

A COMPARISON OF THE RELATIONSHIPS BETWEEN LEVEL OF
EDUCATION, JOB PERFORMANCE, AND BELIEFS ON
PROFESSIONALISM WITHIN THE VIRGINIA STATE POLICE

by

Charles W. Wymer

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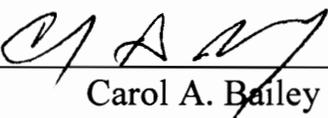
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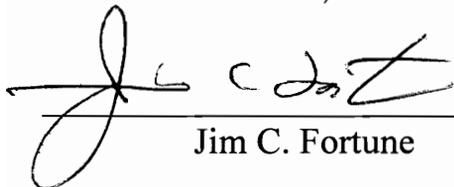
Samuel D. Morgan, Chairperson



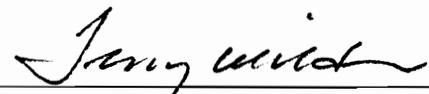
Carol A. Bailey



Don G. Creamer



Jim C. Fortune



Terry M. Wildman

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Charles William Wymer

Committee Chairperson: Samuel D. Morgan

Education

(ABSTRACT)

Most police administrators assume that the higher level of education a police officer attains, the more effective the officer will become in fulfilling the police role. Based on this assumption, the purpose of this study was to determine the effects of level of education on job performance and beliefs toward professionalism within the Virginia State Police.

This study analyzed a sample group (n = 150) chosen from the population of the Virginia State Police. The sample was divided into three distinct groups--troopers with a high school/GED, troopers with an associate's degree, and troopers with a bachelor's degree to include graduate work. Data was collected on the study participants by means of a survey instrument and from personnel files located at Virginia State Police Headquarters in Richmond, Virginia.

The independent variables for this study were: education level, major in college, and specialized training schools attended by troopers. These variables were examined to determine their influence on job performance and beliefs toward professionalism. The dependent variables were

associated with the trooper's orientation toward law enforcement activities by education level. The dependent variables were public service activity, order maintenance activity, crime fighting activity, public and community relations, police ethical conduct, personnel issues, and job performance ratings. College major and specialized training schools attended were primarily examined to determine if any significant differences were evident in relation to job performance evaluation ratings.

The results of this study determined that there were significant differences found in the areas of personnel issues, length of service, age, and number of awards and citations. Troopers who had a high school/GED scored significantly different in the areas of length of employment, age, and awards and citations. Measurements for troopers who had college degrees were found to be significantly different in personnel issues, especially in areas involving views on education, promotion, evaluation, and participation by community leaders in organizational development.

In relation to beliefs toward professionalism, job performance, college major, or specialized training schools attended, there were no significant differences found among the three levels of education.

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TABLE OF CONTENT

	<u>page</u>
Abstract.....	ii
Acknowledgment.....	iv
List of Tables	xi
Chapter 1. Introduction.....	1
Conceptual Framework.....	4
Problem Statement.....	4
Purpose Statement	5
Research Question	6
Assumptions	11
Delimitations.....	12
Limitations.....	13
Significance of This Study	13
Significance of Community College Education.....	15
Summary	17
Chapter 2. Review of the Literature	19
The American Police - A Brief History.....	19
Development of Education In law Enforcement.....	20
Formation of Federal Commissions On Law Enforcement	23
Law Enforcement Today	35
Law Enforcement Accreditation.....	37
The Positive Aspects of Higher Education on Law Enforcement.....	39

The Negative Aspects of Higher Education on Law Enforcement.....	50
The Role of the Institution on Higher Education in Law Enforcement, (The Community College)	53
The Dichotomy of the Criminal Justice Curriculum in Junior and Senior Institutions.....	55
Conclusion	57
Chapter 3. Methodology	62
The Research Approach.....	62
The Research Design	63
Pilot Test.....	66
Subject Selection	67
Instrumentation	68
Processing Data	70
Measurement Procedures.....	71
Summary	74
Chapter 4. Presentation and Analysis of the Data	76
Descriptive Characteristics of the Sample	77
Level of Education.....	78
Length of Employment.....	80
Age.....	82
Sex.....	82
Race.....	85
Numbers of Awards and/or Citations.....	85

Numbers of Complaints.....	87
Military Experience	90
Prior Law Enforcement Experience	94
Trooper Rank	96
Relationship of College Degree Toward	
Job Performance	98
Age By Education (analysis of variance).....	100
Awards and Citations Analysis In Regard	
to Level of Education (analysis of variance).....	102
Determination of Specialized Training School/Courses	
in Relation to Job Performance	106
Beliefs About Professionalism Between Troopers	
with a High School Education and Troopers	
with a College Education.....	112
The Questionnaire Survey	113
High School/GED v. College Degree - Comparison	119
1. Public Service Oriented Activity.....	120
2. Order Maintenance Activity	121
3. Crime Fighting	121
4. Public and Community Relations.....	121
5. Police Ethical Conduct	122
6. Personnel Issues.....	122
Summary	129

Chapter 5. Summary, Conclusions, Recommendations, and	
Discussions	131
Background and Setting	131
Statement of the Purpose	132
Specific Objectives of the Study	133
Methodology Interpretation.....	135
Interpretations and Summary of Descriptive	
Characteristics.....	135
Relationship of College Degree Toward	
Job Performance	140
Determination of Specialized Training	
Schools/Courses in Relation to Job Performance	141
Beliefs about Professionalism between Troopers with	
a High School Education and those with	
a College Degree.....	142
Conclusion	143
Recommendations	145
Discussion.....	147
Reference	151
Appendix A. Respondents v. Non-respondents	159
Appendix B. Categorical Grouping by Age and	
Mean Length of Employment of	
Virginia State Troopers	170

Appendix C. Categorization of Military Rank of
Virginia State Troopers 172

Appendix D. Letter to Colonel M. Wayne Huggins,
Superintendent Virginia Department of
State Police 175

Appendix E. Letter to Troopers Requesting Participation
in Research Study, (letter to accompany survey
questionnaire - to include follow-up letter)..... 178

Appendix F. Survey Questionnaire - Virginia State
Police Survey 181

Vita..... 195

LIST OF TABLES

Number	Name	Page
1.	Operational Definition of the Dependent Variables	8
2.	Operational Definition of the Independent Variables.....	10
3.	Comparison of Educational Levels of Law Enforcement Officers from 1960 - 1988	37
4.	Frequency of Common Police Task Performed by Education Level	44
5.	Descriptive Statistics for Various Levels of Measurement of Data.....	72
6.	Virginia State Police Categorized According to Educational Level	79
7.	Length of Employment of Virginia State Troopers by Educational Level	81
8.	Mean Age of Virginia State Troopers by Educational Level	83
9.	Sex of Virginia State Troopers by by Educational Level	84
10.	Race of Virginia State Police Respondents.....	86
11.	Mean Number of Awards and Citations of Virginia State Trooper by Educational Level.....	88

12. Number of Complaints Categorized by Educational Level	89
13. Military Experience of Virginia State Troopers based on Educational Level.....	91
14. Military Occupation of Virginia State Troopers based on Educational Level.....	93
15. Prior Law Enforcement Experience of Virginia State Troopers by Educational Level	95
16. Trooper Ranking According to Educational Level	97
17. Analysis of Job Performance for Virginia State Troopers with Criminal Justice Degrees and those with other Degrees	99
18. Virginia State Police Categorized According to College Degree Major	101
19. Analysis of Variance: Mean Age on the Variable "Age" by Level of Education for State Troopers	103
20. Analysis of Variance: Mean Number of Awards and Citations by Educational Level	105
21. Chi Square Analysis of Specialized Training Against Job Performance for Virginia State Police.....	109
22. Pearson Product-Moment Correlation Coefficient between Specialized Training Courses Attended and Job Performance Evaluation for all Virginia State Police	110

23. Pearson Product-Moment Correlation Coefficient between Specialized Training and Job Performance for Virginia State Police by Educational Level.....	111
24. Response Percentages to the Survey Questionnaire by Educational Levels of the Virginia State Police	114
25. Individual Item Means by Groups, Average Means by groups, and Total Average Means for the Six Dependent Variables of the Survey Questionnaire	115
26. Public Service Oriented Activity by Level of Education.....	123
27. Order Maintenance Activity by Level of Education.....	124
28. Crime Fighting by Level of Education.....	125
29. Public and Community Relations by Level of Education.....	126
30. Police Ethical Conduct by Level of Education	127
31. Personnel Issues by Level of Education.....	128
32. Length of Service for Respondents and Non-respondents	161
33. Mean Age of Virginia State Troopers for Respondents and Non-respondents.....	162
34. Sex of Respondents and Non-respondents.....	163
35. Race of respondents and Non-respondents	164

36	Number of Complaints by Respondents and Non-respondents	165
37.	Educational Level of Respondents and Non-respondents	166
38.	Number of College Credits of Respondents and Non-respondents	167
39.	Performance Evaluation of Respondents and Non-respondents	168
40.	Categorical Grouping by Age and Mean Length of Employment of Virginia State Troopers.....	171
41.	Categorization of Military Rank of Virginia State Troopers	173

Chapter 1

Introduction

There is a belief by police administrators and trainers that a college education will improve performance, professionalize police work, and align individual attitudes of police officers with that of persons in careers such as education, medicine, and business. According to the National Advisory Commission on Higher Education for Police Officers, the use of higher education to improve the image of the police and promote professional behavior has been a major objective of the police reform movement since World War II (Shernock, 1992). This belief is especially true in today's law enforcement community.

The image of a typical police officer in the early 1900s was one who was middle-aged, had very little education, and was a politically oriented figure who applied the law according to his own interests. This officer utilized whatever means that were available to solve conflicting situations, with little regard for professional ethical standards (Inciardi, 1994). Consequently, this drew attention to the style and questionable practices of the police by public and governmental officials. As a result, the federal government initiated several studies of police procedures and tactics (e.g., the Wickersham Commission of 1931). These studies indicated that the police were not effective in applying acceptable professional standards to law enforcement and recommended the upgrading of educational requirements for the police officer as one of the basic elements of change. It was not until the late 1950s and early 1960s that certain events in this

country changed the course of police reform. First, the public gained a sharpened awareness of individual, cultural, and ethnic rights, which was heightened by the civil rights movement. This focused attention on the methods of operation by the criminal justice system, focusing especially on the application of law enforcement tactics. Secondly, there were extreme political ideologies which arose as the result of the Vietnam War. Television viewers were first hand witnesses to the application of law enforcement techniques in dealing with civil rights and anti-war protesters. Thirdly, the crime rate began to increase which brought attention to police performance (Swank & Concer, 1983).

Events of the early 1960s and how the police reacted to them resulted in the formation of governmental commissions, such as the President's Commission on Law Enforcement and Administration of Justice. These commissions were created to study police organizations and their tactics in dealing with social conflicts. These studies, based more on speculation and intuition than empirical data, indicated that there was a relationship between professional job performance of the police and the amount of education of the officer (Carter & Snapp, 1990; Finckenaer, 1975; Worden, 1990).

The perception that a college education has a positive impact on the job performance of police officers is evident among law enforcement officers. Police administrators assume that a person who is successful in attaining at least some college work has a better understanding of our social structure, has developed advanced skills essential in problem solving, and interacts more effectively with the public. The college educated officer is

also viewed as having the motivation, perseverance, and self discipline required to successfully work through difficult situations.

In reviewing the literature on the effects of college education on job performance, the proposition that a college educated officer performs more professionally and efficiently, lacks consistency. Lawrence Sherman in his text *The Quality of Police Education*, suggests that empirical research focused on the relationship of education and job performance is too inconsistent and insignificant to arrive at a sound conclusion. This indicates there may be a need for more empirical research to further explore how a college education has influenced job performance specifically and the law enforcement profession in general. This is especially true in today's high-tech world where police cruisers are equipped with computers and television monitors, sophisticated pieces of telecommunication equipment used in tracking criminal activity, and weaponry that is designed to "stun" rather than kill offenders. To utilize these complex tools, a person must have a certain level of intellectual aptitude. Therefore, a person who has attained college work is considered to have that level of aptitude.

In addition, the renewed interest in educational level and job performance is related to recent adverse events that have occurred in law enforcement such as the Rodney King incident in Los Angeles. Upgrading entry level requirements and advancing the professionalization of police personnel is again becoming a primary concern with many police administrators and legislative bodies.

Conceptual Framework

The conceptual framework for this study is based on a need for additional empirical evidence that college education has a positive effect on the job performance of law enforcement officers. The general assumption among uniform police is that a college educated officer will have a higher job performance rating than those officers who have not had any college work.

As research evidence suggests, many law enforcement organizations are upgrading educational entrance requirements of applicants with the assumption that this will improve not only job performance but will also advance the level of professionalism within the police.

Problem Statement

American society is becoming more complex and disjointed in its human relationships. These new social, political, and economic conditions make demands on police officers that are not traditionally associated with police work (i.e. counseling service, agency referral for assistance, emergency situations involving persons and families in need of shelter, and basic human needs for survival). The literature suggests that police officers who have had some college level course work and/or received college degrees tends to perform job tasks more effectively than those who have not participated in college level learning experiences. Results of previous research have been less than uniform and have suggested that additional research is needed to help verify that level of education is related to the job performance of police officers. Within the Commonwealth of Virginia, the procedural problem for this study is to determine if level of education

significantly influences job performance and beliefs toward professionalism of Virginia State Police troopers.

Purpose Statement

This study has several purposes that are related to each other. The primary purpose is to determine if troopers with a high school education have a job performance rating that is different from those troopers who have a college degree and is the difference statistically significant between educational levels.

Other ancillary purposes are:

1. Synthesize the extant literature concerning college education of law enforcement officers on their job performance.
2. Describe the Virginia State trooper in terms of demographic information.
3. Determine if specialized training course work and/or combinations of specialized training course work influences the trooper's job performance rating.
4. Determine if a college degree related specifically to the criminal justice field influences the job performance of those troopers differently than those troopers who do not have a criminal justice related degrees.
5. Determine if the troopers beliefs about professionalism are different between troopers who have a high school education and those who

have a college degree.

Research Question

The research activity for this study is to determine if there is a relationship between level of education, job performance, and beliefs toward professionalism within the Virginia State Police. As this research suggest, there is an overlap between job performance and professionalism in the law enforcement community. Even though the two literal definitions are different, police executives consider education as being instrumental to improved job performance and professionalism. Stanley Shernock, in his research on this topic, developed a survey instrument on police professionalism which was published in *The Journal of Criminal Justice Education*, 1992, vol. 3, pp. 71-92. According to Shernock, six general beliefs of professionalism were identified in determining the level of professionalism among police officers in several New England states. In researching facts on education, job performance ratings, and attitudes toward professional beliefs in law enforcement, many of the variables fundamental to this study were also included in Dr. Shernock's survey instrument. Therefore, Dr. Shernock's instrument was used as a guide for developing the research instrument for this study.

The research questions for this study are:

1. What is the relationship between level of education and job performance ratings of troopers within the Virginia State Police?
2. What relationship exists between level of education and beliefs toward professionalism within the Virginia State Police?

The dependent and the independent variables have been introduced. Specifically, dependent variables that influence this study were:

1. public service activity
2. order maintenance activity
3. crime fighting activity
4. public and community relations
5. police ethical conduct
6. personnel issues
7. job performance ratings

These variables are related in that they examine the effects of college education on the trooper's orientation toward law enforcement activities that are relevant to the trooper's beliefs toward professionalism and task evaluation.

The independent variables were:

1. education level
2. major in college
3. specialized training schools attended

To further identify the variables in regard to their operational definition, Table 1 defines the dependent variables while Table 2 defines the independent variables to be used in this study.

This is a comparative research study that was directed toward the effects of level of education on job performance and beliefs of professionalism of Virginia State troopers.

Table 1:

Operational Definition Of The Dependent Variables

1. Public Service Oriented Activity - This area is oriented toward the noncriminal portion of police work. It deals with the general attitude of the police and their perceptions regarding the public while responding to their needs.

2. Order Maintenance Activity - This section involves discretionary decisions that troopers are confronted with in the day to day activities of enforcing the laws of Virginia and in maintaining order.

3. Crime Fighting - This variable deals with how attitudes are reflective of the troopers experience with the court system, interacting with the criminal element, and the trooper's attempts to bring those guilty of committing criminal acts to justice.

4. Public and Community Relations - In the day to day routine of being a trooper, there will arise several occasions in which interaction with the public becomes necessary. These interactions may deal with something as simple as giving directions or responding to immediate emergency situations. This variable focuses on various situations in which most troopers deal with the public. This variable describes activities of law enforcement officers in general in relation to public and community interaction.

5. Police Ethical Conduct - Most troopers find themselves from time to time in the position of using their discretion to determine whether or not a

(table continues)

Table 1 (continued)

situation that may present itself is ethical. This variable will measure the trooper's ranking of what is considered ethical conduct in their work place and their tolerance toward the misconduct of fellow troopers.

6. Personnel Issues - This variable will focus on the autonomy of the trooper in terms of being able to work independently of supervision. Other personnel related items such as the evaluation of supervisors by troopers, educational consideration, community involvement in structuring the police, and whether or not law enforcement officers should be allowed to strike.

7. Performance Evaluation Rating - The officer's mean score on the Virginia State Police performance evaluation rating scale.

Table 2:

Operational Definition Of The Independent Variable

1. Educational Level - The level of education attained by the troopers are (a) high school or GED, (b) an associates degree, (c) a bachelor's degree plus any graduate work the trooper may have.
 2. Major in College - This variable was included in the personal demographic section of the survey questionnaire. This variable measures a degree in criminal justice in relation to degrees in other disciplines.
 3. Specialized Training Schools - Those schools attended by law enforcement personnel that are not included in basic academy training or inservice schools. These schools are voluntary and provide a means for special assignment or promotional opportunities.
-

Assumptions

The following assumptions are germane to this study. The assumptions listed are necessary to establish a prudent starting point for this study.

1. This study assumed that there would be uniformity in the basic experience in trooper assignments. The following variables will influence experience; prior police experience, citations awarded, evaluation reports.
2. Basic academy training core curriculum, which is a foundation for subsequent training, is the same in terms of subject material covered and instructional methods used. In addition, variables such as attendance, class standing, percentile group, and overall score were presumed to be objectively determined.
3. The same opportunities are present in reference to specialized schools, promotional consideration, and other skill improvements such as traffic and crime scene investigation to all troopers.
4. All in-service training school core curriculum is the same and uniform with instruction to follow in the same method.
5. It is assumed that all data from the personnel and training records were correctly transcribed and posted correctly by the personnel division.

Delimitations

1. The study used Virginia State troopers as the source of population. The sample population was those who are full time employees and working in the capacity of uniform troopers.
2. The study was restricted to those who are actively on uniform patrol and whose job description are the same. Those troopers working in the Criminal Bureau of Investigation and those assigned to specialized duties such as narcotics were not participants in this study.
3. College education was not restricted to only those whose major was in Criminal Justice, Criminology, or Administration of Justice. Rather degrees consisted of other majors such as education, biology, sociology, psychology, etc.
4. Troopers were exposed to the same core curriculum and method of instruction in the basic training academy and in-service training schools.
5. Troopers were evaluated by the same evaluation instrument in reference to job performance. (the evaluation instrument has changed in format at least twice during the past five years, however, all troopers were affected by this format change and evaluated equally).

Limitations

1. Because subjects of this study were Virginia State troopers, the results must be cautiously generalized to other law enforcement agencies.
2. This study analyzed only those troopers who are in uniform patrol and will not measure other troopers who are working in other areas outside of uniform patrol or in specialized assignments.
3. Although the Virginia State Police performance evaluation instruments contained the same design and format, troopers are evaluated by different evaluators. Therefore, evaluation questions that were subjective in nature and ask for an opinion were not measured while objective, specific, and factual questions were measured.

Significance of this Study

At best, there are mixed opinions by practitioners and educators on the effects of college education on job performance of law enforcement officers. Studies reflect varied positions which is exemplified in the following statements by Charles B. Saunders in his text *Upgrading the American Police: Education and Training for Better Law Enforcement*, states:

. . . the need for police officers who are intelligent, articulate, mature, and knowledgeable about social and political questions is apparent . . . those who possess these requirements in

personal characteristics are more likely to pursue an advanced level of education, and or college education develops and imparts the required level of knowledge. (pp. 89-91)

James O. Finckenuer, however, responds to the finding of the President's Commission On Law Enforcement and the National Advisors Commission on Criminal Justice Standards' in a more critical response by stating:

. . . the hard evidence based upon research which would support these conclusions continue to range from slim to none, the National Advisory Council admits that information of the specific value of education to police personnel has not been developed through research focused on this objective but as a spin-off of other research usually focused on the selection of successful police applicants. (p. 450)

The strongest argument for emphasizing college education for law enforcement officers is that a college education exposes an individual to an array of learning experiences. An education gives one the ability to use knowledge to write, speak, compute, and gather information from many sources to produce and test conclusion. In supporting this statement Sherman (1978) emphasizes that "the educated police officer has the ability to generate problem solving techniques and to use knowledge as a tool to gather information from many sources in testing and arriving at suitable conclusions." (p. 1)

Significance of the Community College to this Study

Higher education has become a significant factor in law enforcement. This is evident by the accelerated growth of criminal justice programs in colleges and universities since the beginning of the 20th century. Even though the advent of formal academic programs was at the college and university level, the development of the community college and the prolific increase in the number of junior and community colleges in the 1950s and 1960s has provided an ideal setting for the continued growth of criminal justice programming. "The community service philosophy of community colleges contributed to the acceptance of public service occupations as legitimate fields of study" (Swank & Conser, 1983, p. 94). Even though such occupations were viewed by liberal arts institutions as being too vocationally oriented, the community college has had a significant influence in offering a diversified curriculum which has met the occupational needs of the community.

