		.058		4.451		.037	
Residual		1.874		145		.013					
Total		1.932		146							
Model Summary											
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics						
					R Square Change	F Change	df1	df2	Sig. F Change		
1 <sup>a</sup>	.173	.030	.023	.113698	.030	4.451	1	145	.037		
<sup>a</sup> Predictors: (Constant, Specialized Activities)											
Coefficients											
Variables		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B				
		B	Std. Error	Beta			Lower Bound	Upper Bound			
		3.654	.186		19.692	.000	3.287	4.020			
Specialized Activities		.004	.002	.173	2.110	.037	.000	.008			
Excluded Variables											
Variable		Beta In		t	Sig.	Partial Correlation	Collinearity Statistics				
							Tolerance				
Report Writing		-.035		-.422	.674	-.035	.967				
Orientation to Criminal Justice		.028		.332	.740	.028	.978				
Firearms		-.124		-1.521	.130	-.126	.998				
OC Spray		.060		.724	.470	.060	.970				
MDTS		-.065		-.786	.433	-.065	.993				
MEBS		-.024		-.289	.773	-.024	.958				
Legal Aspects		-.145		-1.679	.095	-.139	.880				
Patrol Activities		-.050		-.598	.551	-.050	.945				
Traffic Services		.093		1.091	.277	.091	.918				
Investigations		.060		.697	.487	.058	.914				
Intoxilyzer 5000		.040		.481	.631	.040	.967				

Table continues

Table 4.32 continued

Standardized Field Sobriety Testing	.147	1.796	.075	.148	.986
Radar	.016	.190	.850	.016	.990
Lidar	.087	1.052	.295	.087	.985
POST/Final	.065	.778	.438	.065	.963
Northwest	.023	.272	.786	.023	.933
Final Average	-.005	-.057	.954	-.005	.853
Age	.088	1.047	.297	.087	.951
Sex	.029	.352	.725	.029	1.000
Military	-.026	-.311	.756	-.026	1.000
Educ	-.001	-.012	.991	-.001	.942

### **Knowledge**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of knowledge. Pearson's  $r$  was used to calculate the correlation between the interval variables and the dependent variable. Spearman's Rho was used to calculate the correlations between the dichotomous variables and the dependent variable. The bivariate correlations (Table 4.33) between the selected academy measures, selected demographic variables, and the dependent variable were examined. The results indicated that the following correlations were significant: Orientation to Criminal Justice ( $r = .15$ ,  $p = 0.05$ ) indicated a positive, low association with the dependent variable; Firearms ( $r = .20$ ,  $p = 0.01$ ) indicated a positive, low association with the dependent variable; Legal Aspects ( $r = .18$ ,  $p = 0.02$ ) indicated a positive, low association with the dependent variable; Intoxilyzer 5000 ( $r = .20$ ,  $p = 0.01$ ) indicated a positive, low association with the dependent variable; Standard Field Sobriety Testing ( $r = .19$ ,  $p = 0.01$ ) indicated a positive, low association with the dependent variable; and, POST/Final exam ( $r = .30$ ,  $p < 0.001$ ) indicated a positive, moderate association with the dependent variable.

Table 4.33 Relationship Between the Knowledge Score in the Field Training Officer Program, the Academy Examination Scores, and Selected Demographic Variables Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
POST/Final	0.30	< 0.001	178.00	Moderate
Firearms	0.20	0.01	178.00	Low
Intoxilyzer 5000	0.20	0.01	178.00	Low
Standardized Field Sobriety Testing	0.19	0.01	178.00	Low
Legal Aspects	0.18	0.02	178.00	Low
Orientation to Criminal Justice	0.15	0.05	178.00	Low
Radar	0.14	0.06	178.00	Low
Northwest	0.14	0.07	178.00	Low
Investigations	0.13	0.08	178.00	Low
Specialized Activities	0.13	0.09	178.00	Low
Traffic Services	0.13	0.09	178.00	Low
Patrol Activities	0.12	0.11	178.00	Low
MDTS	0.12	0.11	178.00	Low
Age	0.09	0.26	148.00	Negligible
Lidar	0.09	0.24	178.00	Negligible
MEBS	0.07	0.33	178.00	Negligible
OC Spray	-0.02	0.76	178.00	Negligible
Report Writing	-0.04	0.57	178.00	Negligible
<b>Demographic Variable</b>	<b>Correlation<sup>b</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Military	0.03	0.68	178.00	Negligible
Sex	-0.01	0.91	173.00	Negligible
Education	-0.13	0.08	178.00	Low
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient				
<sup>b</sup> Measured using Spearman's Rho Correlation Coefficient				

The tolerance levels (Table 4.34) were then examined to test for multicollinearity; examination of the tolerance levels did not raise a significant concern of collinearity amongst the variables as they were well above the threshold value. The range of the tolerance levels was 0.818 to 0.995. Testing knowledge as the dependent variable against the independent variables from the law enforcement academy and selected demographic variable produced a Pearson's r

value of .358 and an  $R^2$  value of .128. The POST/Final exam and the education variable were the only independent variables to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 10.554$ ,  $p < .001$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the POST/Final exam and the education variable are useful predictors of the law enforcement officer's knowledge score. The model summary is found in Table 4.34. The resulting linear equation for this model was  $y = .311X_1 -.180X_2 + 2.650$  where  $X_1$  is the law enforcement officer's score on the POST/Final examination and  $X_2$  is the law enforcement officer's level of education where 0 is did not earn a degree and 1 is having earned a degree. The relationship is such that for every unit increase in a cadet's score on the POST/Final examination, all other variables being held constant, there is a .311 increase in the knowledge score attained by the newly commissioned officer in the field training officer program; and, if a cadet has earned a college degree (coded as 1 in the regression model), the knowledge score of the newly commissioned officer in the field training officer program, when all other variables are held constant, will decrease by .180.

Table 4.34 Regression of Selected Training Academy Examination Scores and Selected Demographic Variables on the Knowledge Scores of Newly Commissioned Law Enforcement Officers in the Field Training Officer Program in a Southeastern State

Model	Sum of Squares	df	Mean Square	F	Sig.				
Regression	.712	2	.356	10.554	<.001				
Residual	4.858	144	.034						
Total	5.570	146							
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

Table continues

Table 4.34 continued

1 <sup>a</sup>	.309	.095	.089	.186408	.095	15.292	1	145	<.001
2 <sup>b</sup>	.358	.128	.116	.183670	.032	5.356	1	144	.022
<sup>a</sup> Predictors: (Constant), POST/Final									
<sup>b</sup> Predictors: (Constant), POST/Final, Education									
Coefficients									
Variable	Unstandardized Coefficients		Standardized Coefficients		t	Sig.			
	B	Std. Error	Beta						
(Constant)	2.650	.280			9.455	<.001			
POST/Final	.013	.003	.311		3.998	<.001			
Education	-.082	.035	-.180		-2.314	.022			
Excluded Coefficients									
Variable	t	Sig.	Collinearity Statistics						
			Tolerance	VIF	Minimum Tolerance				
Report Writing	-.795	.428	.955	1.047	.955				
Orientation to Criminal Justice	.461	.645	.870	1.149	.870				
Firearms	1.099	.274	.892	1.121	.892				
OC Spray	-.169	.866	.989	1.011	.989				
MDTS	.498	.619	.973	1.027	.973				
MEBS	-1.620	.107	.894	1.119	.894				
Legal Aspects	.836	.405	.850	1.176	.850				
Patrol Activities	.758	.450	.905	1.105	.905				
Traffic Services	.402	.688	.948	1.055	.948				
Investigations	1.410	.161	.888	1.127	.888				
Intoxilyzer 5000	.509	.611	.937	1.067	.937				
Standardized Field Sobriety Testing	1.585	.115	.960	1.042	.960				
Specialized Activities	.726	.469	.904	1.107	.904				
Radar	1.060	.291	.937	1.067	.937				
Lidar	1.719	.088	.970	1.031	.970				
Northwest	-.149	.882	.818	1.222	.818				
Sex	.251	.802	.990	1.010	.990				
Military	.555	.580	.995	1.005	.995				
Age	.980	.329	.995	1.005	.995				

## **Performance**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of performance. Pearson's  $r$  was used to calculate the correlation between the interval variables and the dependent variable. Spearman's Rho was used to calculate the correlation between the dichotomous variables and the dependent variable. The bivariate correlations (Table 4.35) between the selected academy measures, the selected demographic variables, and the dependent variable were examined. The data indicated that the following correlations were significant: OC Spray ( $r = -.19$ ,  $p = 0.01$ ) indicated a negative, low association with the dependent variable; MDTs ( $r = .21$ ,  $p = <.001$ ) indicated a positive, low association with the dependent variable; Traffic Services ( $r = -.19$ ,  $p = 0.01$ ) indicated a negative, low association with the dependent variable; Intoxilyzer 5000 ( $r = .16$ ,  $p = 0.04$ ) indicated a positive, low association with the dependent variable; Standard Field Sobriety Testing ( $r = .20$ ,  $p = 0.01$ ) indicated a positive, low association with the dependent variable; Radar ( $r = .16$ ,  $p = 0.04$ ) indicated a positive, low association with the dependent variable; and, POST/Final exam ( $r = .28$ ,  $p = <.001$ ) indicated a positive, moderate association with the dependent variable.