As a community college administration of justice professor, this study is significant to the researcher because of the large numbers of law enforcement officers who seek higher education by attending the community college. A contributing factor to this is the unique adaptability of the community college in being able to meet the needs of the community it serves. For the working police officer, the community college has been able to provide a flexible educational source that fits special needs without placing standards or penalties on academic time tables.

However, critics have long advocated that the academic criterion of the community college have not measured up to four-year college and

university academic standards. This study will determine if this speculation is justified in regard to significant differences between the two-year associate degree group and the bachelor's degree plus graduate study group in relation to job performance and attitudes toward professionalism within the Virginia State Police. The statistical results will signify:

1. If there is any difference between troopers with two-year associate degrees and troopers with a bachelor's degree plus graduate work in attitudes toward professionalism within the Virginia State Police.
2. If there is any significant difference between troopers with a two-year associate degree and troopers who have a bachelor's degree plus graduate work in job performance ratings.
3. If there is any significant difference between troopers with a two-year associate degree and troopers who have a bachelor's degree plus graduate work in specialized schools attended. Many of these schools/courses being taken at the community college level (i.e. advanced criminal investigation, traffic accident investigation, and hazardous materials).
4. If there is any significant difference between troopers with a two-year associate degree and troopers who have a bachelor's degree plus graduate work in relation to trooper promotion to the rank of senior and master trooper.

Summary

For many years, it has been assumed that education alone will be the necessary component that will produce a law enforcement officer with the qualities to improve job performance and enhance the police image. Research suggests that officers with a high school education are more direct in their approach to the strict application of the law, while those officers who have a college education tend to be more flexible in discretionary interpretation. On the other hand, research also indicates that basic and routine job tasks of law enforcement officers, such as directing traffic, writing traffic summons, investigating criminal activity, and maintaining social order, do not reflect a significant difference between levels of education. Therefore, the hypotheses of this study is that there will be noted significant differences between the levels of education of troopers in the areas of ethics, promotional opportunities, and supervision and no significant difference in the day to day routine of police task performances.

The police are being held more accountable by society for their actions. This has resulted in a concerted effort by law enforcement executives to employ persons who have the qualities to deal with public demands. Less than adequate judgments made by law enforcement officers just a few years ago, which resulted in little if any public attention, are now exposed and scrutinized by the public. Therefore law enforcement agencies, as well as city and state governments, are in the process of upgrading the quality of police personnel, with emphasis being primarily on education in accomplishing this task.

This study will focus on the Virginia State Police in providing empirical evidence in addressing the assumption that education is directly related to job performance.

CHAPTER II

Review of the Literature

The American Police - A Brief History

At the beginning of the 20th century, the law enforcement officer position experienced a transitional change from the unrestrained wild and wooley image of the old west to a more distinct, structured, and civilized approach to enforcing the law. This was due primarily to a rapidly growing and more settled population, especially in the larger cities of the east and west coasts. As towns and cities began to evolve into larger governmental entities, police departments also demonstrated increasing signs of uniformity in organization. Though still rudimental in design, job descriptions of police officers began to emerge into clearer forms of task performance for enforcing the law.

During this same period, however, there was still virtually no lateral movement or transferability of police officers from one department to another. Officers typically spent an entire career in one city, usually living in the same neighborhood in which they patrolled. Seniority was the principal element of consideration when promotional opportunities presented themselves and was more important than that of qualification and job performance. This led to middle and higher levels of management being ruled by traditional standards and ideas. "New blood" that entered the department was always at the lowest rank and thus, new ideas for change were quickly disregarded or suppressed. A very basic, traditional, and structured philosophy of police organization and management permeated

throughout all departments. Educating the new recruit was based on the method of law enforcement that was tried and true and upon doing things as they had always been done. Innovation was frowned upon, and the veterans impressed upon the rookies, in no uncertain terms, the reasons why things had to remain the same (Richardson, 1970).

Even though urban life became more socially structured during the early 1900s, there was always the possibility of violence which involved among other things, labor disputes and race riots in the larger cities. Millions of newcomers began to immigrate to America after 1900 which exacerbated the social strains of adjustment and interaction of the period (Peak, 1993). As a result, the larger police departments began to experience a diversity of ethnic and religious backgrounds. This, in conjunction with a strong and well defined political influence, caused recruits and non-ranking police officers to use political backers to obtain employment, promotion, desired assignments, and transfers. In addition, corruption began to take a very noticeable foothold in police organizations. Officers who did not choose to participate in corruption quickly found themselves occupying undesirable beats and assignments (Richardson, 1974). Professional development in police work was a foreign term at that time. An educated officer was seen as a threat to the current style of law enforcement and would tend to question techniques that were rapidly becoming standard operating procedures.

Development of Education In Law Enforcement

In 1907, August Vollmer, a well known advocate for education in law enforcement, was elected to the post of town marshall in Berkeley,

California. During this period, attention was focused by the citizenry on the corrupt style of law enforcement across the country. Larger cities were especially being scrutinized for their corruption and politics rather than professional conduct (*Journal of Criminal Law and Criminology*, 1933). It was then that Vollmer soon became noted for his scientific knowledge in solving criminal cases as well as his personal knowledge in applying professional standards in the development of police department organization and management (Douthit, 1983).

The most noted and daring move by Vollmer came in 1908 when he developed a *police school* within his police department. This was the first major educational effort toward the idea of professionalizing law enforcement. Vollmer's school covered a wide variety of subjects such as police methods and procedures, fingerprinting, first aid, criminal law, anthropology, photography, public health, and sanitation. These courses in his newly formed police school were taught by part-time faculty members from the University of California (Peak, 1993). This program was soon expanded into a three year program and included physical science as well as criminology related courses (Douthit, 1983). In 1918, to improve the quality of police recruits in his department, he began to hire college students and administer a set of intelligence, psychiatric, and neurological tests to all applicants (Peak, 1993). In 1917, the University of California established a police training school on its campus, and in 1931, Vollmer, then professor of Police Administration in the Political Science Department, was asked to oversee the program, as well as maintain his position as Chief of Police of Berkeley, California (Griffin, 1980).

In 1923, the University of California awarded the first degree in police science, an A.B. degree with minor studies in criminology. Other colleges and universities soon followed suit. Harvard University established the Bureau of Street Traffic Research. This was not a degreed program, but it was recognition of needed advanced education in the law enforcement field by a prestigious eastern university. The University of Chicago began offering several courses in law enforcement in 1929. It was not until 1930 that the first two-year college police program was established at San Jose Junior College (Hooper, 1978).

The Wickersham Commission, a government committee created to study education and professionalism in law enforcement, in 1931 proposed that science (i.e., fingerprinting, anthropology, and odontology) should be applied to police work to enhance their ability at coping with criminal activity. This brought a response by colleges and universities in establishing a number of new police science programs and expanding the ones already in existence. Such colleges and universities as Los Angeles City College, 1932, the University of Southern California, 1933, and Michigan State University, 1935, began offering courses in police science. San Jose Teachers College in 1935 began a four-year program in Police Administration which lead to a Bachelor of Arts degree (Hooper, 1988).

Federal support in the form of financial aid for law enforcement in higher education occurred in 1936 through the George-Dean Act, which was basically geared toward vocational education. However, section six of the Act specifically provided funds which were targeted especially for law enforcement education. As a result, many early training programs

developed into college credit programs (Troutman, 1986). In 1954, the New York City police department was able to work with the City College of New York in offering police officers college credit through a collegiate center for classroom work and for credit earned by on-the-job training (Lankes, 1970).

The trend toward higher education in law enforcement continued. In 1955, there were 22 police science programs in operation, by 1962 there were 152 such programs in community colleges and 39 baccalaureate programs, and in 1975 there were 729 community college and 376 four-year programs offering degrees in the police science field (Peak, 1993; Deutsch, 1955; *Law Enforcement and Criminal Justice Education Directory*, 1975-76).

Formation of Federal Commissions On Law Enforcement

As growing concern developed in regard to the police function and the increasing crime rate, there were three comprehensive national inquiries into the nature of crime in the United States and on how criminal justice organizations were reacting to crime. The first noted pre-1960s Commission was the National Commission on Law Observance and Enforcement in 1931, also known as the Wickersham Commission. The second was the Presidents Commission on Law Enforcement and Administration of Justice in 1967, and the third was the National Advisory Commission on Criminal Justice Standards and Goals, 1973. In addition to the three primary commissions assigned to study the rising crime rate and the role of the police, the United States Civil Rights Commission and various congressional hearings also became instrumental in suggesting

change in the basic mission of the police, especially in the area of setting educational standards for police officers (Carter, et al., 1989).

All three commission findings stated that education was the key component in developing an increasingly knowledgeable and skilled police officer. Subsequently, the commissions surmised that this would eventually improve law enforcement, professionalize the police, and elevate the probability of greater crime control across America.

The Wickersham Commission was responsible for laying the foundation which established the need for a highly trained, competent, well rounded professional law enforcement officer. Though it did not recommend specific standards to attain this goal, it did emphasize the need for officers to seek out college level work in raising the professional structuring of law enforcement. According to the findings of this commission, the following observations were most prevalent:

1. Every man must be mentally, morally, physically and educationally sound...such qualifications can not be obtained by the hit-or-miss methods of selection in vogue at the present time.
2. It immediately becomes obvious that the training made necessary by present-day conditions can not be met by old methods. In fact, the ultimate goal is possible only through two means: State supported and controlled schools for police only; secondly, university cooperation...[this alternative] offers great promise for the future...

3. Necessity has demanded application of science to police work. Colleges, universities, police department schools all are recognizing that necessity. The last 15 years have inaugurated the change, the next 15 may see a great chain of instruction throughout the country which will make possible an education for every policeman. Only in this manner can the police even hope successfully to cope with the crime situation.
4. The emoluments of the office will, of course, have to be attractive enough to invite the intelligent man. ...for the man who wishes a scientific college training, urge the universities to join in the work. Then will real progress be made [in raising the standards of law enforcement], (Wickersham Commission, 1933; Carter, et al, 1989, pp.31-34).

The essence of the Wickersham Commission report was to provide a guide for restructuring the policing for the next two generations. Suggestions for restructuring were (a) police chief executives should be selected on their work performance, ethics, and merits, especially eliminating those executives who were influenced by unethical political methods, (b) potential recruits should undergo a testing procedure in the selection process as well as meeting minimal physical standards, (c) municipal, state, and county organizations should pay salaries that would be acceptable to that of other professional organizations such as education and business, (d) working conditions and benefits should be decent, and

there should be adequate training for both pre-service and in-service officers, and (e) the commission emphasized the use of police women in such areas as juvenile and female oriented cases, crime-prevention units, and in criminal investigation divisions.

Many non-traditional progressive police executives welcomed the Wickersham Commission's recommendations. At that time, President Hoover could do little more than advocate the implementations of the recommendations. It was not until the administration of President Franklin D. Roosevelt that funds and leadership were provided for the actual implementation of the Wickersham's recommendations (Peak, 1993).

In 1967, President Lyndon B. Johnson responded to the Nation's concern on the rising crime rate and the role that law enforcement performed in combating crime. This response drew attention back to the style of law enforcement in confronting crime and re-focused on the need to require a more professionalized force in combating the continuously rising crime rate. This response was also due in a broader sense, to the changing social structure of the 1960s. Major emphasis toward civil and individual rights, recognition of racial and cultural differences, and land-mark court decisions had a direct impact on police performance. With these concerns, President Johnson appointed the President's Commission on Law Enforcement and Administration of Justice, which led to the passing of the Omnibus Crime Control and Safe Streets Act in 1968. This act contained provisions for upgrading the formal level of education of police officers and also the creation of the Law Enforcement Assistance Administration, (LEAA). Within the first three years LEAA awarded over fifty grants to

assist in establishing college degree programs in law enforcement (Griffin, 1980).

According to Carter, higher education for police was discussed by the President's Commission in two volumes, *The Challenge of Crime in a Free Society* and in the *Task Force Report: The Police*. The following points were emphasized by these two reports:

1. Recruitment Standards... From the point of view of securing recruits... [The] Commission believes strongly that it should be the long-range goal of all departments to raise their educational standards.
2. The ultimate aim of all police departments should be that all personnel with general enforcement powers have baccalaureate degrees.
3. Beyond question it will take many years for a reform this sweeping to be fully implemented. It will never be implemented if a strong movement toward it does not begin at once. ...No doubt many police administrators will, at first glance, consider this recommendation of the Commission so radical as to be unattainable. Let them consider that the median education level for all policemen in the United States [in 1967] is 12.4 years, which indicates that many [officers] already have done some college work. It is this trend that the Commission believes should be sharply accelerated.

4. Need for Advanced Education: The quality of police service will not significantly improve until higher education requirements are established for its personnel...the complexity of the police task is as great as that of any other profession. The performance of this task requires more than [the traditional traits of] physical prowess and common sense...
5. Minimum Educational Requirements: Due to the nature of the police task and its effect on our society, there is a need to elevate educational requirements to the level of a college degree from an accredited institution for all future personnel selected to perform the functions of police agent. The demands on the police should preclude a lower requirement for persons responsible for confronting major crime and social problems. Functions performed by the police officer, although not as demanding, are also complex. Hence, all future personnel serving in that capacity should be required to have completed at least 2 years of college preparation at an accredited institution. ...all departments should immediately establish a requirement that no person be employed in a sworn capacity until he has received a high school diploma and has demonstrated by appropriate achievement test the ability to perform successfully college level studies.

6. To assist departments in ultimately reaching desirable requirements, educational standards should be increased progressively as conditions permit.
7. The ultimate goal is that all personnel with general enforcement powers have baccalaureate degrees [e.g., police officers and police agents].
8. ...police departments, and particularly larger departments, should take immediate steps to establish the minimum educational requirements of a baccalaureate degree at an accredited institution for all major administrative and supervisory positions.
9. The need for an influx of trained and experienced persons possessing college credentials into top management positions is a current and critical one. ...a baccalaureate degree should be established for all future chief administrators (The President's Commission On Law Enforcement and Administration of Justice Task Force Report, 1967; Carter, et al., 1989, pp. 35-36).

There seemed to be primarily three distinct points that the President's Commission report emphasized. These points were (a) that the task of policing itself would require a higher level of education, (b) that this requirement would be initiated as a means of policy within law enforcement departments, and (c) the implementation process of establishing higher educational requirements in all ranks of police work would be a long range process to accomplish this goal.

As a result of the President's Commission study in 1969, almost 7 million dollars was allocated to over four hundred colleges and universities for police education programs. By 1976, a survey initiated by the National Criminal Justice Education Consortium found that 867 universities and colleges had established criminal justice programs. This brought the total figure to 1,181 institutions that offered some type of higher educational programs in law enforcement (Fox and Ullmann, 1976).

It should be noted, however, that the findings of the President's Commission on Law Enforcement and Administration of Justice was not based on empirical evidence but more on belief and speculation that higher education had an influence on the job performance of law enforcement (Finckenauer, 1975).

The third major commission on law enforcement and higher education was created in 1973, the National Advisory Commission on Criminal Justice Standards and Goals: Report on Police. This Commission was created to set various standards and goals in organizational and operational aspects of law enforcement. This commission was to serve as a means for planning and organizing the services of criminal justice systems. The following recommendations were made by the National Advisory Commission on Crime:

1. To ensure the selection of personnel with qualifications to perform police duties properly, every police agency should establish the following entry level educational requirements:

- a. Every police agency should require immediately, as a condition of initial employment, the completion of at least 1 year of education (30 semester units) at an accredited college or university.
- b. Every police agency should, no later than 1975, require as a condition of initial employment the completion of at least 2 years of education (60 semester units) at an accredited college or university.
- c. Every police agency should, no later than 1978, require as a condition of initial employment, the completion of at least 3 years of education (90 semester units) at an accredited college or university.
- d. Every police agency should, no later than 1982, require as a condition of initial employment the completion of at least 4 years of education (120 semester units or a baccalaureate degree) at an accredited college or university.

(National Advisory on Criminal Justice Standards and Goals, 1973; Carter, et al., 1989, p. 35).

In addition, the National Advisory Commission stated that:

1. ...the high school level of education is a questionable standard for the selection of police officers. The high school level of education no longer serves as an index of superior educational achievement; it is common throughout the nation.
2. ...police officers are left with their more essential task which includes social control in a period of increasing social turmoil, preservation of our Constitutional guarantees, and exercise of the broadest range of discretion--sometimes involving life and death decisions of any government service.
3. The need for police officers who are intelligent, articulate, mature, and knowledgeable about social and political conditions is apparent (National Advisory on Criminal Justice Standards and Goals, 1973; Carter, et al, 1989, p.36).

As is evident, these recommendations have not been implemented by American police. This is not to say that progress toward achieving these recommendations has not been demonstrated. Many departments, as a result of these recommendations, have successfully implemented additional higher education requirements for police personnel, both as an entry level requirement and for job promotion. Though there have not been formal requirements set forth by government, the most significant outcome has been to set forth a challenge to further educate law enforcement in promoting professionalism within the system.

As a result of the President's Commission findings of 1967, Congress through the auspices of the Law Enforcement Assistance Administration, provided grant money to be used in law enforcement education and training. As Jacobs and Magdovitz suggested, "the implementations of the Law Enforcement Assistance Administration (LEAA) and the spin off, Law Enforcement Education Program (LEEP), was an idea whose time had come" (Jacobs and Masdovitz, 1977; p. 4).

"In the wake of the crisis in law enforcement in the late 1960s, the Omnibus Crime Control and Safe Streets Act provided federal aid for the higher education of law enforcement personnel. While strong opposition surfaced with respect to many of the proposed sections in the Omnibus Crime Control Act for strengthening law enforcement and reducing crime, there was almost no recorded opposition to LEEP in the Congressional hearing and reports. It appealed to both liberals and conservatives alike: to the liberals because it offered the possibility of "liberalizing" the police and to the conservatives because it provided a benefit for the police and would hopefully contribute to more effective law enforcement" (Jacobs and Magdovitz, 1977; p.8). "By 1973 LEEP grants for education purposes of the individual law enforcement officer had increased to \$400 per semester while at the same time loans increased to \$2,200 per academic year, resulting in a grand total amount of \$40,000,000" (Hoover, 1975, p. 21; Hooper, 1988, p. 44).

Thus far, as the literature has revealed, several advisory groups were commissioned to study the value of education in law enforcement job performance and the professionalization of law enforcement in general. The findings of these advisory groups indicated that higher education for the police will result in greater reform. This rationale is best expressed by Sherman when he states;

"For over fifty years, the problems of policing have been blamed on the poor quality of police personnel. National study commissions, scholars, and police administrators have consistently argued that many of the problems of policing could be solved if more qualified people, particularly college graduates, were recruited to serve as police officers. The idea that police officers should be college educated has become a cornerstone of the movement to professionalize the police. The faith that better people can provide better policing has produced a vision of police reform through higher education" (Sherman, 1978, p. 18).

The recommendation for higher education implementation in law enforcement does not always translate into practice. Currently, the average level of educational achievement is about 14 years (Schmallegger, 1995). This implies that law enforcement officers have attained two years of college work, many obtaining the associate of arts or associate of applied science degree. This is far below the commissions recommendation of at least a bachelor's degree by the 1980s. Further examination revealed that female officers averaged 14.6 years of education while male officers

averaged 13.6 years (Schmallegger, 1995). This indicates that females use the educational system to a greater degree than their male counterparts. This, according to Schmallegger, is probably due to the realization of females that education will provide them a greater opportunity of entering the law enforcement profession than for males (Schmallegger, 1995: Carter et al., 1989). Also, Schmallegger states that, "only 3.3 percent of male officers hold graduate degrees, while almost one-third (30.2 percent) of women officers hold such degrees. On the down side, 34.8 percent of male officers have no college experience, and 24.1 percent of female officers have none" (Schmallegger, 1995, p. 228).

Law Enforcement Today

Law enforcement agencies in today's society are focusing on the assumption that higher education requirements will provide them with better qualified officers and troopers, professionalize law enforcement in general, and demonstrate to society that there is a concerted effort on the part of law enforcement to up-grade the current image of the police. For example, the San Diego police department has set a minimum education level of two years of college work for promotional consideration into the rank of sergeant, the Sacramento, California police department now requires a four-year degree for promotion into the rank of lieutenant, and the New York City Police Department requires at least 64 college credits for promotion into supervisory positions. In addition, the New York State Police, beginning in 1991, mandated a minimum of 60 semester hours of college work as a requirement for employment (Schmallegger, 1995).

The National Institute of Law Enforcement and Criminal Justice (NILECJ) conducted a survey in 1978 of manpower in the criminal justice system which is denoted in Table 3.

The percentage of officers who have sought higher education has changed significantly between 1960 and 1988. Police officers with no college has dropped by over 50 percent from 1970 to 1988, while the numbers for those officers attaining a higher level of education has increased to about 23 percent of the total police population. This implies that either more officers see the benefit of college in seeking police positions and/or that entrance and promotional considerations by police executives are requiring at least some college work.

Law Enforcement Accreditation

In addition to promoting education, police organizations themselves have endeavored to further enhance their status through accreditation. The Commission on Accreditation for Law Enforcement Agencies was formed in 1979. The commission was developed to set standards and to administer a voluntary accreditation process. It is through accreditation that state, county, and municipal law enforcement can demonstrate that they meet the standards set forth in the requirements for professionalization. The twenty-one member commission reflects broad representation from law enforcement practitioners, including chiefs of police, sheriffs and state police administrators, and from representatives from the public and private sectors such as state, county, and city administrators, academia, labor, and the courts (Territo, et al., 1992).

Table 3:
Comparison of Educational Levels of Law Enforcement Officers
From 1960 - 1988

College	Years of Comparison			
	1960	1970	1974	1988
no college	80.0%	68.2%	53.8%	34.8%
less than 2 years	10.0%	17.2%	15.8%	20.5%
2 - 3 years	7.3 %	10.9%	21.5%	22.1%
4 years or more	2.7%	3.7%	8.9%	22.6%

Source: Data from 1960, 1970, and 1974 are from National Institute for Law Enforcement and Criminal Justice (1978); 1988 data are from the Forum Survey (Carter, et al., 1989).

The commission was established by the combined efforts of various recognized law enforcement groups such as the International Association of Chiefs of Police (IACP), National Association of Black Law Enforcement Executives (NOBLE), National Sheriffs' Association (NSA), and the Police Executive Research Forum (PERF). Since 1979, there have been over a thousand standards researched and statistically tested in determining accreditation criterion for law enforcement agencies. "In measurable terms, they define policies and procedures essential to promote the highest quality protection to the public and to the individual officers" (Territo, et al., 1992. p. 209).

Like medical and educational accreditation, law enforcement accreditation is a process of responding to a changing social value and attempting to change the image of the police through improvement. Even though this is a management oriented process, it gives police officers in general a structure by which they can assess themselves, their department, and the quality of law enforcement they provide.

The accreditation process has promoted the idea that in establishing the professional police department, a higher level of education for entry level police positions as well as promotional considerations is essential. Once accredited, agencies submit annual reports to the commission, which is a testimony to their efforts in maintaining compliance with the standards they have agreed to uphold. The accreditation last for a period of five years, at which time each department must go through a similar process to become reaccredited (Territo, et al., 1992).

The Positive Aspects of Higher Education on Law Enforcement

There are many practitioners and professionals, and those in academia who support higher education in law enforcement and have conducted studies which support their position. One such person was David Geary who was chief of police in Ventura, California during the late 1960s. As part of a long range goal to reorganize the department, Chief Geary required a baccalaureate degree for all his officers. In further study, Geary found that college educated officers tended to have fewer disciplinary problems and in addition, the city experienced a three percent per 1,000 population decrease in the crime rate (Geary, 1970).

One of the more frequently cited studies is that of Bernard Cohen and Jan Chaiken. In their studies, 1,608 New York City police officers performance was evaluated from their initial employment in 1957 until 1968. Officers who had some college work were found to have received fewer citizen complaints. The level of education of a police officer was also shown to be inversely related to total complaints, sustained complaints, and departmental charges (Cohen and Chaiken, 1979). In addition, those officers with higher education were advanced in rank more quickly. Other noted elements of higher educated officers were greater enjoyment of job variety, less sick time and injury disapprovals, and higher recruit scores which were consistent predictors of later job performance (Chohen and Chaiken, 1979).

James Finckenauer in a 1975 study, which focused on the New Jersey Police Academy recruits, found that college educated recruits were less likely to make arrest when alternative discretionary measures were

available. This, in turn, was seen as a positive attempt to quell a potentially serious confrontational situation which would have most likely resulted in a misconduct complaint (Finckenquer, 1975).

In 1976 James Finnigan compared Baltimore Police Department agents' and officers' performance in terms of the department's performance evaluation instrument which separated performance variables into four basic categories. These were duty performance, character traits, overall value, and performance under stress. There were 113 agents with degrees who had completed the academy training and who also had one year of street experience. There were 97 non degreed officers with a high school education who had completed the training academy and equivalent street experience. Statistical analysis was used to determine whether a relationship existed between the amount of higher education and performance rating. Findings indicated that college graduates (agents) were consistently rated higher than high school graduates (officers).

The study concluded that since the control of variables did not significantly affect the observed differences and since the observed differences were statistically significant at the .05 level, the difference in performance between agents and officers was primarily due to education (Finnigan, 1977; Hooper, 1988).

In 1967, Alexander Smith, Bernard Lock, and William Walker administered a test on *Authoritarianism in College and Non-College Oriented Police*. This study involved two hundred twenty six New York City police officers. The group was divided into two groups - group one was newly hired (N=22) recruits who had no college work. Group number two

(N=104) were officers who were first year students attending City University of New York's College of Police Science. The Dogmatism scale (Rokeach) and Piven's scale of testing authoritarianism were used to detect various elements of authority. In addition, a fifty-seven item, self administered questionnaire was distributed to the officers. The results of the survey indicated that there were some significant difference between the two groups. Officers without any higher education were shown to be more aggressive in the use of authority. The police officers who were attending college classes reflected a more discretionary approach to the use of authority (Smith, et al., 1967, p. 129; Murrell, 1982, p. 57).

In 1977, Wayne Cascio conducted a study in which higher education was correlated with 16 various performance criteria involving 463 white police officers, 28 black police officers, and 28 officers with Spanish - surnames. When controlled for white officers, he found significant, negative correlations (-.12, -.13, respectively) to exist between education and number of use of force reports and between education and number of physical force allegations. Therefore, as education increased, the number of use of force reports and the number of force allegations decreased. As for black and Spanish - surnamed officers, he found no significant relationships to exist in the number of use of force reports. However, in reference to the numbers of physical force allegation against black officers, he found a significant correlation (-.24) to exist between allegations and education. For Spanish - surnamed officers, he found no significant relationships between education and the number of physical force allegations.

Cascio hypothesized that the positive correlations may have been as a result of age or tenure, but when these factors were controlled, there was no significant change in the correlations. Additional analyses were performed to evaluate intelligence and motivation variables with education. This revealed that officers with higher education levels were more intelligent and more motivated than officers who had no higher education experience. This was true of both white and minority officers. Cascio also concluded that persons with a high school education had a 50 percent likelihood of being a superior performer, while the college graduate had a 74 percent likelihood of being a superior performer (Cascio, 1977; Hooper, 1988; Murrell, 1982).

Martin S. Meagher conducted a study in 1983 on the level of education of police officers assigned to patrol on whether education had an influence on the police service aspect of job performance. This study involved 183 police officers from an undisclosed metropolitan police department. The study focused on expressed differences in the frequency with which officers perform 102 specific police patrol tasks. These tasks were selected as being those that were commonly associated with popular conceptions of the duties of patrol officers. Each task was examined to determine the relationship of job performance ratings to levels of education. The three levels of education were (a) high school diploma, (b) college (from some college credit through a bachelor's degree), and (c) graduate work (some graduate work through a graduate degree). The majority of respondents had three to five years of police experience. The median level of education was two years of college. Of the 102 specific patrol tasks, seven were demonstrated as having a significant difference in regard to

comparisons of frequency of performance with education levels of the officers.

As table 4 indicates, there are positive ranges from a 1 percent increase in task 1 of explaining complaints to offenders, to an increase of 3 percent in task 4 in establishing method of operation to suspects. The overall increase suggest that level of education has a positive influence on task performance.

Swank and Conser state that:

"It is the individual officer, working autonomously, who must make the kinds of discretionary judgments that mean the difference between fair or biased enforcement. The kind of training necessary to create tolerant, humane, and skilled professionals is characterized by the word 'education'...nothing is more vital to the creation of the democratic police officer than education" (Swank & Conser, 1983, p.101).

Many police agencies, federal as well as local and state, have placed considerable emphasis on education as being that dividing line or standard which separate professionalism from non-professionalism within law enforcement. Educated officers are depicted as those who interact well within a socially, culturally, ethnically, and gender diverse environment. A lesser educated officer is viewed, in comparison, as being more opinionated, and aggressive toward certain groups of our society. One reason for this is due to the interaction of the lesser educated officers in adverse situations learned on the street than positive interaction formally learned in the classroom (Carter, et al, 1988).

Table 4:

Frequency of Common Police Task Performed by Education Level

Task	Education Level		
	<u>High School</u>	<u>College</u>	<u>Graduate</u>
1. Explain the nature of complaints to offenders	5.4	6.5	6.6
2. Talk with people on beat to establish rapport	6.1	6.8	8.3
3. Analyze and compare incidents for similarity and modus operandi (method of operation)	2.6	3.5	5.0
4. Establish modus operandi of suspect	2.0	2.1	5.0
5. Recruit confidential informants	1.2	1.7	3.4
6. Review records and pictures to identify suspects	2.8	2.4	4.9
7. Verify reliability and credibility of witnesses	2.0	2.3	4.6

Source: (Meagher, 1983; Hooper, 1988).

Education is viewed as being the overall force or cure-all that will remedy the problems of policing. According to a study done by Carter, the majority of responding law enforcement departments had at least one policy or program and over half had at least two policies or programs designed to encourage higher education of police employees.

(Carter, et al., 1988).

Characteristic of this speculation for the need of college education in contemporary policing is further noted in respondent comments:

1. Because of the complexity of law enforcement, interaction with society, and the constant changes demanded, education should be mandatory and imperative for the proper functioning of the police.
2. More of the general public has attended higher education institutions. With the same type of background, officers are able to relate better. The technical aspects of the tasks performed call for the use of educated individuals.
3. Our high tech world is dictating the recruitment of more highly educated officers.
4. College educated officers appear to be more analytical, hence they are more objective in dealing with the public.
5. As the educational level of the community served is increased, then it is necessary that the educational level of the police also increases. Our department statistics indicate that younger officers have more education than older officers, in keeping with this trend.

6. There is no known disadvantages to officers possessing college degrees. If, however, law enforcement expects to achieve its noble goal as a true profession, then like other professions, minimum academic standards must be recognized and achieved. The value of college educated officers will be increasingly evident as our use of technology expands and the body of knowledge increases. Those with less academic preparations may indeed find their career in law enforcement to be less rewarding than anticipated.
7. [College education is] extremely important to the future of policing. We should move to a minimum of a bachelor's degree in any field as a prerequisite. In the meantime, the majority of our recruit officers tend to have four-year degrees.
8. We rely heavily on educated officers for critical positions. Education must become more of an active status for the law enforcement profession to improve our role in the community.
9. We have begun to evaluate a new requirement for promotion to lieutenant, a bachelor of arts or bachelor of science degree. Currently, there is no firm requirement for a degree at any level in the Department. However, opportunities for promotion are clearly enhanced by further education. Further, we can conceive of increasing our entry

requirement to mandate a bachelor of arts or bachelor of science in the not too distant future.

10. College educated officers relate better to diverse ethnic citizens and their problems.
11. Advantages of regular and successful attendance at colleges:
 - a. Officers recognizes the need for growth, development, etc.
 - b. Officers demonstrate ability to organize his time, efforts, etc.
 - c. Officers shows flexibility and willingness to put forth effort.
 - d. Exposes officers to positive environment to offset negative aspects of police work.
 - e. Provides mental relief, new ideas, different perspectives.
 - f. Enhances the overall skills and abilities of the "police profession."

(Carter, et al., 1988, p. 142).

Further support for this positive response for higher education in law enforcement is Brown's reference to the demand for a higher order of law enforcement:

"In order to function in a society characterized by massive socioeconomic problems...we need a new policeman--one who understands the complexities of human life--one who

is able to understand the legacy of discrimination in this country and reflect positively upon the demands for 'freedom, justice, and equality': one who is able to understand the philosophy of dissent; one who understands that he has a legal and moral obligation to be responsive to the people--all the people and not merely the prevailing power structure in his community..." (Brown, 1974, pp. 116-117).

Following along the same idea, Bell elaborates in his writings on the essentials of a higher liberal education:

"The object of liberal education is not to teach the individual all they will ever need to know. It is designed to provide individuals with habits, ideas, and techniques that they will require to continue to educate themselves. Education is the acquisition of the art of the utilization of knowledge and aims to develop the powers of understanding and judgment. In this respect it is impossible that too many individuals are educated because there cannot be too many individuals with capabilities to understand and make sound judgments" (Bell, 1979, p.473).

It is also equally important to examine administrative and executive positions in terms of job performance as well as lower ranking positions, as Murrell states:

"...the argument for having educated police executives stem from the belief that police departments are now large, complex organizations which need well trained, well educated persons

to run them (unlike the more traditional belief that a poorly trained, poorly educated individual can rise through the ranks-- primarily as a result of longevity--and do an adequate job of running a police department" (Murrell, 1982, p. 25).

The demands placed on police executives in managing a police department are obviously at a much higher level than those of the past. The increasing complexities of managing a department, especially a larger department that employs thousands of officers, requires the skill level associated with those of executives in the business, medical, and governmental areas (Swanson, et al., 1993). The need to interact more clearly and credibly with the educated citizenry, the ability to deal with governmental agencies, and the need to utilize new research findings and techniques of management will require a more educated person who possesses this level of skill and proficiency in management (Jordan, 1977).

As a result, many colleges and universities such as Sam Houston State University in Texas, have instituted programs that emphasize police management, especially at the masters level. These programs emphasize such courses as accounting, police administration and interdisciplinary skills for criminal justice managers (Carter, et al., 1989).

There are a number of practitioner and academicians who favor a college educated police force. They generally speak in terms of the officers being more knowledgeable about his or her own psychological make-up, philosophical outlook, more able to make independent discretionary choices, greater ability to speak and write effectively, and experience a broader range of social skills. If this is a practical description of a well

rounded officer, then the qualities desirable are more in line with that of a college education. As Saunders suggests:

"Knowledge of changing social, economic, and political conditions; understanding of human behavior; and the ability to communicate; together with the assumption of certain moral values, habits of mind, and qualities of self-discipline which are important in sustaining a commitment of public service."
(Saunders, 1970, pp. 82-83; Murrell, 1988, p.31).

The Negative Aspects of Higher Education on Law Enforcement

It is evident that a large segment of police practitioners support education for law enforcement. On the other hand, there are those who oppose the concept that higher education will have an affect on job performance. In fact, many opponents take the position that higher education may actually be detrimental to overall job performance. This is typified by O'Rourke as he comments on several factors that corroborate this position.

1. There are many well adjusted and good officers who do not have a college degree.
2. There are many officers who have low job performance ratings and are considered poor employees who have college degrees.
3. Minority recruitment may be negatively affected; it is a difficult task to attract minority with minimum educational qualifications as a high school diploma or high school equivalency diploma. The requirement of a college degree

may further put the possibility of a job in law enforcement out of reach for minority applicants.

4. There are many college educated officers who become bored with routine police work.
5. Some college educated officers enter the police field with expectations of getting special consideration and preferred assignments, which may not necessarily and immediately occur.
6. Many officers who attended college, especially during the 1970s and 1980s, did so for the monetary benefits involved, e.g. LEEP or GI benefits.
7. Many educated officers cause animosity and antagonism between officers who have no education.
8. Many officers learn to deal with people "on the street", which may be more practical than in the classroom.
9. It is difficult for police departments to compete with business and industry in recruiting college graduates.
(O'Rourke, 1979, pp. 36-38).

Many smaller departments, especially in sheriff's departments and rural police departments, experience a very difficult task in maintaining quality standards in operating an efficient and effective work force. This is partially due to budget constraints that result in lower salaries and smaller benefit packages for law enforcement officers. Subsequently, many departments are forced to comply with minimum employment standards when seeking officers. Most administrators of these departments maintain

that if higher education becomes a mandated prerequisite for employment, the availability of potential employees would be considerably reduced and put an excessive hardship on the department, especially in departments that are attempting to maintain minority equilibrium.

Requiring a college education for the position of police officer is a valid step toward the advancement of the police profession. Larger police departments who have the means to implement higher educational standards are also in the forefront in such areas as salaries, benefits, training, technology, and consequently have stronger community/police relationships. As a result, these departments will personify the improved image of professionalism in law enforcement. However, there are a vast number of departments who simply do not have the resources to comply with this proposal. The beginning salary range and amenities for police officers in these departments is not at the level that attract many college graduates. Therefore, mandating a specific level of education would put an additional strain on departments who have fewer available resources.

Valid arguments have been stated for each view point on the recommendation that a college education would benefit law enforcement. The majority of the studies presented support law enforcements efforts in upgrading educational requirements in attempts to improve the image of the police and increase job performance. As the twenty-first century draws near, it is apparent that law enforcement will face a complexity of social and economic problems. In addition, technology and sophisticated criminality will place great demands on the police. This will influence the type of person chosen to sufficiently enforce laws, investigate crime, and serve the

community. All police agencies will be affected, whether or not resources are readily available to them. Therefore, the question will not be whether an education is needed, but at what level of education will be required to adequately staff a police department with personnel who have the ability to perform these task.

The Role of the Institution on Higher Education in Law Enforcement

The Community College

With emphasis shifting to an educated and democratic officer, there was a rapid expansion of colleges and universities that offered programs in administration of justice, police science, criminology, and criminal justice. Though initially criminal justice classes began in larger four year institutions, the community college played a major part in the educational development of the police officer. The uniqueness of the community college provided a conduit for the expansion of this nontraditional, interdisciplinary applied field of study (Swank & Conser, 1983).

It was the comprehensive philosophy of the community college that proliferated the growth of the criminal justice program in conjunction with the rapid expansion of the community college system of the 1950s and 1960s. The community college also contributed to the acceptance by higher education as well as societal recognition, of the public service technology curriculum as leading toward bonafide occupational development. However, many liberal arts institutions still view the community college and public service technology programs as being too vocationally oriented to become a part of higher education. According to Swank:

"The acceptance of diversification of curriculum in community and occupational needs was consistent with the need for interdisciplinary and applied programming for police curricula. The initiation of a one-year certificate and two-year associate degree program as acceptable academic levels for specific purposes helped attract students who previously would have had to make a quantum leap from a high school to a baccalaureate degree to obtain credentializing" (Swank, 1983, p. 95).

In addition the community college's open door concept made it possible for police officers to "drop in" and "drop out" of school in satisfying the demands of working in a diversified environment and balancing the pursuit of a degree. This would not have been possible in other colleges and universities. This was one of the reasons why police science and administration of justice programs have become popular with police officers. This has resulted in rapid and continued growth of these programs.

There are those critics, however, who advocate that the community college's philosophy promotes excessive provincialism and vocationalism in academic programming (Sherman, 1978). Even though some of this criticism is justified, the community college has been the responsible component in promoting higher education in law enforcement as well as providing a means of transfer for many public service technology students, who may otherwise have never gained their academic goals. "Even in the more vocational programs,...a significant amount of curricular content that is

philosophically reflective and intellectually critical of the administration of justice" (Swank, 1983, p. 111). Sherman also emphasizes that in a great number of community college programs, the curriculum is as analytic as that in any senior institution.

The community college actually has been instrumental in providing students in criminal justice a balance between traditional liberal arts baccalaureate preparation and the growth of vocational preparation as a primary mission of higher education institutions (Swank, 1983). The ability to be flexible in providing different opportunities to non-traditional students has been the primary reason why police officers have chosen the community college as a means of obtaining their higher education goals. The community college is in a unique position in which it can accommodate both the need for those students who seek employment directly after one or two years of education while also meeting the needs and requirements of those students who wish to transfer to senior colleges and universities. Personal experience of this researcher reveals that students who graduate from the community college, after a short adjustment period, do as well or in some instances better, both academically and socially, as those students who enter universities as a first year student.

The Dichotomy of the Criminal Justice Curriculum in Junior and Senior Institutions

While some institutions are more apt to develop programs in criminal justice that lean toward a practical, vocationally oriented method of curriculum development (i.e., those that emphasize courses in criminal investigation, organization and administration, criminal law, forensic

science and related subjects) other institutions tend to stress criminal justice curriculum from a liberal approach to theory and research design. This is especially true of the liberal arts institutions or in institutions that teach criminal justice as part of another curriculum such as political science or sociology. As a result of the dichotomy of the criminal justice curriculum in higher education, there has been expressed recommendations by many in the academic community, as well as a significant number in the field of law enforcement, that higher education in criminal justice accent the social sciences, general education, and liberal arts more than courses that are strictly oriented toward the training concept of the police profession (*Task Force Report On The Police*, 1967).