Table 4.35 Relationship Between the Performance Score in the Field Training Officer Program, the Academy Examination Scores, and Selected Demographic Variables Among Newly Commissioned Officers in a Southeastern State

Variable	Correlation <sup>a</sup>	Sig. (2-tailed)	N	Strength of Relationship
POST/Final	0.28	<0.001	178.00	Moderate
MDTS	0.21	<0.001	178.00	Low
Standardized Field Sobriety Testing	0.20	0.01	178.00	Low
Traffic Services	-0.19	0.01	178.00	Low
OC Spray	-0.19	0.01	178.00	Low
Intoxilyzer 5000	0.16	0.04	178.00	Low
Radar	0.16	0.04	178.00	Low
Legal Aspects	0.11	0.13	178.00	Low

Table continues

Table 4.35 continued

Firearms	0.11	0.14	178.00	Low
Age	0.11	0.21	148.00	Low
Northwest	0.08	0.32	178.00	Negligible
Lidar	0.07	0.34	178.00	Negligible
MEBS	0.06	0.41	178.00	Negligible
Investigations	-0.04	0.64	178.00	Negligible
Patrol Activities	0.03	0.74	178.00	Negligible
Report Writing	-0.02	0.84	178.00	Negligible
Specialized Activities	-0.02	0.76	178.00	Negligible
Orientation to Criminal Justice	-0.01	0.93	178.00	Negligible
<b>Demographic Variable</b>	<b>Correlation<sup>b</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Education	-0.13	0.08	178.00	Low
Sex	0.02	0.80	173.00	Negligible
Military	-0.01	0.89	178.00	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient				
<sup>b</sup> Measured using Spearman's Rho Correlation Coefficient				

The tolerance levels (Table 4.36) were then examined to test for multicollinearity; examination of the tolerance levels did not raise a significant concern of collinearity amongst the variables as they were well above the threshold value. The range of the tolerance levels was 0.814 to 0.953. Testing performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .416 and an  $R^2$  value of .173. The POST/Final exam, the Traffic Services exam, and the MDTS exam were the only independent variables to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 9.988$ ,  $p < .001$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and the POST/Final exam, the Traffic Services exam, and the MDTS exam were useful predictors of the law enforcement officer's performance score. The model summary is found in Table 4.36. The resulting linear equation for

this model was  $y = .295X_1 - .237X_2 + .192X_3 + 2.178$  where  $X_1$  is the law enforcement officer's score on the POST/Final examination,  $X_2$  is the law enforcement officer's score on the Traffic Services examination, and  $X_3$  is the law enforcement officer's score on the MDTs examination. The relationship is such that for every unit increase in a cadet's score on the POST/Final examination, all other variables being held constant, there is a .295 increase in the performance score attained by the newly commissioned officer in the field training officer program; for every unit increase in a cadet's score on the Traffic Services examination, all other variables being held constant, there is a .237 decrease in the performance score attained by the newly commissioned officer in the field training officer program; and, for every unit increase in a cadet's score on the MDTs examination, all other variables being held constant, there is a .192 increase in the performance score attained by the newly commissioned officer in the field training officer program.

Table 4.36 Regression of Selected Training Academy Examination Scores and Selected Demographic Variables on the Performance Scores of Newly Commissioned Officers in the Field Training Officer Program in a Southeastern United State

Model	Sum of Squares	df	Mean Square	F	Sig.				
Regression	.458	3	.153	9.988	<.001				
Residual	2.188	143	.015						
Total	2.646	146							
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1 <sup>a</sup>	.275	.076	.069	.129877	.076	11.868	1	145	.001
2 <sup>b</sup>	.370	.137	.125	.125929	.061	10.235	1	144	.002
3 <sup>c</sup>	.416	.173	.156	.123686	.036	6.270	1	143	.013
<sup>a</sup> Predictors: (Constant), POST/Final									
<sup>b</sup> Predictors: (Constant), POST/Final, Traffic Services									
<sup>c</sup> Predictors: (Constant), POST/Final, Traffic Services, MDTs									

Table continues



Table 4.36 continued

<b>Coefficients</b>					
<b>Variable</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
Constant	2.718	.478		5.685	<.001
POST/Final	.009	.002	.295	3.793	<.001
Traffic Services	-.007	.002	-.237	-3.053	.003
MDTS	.011	.004	.192	2.504	.013
<b>Excluded Variables</b>					
<b>Variable</b>	<b>t</b>	<b>Sig.</b>	<b>Collinearity Statistics</b>		
			<b>Tolerance</b>	<b>VIF</b>	<b>Minimum Tolerance</b>
Report Writing	-.182	.856	.943	1.060	.920
Orientation to Criminal Justice	-1.289	.200	.828	1.208	.828
Firearms	.759	.449	.881	1.135	.854
OC Spray	-1.963	.052	.929	1.076	.904
MEBS	-.734	.464	.893	1.120	.893
Legal Aspects	.907	.366	.820	1.219	.820
Patrol Activities	.269	.788	.890	1.123	.879
Investigations	-.149	.882	.821	1.218	.821
Intoxilyzer 5000	.606	.545	.881	1.135	.881
Standardized Field Sobriety Testing	1.803	.074	.973	1.028	.928
Specialized Activities	.409	.683	.891	1.122	.891
Radar	.831	.408	.935	1.069	.897
Lidar	1.125	.263	.986	1.014	.952
Northwest	.174	.862	.814	1.228	.814
Sex	1.072	.286	.990	1.010	.953
Military	.152	.880	.965	1.036	.946
Education	-1.587	.115	.962	1.040	.939
Age	1.212	.227	.975	1.026	.948

### **Relationships**

The next FTO performance measure entered as a dependent variable for regression analysis was the measure of relationships. Pearson's  $r$  was used to calculate the correlation between the interval variables and the dependent variable. Spearman's Rho was used to calculate the correlation between the dichotomous variables and the dependent variable. The bivariate

correlations (Table 4.37) between the selected academy measures and the dependent variable were examined and produced only one significant correlation. This was the MEBS exam ( $r = .16$ ,  $p = 0.04$ ) which had a positive, low correlation with the dependent variable. When the dependent variable was regressed on the selected independent variables, however, no variables entered into the regression model; therefore regression analysis did not yield a significant model. None of the selected law enforcement academy measures and demographic variables explained a significant portion of the variance in the newly commissioned officer's relationship score as measured through the field training officer program.

Table 4.37 Relationship Between the Relationships Score in the Field Training Officer Program, the Academy Examination Scores, and Selected Demographic Variables Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
MEBS	0.16	0.04	178.00	Low
Intoxilyzer 5000	0.14	0.06	178.00	Low
Standardized Field Sobriety Testing	0.13	0.08	178.00	Low
POST/Final	0.12	0.10	178.00	Low
Patrol Activities	0.09	0.23	178.00	Negligible
Legal Aspects	0.08	0.28	178.00	Negligible
Radar	-0.08	0.29	178.00	Negligible
Report Writing	0.07	0.33	178.00	Negligible
Traffic Services	0.07	0.37	178.00	Negligible
Investigations	0.07	0.39	178.00	Negligible
Age	0.06	0.48	148.00	Negligible
Orientation to Criminal Justice	0.06	0.42	178.00	Negligible
Firearms	0.04	0.59	178.00	Negligible
Specialized Activities	0.04	0.62	178.00	Negligible
MDTS	0.02	0.79	178.00	Negligible
Lidar	-0.02	0.80	178.00	Negligible
OC Spray	0.01	0.92	178.00	Negligible
Northwest	0.01	0.95	178.00	Negligible

Table continues

Table 4.37 continued

<b>Demographic Variable</b>	<b>Correlation<sup>b</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Military	-0.09	0.22	178.00	Negligible
Education	-0.08	0.29	178.00	Negligible
Sex	0.02	0.75	173.00	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient				
<sup>b</sup> Measured using Spearman's Rho Correlation Coefficient				

### **Overall Performance**

The last FTO performance measure entered as a dependent variable for regression analysis was the measure of overall performance. Pearson's  $r$  was used to calculate the correlation between the interval variables and the dependent variable. Spearman's Rho was used to calculate the correlation between the dichotomous variables and the dependent variable. The bivariate correlations (Table 4.38) between the selected academy measures and the dependent variable were examined. The data indicated that the following correlations were significant: Intoxilyzer 5000 ( $r = .21$ ,  $p = <.001$ ) indicated a positive, low relationship with the dependent variable; Standard Field Sobriety Testing ( $r = .22$ ,  $p = <0.001$ ) indicated a positive, low relationship with the dependent variable; POST/Final exam ( $r = .27$ ,  $p = <.001$ ) indicated a positive, low relationship with the dependent variable; and, education ( $r = -.20$ ,  $p = .01$ ) indicated a negative, low relationship with the dependent variable.

Table 4.38 Relationship Between the Cumulative Performance Score in the Field Training Officer Program, the Academy Examination Scores, and Selected Demographic Variables Among Newly Commissioned Law Enforcement Officers in a Southeastern State

<b>Variable</b>	<b>Correlation<sup>a</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
POST/Final	0.27	<0.001	178.00	Low
Standardized Field Sobriety Testing	0.22	<0.001	178.00	Low
Intoxilyzer 5000	0.21	<0.001	178.00	Low

Table continues

Table 4.38 continued

Age	0.12	0.16	148.00	Low
Legal Aspects	0.11	0.15	178.00	Low
Firearms	0.11	0.16	178.00	Low
Radar	0.09	0.22	178.00	Negligible
MDTS	0.09	0.25	178.00	Negligible
Northwest	0.08	0.28	178.00	Negligible
Traffic Services	0.08	0.29	178.00	Negligible
Lidar	0.08	0.31	178.00	Negligible
Orientation to Criminal Justice	0.08	0.32	178.00	Negligible
Investigations	0.07	0.37	178.00	Negligible
Patrol Activities	0.05	0.50	178.00	Negligible
Specialized Activities	0.05	0.50	178.00	Negligible
OC Spray	-0.05	0.51	178.00	Negligible
MEBS	0.04	0.58	178.00	Negligible
Report Writing	-0.01	0.88	178.00	Negligible
<b>Demographic Variable</b>	<b>Correlation<sup>b</sup></b>	<b>Sig. (2-tailed)</b>	<b>N</b>	<b>Strength of Relationship</b>
Education	-0.20	0.01	178.00	Low
Sex	-0.03	0.73	173.00	Negligible
Military	-0.03	0.72	178.00	Negligible
<sup>a</sup> Measured using Pearson Product Moment Correlation Coefficient				
<sup>b</sup> Measured using Spearman's Rho Correlation Coefficient				

The tolerance levels (Table 4.39) were then examined to test for multicollinearity; examination of the tolerance levels did not raise a significant concern of collinearity amongst the variables as they were well above the threshold value. The range of the tolerance levels was 0.793 to 0.960. Testing overall performance as the dependent variable against the independent variables from the law enforcement academy and the selected demographic variables produced a Pearson's  $r$  value of .379 and an  $R^2$  value of .144. The POST/Final exam, the education variable, and the Standardized Field Sobriety Testing exam were the only independent variables to enter the model. The significance of the slope was tested using the ANOVA table and was found to be significant ( $F = 8.020$ ,  $p < .001$ ) thus rejecting the null hypothesis that  $\beta = 0$ . At the a priori alpha

level of .05 there is enough evidence to conclude that the slope of the population regression line is not zero, and thus the POST/Final exam, the education variable, and the Standardized Field Sobriety Testing exam were useful predictors of the law enforcement officer's overall performance score. The standardized coefficients for the model are found in Table 4.39. The resulting linear equation for this model was  $y = .258X_1 - .191X_2 + .188X_3 + 3.180$  where  $X_1$  is the law enforcement officer's score on the POST/Final examination,  $X_2$  is the law enforcement officer's level of education where 0 is did not earn a degree and 1 is having earned a degree, and  $X_3$  is the law enforcement officer's score on the SFST examination. The relationship is such that for every unit increase in a cadet's score on the POST/Final examination, all other variables being held constant, there is a .258 increase in the overall performance score attained by the newly commissioned officer in the field training officer program; if a cadet has earned a college degree (coded as 1 in the regression model), the overall performance score of the newly commissioned officer in the field training officer program, when all other variables are held constant, will decrease by .191; and, for every unit increase in a cadet's score on the SFST examination, all other variables being held constant, there is a .188 increase in the overall performance score attained by the newly commissioned officer in the field training officer program.

Table 4.39 Regression of Selected Training Academy Examination Scores and Selected Demographic Variables on the Cumulative Performance Scores of Newly Commissioned Officers in the Field Training Officer Program in a Southeastern State

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	.171	3	.057	8.020	<.001
Residual	1.015	143	.007		
Total	1.186	146			
<b>Model Summary</b>					

Table continues

Table 4.39 continued

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1 <sup>a</sup>	.286	.082	.075	.086663	.082	12.915	1	145	<.001
2 <sup>b</sup>	.332	.110	.098	.085609	.028	4.591	1	144	.034
3 <sup>c</sup>	.379	.144	.126	.084257	.034	5.658	1	143	.019
<sup>a</sup> Predictors: (Constant), POST/Final									
<sup>b</sup> Predictors: (Constant), POST/Final, Education									
<sup>c</sup> Predictors: (Constant), POST/Final, Education, Standardized Field Sobriety Testing									
Coefficients									
Variable			Unstandardized Coefficients		Standardized Coefficients		t		Sig.
			B	Std. Error	Beta				
(Constant)			3.180	.181			17.556	<.001	
POST/Final			.005	.002	.258		3.292	.001	
Education			-.040	.016	-.191		-2.449	.016	
Standardized Field Sobriety Testing			.004	.002	.188		2.379	.019	
Excluded Variables									
Variable			t	Sig.	Collinearity Statistics				
					Tolerance	VIF	Minimum Tolerance		
Report Writing			-.860	.391	.914	1.095	.914		
Orientation to Criminal Justice			-.365	.716	.861	1.162	.858		
Firearms			-.619	.537	.874	1.145	.874		
OC Spray			-.422	.674	.985	1.015	.956		
MDTS			.375	.708	.973	1.028	.959		
MEBS			-1.758	.081	.878	1.139	.878		
Legal Aspects			-.559	.577	.793	1.261	.793		
Patrol Activities			-.375	.708	.891	1.122	.891		
Table 4.39 continued									
Traffic Services			.256	.798	.948	1.055	.942		
Investigations			.209	.834	.864	1.158	.864		
Intoxilyzer 5000			.333	.739	.881	1.135	.881		
Specialized Activities			.600	.549	.890	1.124	.890		
Radar			.047	.963	.918	1.089	.918		
Lidar			1.163	.247	.924	1.082	.915		
Northwest			-.132	.895	.816	1.226	.816		
Sex			.422	.674	.982	1.019	.951		
Military			.239	.811	.995	1.005	.960		
Age			1.560	.121	.988	1.012	.953		

## **CHAPTER 5.**

### **SUMMARY**

#### **Summary of Purpose and Specific Objectives**

The primary purpose of this study was to determine the influence of selected academic and training factors on the performance in the field training officer program of law enforcement officers of a state police agency in the Southeastern region of the United States. The dependent variable of this study was the performance of newly commissioned law enforcement officers in the structured field training officer program following graduation from the state police training academy as measured through the daily operations record by the field training officer program mentor. This included the individual measures of appearance, knowledge, performance, relationships, and attitude, as well as an overall performance measure calculated by taking the mean of the means of each of the individual categories of appearance, knowledge, performance, relationships, and attitude.

As such, the following specific objectives were formulated to guide this research study:

1. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics:

- a. Appearance as measured in the daily operations log;
- b. Knowledge as measured in the daily operations log;
- c. Performance as measured in the daily operations log;
- d. Relationships as measured in the daily operations log;
- e. Attitude as measured in the daily operations log; and,

- f. Overall performance as defined by the mean of the means of appearance, knowledge, performance, relationships, and attitude from the daily operations log.
- 2. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic performance as measured by scores on law enforcement training academy exams on the following performance measures:
  - a. Report Writing
  - b. Orientation to Criminal Justice (OCJ)
  - c. Firearms
  - d. Oleoserin Chemical Spray (OC Spray)
  - e. Monadnock Defensive Tactics System (MDTS)
  - f. Monadnock Expandable Baton System (MEBS)
  - g. Legal Aspects
  - h. Patrol Activities
  - i. Traffic Services
  - j. Investigations
  - k. Intoxilyzer 5000
  - l. Standard Field Sobriety Testing
  - m. Specialized Activities
  - n. Radar
  - o. Lidar
  - p. NUCI
  - q. Post/Final Exam



3. To describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on the following demographic characteristics:

- a. Gender
- b. Age
- c. Whether or not they have military experience
- d. Highest level of education completed

4. Determine if there is a significant difference in the performance ratings of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance among the different troops of the selected Southeastern region state police agency.

5. Determine if a model exists explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training measures:

- a. Report Writing
- b. Orientation to Criminal Justice
- c. Firearms
- d. OC Spray
- e. MDTs
- f. MEBS
- g. Legal Aspects

- h. Patrol Activities
- i. Traffic Services
- j. Investigations
- k. Intoxilyzer 5000
- l. Standard Field Sobriety Testing
- m. Specialized Activities
- n. Radar
- o. Lidar
- p. NUCI
- q. Post/Final Exam

6. Determine if a model exists explaining a significant portion of the variance of the performance of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the following academy training and demographic characteristics:

- a. Gender
- b. Age
- c. Prior military experience
- d. Level of education
- e. Report Writing
- f. Orientation to Criminal Justice
- g. Firearms
- h. OC Spray

- i. MDTs
- j. MEBS
- k. Legal Aspects
- l. Patrol Activities
- m. Traffic Services
- n. Investigations
- o. Intoxilyzer 5000
- p. Standard Field Sobriety Testing
- q. Specialized Activities
- r. Radar
- s. Lidar
- t. NUCI

### **Summary of Procedures and Methodology**

The target population for this study was defined as all individuals who have completed a state police academy program and a field training officer program in the Southeastern region of the United States. The accessible population for this study was individuals who have completed a state police academy program and a field training officer program in one selected state in the Southeastern region of the United States. The sampling plan for this study consisted of the following:

- All cadets who were selected to this state police academy and who were retained through completion of the field training officer program portion of their training from 2008 to 2009, who thus become newly commissioned officers. This sample totaled 178 newly commissioned officers.

The instrument used to collect data for this study consisted of a researcher-designed electronic recording form. The selected variables were taken from the information captured through the cadet selection process, from the information captured by participation in the state police training academy, and from the information captured through participation in the field training officer program after becoming newly commissioned law enforcement officers. Content validity of the instrument was established through a review by a panel of experts consisting of four members of the administrative staff from the state police agency participating in the study, and by two individuals with expertise in the area of instrument design.

Data for this study was collected electronically by accessing the files provided by the participating state law enforcement agency. The participating state law enforcement agency gathered all data from the three separate electronic databases, transferred them onto a spreadsheet, and provided an electronic copy for the researcher:

1. The demographic variables from the cadet selection process were provided by the participating state law enforcement agency from the cadet file and submitted to the researcher electronically.
2. The academic measures from the curricular portion of the training academy, including all exam scores, were provided by the participating state law enforcement agency from the cadet file and submitted to the researcher electronically.
3. The information from the field training officer program, including all measures of the dependent variable of performance, were provided by the participating state law enforcement agency from the daily operations record maintained by the agency and be submitted to the researcher electronically.

Permission for this study was requested and granted from the participating state law enforcement agency, and permission to access the necessary data from the participating state law enforcement agency was granted from the Superintendent of the state law enforcement agency. Permission to conduct the study was requested from and approved by the Institutional Review Board (IRB) at Louisiana State University.

### **Summary of Major Findings**

This study explored six objectives. The summary of the major findings of this study are discussed by objective.

#### **Objective One**

The first objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their performance in the field training officer program on the following performance characteristics: appearance, knowledge, performance, relationships, attitude, and overall performance.

The three highest means recorded by the newly commissioned officers in the field training officer program were on the measure of appearance ( $\bar{x} = 4.08$ ,  $\underline{SD} = 0.15$ ), on the measure of attitude ( $\bar{x} = 4.05$ ,  $\underline{SD} = 0.13$ ), and on the measure of relationships ( $\bar{x} = 4.02$ ,  $\underline{SD} = 0.07$ ). Conversely, the three lowest means recorded by the newly commissioned officers in the field training officer program were on the measure of knowledge ( $\bar{x} = 3.75$ ,  $\underline{SD} = 0.20$ ), the measure of performance ( $\bar{x} = 3.88$ ,  $\underline{SD} = 0.13$ ), and the measure of overall performance ( $\bar{x} = 3.96$ ,  $\underline{SD} = 0.09$ ).

#### **Objective Two**

The second objective of this study was to describe newly commissioned law enforcement officers of a state police agency in the Southeastern region of the United States on their academic

performance as measured by scores on law enforcement training academy exams. The lowest mean scores on the exams were found on the POST/Final examination ( $\bar{x} = 84.77$ ,  $\underline{SD} = 4.61$ ), the Orientation to Criminal Justice examination ( $\bar{x} = 86.35$ ,  $\underline{SD} = 6.13$ ), and the Northwestern University Crash Investigation examination ( $\bar{x} = 88.93$ ,  $\underline{SD} = 4.72$ ). On the contrary, the highest mean scores on the exams were scored on Investigations ( $\bar{x} = 98.94$ ,  $\underline{SD} = 4.24$ ), the Monadnock Defensive Tactics System examination ( $\bar{x} = 98.39$ ,  $\underline{SD} = 2.50$ ), and the Standard Field Sobriety Testing examination ( $\bar{x} = 96.25$ ,  $\underline{SD} = 4.43$ ). The greatest range of scores was found on the POST/Final (23.00), the Northwestern University Crash Investigation exam (23.05), the Radar exam (24.90), and the Legal Aspects exam (26.32).

### **Objective Three**

The third objective of this study was to describe newly commissioned law enforcement officers on the demographic characteristics of gender, age, prior military experience, and whether or not they had earned a college degree. The large majority (97.7%) of the newly commissioned officers were male. The mean age of the officers was 28.16 ( $\underline{SD} = 5.45$ ), and the range was 20 to 47 years of age. The majority of officers in this study did not report having had previous military experience (82%), and 79.7% had not earned a college degree.