As early as 1965, the International Association of Chiefs of Police saw the need to increase the number of liberal arts courses in law enforcement education when they implied:

"they (art, music, philosophy, history, and literature) contribute in ways for which no substitute has been found, to the development of men thinking, critical beings, with an awareness of their relations to the whole of mankind. We do have faith that this type of man is a better man - whatever occupation he pursues" (International Association of Chiefs of Police, 1965).

The development of criminal justice curricula in higher education has undergone a number of changes in a relatively short period of time, from curricula that is primarily vocationally oriented to that of being more in line with the liberal arts. While both schools argue the necessity of

representative curriculum to fit the needs of the professional police officer, the future may bring about a substantial agreement in addressing such issues as multi-disciplinary course offerings, sensitivity of the larger social system and its components, and the problems of ethics in carrying out the work of criminal justice (Joint Commission On Criminology And Criminal Justice Education And Standards, 1980).

This is best summed up by Halsted as he states:

"the cultural and social problems outside the university setting may be challenged successfully in but one way. There must be integrated into the law enforcement profession sensitive, holistic police officers who can produce practical results without losing sight of moral consequences of their tasks. For such men and women to come forward from our institutions of higher learning, they must receive a higher form of criminal justice education than is presently offered. Such might come about only when many of the classes within the criminal justice curriculum successfully integrate present vocational, technical, managerial, empirical, and behavioral knowledge with wisdom of value-oriented perspectives inherent within the study of the humanities (Halsted, 1985, p. 162).

Conclusion

The debate over whether a college education will produce a better qualified police officer to that of professional status is alive and well. There are three basic beliefs within the law enforcement community, academia, and the citizenry which promote this thought. First, that higher

education will produce a more intellectual, sensitive, democratic, and politically aware individual. This is a result of exposure, in the academic sense, to social change, individual interactions and differences, and the acquisition of knowledge stimulated by those in the college environment. Academic experience is viewed by many as the basic factor in developing the fundamental skills needed in dealing with society, especially in understanding and interacting with social diversity.

The second belief is that higher education has no real bearing on police performance, the "nuts and bolts" portion of enforcing the law, e.g. writing speeding tickets, taking reports, and arresting those who infringe on the well-being of others. This point is especially emphasized by older officers who associate college education with that of lacking "common sense" (Carter, 1989). This argument is based on the concept that those who spend their early life in college develop a false sense of reality and have not experienced the street knowledge which is seen as being essential in responding to the real needs of society and development of the true police personality. Officers who are college educated are looked upon as seeing the world through rose colored glasses. This, from the view point of lesser educated officers, has a negative influence on the educated officers job performance. Educated officers that do continue their career in law enforcement are also seen as a threat to those who have little or no education in the area of promotion and job assignment. This is due to the fact that many police departments now require specific levels of education as a prerequisite for promotional consideration or special job assignments.

The third area that is quickly becoming an issue in regard to

education and job performance, is the type of curricula that is perceived as providing the best knowledge base for those interested in a career in the law enforcement field. According to Halsted, we are now at the point where there needs to be an emergence of both practical and liberal thought, to properly construct a curriculum, at all levels of education, to best meet the needs of law enforcement.

As law enforcement agencies continue to grow and added demands are placed on the police for accountability, education is perceived as the determining factor in measuring success. Intuitively, one believes that an educated officer will be the answer to the many problems faced by law enforcement. However, one should be realistic in their speculative perception and recognize that education is not a miracle cure that will resolve the complexities of policing. Rather, it should be seen as a mechanism that will facilitate the resolution of policing problems and providing important skills in improving police service (Carter, et al., 1989).

The public's perception of the police today is primarily based on that first initial contact and subsequent interaction in dealing with an adverse situation involving the police. Therefore, it is vital for the police officer to project that positive and professional image in dealing with the various concerns and adversities of citizens. It is becoming increasingly evident that law enforcement is having to deal with a very complex and rapidly changing social structure. The social problems of our unsteady world are becoming more extreme (i.e., the emergence of hate groups and gang warfare, the changing structure of the family unit, the complexities of cultural diversity, the influx of immigrants, and the seemingly lack of

confidence in our government). In addition to this, the criminal element of today is become more sophisticated in the commission of their criminal activities. As a result, the police will be held accountable and expected to meet these demands in an effective and efficient manner.

In meeting these challenges, education is perceived as being the element in producing a person who has the ability to be sensitive to the needs of the public, projecting understanding and positive interaction, while at the same time, aggressively providing a safe environment in which the public may feel secure to live and work. In a more realistic approach, a college education will provide not a cure-all but an instrument by which we may achieve this end.

Literature has indicated that in order to achieve the level of professionalism that is sought in the law enforcement community, the officers, both those who are actively engaged in patrol and those who are administrators, are found to measure job performance and professional abilities primarily on how much education the officer acquires. The implied belief is that as education level increases, so does the job performance and efficiency of the police, which will ultimately result in a more professionalized law enforcement organization. Federal law enforcement organizations such as the Federal Bureau of Investigation, the United States Secret Service, the Bureau of Alcohol, Tobacco, and Firearms, and other federal organizations have long recognized the basic qualification required for the potential hiring of a federal agent is a bachelor's degree. This has, in effect, separated these agencies from most city and state police

organizations and has, according to the literature, given them a higher professional status.

As traditional ideas of metropolitan law enforcement submit to the more non-traditional approach, a large portion of law enforcement officers are quickly realizing the benefit of becoming college educated, especially when seeking promotions and request for job assignments. This has resulted in colleges and universities experiencing continual growth in administration of justice and criminal justice programs. Police organizations are now successfully recruiting on college campuses for potential law enforcement officers. Police training academies, as well, are experiencing a significant increase in the number of college graduates who are seeking careers in police work. This study indicates that education is becoming an essential element in the quest for greater job efficiency and performance.

In concluding this literature review, the researcher has found that the majority of the material supports the hypothesis that education will have a positive influence on job performance. However, in determining if this hypothesis is true of the Virginia State Police, the researcher will utilize data from this review as a basis to determine the influence of education on the job performance and beliefs toward professionalism of the Virginia State Police.

CHAPTER III

Methodology

The purpose of this chapter was to describe the research procedure used to compare the relationships between level of education, job performance, and beliefs on professionalism within the Virginia State Police. This chapter describes the research approach, design, pilot study, subject selection, instrumentation, and research procedures.

The Research Approach

The research approach to this study was to compare the effects of level of education on job performance and beliefs on professionalism of the Virginia State Police. The purpose of the comparative research design was to investigate relationships by observing some existing consequences and researching other data for plausible influencing factors (Isaac & Michaels, 1990). This approach involved analyzing data to determine if any significant difference existed between those troopers who had college level education and those troopers who had a high school diploma in relation to job performance and attitudes toward their job.

Data were gathered by two methods, survey questionnaire and personal data collected from the trooper's personnel file. The survey questionnaire obtained data on specific beliefs of troopers toward their jobs in relation to: service activities, order maintenance, crime fighting, public and community relations, ethical conduct, and personnel issues. In addition, the survey questionnaire also provided information on major in college, military service, promotions, citations or awards, and prior law

enforcement experience.

Personal and demographic data were collected with reference to race, sex, age when hired, years as a trooper, level of education, educational credits, number of complaints against each trooper, performance evaluation ratings, and training schools attended. Data were collected by the Virginia State Police over the entire career of each trooper. These data were used to determine similarities and differences between the three groups of troopers: (a) those with a high school education or GED, (b) those with an associate's degree, and (c) those with a bachelor's degree, including graduate work.

Personal information was provided by the Human Resource Office of the Virginia State Police. To protect the personal identity of the individual troopers in this study, data were made available by substituting the trooper's name with a numerical identifier. To insure trooper confidentiality, the identification process was designed, computed by, and available only to the Human Resources Office of the Virginia State Police in Richmond, Virginia. Data were sent to the researcher by the Human Resources Office in the blind with no identifiers which would reveal any information that might lead to individual trooper identity.

The Research Design

Most law enforcement executives in management positions, as the literature indicates, believe that job performance and professionalism will improve as the level of education increases among police personnel.

Evidence is accumulating to support the view that college-educated police officers are necessary to the police service.

Much of this data relates to superior field performance, fewer civilian complaints, and other positive characteristics.

When police officers have the benefit of higher education, they will have a greater knowledge of constitutional rights and laws; have a better understanding of human behavior; have a more positive effect on community relations (all of which are reflected by fewer disciplinary complaints, more awards and commendations, and higher scores on promotional tests); and have a superior field performance (as demonstrated by less sick leave, more awards and commendations, fewer disciplinary complaints, more (efficient) arrests--more arrests indirectly leading to less discharges of firearms---and higher performance ratings). (Police, 1983, p. 68)

Literature on whether or not college education influences job performance and attitudes toward professionalism varies. However, the majority of studies suggest that education does have a positive effect on job performance.

This research study analyzed a sample group (n = 150; 22 percent) chosen from the total population of uniformed road troopers (n = 965) of the Virginia State Police (Research Office, Virginia State Police). Research data collected was then used to determine if there existed a significant difference between the three levels of education troopers had attained, job performance, and attitude toward professionalism.

The survey instrument items were divided into six dependent variables which are (1) public service oriented activity, (2) order maintenance activity, (3) crime fighting, (4) public and community relations, (5) police ethical conduct, (6) and personnel issues. These variables measured the basic belief of each trooper toward task performance and professional attitude. In addition to these six variables, job performance evaluation rating was added as a dependent variable.

The three independent variables are (1) education level, (2) major in college, and (3) specialized training schools/courses attended. Education level grouped the troopers into three distinct categories, high school and/or GED, associate degree, and bachelor's degree, including graduate study. By dividing the sample into three distinct groups, this study determined if there was any significant difference between levels of education in relation to job performance and beliefs toward professionalism.

Previous studies revealed that troopers with a college degree in criminal justice have higher job performance ratings than those troopers with degrees in other disciplines. Data gained from the variable major in college, verified whether Virginia State troopers with a college major in criminal justice differed significantly from their contemporaries who had degrees in other college majors such as business, sociology, and education.

In the third variable, there were certain specialized courses/schools that were considered by supervisors and troopers in the field as being advantageous to promotional opportunities as well as being important for consideration toward special assignments. In conducting a personal and telephone survey of supervisors and uniformed troopers, five basic

specialized courses/schools were identified as being relevant for advancement: (1) instructor training courses, (2) accident investigation, (3) performance evaluation of potential and new troopers (i.e., field training officers), (4) speciality training courses (i.e., scuba, canine, motor carrier, hazardous materials, and narcotics investigation, and (5) tactical team training (i.e., special weapons and tactics (SWAT), executive protection, hostage negotiation, and eradication training, or the disposal of marijuana plants and paraphernalia).

Data were collected on specialized training to determine if any significant differences existed between troopers who participated in these courses/schools and troopers who did not participate in relation to job performance.

Pilot Test

A pilot test was completed after the initial survey instrument was designed. The purpose of the pilot was to field test the instrument and the procedure used to collect data. Fourteen troopers were randomly selected for the pilot test. All troopers used in this sample were assigned to uniform patrol with the exception of two troopers who held supervisory positions. The pilot test was conducted to resemble as closely as possible the actual subjects who were involved in this study. Care was taken to insure that subjects used in the pilot test were not included in the sample for the larger study.

After the pilot test was completed, a debriefing was conducted with the subjects to discuss the survey instrument in determining if any discrepancies or inconsistencies existed from the standpoint of the troopers

and to enhance understanding of items used in the instrument. This resulted in minor changes of wording and terminology for clarification purposes. There was nothing otherwise observed which might adversely affect the study.

Subject Selection

The mission of the Virginia State Police is "to provide the Commonwealth of Virginia with a responsive, coordinated, composite statewide police department, independent yet supportive of other law enforcement agencies; to preserve law and order; to enforce criminal, traffic and regulatory laws; to meet the goals and objectives of the Governor's Executive Agreement; and to provide security and safety services in the most efficient manner" (*Annual Report of the Virginia State Police*, 1993, p. 1).

The primary responsibility of the Virginia State Police is to maintain the field operations of the state police. As the annual report further states, there are over 63,000 miles of state highways and interstate systems throughout the Commonwealth. Therefore, the uniform division must bear the brunt of responsibility in maintaining the safety and well being of citizens who travel these roadways. Additionally, uniform troopers also respond to other criminal activities such as robberies, assaults, domestic violence, and related crimes not directly associated with highway safety.

The Virginia State Police Department is authorized 1,704 positions. Of these positions there are 965 road troopers, 168 special agents who specifically focus on criminal investigations, with the remaining 571 personnel holding special administrative, staff, and supervisory positions

(Research and Planning Division, Virginia State Police Headquarters, Richmond, VA., 1996).

The sample chosen from this population consists of 150 road troopers. Subjects were chosen at random by the research department of the Human Resources Office. Road troopers were chosen as subjects for this study because: (a) this was the largest population group within the department, (b) the majority of road troopers strive for promotion to either supervisory positions or advancement to senior or master trooper status and are therefore more likely to participate in specialized training or educational opportunities, (c) most road troopers are concerned with job evaluation rating as this is the basis for consideration in the promotional process, and (d) consideration for special task assignments.

Instrumentation

The instrument used in this study was a survey questionnaire consisting of fifty-six items. Forty-four items pertain to trooper perspectives and beliefs on six primary areas of task performance and professional attitude: (1) public service activity, (2) order maintenance, (3) crime fighting, (4) public and community relations, (5) police ethical conduct, and (6) personnel issues. The remaining twelve items were designed to collect personal data from the individual trooper: (1) highest level of education, (2) type of degree, (3) number of college credits, (4) prior military experience, (5) military occupation, (6) military rank, (7) promotions, (8) citations and awards, (9) prior law enforcement experience, (10) number of years as a prior law enforcement officer,

(11) number of complaints as a Virginia State trooper, and (12) additional comments for those troopers wishing to respond.

From this instrument, two independent variables were identified, educational level and major in college. Data on the third independent variable, training schools attended, was obtained from the trooper's personnel file which was provided by the Human Resources Office of the Virginia State Police.

According to Frank E. Hagan , "validity asks, does the measuring instrument in fact measure what it claims to measure? Is it an accurate or true measure of the phenomenon under study? Reliability, on the other hand, concerns the stability and consistency of measurement" (Hagen, 1993, p. 251). This survey questionnaire was fashioned from a questionnaire developed by Shernock who did a similar study on several police departments in the northeast. The instrument implemented by Shernock consisted of five factors: (1) tolerance toward the misconduct of fellow officers - theta reliability coefficient of .932, (2) support for the service function - theta reliability coefficient of .743, (3) treating disorder informally - theta reliability coefficient of .630, (4) suspicion of the public and the outside world - theta reliability coefficient of .548, and (5) insularity, "occupational and organizational" identity - theta reliability coefficient of .405. The low theta for the insularity composite is due to the heterogeneity of the interitem correlation rather than to the smaller number of items (Shernock, 1992, pp. 78-83). The results of this study were published in the *Journal of Criminal Justice Sciences*, 1992, pp. 71-92. In order to maintain validity and reliability, a pilot was run to determine if data

collected from this instrument was similar to data obtained in Shernok's study. The data collected for the pilot test were comparable.

Permission to conduct this study and approval to use this instrument for data collection was obtained from Colonel M. Wayne Huggins, Superintendent of the Virginia State Police (Appendix D).

Processing Data

The data were processed by analyzing four stratagems. The first utilized the demographic and personnel information obtained from the survey instrument and from the data provided by the Human Resources Office. This consisted of frequency, percentages and averages to provide data on the following items: (1) level of education, (2) length of employment, (3) age, (4) sex, (4) race, (5) number of awards and/or citations, (6) number of complaints, (7) military experience, (8) prior law enforcement experience, and (9) trooper rank.

The second stratagem was to determine if Virginia State troopers with college majors in criminal justice differed significantly on job performance ratings from those troopers who had degree majors in other disciplines, such as business, education, and science.

The third stratagem ascertained whether or not the number of specialized training courses/schools attended by troopers was statistically significant on job performance ratings in relation to troopers who did not attend.

The fourth stratagem describes any significant differences that might exist between troopers with a high school education and troopers with a college degree on job performance and beliefs about professionalism. The

college degree group consists of those troopers with an associate degree and bachelor's degree plus graduate work.

Measurement Procedures

Warmbrod, (1979) listed three types of descriptive statistics (measures of central tendency, measures of variability, and measures of relationship) for describing, summarizing, or reducing to comprehensible form the properties of an otherwise unwieldy mass of data. The descriptive statistics and the level of measurement of data that each requires is summarized in Table 5.

Applying the concepts contained in Table 5, data were analyzed in relationship to the specific purposes for this study. Purpose 1 synthesized the extant literature concerning college education of law enforcement officers on their job performance, which is not relevant to Table 5. For purpose 2, demographic/personal information, where appropriate, data were described using measures of central tendency, numbers, frequency, and percentages used to summarize the personal and group characteristics. Length of service, age, number of awards and citations, number of complaints, and performance evaluation scores are interval level data and were described in this manner.

Numbers and percentages were used to summarize personal characteristics such as, level of formal education, sex, race, college major, military service, prior law enforcement experience, and trooper ranking which were nominal level data and were described in this manner.

Table 5:

Descriptive Statistics For Various Levels of Measurement of Data

Descriptive Statistics	Level of Measurement
A. Measures of central tendency	
Mean	Interval
Median	Ordinal
Mode	Nominal
B. Measures of Variability	
Variance, standard deviation, range	Interval
Semi-interquartile range	Ordinal
Relative frequencies	Nominal
C. Measures of Relationships	
Person product-moment corr. coeff.	Interval x Interval
Point-biserial corr. coeff.	Nominal-dichotomous x
	Interval
Spearman rank-order corr. coeff.	Ordinal x Ordinal
Multiple corr. coeff.	Dependent Variable is
	interval
Regression coeff.	Dependent variable is
	interval

Purpose 3 was to determine if specialized training course work and/or combinations of specialized training course work influences the trooper's job performance rating. To describe this purpose, a 3 X 3 Chi Square was used. This measurement compares frequencies actually obtained, at the nominal level, on a one-dimensional classification scheme with frequencies expected on the basis of a specific null hypothesis. The null hypothesis specifies the probability of each value of the categorical variable. The proportions of each value of the categorical variable were then observed in a sample. The goodness-of-fit determines whether the observed proportions were close to the specified or expected probabilities (good fit, H_0 cannot be rejected) or the observed proportions are discrepant from the specified or expected probabilities (bad fit, H_0 is rejected), (Fortune, 1989).

Purpose 4 determined if a college degree related specifically to the criminal justice field influenced job performance, college degree being the independent variable and job performance being the dependent variable at the interval level. The comparison of two means at the interval level was best described by an independent t-test (Fortune, 1989).

For purpose 5, the six dependent variables from the survey questionnaire were measures on the independent variable, educational level: (a) high school/GED, (b) associate degree, and (c) bachelor's degree to determine if any significant difference exist. Measurements consisted of individual survey item means, average activity means, and total average means for the six dependent variables by educational group. A one-way analysis of variance was used to determine the significant difference between the three levels of education, independent variable, and the six item

areas form the survey questionnaire, dependent variable. Warmbrod, (1979) stated that when the level of measurement of the dependent variable is interval and scores for more than two groups are being compared on the dependent variable, then it is appropriate to use the one-way analysis of variance. The one-way analysis of variance was used, at the interval level, to determine means by educational groups and average means.

Purpose 5, was to determine if there was a difference between troopers who have a high school education and those who have a college degree in regard to beliefs about professionalism. Beliefs about professionalism was the dependent variable and was compared to the independent variable level of education (a) high school or (b) college degree. The appropriate test at the interval level of measurement was the t-test.

Summary

The purpose of this study was to describe the research procedures used to compare the relationships between level of education, job performance, and beliefs on professionalism within the Virginia State Police. Data were gathered by a fifty-six item survey questionnaire and from the troopers' personnel files at Virginia State Police Headquarters in Richmond, Virginia. One hundred fifty troopers were sampled ($n = 150$) from a total of 965 road troopers. A pilot test was run to determine the validity and reliability of the instrument, which resulted in minor changes in terminology only. Since another survey instrument was used as a guide, results were found to be comparable.

To calculate data, levels of measurements were conducted at the nominal, ordinal, and interval levels using measures of central tendency, chi square, independent t-tests, one-way analysis of variance, and the Pearson product-moment correlation coefficient. These measurements were used to analyze the four stratagems of (1) demographic and personal information, (2) college majors, (3) specialized training courses/schools, and (4) level of education in determining if significant differences exists between troopers with college degrees and troopers who have a high school/GED.

This was a comparative design study which investigated the relationships between level of education on job performance and beliefs toward professionalism of Virginia State troopers. A comparative design study observes existing consequences and researches previous data for plausible identifying factors (Isaac & Michaels, 1990).

This chapter has reviewed the methods and procedures used in the study, including the design of the study and descriptions of the population and the instrument. Chapter 4 presents the findings and results from the data analysis.

Chapter IV

Presentation and Analysis of the Data

In today's evolving profession of law enforcement, a concerted effort is being attempted to elevate police responsibility and accountability to a higher professional level. Education is viewed by police executives as being a key component in mastering the skills that are fundamental to job performance and beliefs about professionalism. In law enforcement's attempts to attain a higher level of job performance, it is with the uniformed officer that professional conduct of law enforcement will be measured.

Both descriptive and inferential measurements were used to determine if level of education was a significant factor in job performance and beliefs about professionalism within the Virginia State Police. The target population of Virginia State troopers was comprised of three groups: (1) high school/GED, (2) associate degree, and (3) bachelor's degree plus graduate work. The principal criteria for inclusion into a group was (a) all subjects meet the minimum educational requirements particular to each group, (b) serve as an active Virginia State trooper assigned to uniform patrol, and (c) job assignments to be similar in terms of task descriptions.

The population was stratified according to education level with data collection obtained by two methods: (1) demographic and personnel information relating to race, sex, date of employment, length of employment, level of education, and job performance ratings, (2) a two-part survey instrument which measured beliefs about law enforcement, current rank, military, and prior law enforcement experience. One hundred fifty

(n = 150) randomly selected troopers were surveyed, fifty in each level of education. Of the one hundred fifty instruments mailed, one hundred thirteen were returned or 75.3 percent of the total population.

Presented in this chapter are the empirical findings from the personnel files and the survey instrument to answer the research questions. Results obtained are presented in the following subsections: (1) descriptive characteristics of the sample, (2) determination of the significance of a college degree toward job performance, (3) determination of specialized training courses toward job performance, (4) beliefs about professionalism between troopers with a college degree and those with a high school education.

In addition to respondents, data were collected on non-respondents as well. Even though non-responses were not relevant to this study, a comparison of non-respondents with respondents was made to determine if there were any significant differences between the two groups. Table 27 in the appendix denotes the results of this comparison.

Descriptive Characteristics of the Sample

Demographic and personal information was collected from the Virginia State Police Human Resources Office and the survey instrument. Included in the demographic and personal information were the independent variables: (1) level of education, (2) length of employment, (3) age, (4) sex, (5) race, (6) number of internal and external awards and/or citations, (7) number of complaints, (8) military experience, (9) prior law enforcement experience, and (10) trooper rank. These data were needed in order to give a general description of the respondents, and for the inferential portion of

the study as it pertained to purpose statements number two, three, and four. These variables are described in the following subsets.

Level of Education

The education level of troopers for this study was supplied by the Human Resources Office of the Virginia State Police from the troopers' personnel files. The total sample ($n = 150$) was divided into three specific categories: (1) high school or GED, (2) associate degree, and (3) a bachelor's degree plus hours toward an advanced degree, (group three will be referred to as "bachelor's degree plus" for reporting purposes).

The sample ($n = 150$) was divided into three distinct categories because each category requires basic educational course requirements in meeting standards for a diploma or degree. Related studies have been based on the accumulation of college credit hours only when determining an approximate level of education. For example, troopers may accumulate college credit hours only in areas of personal interest such as criminal justice, sociology, or psychology while avoiding other general education courses, such as literature or math. By grouping troopers into specific educational levels this study has insured a broader range distribution of discipline exposure for measurement purposes.

Troopers in this study have fulfilled the basic educational course requirements in attaining their academic level. The data for level of education are presented in Table 6.

Table 6:

Virginia State Police Categorized According To Educational Levels

Education Levels	n	%
High School plus GED	32	28.6
Associate Degree	39	34.8
Bachelor's and Bachelor's plus	<u>41</u>	<u>36.6</u>
Total	112	100.0

Missing cases = 1

The Bachelor's Degree (plus) group had the largest number of respondents ($n = 41$), which was 37 percent of the total population. The associate degree ranked second ($n = 39$), which amounted to 35 percent of the sample, and the smallest group to respond ($n = 32$) was the high school/GED level or 28 percent of the respondents. There was one case missing.

Length of Employment

The respondents in this study had a mean of 11.2 years of employment with a range from 2 to 41 years. The length of employment for troopers is displayed in Table 7.

Current policy for meeting minimum employment standards for the Virginia State Police require only a high school education or GED, which has been in effect for several years. This would support the findings of this measurement. However, the mean number of years for employment among the degree groups, especially at the associate level, tends to suggest that either more troopers see the benefit of higher education in the work place and/or the Virginia State Police has shifted its policy toward a more educated person when recruiting for the trooper position.

The longest length of employment for Virginia State troopers on education level was the high school/GED group with a mean length of employment of 14.8 years. The group which ranked second in length of service was the associate degree group ($n = 39$) with a mean of 13.1 years. The shortest length of employment was the bachelor's degree plus group with 41 respondents and a mean of 6.8 years. The average mean for all three groups was 11.23 years.

Table 7:

Length of Employment of Virginia State Troopers by Educational Level

Group	n	Mean Years
High School GED	32	14.8
Associate Degree	39	13.1
Bachelor's Degree plus	<u>41</u>	<u>6.8</u>
Total	112	11.23 (Average Mean)
No Response = 1		

Age

The chronological age of all troopers in this study ranged from 24 to 64 years with a mean age of 37.1 years. Table 8 show the results of this measurement.

This statistic supports and is parallel to the length of employment of Virginia State troopers. The significance of these two measurements was to denote that level of education was beginning to have an influence within the Virginia State Police. The average mean for length of employment and age, especially between the high school and associate groups, were approximately equal. Again, this suggested that education was becoming a component within the "ranks" of the Virginia State Police, and perhaps in the recruitment process for troopers as well.

The highest mean age of troopers by education level was the high school/GED group (n = 32) with a mean age of 40.7 years. The second highest group (n = 39) was the associate degree group with a mean age of 38.4 years. The educational level group that ranked third was the bachelor's group (n = 41) whose mean age was 32 years. The mean age for all troopers in this study was slightly over 37 years. There was one missing case.

Sex

The sex of the respondents is tabulated in Table 9. The majority of troopers who responded to this survey were male, 93 percent, while females comprised 7 percent of the sample.

Each of the three groups of Virginia State troopers surveyed by sex and education level was predominantly male. The associate and bachelor's groups ranked highest of the three groups.

Table 8:

Mean Age of Virginia State Troopers by Educational Level

Group	n	Mean Age
High School GED	32	40.7
Associate Degree	39	38.4
Bachelor's Degree	<u>33</u>	<u>32.3</u>
Total	112	37.1 (Average Mean)
No Response = 1		

Table 9:

Sex of Virginia State Police by Educational Level

<u>Sex Category</u>	<u>High School plus GED</u>		<u>Associate Degree</u>		<u>Bachelor's Degree Plus</u>	
	n	%	n	%	n	%
Male	30	93.8	37	94.9	37	90.2
Female	<u>2</u>	<u>6.2</u>	<u>2</u>	<u>5.1</u>	<u>4</u>	<u>9.8</u>
Total	32	100.0	39	100.0	41	100.0
Missing Cases = 1						

The majority of female Virginia State troopers was in the bachelor's group (n = 4, 9.8 percent). The high school/GED (n = 2, 6.2 percent) and associate degree (n = 2, 5.1 percent) groups were equal with the number of female troopers in each group. This statistic corroborates research which states that females, as a group, tend to utilize higher education as a means to gain employment in law enforcement. Of the eight female respondents, six have a degree, two have an associate degree and four have a bachelor's degree.

Race

Based on nominal data, 104 of the respondents were white or 92 percent; 8 troopers were black, which consisted of 7.1 percent; and 1 trooper was of Hispanic origin or .9 percent of the one hundred thirteen troopers who responded to this study. Data collected is presented in Table 10.

Number of Awards and/or Citations

The number of awards and citations a trooper received was dependent upon his/her ability as a law enforcement officer to use methods that were extra-ordinary in both community and job performance. Awards were generally associated with recognition of troopers for performance that may not be enforcement oriented, for example, when troopers participate in a special program such as Mothers' Against Drunk Driving (MADD), he may receive special recognition by the Virginia State Police in the form of an award. Citations were presented to troopers when meritorious service in the line of duty were recognized, for example, diligent pursuit and capture of a dangerous criminal in a life threatening situation.

Table 10:

Race of Virginia State Police Respondents

<u>Category</u>	<u>Virginia State Police</u>	
	n	%
White	104	92.9
Black	8	7.0
Hispanic	<u>1</u>	<u>.1</u>
Total	113	100.0
Non-response = 0		

Awards and citations were important to troopers because they became an element in the evaluation process of job performance, especially when consideration for promotion or special job assignment was available.

Awards and citations for troopers in this study are presented in Table 11.

The group of Virginia State troopers who received the highest mean for number of awards and/or citations by education level was the high school/GED group. The second highest group was the bachelor's degree group who had a total of 7 awards and/or citations with a mean of 1.80. The associate degree group ranked third with 15 awards and/or citations with a mean of 1.40. It was noted that unlike the variables, length of employment and age, this variable suggested that there was a significant difference between the high school group and the college degree groups. The degree groups were almost equal in terms of mean scores while the high school group had a noticeably higher mean.

Number of Complaints

As with awards and citations, the number of complaints a trooper received adversely affected his performance rating in relation to promotion and task assignment. Complaints generally came from two areas -- those complaints generated from the public and those from within the state police. Public complaints ranged from a minor complaint of a trooper being rude and disrespectful to the use of excessive force. Those complaints from within the department were usually in response to the trooper violating a policy or procedure set forth by the Virginia State Police and usually occur in the trooper's routine performance of his/her duties. Table 12 presents the data for the number of complaints received by troopers by educational level.

Table 11:

Mean Number of Awards and Citations of Virginia State Troopers by Educational Level

Group	n	Mean Number of Awards and Citations
High School GED	9	3.22
Associate Degree	15	1.40
Bachelor's Degree	<u>7</u>	<u>1.80</u>
Total	31	2.21 (Average)

Table 12:

Number of Complaints Categorized by Educational Level

Group	n	Mean Number of Complaints
High School GED	32	2.84
Associate Degree	39	2.10
Bachelor's Degree	41	2.29
No Response = 0		

Of the number of complaints categorized by education level for Virginia State troopers, the high school/GED group had the highest number with a mean of 2.84 complaints. The bachelor's group ranked second with a mean of 2.29 complaints, and the group with the least amount of complaints was the associate degree group with a mean of 2.10 complaints.

The number of complaints categorized by educational level were fairly equal in regard to mean. There was no significant difference between the three levels of education even though the associate degree group tends to have the least amount of complaints.

Military Experience

Law enforcement agencies are organizations which are structurally and administratively designed from a para-military premise. The results of the data were significant in revealing that prior military experience was a predictor in descriptive characteristics of troopers. The areas reported were: branch of service, type of position held in the military, and military rank (to be presented in the appendix). Data shows that there was a high percentage of troopers who had law enforcement related occupations while serving in the military. Table 13 presents the results of this measurement.

Military experience of Virginia State troopers based on education levels denoted that of the three groups of troopers with military experience, the associate degree group had the largest number with 16 total troopers. The majority of the troopers ($n = 7$; 44 percent) served with the United States Army. The least number ($n = 1$; 6 percent) served with the United States Navy. The remainder was approximately equal in number.

Table 13:

Military Experience of Virginia State Troopers Based on Education level

<u>Military Branch</u>	<u>High School plus GED</u>		<u>Associate Degree</u>		<u>Bachelor's Degree</u>	
	n	%	n	%	n	%
Army	2	14.3	7	43.8	6	54.5
Navy	4	28.6	1	6.3	1	9.1
USAF	3	21.4	2	12.5	1	9.1
Marine Corps	3	21.4	2	12.5	3	27.3
Coast Guard	2	14.3	3	18.8	0	0.0
(Reserve Units)	<u>0</u>	<u>0.0</u>	<u>1</u>	<u>2.6</u>	<u>0</u>	<u>0.0</u>
Total	14	100.0	16	100.0	11	100.0
Total respondents - 41						

The second largest group was the high school/GED group with 14 respondents. The majority (n = 4; 29 percent) served in the Navy with the Marine Corps (n = 3; 21 percent) and the Air Force (n = 3; 21 percent) second, and the Army and Coast Guard, 2 trooper each, ranked third.

The bachelor's group ranked third with 11 respondents. The largest number of troopers served in the Army (n = 6; 55 percent), while there were 3 (27 percent) troopers who served in the Marine Corps, with 2 troopers serving in the Navy (n = 1; 9 percent) and Air Force (n = 1; 9 percent).

Troopers with an associate degree had the largest number of persons with military law enforcement experience (n = 4). The high school/GED level (n = 2) and the bachelor's degree group (n = 2) were equal.

Data indicated that of 112 respondents, 41 troopers had prior military experience, or 36.5 percent. The majority of the troopers served in the Army with the Marine Corps ranking second. The Navy and Air Force branch of service ranked third and were of equal proportion. The lowest number of troopers were in the Coast Guard and reserve units.

Infantry and military police, were equally proportioned, were ranked second only to the *other* category in regard to military occupations in the Army. However, security police, which is a military law enforcement occupation of the Air Force, when combined with the military police in the Army, reflect that a moderate number of troopers were from a law enforcement military occupation; high school (n = 2), associate degree (n = 4), and bachelor's degree (n = 2). Table 14 reflect the findings of this measurement.

Table 14:

Military Occupation of Virginia State Troopers Based On Educational Level

<u>Occupation</u>	<u>High School plus GED</u>		<u>Associate Degree</u>		<u>Bachelor's Degree</u>	
	n	%	n	%	n	%
Infantry	0	0.0	3	18.7	2	18.2
Military Police	1	7.1	3	18.7	2	18.2
Security Police	1	7.1	1	6.3	0	0.0
Other	<u>12</u>	<u>85.8</u>	<u>9</u>	<u>56.3</u>	<u>7</u>	<u>63.6</u>
Total	14	100.0	16	100.0	11	100.0

The majority of troopers who had military experience outside the law enforcement area was in the high school group (n = 12; 86 percent). The bachelor's degree group ranked second (n = 9; 82 percent), and the associate degree group ranked third (n = 12; 75 percent).

Data indicated that a significant number of persons in the Virginia State Police have had military experience. However, further research may be required before any generalizations could be established to determine relationships between law enforcement and the military. Tables for military ranking are included in appendix C, Table 41..

Prior Law Enforcement Experience

As with the military, prior law enforcement experience proposes that a person possesses the basic knowledge and development in self discipline essential in functioning in a structured environment. Based on nominal data, 32 troopers or 28.3 percent of the sample population indicated that they had prior law enforcement experience, with a mean of 4.20 years and a range from 1 to 16 years. For this study, prior law enforcement experience applied to only those troopers who had experience in civilian law enforcement.

Research revealed that 38.9 percent of all troopers in this sample had either military or civilian prior law enforcement experience. These data supports the hypothesis found in the literature that, in relation to job performance, a priority is placed upon prior law enforcement experience when recruiting for police officer positions. Table 15 presents the responses to prior law enforcement experience.

Table 15:

Prior Law Enforcement Experience of Virginia State Troopers by Educational Level

<u>Response</u>	<u>High School plus GED</u>		<u>Associate Degree</u>		<u>Bachelor's Degree</u>	
	n	%	n	%	n	%
yes	10	31.3	15	38.5	7	17.1
no	<u>22</u>	<u>68.7</u>	<u>24</u>	<u>61.5</u>	<u>34</u>	<u>82.9</u>
Total	32	100.0	39	100.0	41	100.0

The largest response group having prior law enforcement experience was the associate degree group (n = 15; 38.5 percent). The second group was the high school/GED group (n = 10; 31 percent), with the bachelor's group (n = 7; 17 percent) ranking third.

Trooper Rank

The Virginia State Police have three basic ranks within the trooper category: (a) *trooper*, (b) *senior trooper*, and (c) *master trooper*. As the trooper progresses in his/her career, there are opportunities for advancement from one level of rank to another based on job performance ratings, evaluation by supervisors, and specialized training courses and/or schools attended. Upon obtaining an above average job performance and evaluation ratings, troopers generally offered the opportunity to either take promotional exams and/or be considered for specialized task assignments. Data collection for trooper ranking was to determine if there were any noticeable differences between the three levels of education and trooper rank. Table 16 denotes the nominal results of this measurement.

The majority of troopers that held the *trooper* rank was in the bachelors degree group (n = 33; 81 percent) by education level. The associate degree group (n = 23; 59 percent) level was second, and the high school/GED group was third with the least number of troopers (n = 19; 61 percent) in this ranking category.

In the *senior trooper* rank, the associate degree was the largest (n = 13; 33 percent), while the high school/GED (n=8; 25 percent) was second, and the bachelor's group (n = 7; 17 percent) being third.

Table 16:

Trooper Ranking According to Level of Education

<u>Ranking Category</u>	<u>High School plus GED</u>		<u>Associate Degree</u>		<u>Bachelor's Degree</u>	
	n	%	n	%	n	%
Trooper	19	60.5	23	59.0	33	80.5
Senior Trooper	8	26.3	13	33.3	7	17.1
Master Trooper	<u>4</u>	<u>13.2</u>	<u>3</u>	<u>7.7</u>	<u>1</u>	<u>2.4</u>
Total	31	100.0	39	100.0	41	100.0

Missing Cases = 1

In the *master trooper* ranking, the high school/GED group had the largest number of troopers, (n = 4; 12 percent) with the associate degree group (n = 3; 8 percent) having the second largest number, and the bachelor's degree group (n = 1; 2 percent) ranking third.

Data indicated that the high school/GED group (n = 4) had the largest number of troopers in the *master trooper* rank. The associate degree group (n = 13) had the largest number in the *senior trooper* rank. The bachelor's degree group had the largest number of troopers in the *trooper* rank. When comparing the total number of troopers by education level with the number of troopers in the ranking category, it was evident that the numbers were close enough to conclude that troopers with college degrees were beginning to equal those troopers with a high school or GED education in trooper ranking. This was especially discernible when comparing the variables length of service and age to trooper rank. This suggested that higher education may be a component for promotional consideration within the Virginia State Police.

Relationship of College Degree Toward Job Performance

A person with a degree in criminal justice was considered by most police executives to have a broader understanding of the fundamentals of law enforcement than those persons with a college major in another disciplines. In determining if this hypothesis was valid, data were collected to ascertain if the criminal justice degree was significant to job performance ratings in relation to college majors in other disciplines. Table 17 contains these findings.

Table 17:

Analysis of Job Performance Evaluation for Virginia State Troopers with Criminal Justice Degrees and those Troopers with Other Degrees

Degree	Mean Score	SD	t	p
Criminal Justice Degree n = 57	32.07	7.28	.41	.682
Other Degrees n = 21	31.33	6.25		

Note. No significant difference found at $p \leq .05$.

The test results showed that the t - value of .41 and the probability level of .682, using data at the interval level, indicate virtually no difference in the type of college education attained. Analysis revealed that troopers with a criminal justice degree ($n = 57$) had a mean of 32.07, while the *other degree* group ($n = 21$) had a mean of 31.33. This signifies that the job performance ratings of the two groups were very similar.

Tabulation of percentages in Table 18 revealed that 30 persons, or 81 percent of the troopers who had attained an associate degree, were criminal justice majors. Those troopers who had attained a bachelor's degree , plus graduate work, comprised 64 percent of the sample ($n = 26$). The remaining troopers majored in various other disciplines but the numbers were very slight with no major having more than one (2.7 percent) in a particular degree. The college major category criminal justice included related majors in administration of justice and criminology.

These data indicated that even though the vast majority of troopers completed a degree in criminal justice, no significant difference was found between the two groups in relation to job performance ratings. Table 18 reflect the findings of college majors.

Age By Educational Level

As Table 8 indicated, age was significantly different in reference to mean scores for each educational level. To further corroborate data measurements from Table 8, an analysis of variance was used to determine the significant difference of this variable at a more precise level. The results of this calculation in Table 19 were relevant in interpreting the relationship between the variables (a) age, (b) length of service, and (c) trooper rank.

Table 18:

Virginia State Police Categorized According To College Degree Major

Major	Associate Degree		Bachelor's Degree	
	n	%	n	%
Criminal Justice	30	81.1	26	63.5
Arts and Science	1	2.7	0	0.0
Agricultural Business	1	2.7	0	0.0
Business	1	2.7	3	7.4
Business Management	0	0.0	2	4.9
Computer Programing	1	2.7	0	0.0
General Studies	1	2.7	0	0.0
German and European Studies	0	0.0	1	2.4
Health and Physical Education	0	0.0	1	2.4
History	0	0.0	1	2.4
Management	1	2.7	1	2.4
Music Education	1	2.7	0	0.0
Public Administration	0	0.0	1	2.4
Political Science	0	0.0	3	7.4
Science	0	0.0	1	2.4
Sociology	<u>0</u>	<u>0.0</u>	<u>1</u>	<u>2.4</u>
Total	37	100.0	41	100.0

No response = 1

Measurement calculations show that troopers with a high school/GED have longer lengths of service and were older. However, when compared with the variable trooper rank, data suggested that education was becoming equal among the three education levels. These data were significant in suggesting that the Virginia State Police was beginning to consider education in terms of promotion and applicant qualification.