### **Objective Four**

The fourth objective of this study was to determine if there was a significant difference in the performance ratings of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance among the different troops of the selected state police agency. The a priori alpha level was established at 0.05. The Levene's test of homogeneity of variance indicated that the assumption

had been violated in each of the six (appearance, attitude, knowledge, performance, relationships, and overall performance) ANOVA's that were conducted. The ANOVA results indicated a statistically significant difference among the various troops with respect to each of the ratings. Due to the fact that the assumption of homogeneity of variance had been violated, the Welch and Brown-Forsythe tests were used to confirm the ANOVA results. For each of the measures, the Welch and Brown-Forsythe tests confirmed that there was a statistically significant difference among the various troops with respect to each of the ratings.

The Games-Howell post-hoc comparison was used to find individual differences among the troops in each respective rating. The Games-Howell post-hoc revealed that there existed at least one statistically significant difference among the various troops on each of the dependent variable measures. Troop 2 (12.50%,  $n = 6$ ) produced the most instances of difference among the troops while troops 5 and 7 did not produce a single instance of difference when compared against the other troops in the state.

### **Objective Five**

The fifth objective of this study was to determine if a model existed explaining a significant portion of the variance in the performance of newly commissioned law enforcement officers in the field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the selected academy training measures. The researcher tested the overall significance of the model using an a priori alpha level of 0.05 and proceeded to fit a model that accounted for the greatest variance in the dependent variable using the  $R^2$  statistic while ensuring that each of the beta coefficients were statistically significant at the a priori alpha level of 0.05.

Loading the variables for exploratory regression did not yield a statistically significant model for the dependent variables of appearance and attitude.

Regressing the variable knowledge as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .299 and an  $R^2$  value of .089; the POST/Final exam entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant and the resulting standardized beta coefficient for the model was 0.299 for the POST/Final exam.

Regressing the variable relationship as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .157 and an  $R^2$  value of .025; the MEBS examination entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant and the resulting standardized beta coefficients for the model was 0.157 for the MEBS exam.

Regressing the variable performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .419 and an  $R^2$  value of .176; the POST/Final exam, the Traffic Services exam, the MDTs exam, and the OC Spray exam entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant; the resulting standardized beta coefficients for the model were 0.291 for the POST/Final examination, -0.166 for the Traffic Services examination, 0.162 for the MDTs examination, and - 0.154 for the OC Spray examination.

Regressing overall performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .316 and an  $R^2$  value of .100; the POST/Final exam and the SFST exam entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant; the resulting



standardized beta coefficients for this model were 0.237X for the POST/Final examination and 0.168 for the Standardized Field Sobriety examination.

### **Objective Six**

The sixth and final objective was to determine if a model existed which explained a significant portion of the variance in the performance of newly commissioned law enforcement officers in field training officer program as measured through their mean scores on the daily operations log of appearance, knowledge, performance, relationships, and attitude, and the measure of overall performance, from the selected academy training and demographic characteristics.

Loading the variables for exploratory regression did not yield a statistically significant model for the dependent variables of appearance and relationships.

Regressing attitude as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .173 and an  $R^2$  value of .030; the Specialized Activities examination entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant. The resulting standardized beta coefficient for this model was 0.173 for the Specialized Activities examination.

Regressing knowledge as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .358 and an  $R^2$  value of .128; the POST/Final exam and the education variable entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant. The resulting standardized beta coefficients for this model were 0.311 for the POST/Final examination and -0.180 for the law enforcement officer's level of education where 0 is did not earn a degree and 1 is having earned a degree.

Regressing performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .416 and an  $R^2$  value of .173; the POST/Final exam, the Traffic Services exam, and the MDTs exam entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant. The resulting standardized beta coefficients for this model were .295 for the POST/Final examination, -0.237 for the Traffic Services examination, and 0.192 for the MDTs examination.

Finally, regressing overall performance as the dependent variable against the independent variables from the law enforcement academy produced a Pearson's  $r$  value of .379 and an  $R^2$  value of .144. The POST/Final exam, the variable of education, and the Standardized Field Sobriety Testing exam entered the model. The significance of the slope was tested using the ANOVA table and was found to be significant; the resulting standardized beta coefficients for this model were .258 for the POST/Final examination, -0.191 for the law enforcement officer's level of education where 0 is did not earn a degree and 1 is having earned a degree, and 0.188 for the SFST examination.

### **Conclusions, Implications, and Recommendations**

Based on the findings from this study, the researcher derived the following conclusions, implications, and recommendations:

#### **Conclusion One**

1. The majority of the newly commissioned officers of the state law enforcement agency are male.

This conclusion is based on the finding that 97.2% of the newly commissioned officers who completed the law enforcement academy and participated in the FTO training program were male. This finding is consistent with the findings of Poteyeva and Sun (2009) as they reported

that despite the long period of time since women have achieved formal integration into police organizations, their numbers in the force remain relatively low.

Historically, law enforcement has been an organized occupation dominated almost exclusively by men (Palombo, 1992). Since 1972, women have entered mainstream policing both on a more equitable basis with men and in markedly larger numbers than ever before (Martin, 1991; Potts, 1983). Despite this influx, the Bureau of Labor Statistics (2000) reported that women comprise only 12.8% of total law enforcement officers. The Bureau of Labor Statistics (2000) also indicated that women account for nearly 47% of employed persons older than the age of 16. As such, women are highly underrepresented in the field of law enforcement. At 2.8% of the agency population in this study, the findings of this study indicate that the percentages of women who are actively serving in the state law enforcement agency are below the national average. As demographics in the workplace continue to shift and more women enter into the workforce, it is important that the law enforcement agency continue to make strides to be a more diverse and holistic employer so as to continue to provide equal access and opportunity to female applicants, cadets, and officers.

The job environment, treatment by others on the job, internal support for career development, promotion, and other rewards are some issues that still affect female employees in the nation's law enforcement departments (Kakar, 2002). Only 1.4% of law enforcement officers in administrative levels are women (Kakar, 2002); consequently, the administrative and policy-making level of law enforcement is still largely controlled by men. Gender integration has been slowed by the traditional view of law enforcement as a "male occupation" and by the fact that the opportunities for women to participate in policy making have been limited. According to the National Center for Women and Policing (2000), women are largely concentrated in the lower

tier of sworn law enforcement positions. Women hold nearly 14% of line operation positions, but their presence rapidly disappears in higher level positions (10.3% of supervisory posts and 7.3% of top command positions nationally).

The impact that this deficit can have on the accumulation of social capital for females cannot be ignored. As noted by Robinson (2003), cohesive groups, or groups that have members who are supportive or trustworthy of each other, share norms, and/or have similar beliefs, will have more social capital. The cohesion of the group, when limited in its female demographic, can impede the assimilation of women into the organization, and their acceptance among their male peers. The social support that female officers receive may also be called to question given the sheer deficit in numbers. The question that must be raised is can these female officers receive the same levels of social support that are necessary to make positive performance outcomes more likely? The negative effects of marginalization (Buzawa, 1981; Ellison & Genz, 1983; Holdaway & Barron, 1997) with respect to recruiting, training, and promotion must also be explored.

The researcher recommends that the state law enforcement agency make a systematic effort to increase their knowledge of the treatment of the female officers in the agency. The study should explore the current recruiting practices, training, promotional opportunities, and continuing education of female officers. Further, the researcher recommends an exploration of the social networks and social capital gained by female officers on the force. It is important that the agency understand and explore the consequences, if any, of this underrepresentation, to the agency and to the female officers currently employed. Through this research, the agency can make a determination on the adequacy of their current recruiting and hiring practices and decide if these are appropriate given the demographic of the society it represents, and the representation, job satisfaction, performance, and promotion of women in the organization.

Equally important, the agency should launch a campaign to ensure that women in the workplace are not subjected to unfair employment practices, and help to ease any negative perceptions of female law enforcement officers. Despite federal leadership, legislation, and lawsuits to gain full integration, female officers continue to be the subject of a less than welcoming reception from their male colleagues (Worden, 1993). Research points to the attitude and behavior of their male colleagues as the single largest barrier to increasing the number of women in law enforcement positions. National studies consistently find that discrimination and sexual harassment are pervasive in police departments and that supervisors not only tolerate such practices by others, they themselves are often the perpetrators (Kakar, 2002). Given this research, it is important to raise awareness of the challenges women face, and to develop objective, fair standards of performance that provide an equitable workplace for women and men alike. Departments should be representative of the communities they serve and reflect the community they are sworn to protect; failing to be representative can lead to a lack of trust with the department (Whetstone, Reed & Turner, 2005). An underrepresented female demographic may cause women to be less trusting of the agency and cause them to fail to utilize their services in times of need. Further, the agency must be diligent to maintain its reputation as one of fairness and impartiality in its commissioning and promotional practices. Thus, to complement the recruitment and education effort, the state law enforcement agency should implement promotional opportunities that are blind to the demographic representation of its organization to ensure that women are promoted equally and fairly based on merit and cause, and that women are not subjected to unfair standards of promotion that may lead to discrimination and tokenism within the agency.

## **Conclusion Two**

2. The majority of the newly commissioned officers of the state law enforcement agency have no previous military experience.

This conclusion is based on the finding that 82% of the newly commissioned officers did not have prior military experience when they were hired. The influence of previous military experience and law enforcement officer performance has not been studied with great detail in the literature. The paramilitary structure of law enforcement lends itself to adhere to the doctrine of the military environment. Academy training, psychological and physical development, the language and structure of departments, and the chain of command, all stem from military organizations. Still, the end result of services and the methodology employed to deliver those services provides a paradigm shift for individuals with previous military experience.

The implications of this finding are mixed. On the one hand, previous military experience provides exposure to a structured and systematic training system which mimics the law enforcement academy in many ways. This exposure can result in the academy simply being a refresher for these individuals and reinforcing what has been learned in the military. On the other hand, previous military experience may be detrimental to officer performance as it may supersede what has been learned in the academy when an officer is performing independently in the field. The idea is that an officer with previously military experience may revert back to the basic training and combat lessons learned and used during their service in the military. In this situation, officer discretion may be compromised, and officer decisions may become clouded by the lingering effects of what was learned and used during their military service. Henson et al. (2010) reported a statistically significant association between use of force complaints and military experience. Henson et al. (2010) further found that previous military experience was

positively related to more total complaints. The researcher did not establish a definitive connection between previous military experience and any factors of officer performance, and while the findings of Henson et al. (2010) are important, they may not apply consistently to all law enforcement agencies.

In conjunction with the findings of Henson et al., the researcher recommends continuing education for those individuals with previous military experience that will illustrate the similarities and differences in the values, ethics, and approaches between military service and service as a law enforcement officer. The distinction between active duty in the military and the ramifications and consequences of one's actions, and the ramifications and consequences of one's actions as a commissioned law enforcement officer must be clearly defined for all entering officers with previous experience in order to maintain public support and trust.