Data indicated that there was a significant difference between groups 1 and 2, and group 3. The F- ratio of 10.06 in conjunction with a probability level of .0001 clearly indicated that a significant difference existed between the groups. The mean age of 40.7 (n = 32) for the high school group and the mean age of 38.4 years for the associate degree group did not differ significantly at the .05 level of probability. The Scheffe post hoc analysis indicated a significant difference ($\alpha \leq .05$) between the mean age of 33.0 years for the bachelor's group and the mean ages for the high school and associate degree groups respectively.

The high school/GED group had a standard deviation of 8.76. The associate degree group had a standard deviation of 6.63. The bachelor's degree group, had a standard deviation of 7.21.

This has also been further verified by Table 8 which shows the average age of troopers in the high school/GED and associate's group was higher than those troopers in the bachelor's group. The measurement (ANOVA) for the variable "age" is denoted in Table 19.

Awards and Citations Analysis in Regard to Level of Education:

As Table 11 indicates, there was a difference between the variables awards and citations and level of education. A probable explanation

Table 19:

Analysis of Variance: Mean Ages on the Variable "Age" by Levels of Education for State Troopers

	High School plus GED	Associate Degree	Bachelor's Degree	Total
n	32	39	41	112
Mean	40.70a	38.40a	33.00b	37.1
SD	8.76	6.63	7.21	
Range	8.12			

Source	df	ss	ms	F Ratio	p
Between Groups	2	1191.62	595.81	10.60	.0001
Within Groups	109	6127.81	56.22		
Total	111	7319.43			

Note. *Different superscripts (a & b) indicated means that differ significantly.

The difference between the groups "a" and the group "b" was significant at the alpha level of .05. ($P \leq .05$).

a = group(s) which are alike.

b = group(s) which are different.

for this finding was that many of the troopers who were high school/GED graduates have a longer length of employment than those troopers who have a college degree and as a result, have accumulated more awards and citations. In order to verify this, a stronger analysis was conducted to determine a more exact interpretation of these data. In establishing whether awards and citations were factors in level of education, a one-way analysis of variance was used to establish this finding. The data clearly indicated a significant difference in scores on the variables education level and number of awards and citations. The F ratio of 9.47 was significant at the alpha level .0007. The Scheffe post hoc analysis revealed the mean of 3.2 for the high school group differed significantly ($\alpha = .05$) from the means of 1.4 for the associate degree group and the mean of 1.9 for the bachelor group. The high school/GED group ($n = 9$) had a standard deviation of 1.39, the associate's group ($n = 15$) had a standard deviation of .83, and the bachelor's group ($n = 7$) had standard deviation of .69.

This measure indicated that the troopers who have a high school/GED, were the recipients of more awards and citations. No significant differences were noted between associate's and bachelor's groups. These data was parallel and consistent with Table 8, which shows a significant difference between the mean age and mean length of service of the high school/GED group and the associate and bachelor groups. Table 20 presents the data that was found in this measurement.

Table 20:

Analysis of Variance: Mean Number of Awards and Citations by Educational Levels

	High School plus GED	Associate Degree	Bachelor's Degree	Total
n	9	15	7	31
Mean	3.20a	1.40b	1.90b	2.03
SD	1.39	0.83	0.69	

Source	df	ss	ms	F Ratio	p
Between Groups	2	18.20	9.48	9.47	.0007
Within Groups	<u>28</u>	<u>28.01</u>	1.00		
Total	30	46.97			

Note. *Different superscripts (a & b) indicate means that differ significantly.

There is a significant difference between group 1(a) and groups 2(b) & 3(b) at the probability level .05. ($P \leq .05$)

a = group(s) which are significantly different.

b = group(s) which are like.

Determination of Specialized Training Schools/Courses in Relation to Job Performance

As troopers advance in their careers with the state police, they have the opportunity to take advantage of specialized training or course work to promote their professional development. These schools/courses were separate from the mandated training requirements, known as "inservice training", that were required by the Commonwealth of Virginia. Inservice training was designed for the purpose of educating the law enforcement officer in new and changing laws, updates in policy and procedure, and to requalify with firearms. Beyond mandated inservice schools, there were certain training speciality areas that were open to qualified troopers on a volunteer basis. Troopers who showed a desire to specialize in these areas usually do so for promotional advancement or for special job assignment consideration.

In surveying twenty-three Virginia State troopers from both the trooper and the supervisory ranks, five speciality schools/courses were found to be advantageous for promotion and special assignment: (1) instructor training, (2) accident investigation, (3) performance evaluation training for potential recruits and troopers on probation (i.e., background investigators and field training officers), (4) speciality training in such areas as hazardous materials and motor carrier investigations, and (5) tactical team training such as SWAT, executive protection, and hostage negotiation.

The purpose of this measurement was to determine if a significant difference in the dependent variable, job performance, could be attributed to the independent variable, training schools/courses attended by Virginia

State Troopers. The analysis was begun by categorizing both the dependent and independent variables, both were interval level, into three categories of nominal level data.

First, a sum was calculated across the five areas of speciality training, the independent variable. A frequency distribution was then tabulated. Using the frequency distribution, three categories of speciality training were created. Category one consisted of troopers who had not attended any speciality training courses. Category two consisted of troopers who had attended form one to three training courses. And, category three was made up of troopers who attended a total of four or more training courses.

A frequency distribution was then tabulated on the dependent variable, job performance. This variable was then divided into three categories. Category one was made up of troopers with a performance rating level less than or equal to 29. Category two consisted of troopers with a performance rating level from 30-35. Category three was troopers with a performance rating level equal to or greater than 36.

Performance evaluation standards for Virginia State troopers were designed to evaluate the troopers in five categories: (1) does not meet expectation, (2) fair but needs improvement, (3) meets expectation, (4) exceeds expectation, and (5) exceptional, Table 29 - appendix. In scoring job performance evaluation ratings, the researcher set up a range from 1-50, with 1 being the lowest score and 50 being the highest. Each of the five categories, for tabulation purposes, was divided into ten numerical values: (a) 1-10 - does not meet expectation, (b) 11-20 - fair but needs

improvement, (c) 21-30 - meets expectation, (d) 31-40 - exceeds expectation, (e) 41-50 - exceptional.

A 3 X 3 contingency table was then constructed making possible a crosstabulation procedure from which a Chi-square statistic would indicate whether or not a significant difference would occur in the dependent variable, job performance, that could be attributed to the independent variable, training schools/courses attended. The findings from this analysis are presented in Table 21:

Although not significant at the .05 level of probability (Chi-square = 3.92; df = 4; p = .418), there was a very slight tendency for troopers who had attended four or more speciality training courses to have the higher performance evaluation scores.

In addition to the chi-square statistic calculation, a Pearson product-moment correlation was calculated to determine if a significant relationship actually existed between specialized training schools/courses attended and job performance rating evaluation. The results of this procedure is presented in Table 22 where the data clearly indicated a negligible relationship, $r = .055$ ($n = 113$), between speciality training schools/courses attended and job performance ratings for Virginia State troopers at an alpha level of .05.

One additional analysis was to group Virginia State Troopers into three educational levels and then run Pearson product-moment correlation coefficients between the variables, specialized training schools/courses and job performance ratings, for each of the three groups. These findings are presented in Table 23:

Table 21:

Chi-square Analysis of Specialized Training Against Job Performance for Virginia State Police

Speciality Training Courses Attended

<u>Job Performance Rating Category</u>	<u>0 - courses attended</u>		<u>1-3 courses attended</u>		<u>4 > courses attended</u>	
≤ 29	6	37.5	18	36.0	13	27.6
30-35	8	50.0	16	32.0	17	36.2
≥ 36	<u>2</u>	<u>12.5</u>	<u>16</u>	<u>32.0</u>	<u>17</u>	<u>36.2</u>
Total	16	100.0	50	100.0	47	100.0

missing cases = 0

Note. Chi-square = 3.92; df = 4; p = .418

Table 22:

Pearson Product-Moment Correlation Coefficient Between Specialized Training Courses Attended and Job Performance Evaluation for All Virginia State Police

Group	n	r	p
All Virginia State Police	113	.055	.564
Missing Cases = 0			

Note. No significant difference

Table 23:

Pearson Product-Moment Correlation Between Speciality Training and Job Performance for Virginia State Police by Levels of Education

Levels of Education	n	r	p
High School GED	32	.033	.857
Associate Degree	39	.068	.681
Bachelor' Degree - Plus	41	.110	.492

Missing cases = 1

Note. No significant difference

Based on these test results, the Person product-moment correlation coefficients indicated there were a tendency for a slight positive correlation (not significant at $p = .05$) between bachelor's degree group and job performance. This was evident by the r-score being .110. According to Warmbrod's coefficient range scale, if the r-score is between .10 and .29, there is a slight relationship which exist between the two variables.

Though negligible, the associate degree group showed that there may be a tendency toward higher job performance ratings ($r = .068$) and specialized training schools/courses attended. The third group, high school/GED indicated that there were almost no relationship between the variables ($r = .033$).

These data were based on the following scale, (Warmbrod, 77):

<u>Scale in numbers</u>	<u>Correlation Coefficient Definition</u>
.01 - .09	<u>negligible</u> if any relationship at all
.10 - .29	a <u>slight</u> relationship exist
.30 - .49	there is a <u>moderate</u> relationship
.50 - .69	a <u>medium</u> relationship is evident
.70 - 1.0	there exist a <u>high</u> degree of relationship

(Warmbrod, J.R. The sampling problems in research design. In *Agricultural Education Magazine*, November, 1977).

Beliefs About Professionalism Between Troopers with a High School Education and Troopers with a College Degree

Data for this measurement was collected by a 56 item instrument. The first 44 items of the instrument were directly related to beliefs a trooper has about job performance and his/her profession. The remaining 12 items dealt

with personal information such as military experience, prior law enforcement experience, college major, promotions, and citations and awards. There were 150 survey instruments mailed with 113 being returned, 32 for the high school group, 39 from the associate's group, and 42 from the bachelor's group. This resulted in a 75.3 percent return rate on the survey instrument which is denoted in Table 24.

The bachelor's degree group had the largest number to respond to this survey ($n = 42$). The associate degree education level respondents were second ($n = 39$), with the high school/GED level having the least amount of respondents ($n = 32$). For descriptive and inferential purposes of this study, the respondents for each educational level category were equal enough to allow for reliable measurement comparisons.

The Questionnaire Survey

The questionnaire survey examined the influence of college education on job performance and professional beliefs of Virginia State troopers. The Survey explored six specific areas or dependent variables: (1) public service oriented activity, (2) order maintenance activity, (3) crime fighting, (4) public and community relations, (5) police ethical conduct, and (6) personnel issues. Table 25 list the observed data that was obtained from the survey questionnaire as it pertains to each educational level for the six dependent variables in this study. Items were scored on a Likert scale with: (1) - strongly agree, (2) - agree, (3) - don't know, (4) - disagree, and (5) - strongly disagree. For the computer analysis, the scale was reversed with (5) - strongly agree, (4) - agree, (3) - don't know, (2) - disagree, (1) - strongly disagree for tabulation purposes.

Table 24:

Response Percentages to the Survey Questionnaire by Educational Levels of the Virginia State Police

Education Level	Number Mailed	Number Returned	Overall Percentage
High School/GED	50	32	21.3
Associate Degree	50	39	26.0
Bachelor's Degree	<u>50</u>	<u>42</u>	<u>28.0</u>
Total	150	113	75.3

Table 25:

Individual Item Means by Groups, Average Means by Groups, and Total Average Mean for the Six Dependent Variables of the Survey Questionnaire

\bar{X} -1= High School/GED, \bar{X} -2= Associate Degree, \bar{X} -3=Bachelor's Degree
Items:

1. Public Service Oriented Activity:

Item number	\bar{X} -1	\bar{X} -2	\bar{X} -3	Item label
1.	4.34	4.26	4.46	provides rescue service
2.	4.03	4.03	3.68	assist motorist
3.	3.16	3.26	3.07	protect freedom of speech
4.	2.47	2.26	2.32	enforce civil ordinances
5.	3.87	3.59	3.76	enforce handicap parking violations
6.	4.13	4.33	4.37	participate in search and rescue efforts
7.	3.47	3.59	3.61	provide travel information to tourist
8.	3.88	4.10	4.02	assist motorist with vehicle breakdowns
9.	2.28	2.08	2.20	the service activities demean role of trooper
10.	2.59	2.54	2.71	service activity detracts from crime fighting
11.	3.19	2.97	3.12	assisting distressed motorist by private company
	37.41	37.00	37.32	(Means By Educational Groups)
	37.23			(Average Mean of Educational Groups)

(Table continued)

Table 25 (continued)

2. Order Maintenance Activity:

12.	2.66	2.74	2.66	discretionary means for disorderly conduct
13.	3.13	3.05	2.93	discretionary means for family disturbance
14.	2.91	3.31	3.17	discretionary means for minor traffic violations
15.	4.28	4.31	4.46	traffic direction in emergency situations
16.	1.91	1.54	1.59	site for speeds 1>5 above speed limit
17.	4.34	3.85	3.90	use of deadly force in self defence
	19.22	18.79	18.71	(Means By Educational Groups)
	18.88			(Average Mean of Educational Groups)

3. Crime Fighting:

18.	3.16	3.28	3.29	exclusionary rulings restrict crime fighting
19.	3.12	3.62	3.44	prosecutors handle cases efficiently
20.	3.28	3.03	3.24	questionable practice to achieve worthwhile ends
21.	2.69	3.05	2.93	overlook minor informant infractions for info.
	12.25	12.97	12.90	(Means By Educational Groups)
	12.74			(Average Mean of Educational Groups)

4. Public and Community Relations:

22.	2.44	2.13	2.34	only trustworthy persons are other troopers
23.	3.59	3.31	3.17	lack of respect for VSP by general population
24.	2.50	2.62	2.37	media portrays the police fairly
	8.53	8.05	7.87	(Means By Educational Groups)
	8.13			(Average Mean of Educational Groups)

(Table continued)

Table 25 (continued)

5. Police Ethical Conduct:

25.	3.75	3.64	3.73	reporting another trooper for unnecessary force
26.	3.16	3.44	3.32	reporting another trooper for civil rights violation
27.	2.59	2.72	2.80	reporting another trooper for accepting gratuities
28.	3.88	3.82	3.93	arresting another trooper for drunken driving
29.	2.88	2.79	2.78	ticketing another trooper for speeding
30.	4.28	4.31	4.32	not professional for trooper to use profanity
31.	4.69	4.77	4.78	improper to falsify testimony to win case
32.	4.62	4.72	4.73	improper to falsify testimony to aid victim
33.	1.47	1.44	1.34	improper to falsify testimony to protect informant
	31.31	31.64	31.73	(Means By Educational Groups)
	31.58			(Average Mean of Educational Groups)

(Table continued)

Table 25 (continued)

6. Personnel Issues:

34.	1.75	1.77	1.78	troopers need to be supervised closely
35.	3.94	3.85	4.05	openly evaluate job performance of supervisor
36.	2.28	1.87	2.12	civilian review boards / part of complaint process
37.	3.50	3.74	3.49	grievance process decided by neutral party
38.	2.53	2.90	2.83	unions should be legal and utilized
39.	4.25	4.15	3.95	position openings - restricted to department
40.	1.94	2.95	3.37	college work prerequisite for entry position
41.	2.09	3.23	3.59	some college work required for promotion
42.	3.50	3.51	3.78	anonymously evaluate supervisors
43.	4.25	4.23	4.15	demonstrate reading, writing skills for promotion
44.	2.31	2.08	2.37	community members involved in org. structuring
	32.34	34.28	35.46	(Means By Educational Groups)
	34.16			(Average Mean of Educational Groups)

Note. Significant difference found at the $p \leq .05$ in activity 6. No significant difference found in activities 1-5.

These six dependent variables from the survey questionnaire were measured with the independent variable, education level, to determine if any of the three levels of education had any distinguishing differences. As Table 25 reflects, there was no significant difference found in the average mean score by educational level in the first five activities. However, it should be observed that there was a slight difference in Public and Community Relations, activity 4. The average mean for this activity indicates a tendency for the high school/GED group to be more positively oriented toward public and community relations; high school/GED - 8.53, associate degree - 8.05, and bachelor's degree - 7.87.

A significant difference was found in Personnel Issues, activity 6, in average mean between the three educational levels. Especially observable was the average mean between those troopers with a high school/GED and those troopers with college level work: (a) high school/GED - 32.34, (b) associate degree - 34.28, and (c) bachelor's degree - 35.46.

Even though there was statistically no significant difference discernible in five of the six activities, subtle tendencies do appear which indicate positive changes toward education between the three educational levels of troopers.

High School/GED v. College Degree - Comparison

The purpose of this category was to break the sample population into two basic groups (1) those troopers with a high school/GED, and (2) those troopers who have a college degree. This comparison was made to determine if any difference existed between the two groups on the six

dependent variables: (1) public service, (2) order maintenance, (3) crime fighting, (4) public and community relations, (5) police ethical conduct, (6) personnel issues.

Independent t - tests were used to measure each of the six activities and education level, high school and college. For purposes of this measurement, independent sample means were tested since the scores in one group have no real logical relationship with the scores in the other group (i.e., height to weight, right-handedness to left-handedness, etc.). Rather, this measured educational levels of troopers with specific activities of the survey. In addition, the independent t - test was used because the subjects in this sample were selected at random from a larger population and were assigned to two subgroups, those with a high school/GED education and those with a college education. Tables 26 -31 presents the data from the t - test.

Public Service Oriented Activity:

This activity pertained to the noncriminal portion of police work. Specifically, it related to the general attitude of the police and their perceptions regarding the public and their needs.

The mean for the high school/GED group (n = 32), was 37.41 with a standard deviation of 4.578. The college level troopers (n = 80), had a mean of 37.16 and a standard deviation of 3.488. The t value of .30 and the alpha level of .761 indicated that there was no significant difference between the troopers with a high school/GED and those with a college degree on public service. Table 26 reflects the findings of public service activity.

Order Maintenance Activity

Order Maintenance involves the discretionary decision making process that troopers are confronted with in their daily activities of maintaining and enforcing the laws of the Commonwealth.

The mean for the high school/GED group ($n = 32$), was 19.23 with a standard deviation of 3.139. The college group ($n = 80$), had a mean score of 18.75 and a standard deviation of 2.799. The t value of .77 and the alpha level of .441 indicated that there was no significant difference between troopers with a high school/GED and those with a college degree on order maintenance as Table 27 indicates.

Crime Fighting

This activity dealt with how attitudes were reflective of the troopers experience with the criminal justice system and the troopers attempts to bring the perpetrators to justice.

The mean for the high school/GED group ($n = 32$), was 12.25 with a standard deviation of 2.048. The college group ($n = 80$), had a mean score of 12.94 with a standard deviation of 2.252. The t value of -1.50 and the alpha level of .137 indicated that there was no significant difference between troopers with a high school/GED and those with a college degree on crime fighting as is indicated in Table 28.

Public and Community Relations

This activity focused on the various situations in which most troopers deal with the day to day relationship of the public and the community. This may be interactions as simple as giving directions or as complicated as responding to life or death emergency situations.

The mean for the high school/GED group ($n = 32$), was 8.53 with a standard deviation of 1.917. The college group ($n = 80$), had a mean score of 7.96 with a standard deviation of 1.838. The t value of 1.46 and the alpha level of .147 indicate that there was statistically no significant difference between those troopers with a high school/GED and those with a college degree on public and community relations. These statistics are found in Table 29.

Police Ethical Conduct

Most troopers find themselves occasionally in the position of using their ethical discretionary standards in determining whether or not a situation may be professionally or personally correct. This activity measures the trooper's ethical conduct in regard to their work place, their tolerance toward the misconduct of fellow troopers, and the general public.

The mean score for the high school/GED group ($n = 32$), was 31.31 with a standard deviation of 4.16. The college group ($n = 80$), had a mean score of 31.69 with a standard deviation of 3.492. The t value of $-.49$ and the alpha level of .628 indicate that there was no significant difference between the high school/GED group and college degree group on police ethical conduct. This statistic is contained in Table 30.

Personnel Issues

This activity focuses on the autonomy of the trooper in terms of being able to work independently of supervision, applying the decision making process to supervision, evaluation of supervisors, educational considerations, community involvement in structuring the police, and whether or not law enforcement officers should be allowed to strike.

Table 26:

Public Service Oriented Activity by Level of Education

Group	Mean	SD	t	p
High School n = 32	37.4063	4.578	.30	.761
College n = 80	37.1625	3.488		

Note. There was no significant difference between public service oriented activity and education level at the alpha level .05.