Moreover, the researcher recommends further research into the impact that previous military experience has on officer performance in the field. The current research cannot support conclusions on the impact this experience has. Further, it is recommended that studies be initiated to explore the effects of serving in a combat zone versus serving in a non-combat zone on officer performance to investigate if war-time versus peace-time service has differential effects on officer field performance. Further research is recommended on the influence of previous military experience on specific areas of officer performance in the field (e.g., responding to stressful situations, use of (deadly) force, report writing, and maintaining individual relationships). The literature did report that the function of a law enforcement officer is varied and that patrol activities are a small fraction of the actual work completed. This being the case, it would be worthwhile to examine specific areas of performance which have a greater or lesser correlation to the experience earned in the military.

### **Conclusion Three**

3. The majority of the newly commissioned officers of the state law enforcement agency have not earned a college degree.

This conclusion is based on the finding that 79.7% of newly commissioned officers had not earned a college degree at the time they were selected for the academy. White (2008) suggested that intelligence is related to performance in the law enforcement academy; however, Burbeck and Furnham (1985) found that there is little evidence of a relationship between intelligence and street performance. It is important to note that intelligence and being college-educated are not synonymous. As such, many studies find no difference in performance among college-educated and non-college-educated officers, while a few others have found an association between college education and positive performance (Walker & Katz, 2002; White, 2007). Goldstein (1977) and Smith et al. (1968) report that college-educated officers tend to be more flexible, less authoritarian, and less dogmatic in their belief than non-college educated officers. There is also evidence to support that college-educated officers have greater acceptance of minorities, are more professional in their attitudes, and ethical in their behaviors (Weiner, 1976; Miller & Fry, 1978; Tyre & Braunstein, 1992). In two studies of Florida police officers, Tyre and Braunstein (1992) concluded that “officers with at least a two-year college degree performed better than those who did not” (p.10) and that “a positive correlation exists between college education, better police performance and ethical police behavior” (p.10). Henson et al. (2010) suggested that education is a desirable quality for incoming officers to possess.

The researcher recommends continued research into the specific relationship between education and officer performance. The current literature did not provide a definitive conclusion that supports or negates the influence of education on officer performance. The argument can be



made that college-educated officers will possess more of the analytical and problem-solving skills that are necessary to support the function of a problem-oriented law enforcement agency as the experience gained in college helps to foster these problem solving skills. On the other hand, there is no concrete evidence to support a link between analytical ability, problem-solving ability, and a college education. Intelligence cannot be directly correlated to a college education; one's intelligence is not manifested through completion of a college degree. Further research should also focus on specific degree programs and their effect on officer performance. There could exist a relationship between certain curricula and performance in various aspects of the police function. Concomitantly, research is needed to explore the different dimensions of officer performance (responding to stressful situations, use of (deadly) force, report writing, and maintaining individual relationships as examples) and level of education as it may be the case that a college education serves to enhance certain aspects of performance and be a detriment to other aspects of performance.

#### **Conclusion Four**

4. There exists a difference in the performance ratings of newly commissioned officers among the various troops of the selected agency's state in each of the dependent variables measured.

This conclusion is based on the finding that the results for the ANOVA, the Welch, and the Brown-Forsythe tests were each significant for appearance ( $F = 2.577$ ), attitude ( $F = 3.982$ ), knowledge ( $F = 3.594$ ), performance ( $F = 2.732$ ), relationships ( $F = 4.878$ ), and overall performance ( $F = 3.971$ ). These results indicate that there are differences in the field training officer's ratings of their newly commissioned officer's performance throughout the state. Given the systematic approach to training for the FTO program, these differences should not exist.

These differences can be caused by a varying organizational culture in the different troops throughout the state, where certain behaviors are stressed, accepted, or disfavored depending on the climate and culture of the specific troop. In addition, the levels of crime that are reported may vary across the state, leading to differences in the performance measurement opportunities. It can be expected that rural and urban areas will experience a differential frequency in the number of crimes reported, and that the severity of the crimes will be different as well. It could be possible that newly commissioned officers in rural areas are not exposed to the same types of crimes as those in urban areas and as such, their ability to apply what was learned in the academy may be limited by their environment. If this is the case, the researcher recommends that the newly commissioned officer rotate not only through different field training officers, but also different troops throughout the state. Such rotation would help to ensure that the newly commissioned officer is exposed to a high degree of variability in the experiences that they gain while in the FTO program.

It may also be the case that these findings can be caused by fundamental differences in the application of the FTO guidelines throughout the state. These differences can be caused by a lack of understanding of the goals and objectives of the FTO program, by subjectivity entering the performance ratings, or by a lack of knowledge of what the FTO ratings are designed to capture. Coutts and Schneider (2004) reported that performance appraisal will only be as effective as the task-relevant skills and knowledge of those responsible for using it, and the attainment of such skills and knowledge will require training. To attain a consistent methodology of evaluation, all field training officers must be properly and consistently trained. Thus, the researcher recommends continued training and education of field training officers and FTO supervisors to support consistency in the FTO program statewide. McCampbell (1987)

recommended that all FTOs undergo a complete training and development program with a minimum of 40 hours of training before they are allowed to assume their duties in the FTO program. The researcher recommends the creation of a criterion-based training series which introduces the field training officers to: the FTO program, the fundamental role the FTO program plays in the training and development of new officers, the FTO performance rating scales, the goals and objectives of the FTO program, and the importance of a consistent and objective rating system. The training should be designed by a panel of subject matter experts, and be a product of a comprehensive needs assessment based on the competencies that are necessary for participation in the FTO program. This annual training should be required of all FTOs as part of a continuous certification process for all field training officers. Given the importance of the role of an FTO and the costs that are associated with poor performance (Carless, 2006), it is critical that the state law enforcement agency provide a yearly comprehensive training program to all participating field training officers and supervisors to ensure that the measures obtained during the FTO program accurately reflect the standards set forth by the San Jose Model. An effective way to achieve this consistency throughout the state is through a program that reinforces the values set forth by the San Jose Model, and indoctrinates all FTO participants into the goals and mission of the program.

### **Conclusion Five**

5. There exists a model to predict the knowledge rating, the performance rating, and the overall performance rating of the newly commissioned officer from the selected training academy measures.

This conclusion is based on the finding that the knowledge regression analysis was found to be significant ( $F = 17.272$ ,  $p < .001$ ), that the performance regression analysis was found to be

significant ( $F = 9.208$ ,  $p < .001$ ), and that the overall performance regression analysis was found to be significant ( $F = 9.715$ ,  $p < .001$ ).

The three models found to be significant are directly related to the academy curriculum and instruction. This could be an indication that an officer's knowledge and performance are direct reflections of what was learned in the academy as the curriculum should be developed towards building officer performance and reinforcing officer performance through a needs assessment-based curriculum.

For the law enforcement academy, these models, specifically the models that were significant, may validate the curriculum in its current state. Academy measures explain up to 17.6% of the variance in officer performance. These models may help to validate the goal that cadets are being taught what is necessary to be successful in the field training officer program upon graduation from the academy. Buerger (1998) reported that recruit training skills tend to focus on the basic everyday skills and legal training – use of criminal and motor vehicle codes, defensive tactics, firearms, defensive and pursuit driving, report writing – needed to perform law enforcement work; this study expands on Buerger's finding that not only are these classes the focus of many academies, they account for 2.3% to 17.6% of the variance that is attributed to performance in the field. The models presented in objective five are absent of demographic, personality, and psychological characteristics which may boost the  $R^2$  value, and provide for greater explanatory power. In this sense, having a curriculum which can account for 2.3% to 17.6% of the variance in performance of newly commissioned officers is valuable to the academy administrators. This study helps to quell what White (2008) described as a void in the examination of the link between academy performance and field performance. The researcher cannot discount the influence of psychological factors (Bartol, 1982; Bartol, 1991; Daniels &

King, 2002) or the influence of personality factors (Ones, et al., 2003; Sanders, 2008; Roberts, et al., 2005) on officer performance. However, these factors are most critical components of the selection process for law enforcement agencies. A clear link between these personality and psychological factors to academy performance cannot be established in the literature; the connection, as reported above, is towards performance in the field. Thus, the findings of this study provide for law enforcement officers an added measure in predictive power to help graduate and commission those officers who pose the greatest statistical probability of being successful in the field.

On the other hand, the respective  $R^2$  value range (2.3% to 17.6%) demonstrates that only a small percentage of the total variance in the performance of newly commissioned officers in the field training officer program is accounted for by their academy training, or by the current academy training assessment methodology. This was consistent with Fitzpatrick's (2001) previous report that, in general learning interventions, only about 10% of what is learned in training is applied on the job. All other variables aside, such a finding could call to question the curriculum of the law enforcement academy, the mode of assessment used in the academy, and the transfer system used to move theory into practice. Law enforcement agencies make a substantial investment in establishing and refining their training curriculum each year; further, the academy serves as the comprehensive training tool to produce well-prepared, aptly-qualified officers for their agency. The law enforcement academy, in its systematic approach to learning and holistic perspective in teaching, should imitate the corporate university as a means of delivering a consistent, methodological curriculum from which all of its incoming cadets can be prepared to transfer and apply the new knowledge they have gained in a practical setting after completion of the academy courses. The model found here may indicate that the academy

curriculum simply is not succeeding in teaching cadets the necessary theory to later draw from in the field. Further, the model may indicate that the current methodology used to assess the performance of cadets in the academy does not reflect the performance standards necessary for successful performance in the FTO program. Equally, the model may suggest that the San Jose Model of officer training and the current academy curriculum may not be properly aligned with respect to the law enforcement system. The model may indicate that either the academy curriculum is not representative of the competencies necessary to successfully perform the law enforcement function as measured through the San Jose Model, or that the San Jose Model is not representative of the competencies that are necessary to be a successful law enforcement officer.

Moreover, the evaluation process implemented to measure performance in the FTO program may not be effective. There exists the possibility that organizational climate and culture may influence the evaluation process. Further, newly commissioned officers in certain geographic parts of the state may be limited in their practice and experience by the types of crimes that are reported. As identified by Coutts and Schneider (2004) an effective performance appraisal system: must focus on performance variables as opposed to personal traits; employees must believe that they have an opportunity for meaningful input into the appraisal process; is adequate with respect to the frequency and nature of feedback; provides the opportunity for the supervisor and employee to promote the achievement of individual and organizational goals; and, those using the performance appraisal system must be properly trained in its application.