Table 27:

Order Maintenance Activity by Level of Education

Variable	Mean	SD	t	p
High School n = 32	19.2188	3.139	.77	.441
College n=80	18.7500	2.799		

Note. There was no significant difference between order maintenance activity and level of education at the alpha level .05.

Table 28:

Crime Fighting by Level of Education

Variable	Mean	SD	t	p
High School n = 32	12.2500	2.048	-1.50	.137
College n = 80	12.9375	2.252		

Note. There was no significant difference between crime fighting and level of education at the alpha level .05.

Table 29:

Public and Community Relations By Level of Education

Variable	Means	SD	t	p
High School n = 32	8.5313	1.917	1.46	.147
College n = 80	7.9625	1.838		

Note. There was no significant difference between public and community relations and education level at the alpha level .05.

Table 30:

Police Ethical Conduct By Level of Education

Variable	Mean	SD	t	p
High School n = 32	31.3125	4.162	-.49	.628
College n = 80	31.6875	3.492		

Note. There was no significant difference between police ethical conduct and level of education at the alpha level .05.

Table 31:

Personnel Issues By Level of Education

Variable	Mean	SD	t	p
High School n = 32	32.3438	5.014	-2.47	.015*
College n = 80	34.8875	4.886		

Note. * $p < .05$. There was significant difference between personnel issues and level of education.

The mean score for the high school/GED level ($n = 32$), was 32.34 with a standard deviation of 5.014. The college group ($n = 80$), had a mean score of 34.89 with a standard deviation of 4.886. The t value of -2.47 and the alpha level of $.015$ indicated a significant difference between the high school/GED group and the college degree group on personnel issues.

The sixth activity, personnel issues, denoted a significant difference between troopers with a high school education and those with a college degree. The college degree level were more likely to have positive beliefs toward matters that were outside the realm of the daily job routine of a trooper. The trooper with a college education places higher importance on such variables as: autonomy in terms of being able to work independently of supervision, openly evaluate supervisors, use of civilian review boards in police matters, educational factors as important to promote professionalism, community involvement in structuring the police, utilization of police unions, and the demonstration of higher reading and writing abilities prior to consideration for promotion.

Summary

In this chapter, descriptive and inferential analyses' results have been presented. Mean comparisons for the entire population for both the dependent and independent variables present data in such a manner that it is easily understood for possible replication for future studies. Inferential analyses', including the chi-square, and Pearson product-moment correlation coefficient measured the effect of how the independent variable and dependent variable influenced each other.

Chapter V will provide summaries, conclusions, recommendations, and discussion for this study based upon the measurements provided in this chapter.

Chapter V

Summary, Conclusions, Recommendations, and Decisions

Background and Setting

The perception that a college education has a positive effect on law enforcement originated with August Vollmer at the turn of the 20th. century with his development of the "police school". This was the first major effort toward the idea that an educated police officer was a person who was intellectually equipped to perform at a higher level of efficiency than an officer who had little education. This perception gradually gained acceptance by those in the academic setting resulting in curriculum development that soon led to degrees in the criminal justice and criminology disciplines. Although a growing segment of law enforcement saw the benefit of an educated police officer, traditional styles of leadership were so entrenched that little change came about. This resulted in federal, state, and local government forming several committees to study law enforcement in general and make recommendations on improving police performance. Each committee suggested that the primary component in upgrading the standards of police performance was education. The findings of the committees were made as recommendations only without formal or mandated procedures for implementation. Subsequently, these recommendations had little effect on state and local law enforcement operating procedures. It should be noted however, that federal law enforcement agencies such as the Federal Bureau of Investigation, the Secret Service, and the Bureau of Alcohol, Tobacco, and Firearms viewed

the committees' recommendations as relevant and implemented, as a minimal educational standard, a bachelor's degree for employment consideration. The higher level of education requirement is one of the fundamental element that separates federal law enforcement agencies from state and local police.

It was not until the civil unrest of the 1960s that state and local police organizations were influenced by landmark court decisions in the improvement of law enforcement standards. It was at this juncture that police executives began to focus their attention toward specific methods that would create a more proficient, effective, and professional police department. In accomplishing this goal, law enforcement executives vastly improved basic training academies, inservice training, and speciality schools and courses. A major component was in upgrading educational requirements for recruits and the incentive to raise the educational level of the police officer. Police executives speculated that an educated officer would have a positive impact on job performance and subsequently raise the professionalism of the department. It is from this premise that this study was directed.

Statement of the Purpose

The fundamental purpose of this study was to determine if troopers within the Virginia State Police with a college education, have a job performance rating that is different statistically from those troopers who have a high school education or GED. In addition, this study was conducted to provide empirical data for an improved understanding of the perception of whether college level work influenced the professional beliefs and

attitudes of Virginia State troopers. In accomplishing this purpose, relationships were examined to determine if there were any significant differences between the seven dependent variables: (1) public service, (2) order maintenance, (3) crime fighting, (4) public and community relations, (5) police ethical conduct, (6) personnel issues, and (7) job performance ratings, and the three independent variables: (1) education level, (2) major in college, and (3) training schools/courses attended by troopers.

Specific Objectives of The Study

The specific objectives of this study were:

1. To describe Virginia State troopers in terms of selected demographic and descriptive characteristics:
 - a. Level of education
 - b. Length of employment (tenure)
 - c. Age
 - d. Sex
 - e. Race
 - f. Number of awards and citations
 - g. Number of complaints
 - h. Military experience
 - i. Prior law enforcement experience
 - j. Trooper rank
2. To determine if a significant difference exists between those troopers with a college degree in criminal justice and troopers with a college degree in other disciplines, in relationship to job performance.

3. To determine if specialized training schools/courses attended by troopers at each of the three levels of education were significantly different in relation to job performance. The following five specialities was identified as being germane to this relationship.

- a. Instructor training
- b. Accident investigation
- c. Performance evaluation training of potential recruits and troopers on probation (background investigation and field training officers).
- d. Speciality training such as hazardous materials and motor carrier investigations.
- e. Tactical team training (special weapons and tactics, executive protection, hostage negotiation).

4. To ascertain if beliefs about professionalism between troopers with a high school education or GED, differed significantly with troopers who had a college degree. The following six areas were identified to be instrumental in job performance.

- a. Public service
- b. Order maintenance
- c. Crime fighting
- e. Public and community relations
- f. Police ethical conduct
- g. Personnel issues
- h. Job performance ratings

For the purpose of organization, the following will discuss the primary components of the purpose statement in the order in which they were presented in Chapter IV.

Methodology Interpretation

Interpretations

In establishing a common characteristic of troopers from which to base this study, a descriptive analysis of the sample was presented in terms of frequencies, percentages, averages, mean comparisons, and by use of inferential statistical methods. The purpose was to recognize variables which were best predictors of Virginia State troopers in regard to dependent and independent variables.

Summary of Descriptive Characteristics

The purpose of descriptive statistics is to describe things in their original form and the way they are, rather than to investigate a cause-and-effect relationship. Descriptive statistics are methods used to derive from raw data certain indices that characterize or summarize the entire set of data (Huck, et al., 1974).

The 113 respondents of this study were troopers from throughout the Commonwealth of Virginia. Each trooper's responsibility were similar in that they were assigned to uniform patrol and were engaged in comparable tasks in maintaining the safety of the highway system and responding to criminal activity across Virginia. Descriptive data concerning the respondents were collected on each of the following variables.

a. Level of Education

Samples were categorized into three groups: high school/GED, associate degree, and bachelor's degree, to include graduate work. Each level was divided into 50 troopers per group. Of the original 150 troopers surveyed, 113 responded (75.3 percent). Basic data on non-respondents such as level of education, length of employment, age, sex, race, and number of complaints was supplied from the trooper's personnel file by the Human Resources Office of the Virginia State Police. Table 32 is provided for non-respondents in Appendix A.

b. Length of Employment

Length of service was significant in that it established the amount of work experience each trooper had with the Virginia Department of State Police. The bachelor's group ($n = 41$) had the least amount of employment with a mean of 5.98 years. The mean for the associate's group ($n = 39$) was 12.76 years, and the high school/GED troopers ($n = 33$) had the longest length of service with a mean of 14.91 years of service. The mean for the entire sample ($n = 113$) was 11.22 years of employment as a Virginia State trooper. Ranges for the three groups were from 2 to 41 years.

A significant difference existed between the bachelor's degree group and the high school/GED, associate degree group.

c. Age

The mean age for troopers in this study was 37.26 years. Each group was categorized (Table 38, Appendix B) into age groups to determine which category contained the largest number of troopers. For the

bachelor's group, most troopers fell within the 25-29 age rank. The associate's and high school/GED groups ranked about 10 years beyond bachelor's with an average age ranking for each between 35-39. The range of the three groups were from 24 to 64 years of age.

As with length of service, the findings of this variable were not surprising. A plausible interpretation for the associate and high school group being in the same age category is that troopers who have longer lengths of service may be going back to college in order to advance in rank for retirement purposes as well as for assignment considerations.

d. Sex

The majority of respondents were male (93 percent) with females consisting of the remainder (7percent). This indicated that fewer than one out of every ten troopers were female. Although females were by far the minority in this and related studies, literature points out that females were found to have attained a higher level of education in proportion to their male counterparts. This suggest that females are seeing the benefit of higher education as a means to secure employment in law enforcement.

e. Race

Data reveals that the majority of troopers in this sample (n = 104) were white (92 percent). The minority population (n = 8) consisted of 7 percent black troopers, and 1 percent of Hispanic origin (n = 1).

Literature indicated that by raising the level of education may in fact be eliminating many minorities from employment within law enforcement (Carter, et al., 1990). The reason suggested for smaller numbers in most law enforcement agencies is that there are fewer black and Hispanic males

who attend college and that law enforcement is not a primary career goal when seeking employment. The results of this study showed that blacks and Hispanics were proportionately under represented when compared to the national average (13 percent).

f. Number of Awards and Citations

The largest number of awards was obtained by the high school/GED group. The results showed that there was a significant difference in the number of awards and citations achieved between the college educated group and the high school/GED group (Table 11). This corroborates the variables length of service (Table 7) and age (Table 8) of troopers. This may be due to troopers who are older with greater lengths of service, the high school/GED and associate groups, having had more opportunities to receive awards and citations. Over time, the gap between the three groups should become smaller as educational standards increase within the Virginia State Police.

g. Number of Complaints

Speculation by many police executives view troopers with higher education as being able to perform their duties at a level which would reduce numbers of complaints. This study found no significant difference between levels of education and complaints within the Virginia State Police. However, there were subtle differences in measurement results that suggest a tendency for the high school/GED group to have more complaints (mean - 2.84) than the associate or bachelor's group. The associate's group had the least number of complaints (2.10), and the bachelor's group was ranked second (2.29). The mean for the entire sample is 2.38.

h. Military Experience

Data revealed that over one-third of the troopers in this study had military experience (n = 41: 36.5 percent). Of this number, troopers whose military occupations were in law enforcement, e.g. military police or security police, consisted of 19.5 percent of respondents for this variable. Troopers who had military occupations different than that of law enforcement were the largest group (80.5 percent).

In terms of rank held in the military, the largest numbers in the enlisted ranks held positions of E-4 (specialist/corporal), while those in the officer ranks held positions of O-4 (major), Table 39, Appendix C. Data indicated that troopers who had military experience also had supervisory experience. This was significant since troopers must be able to adequately demonstrate leadership ability in job performance ratings. In relation to trooper responses to the "personnel issues" activity on the survey instrument, measurement results denoted that troopers do not feel the need for closer supervision, high school/GED - 1.75, associate - 1.77, bachelor - 1.78).

Data revealed that over one-third of the respondents from the total sample had military experience. This suggested that training, occupational responsibility, and educational requirements associated with the military in relation to job performance requirements was clearly portrayed as a valued consideration for employment by the Virginia State Police.

i. Prior Law Enforcement Experience

There were 32 troopers (28.3 percent) of the sample who had prior law enforcement experience. The mean was 4.20 years with a range from 1

to 16 years. The significant number of troopers with prior law enforcement experience may suggest that practical field experience is valued in terms of recruitment. Persons with prior experience have a general knowledge of realistic work expectations and are more oriented toward law enforcement job requirements. This may have a positive effect on tenure and/or turnover rates.

j. Trooper Rank

Law enforcement officers with higher levels of education are expected to have the capability to advance in rank faster than those troopers who have only minimal educational requirements as the literature has pointed out. This study showed that there was no significant difference between *trooper rank* for those troopers with a college education in relation to those with a high school/GED.

The majority of troopers (67.2 percent) held the rank of trooper, with 24.8 percent being classified as senior trooper, and 6.2 percent holding the master trooper rank. There were 2 (1.8 percent) who did not respond, (Table 16).

Relationship of College Degree Toward Job Performance

A t - test was used to measure the significance of troopers who had a degree in criminal justice with those who had degrees in other disciplines. Measurement revealed that a total of 78 (69 percent) of the 113 respondents had either an associate's or bachelor's degree. Of this number, 57 (73 percent) had criminal justice degrees, Table 17.

Data revealed that there was no significant difference between a trooper having a college degree with a major in criminal justice and a

trooper who had a major in another discipline in relation to the dependent variable job performance. The test results showed that the t - value of .41 and the p - value of .682 determined at the interval level that there was practically no difference in the type of college degree attained in relation to job performance.

Determination of Specialized Training Schools/Course in Relation to Job Performance

A 3 X 3 Chi Square was used to ascertain if any differences were observable between the three levels of education and speciality schools/courses attended in relation to job performance. The results of this measurement, as presented in Table 21, revealed that there was no significant difference observable.

To further verify the Chi Square measurement, the more precise Persons product-moment correlation coefficient was calculated to determine if any discernible differences might exist between speciality training schools/courses attended and education levels. The results of this test indicated that a slight positive correlation existed between bachelor's degree group and positive job performance ratings. The Pearsons product-moment correlation coefficient results also indicated a tendency for the associate degree group to do somewhat better in relation to job performance and speciality schools/courses attended in comparison to the high school/GED group.

Beliefs About Professionalism Between Troopers with a High School Education and those with a College Degree

Data collection for this measurement came from the survey questionnaire. The instrument developed for this research study has content validity for at least two reasons, findings throughout the literature are reflected in the instrument, and secondly the instrument was reviewed by experts in law enforcement and academia who agreed that both the areas of perception and items constituting each area were representative of law enforcement and its component parts. The instrument was field tested with a small sample ($n = 14$) of Virginia State troopers. Sampling was drawn at random, and care was taken to insure that subjects used in the field test were not included in the sample for this study. A few changes were made in the instrument following the field test in an attempt to improve reliability, to improve organization and structure, and to enhance understanding of items used in the instrument.

A t-test was used to measure each activity. The results indicated that there was no significant difference in five of the six activities. The only significant difference came in the last activity - Personnel Issues. This area dealt with such matters as supervision, education, promotion, and community involvement in police matters. The mean results of this measurement indicated that troopers with an associate degree (34.28) and a bachelor's degree (35.46) tend to have greater positive scores than the high school/GED group (32.34).

Conclusion

The conclusion of this study shows that there was a significant difference between trooper educational levels, job performance, and beliefs toward professionalism in the areas of: (1) personnel issues, (2) length of service, (3) age, and (4) number of awards and citations. Virginia State troopers who had college degrees, in relation to those troopers with a high school/GED, tended to be more positively oriented toward issues focusing on education requirements. The two most observable were, education as a prerequisite for employment, and at least some college work as a requirement for promotion. There were other positive subtle tendencies noticeable in mean scores by educational groups in the activities of crime fighting and police ethical conduct.

The high school/GED and associate group scores were significantly different than the bachelor's group in length of service and age. Troopers in these two groups were older and had greater lengths of service. The high school/GED group had more citations and awards than the associate and bachelor's degree groups. One plausible explanation for the difference in the variables length of service and age, especially at the high school/GED and associate degree levels, may be that troopers are beginning to see the advantage of a college education in terms of promotion and/or job assignment consideration.

The remaining variables tested indicated that there were no significant difference in job performance, beliefs toward professionalism and level of education within the Virginia State Police. The basic task functions of police work appear to be uniform between all levels of

education. High school graduates seems to have the same fundamental beliefs about police work, have about the same job performance ratings, and receive about the same number of complaints as troopers who had a college degree. The primary difference was found in personnel issues where troopers seemed to differentiate by college and non-college troopers in their views on educational assessment, organizational, and administrative aspects of law enforcement.

For variables which indicated no significant difference, there were noticeable but discrete factors which influenced level of education and beliefs toward professionalism. For example, in the activity public and community relations, the high school/GED group were found to be more positively oriented toward trusting persons outside the law enforcement profession, that public respected troopers more, and the media portrays the police fairly. However, in the activity crime fighting, the bachelor's group tended to score higher in terms of positive views of prosecutors handling cases efficiently, and a willingness to overlook minor informant infractions for information that would lead to a major arrest. Mean scores for the activity of order maintenance and police ethical conduct were virtually the same among all three educational levels. This indicated that in terms of doing the basics of enforcing the law and protecting the public, there were no noticeable difference.

College graduates tended to involve themselves more in speciality schools and training courses that promote upward mobility and job assignments. This may indicate why troopers who are college educated tend

to seek executive, administrative, and special assignment positions more often than do troopers with a high school/GED.

Recommendations

In review of the variable which were statistically examined in this study, there were four major area of significant difference that were noted. However, this study indicated that college education does have a tendency to influence variables by a small but noticeable degree. As the number of college educated persons being hired by the Virginia State Police are increasing, it is recommended that:

1. A tracking system be implemented to follow the progress of college educated troopers, especially in the areas of this study where the significant difference was noted (personnel issues) to validate predictors of enhanced administrative and supervisory skills.

2. In terms of college major, this study found virtually no significant difference between those troopers with a criminal justice degree and those troopers with majors in other disciplines in relation to job performance. Criminal justice majors, however, may be more focused early on in the career decision making process and might prove to have a longer length of employment. This would be worthy of further study in terms of cost effectiveness and turn over rates.

3. In reference to the criminal justice curriculum, it would be worthwhile to examine the type of course content within the curriculum itself. Certain criminal justice degrees are directed more toward job performance courses, especially at the two-year associate level, while others are more in-line with theoretical methods. This could influence the desired

direction toward future expectations of troopers. Many troopers, for example, do not desire administrative responsibility but strive to excel in uniform patrol or in specialized training areas. Other troopers aspire to supervisory, executive, or administrative levels. The type of curriculum and its orientation may be a factor in meeting the future uniform patrol and administrative needs of the Virginia State Police.

4. It is recommended that criminal justice curricula, whether driven by theoretical content or performance based courses, at the associate or bachelor's level, should have a strong general education or liberal arts component. General education or liberal arts courses are essential in forming critical thinking and problem solving abilities, which are rudiment in the law enforcement field. In addition, a liberal arts education further develops skills in written and oral expressions, which are also fundamental to police work.

5. A comparative study should be conducted between police executives who have a college degree in relation to police executives who do not. This study design would ascertain if level of education is a factor on job performance. Research that higher education seems to be a factor in job performance among police executives may further influence the future leadership for the Virginia State Police.

6. This study concludes with a recommendation for further research in the area of police administration and higher education. As more police officers in the lower ranks are obtaining college degrees, research should now be directed toward police administration and the role that education will play in forming the future of law enforcement.

Discussion

This study has met the objective the researcher has set out to accomplish. New information has been provided in regard to the effects of educational level as it relates to job performance and beliefs toward professionalism within the Virginia State Police. For the variable job performance evaluation rating, it has been statistically shown that troopers with higher education did not perform significantly differently than troopers with a high school education in basic job tasks. It is also important to note that troopers who had a bachelor's degree from a university did not significantly perform any differently than troopers with an associate's degree from a community college.

Beliefs toward professionalism indicated slight differences, though not statistically significant, between all three levels of education except in personnel issues. The statistical results for this variable indicated a significant difference between troopers with a high school/GED education and troopers who had attained a college degree. Though the results of this study may be used as a basis for future study, implementation of these findings should be carefully considered by the State Police. To best summarize this statement, this study found the following predominant job performance characteristics of troopers by education level:

Troopers with a high school/GED tended to be more likely to settle family disturbance situations by alternative means than by arrest, assist motorist in finding a safe haven when the motorist experienced distress, and felt there was a greater trusting relationship between the police and the community.

Troopers with an associate degree were found to score highest in protecting an individual's freedom of speech, assisting motorist with vehicle breakdowns, use of alternative means other than arrest for disorderly conduct, use of discretionary means for minor traffic violations, more prone to question the prosecutor's methods in handling court cases, and more likely to report another trooper for civil rights violations.

Troopers with a bachelor's degree scored highest in areas that dealt with professional ethical conduct such as falsifying court room testimony, search and rescue service that was not directly related to police activities such as assuming responsibility for locating lost children, more likely to act independently without specific direction, openly evaluate the job performance of supervisors, felt that higher education was an essential element in entry level positions as well as for promotional consideration, and that community leaders should become more involved in organizational restructuring.