Holton et al. (2000) spoke of the influence that the transfer system has on future performance of the learned skills on the job. The findings indicate that the FTO program may not provide an avenue for the newly commissioned officer to establish the validity of what was learned in the academy, practice their new skills, and be provided with continuous feedback

about their performance. The FTO program should serve as a transfer mechanism by providing newly commissioned officers ample opportunity to practice and internalize the core curriculum of the academy. When combined with feedback from their mentor officer, these factors should improve the transfer of what was learned, and for the law enforcement agency breed a consistent level of officer performance. However, this model may indicate that a small percentage of the performance variance is explained by the academy curriculum, which could call into question the knowledge transfer system as currently used by the law enforcement academy.

The researcher recommends a continuous evaluation of the academy curriculum based on a needs-assessment of current officer knowledge, and on a job-task analysis of current officer roles and responsibilities. A validation of the evaluation methodology currently implemented and used in the training academy is recommended. Further, it is recommended that the agency take steps to validate the San Jose Model to ensure that it fits into the climate and culture of the agency. A study should be conducted by which FTO performance is measured against officer performance in the first, second, and fifth year to ensure that the implemented methodology of the San Jose Model is an appropriate fit to the academy curriculum. If the current curriculum has been established to enhance performance in the field training officer program, then the field training officer program should be a microcosm of the performance necessitated later in the officer's career when officers are fully autonomous in their discretion and decision-making ability. These measures will ensure that the academy curriculum remains proactive in its approach to problem-oriented policing. Further, the researcher recommends that performance measures continue to "rely on natural performance" (Walker, 2005; White, 2007) as captured through the newly commissioned officer's participation in the FTO program. Territo, Swanson, and Chamelin (1977), viewed the FTO program as a human resource development intervention

that would serve to close the gap between the classroom experience and knowledge, and actual on-the-job experience. The results of this objective indicate that the academy has an influence on future performance; as such, the FTO program should continue to act as a supplement to academy training and act to synergize performance in the program and into the future.

The results of this study demonstrate the need for an exhaustive examination of all of the factors that may affect officer performance. As such, the researcher recommends that structural equation modeling be utilized to examine the path of the cadet through each successive step from the civil service examination to commissioning as an officer. Such a study would uncover the unique contributions made at each step of the selection, training, and transfer/feedback process, and measure the overall effect of the specific dimensions of officer performance. This study would be beneficial in ensuring that the current model of selection, training, training transfer, and evaluation are adequate for the needs of the state law enforcement agency.

### **Conclusion Six**

6. The introduction of demographic variables to the regression analysis did not significantly change the predictive and explanatory nature of the models that were found to be significant.

This conclusion is based on the findings that the  $R^2$  value for the knowledge model increases from .089 to .128; the value for overall performance model increases from .100 to .144; and, the value for performance remains about the same (.176 to .173). The increase in  $R^2$  can be attributed to one of two factors, or a combination of the two. First, one would expect an increase in the value of  $R^2$  as the number of predictors increases. It is expected that the greater the number of predictors that enter the model, the more variance that will naturally be explained. This is due to the sheer number of variables that enter the model. The risk, however in having a greater



number of variables is over-fitting the model. The second possible explanation for the increase in the variance explained is that the inclusion of the demographic variables (age, gender, highest level of education, and previous military experience) introduces variability that is not directly related to academy performance. The literature reports that there are a myriad of psychological and personality factors that influence performance. The influence of these factors may be found in the demographic variables that entered into the model. It is possible that personality and psychological characteristics may influence the decision of an individual to enroll in and complete their college education. These factors, although not directly studied in this study, can still be manifested through the actions of completing a college degree or the decision to enlist in the military. To study this relationship further, the researcher recommends that the correlation between the personal and psychological characteristics of those individuals who completed a college degree and those who have not completed a college degree be examined. This would allow the agency to determine the influence of completing a college degree, and allow the agency to attribute the motivation to complete or not complete to a specific personal or psychological attribute and help to further understand its influence on performance.

### **Conclusion Seven**

7. The most consistent predictor of future officer performance in the field from the academy measures of performance and from demographic variables is the POST/Final exam.

This conclusion is based on the finding that the POST/Final exam was a variable that was significant in each of the regression models produced from academy measures only (knowledge, performance, and overall performance), and from the combination of academy measures and demographic variables (knowledge, performance, and overall performance). This is consistent

with Henson et al. (2010) who reported that their academy score variable (a cumulative measure of overall success in the academy) was significantly related to an officer's first year evaluation.

Results of the regression analysis indicate that the POST/Final exam is positively related to performance – as the POST/Final score increases, so does the performance rating of the officer. The POST/Final exam is a cumulative exam with established content validity. The exam is designed to capture all of the academic and theory facets of the academy curriculum in one cumulative exam. As a cumulative examination, the relationship between the exam and future performance can be expected. Further, because this is a cumulative examination, a positive relationship should also be expected. The importance of the other examinations that the cadet completes in the training academy cannot be ignored; to this end, all areas of the curriculum are important to success. The finding that the POST/Final examination was, in some instances, the only variable that entered the model does not discount the importance of the entire curriculum. However, it does provide insight into the importance of a final, cumulative examination. As such, it is recommended that the state law enforcement agency continue to use the POST/Final exam as a comprehensive examination to conclude the academy training. Using only the POST/Final exam as a predictive agent for future success in the field by applying the regression model reported in Chapter 4, however, cannot be fully supported. The variance in performance explained is not large enough to warrant its use as the sole determinant of success or failure in the field. However, the agency can use the POST/Final examination as part of a holistic system to determine which officers will be commissioned and continue to the FTO program and which will be terminated after completion of the academy. Further, the results of this conclusion offer to the agency the opportunity of using the POST/Final exam as an indicator of remediation prior to being commissioned and entering the FTO program. A cadet who scores poorly on the

POST/Final exam can be one that performs below average in the field. As such, the cadet's score on the POST/Final exam can provide a window to remediation that may be necessary before the cadet is commissioned. This practice helps protect the agency from possible harm, reinforces confidence in the decision to commission an officer, and reinforces the importance of the academy process as being one that is critical to successful future performance.

### **Conclusion Eight**

8. Education, as measured by whether or not an officer has earned a college degree, is negatively related to performance in the field.

This conclusion is based on the findings that the education beta coefficients for the significant models of regression that included demographic variables were: -0.180 (knowledge) and -0.191 (overall performance). The literature asserted that those officers with a higher level of educational achievement should possess better decision-making skills and make better police officers (Worden, 1993; Henson, et al., 2010). The empirical data, however, has been mixed (Riksheim & Chermak, 1993; Roberg, Novak, & Cordner, 2009; White, 2008). This finding is consistent with the finding of Burbeck and Furnham (1985) that there is little evidence of a relationship between intelligence and street performance; however, it contradicts White (2007) and Walker and Katz (2002) who found a relationship between intelligence and performance. Moreover, the finding contradicts the findings by Goldstein (1977), Smith et al. (1968), Weiner (1976), Miller and Fry (1978), and Tyre and Braunstein (1992) that found a relationship between education and officer attitude, officer ethical belief and disposition, and response to authority, as there was no significant relationship between education and the performance ratings of attitude and relationships.

These results indicate that a college degree predicts a lower level of performance in the field. One possible explanation for this outcome might be attributed to a bias on the part of the college-degreed officer towards the curriculum, or a feeling of superiority to the roles and responsibilities of a law enforcement officer. They may see their current role as a stepping stone to another job within or outside of the agency and thus not put forth their full effort. Many scholars agree that college education does not necessarily make for a better law enforcement officer; this is mainly attributed to the belief that law enforcement work is more of a craft, complete with routine tasks, rigid rules, and unbending bureaucracy (Decker & Huckabee, 2002). As such, there are fears that college-educated officers will become frustrated with their inability to bring about change, resulting in early burn-out and rapid turnover. College educated officers may also perceive their education as an asset to the agency and thus not exert their full potential as they know that the analytical skills and abilities they possess are valuable to the agency and thus would be less at risk of being terminated. Further, college-educated officers may simply over-think or over-analyze their decisions prior to taking action. In this indecision, they may suffer decreased performance ratings. This finding might also be attributed to the possibility that college-educated officers are subjected to a higher standard of performance by their FTO. Such a system may arise when the FTO feels that the college-educated officer should perform to a higher standard due to the officer's level of education. This finding might also be attributed to the possibility that college-educated officers are subjected to a biased rating system that may result when a non-college educated FTO rates the college-educated officer. It is possible that the non-college educated FTO may feel threatened by, or feel resentment towards, their college-educated colleague and purposefully try to manipulate their ratings.

The agency must keep in mind that education is simply another tool, along with all of the other demographic and academy factors that help to explain and predict performance. Dantzker (1994) cautioned that not all college educations are created equal, and the mere possession of a college degree does not guarantee that a particular person is in fact educated. As such, it is recommended that the agency continue to educate cadets fully on the roles and responsibilities of newly commissioned officers and the mission of the agency. Academy curriculum, especially given the interconnectedness of the police function, should take advantage of team projects to expose all individuals to different levels of education and experience within the law enforcement function. Through these experiences, all officers can become more aware of their personal strengths and deficiencies, and understand the range of skills and talents that are required for successful performance individually, and as a collective whole. Further research is recommended to determine, first, if a systematic bias does indeed exist within the FTO program, and second if the bias can be detected in the ratings provided to newly commissioned officers. Another protection that can be used to temper or remove any bias should it exist is a systematic, objective rating system. This objective system should be validated based on the performance measures for the agency and specific troops across the state, as there does exist the possibility that the current system may not be adequate equally across all troops in the agency. Further, rating officers should continue to be monitored and given proper feedback during the FTO training. This feedback helps to ensure that officers are clear on the goals and objectives of the program, and that raters remain unprejudiced throughout the process. Educating field training officers and their supervisors through a yearly training seminar on the scales and measures used is important to maintain a consistent rating system throughout the agency and may help to eliminate any bias that may be introduced in the ratings process.

## REFERENCES

- Alabama Department of Public Safety. (2010). Retrieved July 2010, from Alabama Department of Public Safety: <http://www.dps.state.al.us/>
- Arkansas State Police. (2010). Retrieved July 2010, from About Us: <http://www.asp.state.ar.us/>
- Ash, P., Slora, K., & Britton, C. (1990). Police agency officer selection practices. *Journal of Police*, 17, 258-269.
- Aylward, J. (1985). Psychological testing and police selection. *Journal of Police Science and Administration*, 13, 201-210.
- Baldwin, T., & Ford, J. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41, 63-105.
- Bartol, C. (1982). Psychological characteristics of small town police officers. *Journal of Police Science and Administration*, 10, 58-63.
- Bartol, C. (1991). Predictive validation of the MPI for officers who fail. *Professional Psychology, Research and Practice*, 22, 127-132.
- Bayley, D. H., & Bittner, E. (1997). Learning the skills of policing:. In R. G. Dunham, & G. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (pp. 114-137). Prospect Heights, IL: Waveland.
- Beck, K., & Wilson, C. (1997). Police officers' views on cultivating organizational commitment: Implications for police managers. *Policing: An International Journal of Police Strategies and Management*, 20 (1), 175-195.
- Black, J. (2000). Personality testing and police selection: Utility of the "Big Five". *New Zealand Journal of Psychology*, 35, 353-374.
- Bond, C. (1996). The nature of general police work. *Criminal Justice Commission Research Paper*, 3 (2).
- Bradford, D., & Pynes, J. (1999). Police academy training: Why hasn't it kept up with practice? *Police Quarterly*, 2, 283-301.
- Buerger, M. (1998). Police training as a pentecost: Using tools singularly ill-suited to the purpose of reform. *Police Quarterly*, 1, 27-63.
- Burbeck, E., & Furnham, A. (1985). Police officer selection: A critical review of the literature. *Journal of Police Science and Administration*, 13 (1), 58-69.

- Burkhart, B. (1980). Conceptual issues in the development of police selection procedures. *Professional Psychology, 11*, 121-129.
- Bursick, R. (1999). Informal control of crime through neighborhood networks. *Sociological Focus, 32*, 85-97.
- Buzawa, E. (1981). The role of race in predicting job attitudes of patrol officers. *Journal of Criminal Justice, 9*, 63-77.
- Carless, S. A. (2006). Applicant reactions to multiple selection procedures for the police force. *Applied Psychology: An International Review, 55* (2), 145-167.
- Carte, G., & Carte, E. (1975). *Police reform in the United States*. Berkley, CA: University of California Press.
- Cascio, W. (1999). *Costing Human Resources: The Financial Impact of Behavior in Organizations*. Cincinnati, OH: Southwestern.
- Cochrane, R., Tett, R., & Vandecreek, L. (2003). Psychological testing and the selection of police officers: A national survey. *Criminal Justice and Behavior, 30*, 511-537.
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, S95-S120.
- Conser, J. A., Russell, G. D., Paynich, R., & Gingerich, T. E. (2005). *Law enforcement in the United States*. Boston, MA: Jones and Bartlett.
- Cortina, J., Doherty, M., Schmitt, N., Kaufman, G., & Smith, R. (1992). The "Big Five" personality factors in the IPI and MMPI: Predictors of police performance. *Personnel Psychology, 45*, 119-140.
- Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO personality inventory. *Psychological Assessment, 4* (1), 5-13.
- Coutts, L., & Schneider, F. (2004). Police officer performance appraisal systems: How good are they? *Policing: An International Journal of Police Strategies and Management, 27* (1), 67-81.
- Cuttler, M., & Muchinsky, P. (2006). Prediction of law enforcement training performance and dysfunctional job performance with general mental ability, personality, and life history variables. *Criminal Justice and Behavior, 33*, 3-25.
- Daniels, S., & King, E. (2002). The predictive validity of MMPI-2 content scales for small-town police officer performance. *Journal of Police and Criminal Psychology, 17* (2), 54-62.
- Dantzker, M. L. (1994). *Understanding Today's Police*. Englewood Cliffs, NJ: Prentice Hall.

- Decker, L. K., & Huckabee, R. G. (2002). Raising the age and education requirements for police officers. Will too many women and minority candidates be excluded? *Policing: An International Journal of Police Strategies & Management*, 25 (4), 789-802.
- Detrick, P., Chibnall, J., & Luebbert, M. (2004). The revised NEO personality inventory as a predictor of police academy performance. *Criminal Justice and Behavior*, 31, 676-694.
- Doerner, W., & Hunter, R. (2006). Post-FTO performance evaluations of rookie police officers. *Journal of Ethnicity in Criminal Justice*, 4 (1,2), 113-128.
- Dwyer, W., Prien, E., & Bernard, J. (1990). Psychological screening of law enforcement officers: A case of job relatedness. *Journal of Police Science and Administration*, 17, 176-182.
- Eck, J., & Spelman, W. (1987). Who ya gonna call? The police as problem busters. *Crime & Delinquency*, 33, 31-52.
- Edwards, C. (1999). *Changing Police Theories: For 21st Century Societies*. Sydney, Australia: The Federation Press.
- Ellison, K., & Genz, J. (1983). *Stress and the Police Officer*. Springfield, IL: Thomas.
- Falkenberg, S., Gaines, L., & Corner, G. (1991). An examination of the constructs underlying police performance appraisals. *Journal of Criminal Justice*, 19 (4), 351-360.
- Fitzpatrick, R. (2001). The strange case of the transfer of training estimate. *Industrial-Organizational Psychologist*, 39 (2), 18-19.
- Forero, C., Gallardo-Pujol, D., Maydeu-Olivares, A., & Andres-Pueyo, A. (2009). A longitudinal model for predicting performance of police officers using personality and behavioral data. *Criminal Justice and Behavior*, 36 (6), 591-606.
- Frank, K., & Yasumoto, J. (1998). Linking action to social structure within a system: Social capital within and between subgroups. *American Journal of Sociology*, 104, 642-686.
- Fyfe, J. (1999). Good policing. In S. Stojkovic, J. Klofas, & D. Kalinich (Eds.), *The Administration and Management of Criminal Justice Organizations* (3rd ed., pp. 113-133). Prospect Heights, IL: Waveland Press.
- Gainey, R., & Payne, B. (2009). Gender, victimisation, perceived risk and perceptions of police performance in disadvantaged neighbourhoods. *International Journal of Police Science & Management*, 11 (3), 306-323.
- Gallagher, M. (2000). Corporate universities, higher education and the future: Emerging policy issues. Paper presented at the Corporate University Week 2000, Sydney, Australia.



- Games, P., & Howell, J. (1976). Pairwise multiple comparison procedures with unequal n's and/or variance: A Monte Carlo study. *Journal of Educational and Behavioral Statistics*, 1 (2), 113-125.
- Georgia Department of Public Safety. (2010). Retrieved July 2010, from [http://dps.georgia.gov/00/channel\\_modifieddate/0,2096,5635600\\_7397391,00.html](http://dps.georgia.gov/00/channel_modifieddate/0,2096,5635600_7397391,00.html)
- Gerbman, R. (2000, February). Corporate universities 101. *HR Magazine*, 101-106.
- Gilliland, S., & Langdon, J. (1998). Creating performance management systems that promote perceptions of fairness. In J. Smither (Ed.), *Performance Appraisal: State of the Art in Practice* (pp. 404-442). San Francisco, CA.
- Goldstein, H. (1977). *Policing in a Free Society*. Cambridge, MA.: Ballinger Publishing Co.
- Goldstein, H. (1979). Improving policing: A problem oriented approach. *Crime & Delinquency*, 25, 2326-258.
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360-1380.
- Grant, J. D., & Grant, J. (1995). Officer selection and the prevention of abuse of force. In W. Geller, & H. Toch (Eds.), *And justice for all: Understanding and controlling police abuse of force* (pp. 151-162). Washington, DC: Police Executive Research Forum.
- Haarr, R. (2001). The making of a community policing officer: The impact of basic training and occupational socialization on police recruits. *Police Quarterly*, 4 (4), 402-433.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate Data Analysis* (6<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Hatch, N., & Dyer, J. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25, 1155-1178.
- Henderson, R. (1984). *Performance Appraisal* (2nd ed.). Reston, VA: Reston Publishing Co.
- Henson, B., Reynolds, B., Klahm, C. F., & Frank, J. (2010). Do good recruits make good cops? Problems predicting and measuring academy and street-level success. *Police Quarterly*, 13 (1), 5-26.
- Hiatt, D., & Hargrave, G. (1988). MMPI profiles of problem peace officers. *Journal of Personality Assessment*, 52, 722-731.
- Hitt, M., Bierman, L., Shimizu, K., & Kochhar, R. (2001). Directing and moderating effects of human capital on strategy and performance in professional firms: A resource based perspective. *Academy of Management Journal*, 44 (1), 13-28.

- Hofferth, S., & Iceland, J. (1998). Social capital in rural and urban communities. *Rural Sociology*, 63, 574-598.
- Holdaway, S., & Barron, A. (1997). *Resigners? The experience of Black and Asian police officers*. London: Macmillan.
- Holton III, E., Bates, R., & Ruona, W. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11, 333-360.
- Jaccard, J., Becker, M., & Wood, G. (1984). Pairwise multiple comparison procedures: A review. *Psychological Bulletin*, 96 (3), 589-596.
- Jewell, L. (1998). *Contemporary Industrial/Organizational Psychology* (3rd ed.). Pacific Grove, CA: Brooks/Cole Publishing Co.
- Kakar, S. (2002). Gender and police officers' perceptions of their job performance: An analysis of the relationship between gender and perceptions of job performance. *Criminal Justice Policy Review*, 13 (238), 238-256.
- Kao, G. (2004). Social capital and its relevance to minority and immigrant populations. *Sociology of Education*, 77 (2), 172-175.
- Katzell, R. (1994). Contemporary meta-trends in industrial and organizational psychology. In H. Triandis, M. Dunnette, & L. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed., Vol. 4, pp. 1-89). Palo Alto, CA: Consulting Psychologist Press.
- Klein, B., Crawford, R., & Alchian, A. (1978). Vertical integration, appropriable rents, and the competitive contracting process. *Journal of Law and Economics*, 21, 297-326.
- Law Enforcement Foundation. (2001). *The Complete Guide to Hiring Law Enforcement Officers*. Dublin, OH: Law Enforcement Foundation.
- Lepak, D., & Snell, S. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review*, 24, 31-48.
- Lough, J., & Ryan, M. (2005). Psychological profiling of Australian police officers: An examination of post-selection performance. *International Journal of Police Science and Management*, 7 (1), 15-23.
- Lowenberg, G., & Conrad, K. (1998). *Current Perspectives in Industrial/Organizational Psychology*. Boston, MA: Allyn & Bacon.
- LSP Vision. (2010). Retrieved July 2010, from Louisiana State Police: [http://www.lsp.org/about\\_vision.html](http://www.lsp.org/about_vision.html)

- Malos, S. (1998). Current legal issues in performance appraisal. In J. Smither (Ed.), *Performance Appraisal: State of the Art in Practice* (pp. 537-547). San Francisco, CA: Jossey-Bass.
- Malouff, J., & Schutte, N. (1986). Using biographical information to hire the best new police officers: research findings. *Journal of Police Science and Administration*, 14 (3), 175-177.
- Martel, P. (2001). An impressive transformation, for sure, but a successful transformation as well? *Revue Gestion*, 26 (4), 65-69.
- Martin, S. (1991). The effectiveness of affirmative action: The case of women in policing. *Justice Quarterly*, 8, 489-504.
- McCampbell, M. (1987). *Field Training for Police Officers: The State of the Art*. Washington, DC: National Institute of Justice, U.S. Department of Justice.
- Meister, J. (1998). *Corporate universities: Lessons in building a world-class workforce* (2nd ed.). New York: McGraw Hill.
- Miller, J., & Fry, L. (1978). Some evidence on the impact of higher education for law enforcement personnel. *The Police Chief*, 45, 30-33.
- Mills, M., & Stratton, J. (1982). The MMPI and the prediction of job performance. *FBI Law Enforcement Bulletin*, 10-15.
- Mississippi Department of Public Safety. (2010). Retrieved July 2010, from <http://www.dps.state.ms.us/dps/dps.nsf>
- Moore, M., & Braga, A. (2003). Measuring and improving police performance: The lessons of Compstat and its progeny. *Policing: An International Journal of Police Strategies and Management*, 26 (3), 439-453.
- Morin, L., & Renaud, S. (2004). Participation in corporate university training: Its effect on individual job performance. *Canadian Journal of Administrative Sciences*, 21 (4), 295-306.
- Muir, W. (1977). *Police: Streetcorner politicians*. Chicago, IL: University of Chicago Press.
- National Center for Women and Policing. (2000). *Equality Denied: The Status of Women in Policing: 1999*. Los Angeles, CA: National Center for Women and Policing.
- Newton, K. (1997). Social capital and democracy. *American Behavioral Scientist*, 40, 575-586.
- Ones, D., Viswesvaran, C., Cullen, M., Drees, S., & Langkamp, K. (2003). Personality and police officer behaviors: A comprehensive meta-analysis. In S. Spilbert, & D. Ones, *Personality work behaviors of police officers*. Symposium conducted at the 18th annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.

- Pallone, N. (1992). The MMPI in police officer selection: Legal constraints, case law, empirical data. *Journal of Offender Rehabilitation*, 17, 171-188.
- Palombo, J. B. (1992). Attitudes, training, performance, and retention of female and minority police officers. In G. Felkenes, & P. C. Unsinger (Eds.), *Diversity, affirmative action and law enforcement* (pp. 57-90). Springfield, IL: Charles C Thomas.
- Panczuk, S. (2001). Les universites d'entreprise: Outil strategique pour les dirigeants? *Actualite de la formation permante*, 172, 65-70.
- Paoline, I. E., & Terrill, W. (2007). Police education, experience, and the use of force. *Criminal Justice and Behavior*, 34 (2), 179-196.
- Piquero, N., & Bouffard, L. (2003). A preliminary and partial test of specific defiance. *Journal of Crime & Justice*, 26, 1-21.
- Potts, L. (1983). Equal employment opportunity and female employment in police agencies. *Journal of Criminal Justice*, 11, 505-524.
- Rafilson, F., & Sison, R. (1996). Seven criterion-related validity studies conducted with the national police officer selection test. *Psychological Reports*, 78, 163-176.
- Reaves, B. (2009). *State and local law enforcement training academies, 2006*. U.S. Department of Justice, Office of Justice Programs. Washington, D.C.: U.S. Department of Justice.
- Riksheim, E. C., & Chermak, S. M. (1993). Causes of police behavior revisited. *Journal of Crimal Justice*, 21, 353-382.
- Roberg, R. (1976). *The Changing Police Role - New Dimensions and New Issues*. San Jose, CA.: Justice Systems Development, Inc. .
- Roberg, R. (1978). An analysis of the relationships among higher education, belief systems, and job performance of patrol officers. *Journal of Police Science and Administration*, 6, 336-344.
- Roberg, R., Novak, K., & Cordner, G. (2009). *Police and society* (4th ed.). New York: Oxford University Press.
- Roberg, R., & Bonn, S. (2004). Higher education and policing: Where are we now? *Policing: An International Journal of Police Strategies and Management*, 27 (4), 469-486.
- Roberg, R., Kuykendall, J. C., & Novak, K. (2002). *Police management* (3rd ed.). Los Angeles: Roxbury.
- Roberts, B. W., Chernyshenko, O. S., Stark, S., & Goldberg, L. (2005). The structure of conscientiousness: an empirical investigation bases on seven major personality questionnaires. *Personnel Psychology*, 58 (1), 103-140.

- Robinson, A. (2003). The impact of police social capital on officer performance of community policing. *Policing: An International Journal of Police Strategies and Management*, 26 (4), 656-689.
- Rubinstein, J. (1973). *City police*. New York: Farrar, Straus and Giroux.
- Saks, A., & Belcourt, M. (2006). An investigation of training activities and transfer of training in organizations. *Human Resource Management*, 45 (4), 629-648.
- Sanders, B. (2003). Maybe there's no such thing as a "good cop": Organizational challenges in selecting quality officers. *Policing: An International Journal of Police Strategies and Management*, 26, 313-328.
- Sanders, B. (2008). Using personality traits to predict police officer performance. *Policing: An International Journal of Police Strategies and Management*, 31 (1), 129-147.
- Sarchione, C., Cuttler, M., Muchinsky, P., & Nelson-Gray, R. (1998). Prediction of dysfunctional job behaviors among law enforcement officers. *Journal of Applied Psychology*, 83, 904-912.
- Scott, E. (1981). *Calls for service: Citizen demand and initial police response*. Washington, DC: Government Printing Office.
- Sherman, L. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of Research in Crime and Delinquency*, 30, 445-473.
- Simmers, K., Bowers, T., & Ruiz, J. (2003). Pre-employment psychological testing of police officers: the MMPI and the IPI as predictors of performance. *International Journal of Police Science and Management*, 5 (4), 277-294.
- Skolnich, J., & Fyfe, J. (1993). *Above the law: Police and the excessive use of force*. London: Her Majesty's Stationery Office.
- Smith, A., Locke, B., & Walker, W. (1968). Authoritarianism in police college students and non-police college students. *Journal of Criminal Law, Criminology, and Police Science*, 59, 440-443.
- Smith, A., Locke, B., & Fenster, A. (1970). Authoritarianism in policemen who are college graduates and non-college graduates. *Journal of Criminal Law, Criminology, and Police Science*, 61, 313-315.
- Smither, J. (1998). Lessons learned: Research implications for performance appraisal and management practice. In J. Smither (Ed.), *Performance Appraisal: State of the Art in Practice* (pp. 537-547). San Francisco, CA.

- Stone, A., & DeLuca, S. (1994). *Police Administration: An Introduction*. Englewood Cliffs, NJ: Prentice Hall.
- Sullivan, J., Riccio, C., & Reynolds, C. (2008). Variations in students' school- and teacher-related attitudes across gender, ethnicity, and age. *Journal of Instructional Psychology*, 35 (3), 296-305.
- Sun, I., & Poteyeva, M. (2009). Gender differences in police officers' attitudes: Assessing current empirical evidence. *Journal of Criminal Justice*, 37 (5), 512-522.
- Sun, I., Triplett, R., & Gainey, R. (2004). Social disorganization, legitimacy of local institutions and neighborhood crime. *Journal of Crime and Justice*, 27 (1), 33-60.
- Tannenbaum, S. (2002). A strategic view of organizational training and learning. In K. Kraiger (Ed.), *Creating, implementing, and managing effective training and development*. San Francisco, CA: Jossey-Bass.
- Territo, L., Swanson, C., & Chamelin, N. (1977). *The Police Personnel Process*. Indianapolis, IN: Bobbs-Merrill Company.
- Texas Department of Public Safety*. (2010). Retrieved May 12, 2010, from Texas Department of Public Safety: <http://www.txdps.state.tx.us/index.htm>
- Triplett, R., Sun, I., & Gainey, R. (2005). Social disorganization and the ability and willingness to enact control: A preliminary test. *Western Criminology Review*, 6 (1), 89-103.
- Tyler, T., & DeGoey, P. (1995). Collective restraint in social dilemmas: Procedural justice and social identification effects on support and authorities. *Journal of Personality and Social Psychology*, 69, 482-497.
- Tyre, M., & Braunstein, S. (1992, June). Higher education and ethical policing. *FBI Law Enforcement Bulletin*, 6-10.
- U.S. Bureau of Labor Statistics. (2010). Databases, Tables & Calculators by Subject. Retrieved June 2010, from U.S. Bureau of Labor Statistics: <http://www.bls.gov/data/#employment>
- Van Maanen, J. (1983). The boss: First-line supervision in an American police agency. In M. Punch (Ed.), *Control in the Police Organization* (pp. 275-317). Cambridge, MA: MIT Press.
- Walker, D. (1986). The relationship between social research and public policy: the case of police selection process. *American Journal of Police*, 5 (1), 1-22.
- Walker, S. (2005). *The new world of police accountability*. Thousand Oaks, CA: Sage.
- Walker, S., & Katz, C. (2002). *The police in America: An introduction*. New York: McGraw-Hill.

- Wall, E., Ferrazzi, G., & Schryer, F. (1998). Getting the goods on social capital. *Rural Sociology*, 63, 300-322.
- Walters, J. (1998). *Measuring Up: Governing Guide to Performance Measurement for Geniuses (and Other Public Managers!)*. Washington, DC: Governing Books.
- Weiner, N. (1976). The educated policeman. *Journal of Political Science and Administration*, 4, 450-457.
- Weiss, W., Zehner, S., Davis, R., Rostow, C., & DeCoster-Martin, E. (2005). Problematic police performance and the Personality Assessment Inventory. *Journal of Police and Criminal Psychology*, 20 (1), 16-21.
- Wheeler, K. (2002). *The uses and misuses of the term Corporate University*. Retrieved from Global Learning Resources: [www.gresources.com/corp\\_ed/whatcu.htm](http://www.gresources.com/corp_ed/whatcu.htm)
- Whetstone, T., Reed Jr., J., & Turner, P. (2005). Recruiting: a comparative study of the recruiting practices of state police agencies. *International Journal of Police Science & Management*, 8 (1), 52-66.
- White, M. (2007). *Current issues and controversies in policing*. Boston: Allyn & Bacon.
- White, M. (2008). Identifying good cops early: Predicting recruit performance in the academy. *Police Quarterly*, 11 (27), 27-49.
- Wilson, J. (1968). *Varieties of police behavior*. Cambridge, MA: Harvard University Press.
- Wilson, O., & McLauren, R. (1972). *Police Administration* (3rd ed.). New York: McGraw-Hill, Inc.
- Wood, R. (1997). Social capital and political culture: God meets politics in the inner city. *American Behavioral Scientist*, 40, 595-605.
- Worden, A. P. (1993). The attitudes of women and men in policing: Testing conventional and contemporary wisdom. *Criminology*, 31, 203-242.

## **VITA**

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