These findings suggested that troopers who had a college education tended to view areas that were supervisory or administratively oriented more positively than troopers who had a high school or GED, especially where higher education is a factor in recruiting, job performance evaluation ratings, and in the promotion process. This would be of interest to the Virginia State Police in preparing troopers for future leadership and/or administrative positions. Troopers who have college degrees may further utilize their particular academic discipline, e.g. criminal justice management, business, or education if they are directed into related positions within the department such as training, research and planning, or

administration. This would present maximum opportunity for the troopers and positively reinforce the organizational structure of the department.

There are specific areas within any large organizational structure that require certain levels of ability and expertise to accomplish the overall mission of that organization. This statement applies to law enforcement organizations such as the Virginia State Police as well. Persons who have the fundamental skills of written and oral communication, basic abilities to solve problems, ethical standards, and the propensity to interact professionally with society, may perform well within basic job task. Data from this study indicated that there was no difference between educational levels and job performance evaluation ratings at the trooper rank. However, there was a distinct dichotomy of those troopers with higher education from those with a high school education in beliefs toward mid and upper level management. In this researcher's opinion, consideration toward seeking a higher educated person to fill entry level positions is encouraged since this provides the State Police with persons who have the qualifications to advance, but the greater emphasis in regard to higher education requirements should be in the preparation for leadership roles within the department. As this research study indicated, college educated troopers were more inclined to view higher education as a key element in seeking higher levels of responsibility. This information would therefore be valuable to the Virginia State Police in mapping out future organizational development.

The conclusions found in this study do not provide any finality to the question of whether or not higher education does in fact make a better law enforcement officer. Rather this researcher hopes that this study will

contribute useful information to those whose interest is in education and how it may best influence the future of law enforcement.

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APPENDIX A
RESPONDENTS VS NON-RESPONDENTS

RESPONDENTS VS NON-RESPONDENTS

Non-respondents (n = 37) were compared with respondents (n = 113) of the total random sample (n = 150) to determine if there were significant characteristic differences between the three educational level groups: high school/GED, associate degree, and bachelor's degree. The original procedure involved sending a cover letter and questionnaire survey to 150 Virginia State troopers. The first mailing resulted in a return response of 99 questionnaire surveys or 66 percent response rate. After approximately three weeks, a second mailing was sent to the non-respondents, accompanied by a cover letter which further explained the basic nature of this study. Consequently, the second mailing produced an additional 14 responses for a total of 113 respondents or 75.3 percent of the total sample.

In comparing respondents with non-respondents, data was collected from the personnel files of the non-respondents supplied by the Human Resources Office of the Virginia State Police in determining this statistic.

Non-respondents were compared with respondents on the characteristics of : length of service or tenure in the Virginia State Police, age, sex, race, number of complaints by educational level, educational level, college credits obtained by those in the associate and bachelor's degree groups, and job performance ratings. Tables 32-39 summarize these findings.

Table 32:

Length of Service (Tenure) for Respondents and Non-respondents

Category	Mean	SD	t	p
Respondents (n = 113)	11.4	8.28	-1.81	.078
Non-respondents (n = 37)	16.4	16.10		

Note. There was no significant difference between respondents and non-respondents on tenure.

Table 33:

Mean Age of Virginia State Troopers for Respondents and Non-respondents

Category	Mean	SD	t	p
Respondents (n = 113)	37.3	8.34	-1.42	.163
Non-respondents	40.2	11.72		

Note. There was no significant difference between respondents and non-respondents on age.

Table 34:

Sex of Respondents and Non-respondents

Sex	<u>Respondents</u>		<u>Non-respondents</u>	
	n	%	n	%
Male	105	92.9	36	97.3
Female	<u>8</u>	<u>7.1</u>	<u>1</u>	<u>2.7</u>
Total	113	100.0	37	100.0

Note. Chi square = .95; df = 1; p = .331

Note. There was no significant difference between respondents and non-respondents on sex.

Table 35:

Race of Respondents and Non-respondents

Race	<u>Respondents</u>		<u>Non-respondents</u>	
	n	%	n	%
White	104	92.8	30	83.3
Black	8	7.1	7	16.7
Hispanic	<u>1</u>	<u>.1</u>	<u>0</u>	<u>0.0</u>
Total	113	100.0	37	100.0

Note. Chi square = 2.95; df = 1; p = .086

Note. There was no significant difference between respondents and non-respondents on race.

Table 36:

Number of Complaints by Respondents and Non-respondents

Category	Mean	SD	t	p
Respondents (n = 113)	2.4	2.49	-.07	.942
Non-respondents (n = 37)	2.4	2.27		

Note. There was no significant difference between respondents and non-respondents on number of complaints.

Table 37:

Education Level of Respondents and Non-respondents

Education Level	<u>Respondents</u>		<u>Non-respondents</u>	
	n	%	n	%
High School GED	33	29.2	17	45.9
Associate Degree	39	34.5	11	29.7
Bachelor's Degree	<u>41</u>	<u>36.3</u>	<u>9</u>	<u>24.4</u>
Total	113	100.0	37	100.0

Note. Chi square = 3.80; df = 2; p = .150

Note. There was no significant difference between respondents and non-respondents on educational level of Virginia State Troopers.

Table 38:

Number of College Credits of Respondents and Non-respondents

Category	Mean	SD	t	p
Respondents (n = 113)	75.2	56.77	1.63	.104
Non-Respondents (n = 37)	57.5	58.80		

Note. There was no significant difference between respondents and non-respondents on Number of College Credits.

Table 39:

Performance Evaluation of Respondents and Non-respondents

Category	Mean	SD	t	p
Respondents (n = 113)	31.6	7.07	.90	.372
Non-respondents (n = 37)	30.1	12.00		

Note. There was no significant difference between respondents and non-respondents for performance evaluation.

As these Tables indicated, there was statistically no significant difference between the respondents and non-respondents of this study. However, closer examination will reveal that some probability scores were close enough to the alpha level .05 to suggest that slight tendencies of difference might exist. The purpose for this statistic was to provide data for research in future studies.

APPENDIX B
Categorical Grouping by
Age and Mean Length of Employment
of Virginia State Troopers

Table 40:

Categorical Grouping by Age and Mean Length of Employment of Virginia State Troopers

Age	High School Plus GED	Associate Degree	Bachelor's Degree
21 - 24	0	0	2
25 - 29	2	3	16
30 - 34	6	7	6
35 - 39	8	14	10
40 - 44	6	8	3
45 - 49	6	4	3
50 - 54	2	3	1
55 - 59	1	0	0
60 - 64	<u>2</u>	<u>0</u>	<u>0</u>
Total	33	39	41
Mean Length of Employment	14.91 years	12.76 years	5.98 years

APPENDIX C
Categorization of Military Rank
of Virginia State Troopers

Table 41:

Categorization of Military Rank of Virginia State Troopers

Military Rank	n	%
Enlisted		
E - 1	0	0
E - 2	0	0
E - 3	1	.9
E - 4	15	13.3
E - 5	12	10.6
E - 6	6	5.2
E - 7	2	1.8
E - 8 and above	0	0
<u>Officer</u>		
O - 1	0	0
O - 2	1	.9
O - 3	2	1.8
O - 4	2	1.8
O - 5	1	.9
O - 6 and above	0	0

Table 41 indicates that the largest enlisted category was at the specialist or corporal rank, while the largest category in the officer rank was evenly proportioned between captain and major.

APPENDIX D

**Letter to Colonel M. Wayne Huggins, Superintendent
Virginia Department of State Police
(Request to Conduct Research Study)**

October 10, 1994

Colonel M. Wayne Huggins
 Superintendent Virginia State Police
 Department of State Police
 P.O. Box 27472
 Richmond, VA 23261-7472

Dear Colonel Huggins:

My name is Charles W. Wymer and I am an associate professor of Administration of Justice at Southwest Virginia Community College in Richlands, Virginia. I am also in the doctoral program at Virginia Polytechnic Institute and State University. I have just completed my course work at VA Tech and now ready to do a research dissertation in fulfilling the requirements for the doctorate degree. It is my request that you will allow me to do a research dissertation with the Virginia State Police.

I spoke by telephone with Mr. Danny Blankenship, Human Resource Director, on October 4, concerning the basics of this research project. He was very optimistic about my proposal and felt that this study would be beneficial to the Department of State Police. At the conclusion of the telephone conversation, I felt that I had the support of Mr. Blankenship in conducting this research study. The purpose of the study is to determine if the level of education that a trooper has achieved has an influence on job performance and job evaluation. In order to conduct this study, I will need such information that will reflect the trooper's job performance, promotions, specialized schools and/or training, citations and awards, disciplinary action, as well as other related demographic and relevant items. In working with the human resources department, the information that I will receive will be totally blinded, and I will not have any knowledge of the individual trooper's identity. I fully understand the importance of this and will subsequently comply with all policy procedures of the Department. I hope to obtain a sample of 90 troopers with 30 having a high school education; 30 having at least a two year college education, and 30 having four years or more of college work. Each group will be examined using variables that will indicate the correlation between college work and job performance and evaluation.

I hope that you will favorably consider my request. Having been a police officer with the Richmond, Virginia, Bureau of Police, I have always had an interest in the professional development of the police officer. It is evident that most departments are now seeking a higher caliber person to employ which reflects the continued efforts of departments in insuring quality policing. This research report should corroborate this. If you need any additional information or have any questions regarding this request, please do not hesitate to write or call me. Again, I hope that your will grant me permission to conduct this research dissertation.

Sincerely,

Charles W. Wymer, Associate Professor
 Administration of Justice

cc. Mr. Danny Blankenship, Virginia State Police
 Dr. Sam Morgan, Dissertation Chairman, Virginia Tech

177



COMMONWEALTH of VIRGINIA

DEPARTMENT OF STATE POLICE

P. O. BOX 27472, RICHMOND, VA 23261-7472

October 18, 1994

Mr. Charles W. Wymer, Associate Professor
Administration of Justice
Southwest Virginia Community College
P. O. Box SVCC
Richlands, VA 24641-1510

Dear Mr. Wymer:

Your letter of October 10, 1994, in which you requested permission to do a research dissertation with our Department has been reviewed by this office. Your request is approved.

This approval is based on the stated purpose of your study "to determine if the level of education that a trooper has achieved has an influence on job performance and job evaluation."

We view education very highly and give it significant weight during our hiring process. The last two basic schools that we have conducted were attended by students either possessing a four-year college degree or having a minimum of three years of law enforcement experience.

Mr. Danny L. Blankenship, Human Resource Director, will provide you with the information needed to conduct your research project. His telephone number is (804) 674-2061.

Good luck with this project; I look forward to receiving a copy upon its completion.

Sincerely,

Wayne Stuppino
Superintendent

IRN/ULB/pb

APPENDIX E

Letter to Troopers Requesting Participation in Research Study:
(letter to accompany survey questionnaire -
to include follow up letter)

SURVEY
The effects of College Education on Job performance
and Professional Attitudes Among the
Virginia State Police

TO: Virginia State Police (troopers)
FM: Charles W. Wymer
DATE: April 11, 1995
SUBJECT: Request Participation in Research survey

There is currently an assumption by some practitioners, educators, and others in the field of criminal justice that college education will increase job performance and ultimately tend to enhance professionalism of law enforcement. This assumption, in turn, is viewed as a means of aligning the present attitude of the individual law enforcement officer toward professionalism with that of persons in other professional careers.

I have chosen to do research in this area to determine the effects of college education on job performance and attitudes of professionalism among troopers of the Virginia State Police. I have contacted Colonel M. Wayne Huggins and he has given me his full support and encouragement in conducting this study.

I am distributing this survey to a random sample of 150 Virginia State troopers across Virginia. *All* information collected for this study will be held strictly confidential and will be received by me without any personal identifiers of respondents.

The survey will be delivered to the Human Resources Office for mailing distribution to each trooper in this study. Upon completion of the survey instrument, each trooper will then mail the survey back to me for data tabulation and interpretation. The overall results of this research study will be made available to you by the Human Resources Office should you desire to view the findings. All questionnaires will be destroyed after the data is tabulated and interpreted.

I appreciate your participation in this study and will be available at any time should you have any questions. You may call me at work (703) 964-7203 or at home (703) 963-0571. Your *immediate* response to this survey is imperative. Thank you again for your participation.

TO: Virginia State Trooper

FM: Charles W. Wymer, Associate Professor
Administration of Justice
Southwest Virginia Community College
Richlands, VA 24641

DATE: June 7, 1995

Subject: Response to Survey-Questionnaire

About three or four weeks ago, I sent you a survey-questionnaire and a self-addressed manila envelope in reference to a study that I am conducting concerning the educational level of troopers in the Virginia State Police in relation to attitude and job performance. It is imperative to this study that I get a cross-section sample of the Virginia State Police. Since you were selected as a participant, you play a vital role in this process.

To date, I have not received a response from you. As a former police officer, I understand the rigors of the job, shift work, and the demands of court time. In addition, I realize that summer is quickly approaching and vacation time and other outdoor activities become a priority in your schedule. However, I am hoping that you will take a few minutes out of your daily activity and assist me in this study by completing this survey and dropping it in the mail to me.

I would like to reinforce the fact that all information is confidential and the data collected, including this questionnaire, are identified by "number" only without the participant's name. I appreciate your efforts in this study and will be available at any time should you have any question. You may call me either at work (703) 964-7203 or at home (703) 963-0571.

APPENDIX F
Survey Questionnaire:
Virginia State Police Survey

182
SURVEY
VIRGINIA STATE POLICE

This study examines the effects of college education on job performance and the overall professional attitude among Virginia State troopers. Accordingly, this research survey will explore six specific areas. These are 1) service activity, 2) order maintenance, 3) crime fighting, 4) public and community relations, 5) ethical conduct, and 6) personnel issues.

Your candid and sincere response is essential to the accuracy of this study. As this is a **strictly confidential** survey, please do not put any personal identifiers on this survey. Upon completion, please mail this survey to me in the pre-addressed, stamped manila envelope provided. Your *immediate* response is requested.

Respondent Instructions: Please read the instruction of each section before responding. Circle the appropriate response which most accurately reflects your personal opinion.

- I. **Public Service Oriented Activity:** This area is oriented toward the non-criminal portion of police work. It deals with the general attitude of the police and their perceptions regarding the public and responding to their needs while on duty.
1. A trooper should provide rescue services as part of public service, e.g. disaster relief.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
 2. A trooper should help find available safe haven for stranded motorists.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
 3. A trooper should protect the free speech of a hostile crowd, e.g. in a labor union strike situation.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

4. A trooper should enforce civil ordinances such as resolving landowner/civilian trespassing disputes.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

5. A trooper should help with enforcing handicap parking violations.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

6. A trooper should be responsible for personally participating in search and rescue efforts of others, e.g. lost children.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

7. A trooper should be responsible for providing travel information to tourists.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

8. A trooper should assist motorists who are experiencing vehicle breakdowns including making phone calls to private agencies or individuals to obtain aid.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

9. The service activity that the Virginia State Police currently perform tends to demean the role of the trooper in the eyes of the public.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

10. The service activity troopers currently perform detracts attention away from fighting crime, maintaining public order, and promoting highway safety.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

11. The service activity currently performed by the state police, such as assisting distressed motorists, can be carried out more effectively by another public or private agency.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

II. ORDER MAINTENANCE ACTIVITY: Now that you have completed section I on the service activity, please respond to the following section dealing with order maintenance. This section involves discretionary decisions that troopers are confronted with in the day to day activities of maintaining and enforcing the laws of Virginia. Again, please circle the best response that you feel is appropriate in your particular situation.

12. A trooper should handle *most* cases of disorderly conduct through some discretionary means other than making an arrest.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

13. A trooper should handle *most* cases of family disturbance through some discretionary means other than making an arrest.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

14. A trooper should handle *most* minor traffic offenses without citing the violator, e.g. having a brake light out.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

15. A trooper should *independently* assume the responsibility of directing traffic in emergency situations that *may* result in accidents without being formally assigned the task.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

16. A trooper should cite a violator for speeding when the violator is driving at speeds between 1 and 5 miles per hour over the speed limit.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

17. A trooper's use of deadly force should be limited strictly to situations where a trooper's or citizen's safety is gravely endangered.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

III. CRIME FIGHTING: This area deals with how attitudes are reflective of the troopers experience with the court system, interacting with the criminal element, and the trooper's attempts to bring those guilty of committing criminal acts to justice. Again select the response category that best describes your attitude.

18. The Supreme Court rulings in the past (such as the "exclusionary rule") hamper the state police's ability to fight crime.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

19. Prosecutors handle criminal cases brought before them by the trooper in an efficient and just manner.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

20. A trooper is sometimes justified in using "questionable practices" to achieve worthwhile ends, e.g. coaxing a violent intoxicated person outside his home in order to make an arrest which will ultimately prevent spousal and/or child abuse.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
21. A trooper should overlook the minor crimes of valuable informants in order to continue to receive valuable information on the more serious crimes of others, e.g. not arresting an informant for simple possession of marijuana in exchange for valuable information leading to the felony arrest of another.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

IV. PUBLIC AND COMMUNITY RELATIONS: In the day to day routine of being a trooper, there will arise several occasions in which interaction with the public becomes necessary. These interactions may deal with something as simple as giving directions or responding to immediate emergency situation. This section will focus on various situations in which most troopers deal with the public. This portion describes activities of law enforcement officers in general. Select the response category that most accurately expresses your opinion.

22. The only persons (other than family members) that a state trooper can ultimately trust are other troopers and law enforcement officers.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
23. The general public lacks the appropriate respect that should be given to law enforcement officers.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

24. On the whole, the media portrays the police fairly.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

V. POLICE ETHICAL CONDUCT: Most troopers find themselves from time to time in the position of using their discretion to determine whether or not a situation that may present itself is ethical. This activity will measure the trooper's ranking of what is considered ethical conduct in their work place and their tolerance toward the misconduct of fellow troopers. Please circle the number that best represents how you feel toward this situation.

25. A trooper should report a fellow trooper for using unnecessary force in an arrest situation.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
26. A trooper should report a fellow trooper for violating a suspect's civil rights, for example, freedom of speech, right to assemble.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
27. A trooper should report a fellow trooper for violating departmental policy on accepting gratuities, e.g. accepting free meals, while on patrol, from restaurant owners who happens to be within the troopers operating area.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
28. A trooper on duty should arrest a fellow law enforcement officer for drunken driving who is off duty and driving his/her private vehicle.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

29. A trooper on duty should ticket a fellow law enforcement officer for speeding who is off duty and in his/her private vehicle.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
30. It is acceptable practice for a trooper to use profanity in public when on duty.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
31. A trooper should, in some situations, falsify courtroom testimony in order to win a case, e.g. falsify probable cause for arrest (drunk in public) in order to substantiate a search for narcotics or other drugs suspected of being on the suspect.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
32. A trooper should, in some situations, falsify courtroom testimony in order to assist the victim of the crime to win the court case, e.g. falsely state in court that you *witnessed* a simple assault in a domestic situation in which the wife was in danger of physical assault from her violent husband. This action allowed you to make an arrest and prevent serious injury to the wife as well as helping her to win her case in court.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
33. A trooper should, in some situations, falsify courtroom testimony in order to protect the identity of an informant.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

VI. PERSONNEL ISSUES: This area of the survey will focus on the autonomy of the trooper in terms of being able to work independently of supervision. Since most Virginia State troopers work alone, this activity will measure what part supervision plays in the decision making process of the trooper. Other personnel related items such as the evaluation of supervisors by troopers, educational consideration in personnel, community involvement in structuring the police, and whether or not law enforcement officers should be allowed to strike will be explored in this section. Your candid response in this area is appreciated.

34. Troopers should be supervised more closely than they are now.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

35. A trooper should be allowed to openly evaluate the job performance of their supervisors.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

36. An external civilian body, such as a civilian review board, should participate in the complaint process against a state trooper.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

37. Fervent disagreements with departmental policy, activity, or decision making should go beyond the department hierarchy to a grievance committee, arbitration, or legal review board, which has a neutral association with the police for final disposition.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

38. Unions should be legal and utilized in covering law enforcement personnel concerns.
 1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

39. Applications for position openings in the department, other than entry level positions, should be restricted to those who have been working within the department.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
40. At least some college level courses should be a prerequisite for entry level positions in the state police.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
41. A trooper should have at least some college level courses before being considered for administrative positions.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
42. A trooper should be allowed to anonymously evaluate supervisors.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree
43. As part of the promotional process, a trooper should be required to demonstrate reading, writing, and oral communication skills on at least the 12th. grade level.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

44. When reorganizing becomes necessary within the Virginia State Police, e.g. expanding the hierarchy of a local division headquarters which will result in new administrative positions, additional administrative duties, and a general restructuring of command, selected community members should be involved in the organizational process in an advisory capacity.
1. strongly agree
 2. agree
 3. don't know
 4. disagree
 5. strongly disagree

Now that you have completed the initial portion of this survey, would you please continue answering the remaining section dealing with personal information about yourself. This will allow me to determine the specific variables that are relevant to the above responses.

Personal Information:

45. Please circle the highest level of education that you have attained.

1. GED
2. high school diploma
3. associate of arts
4. associate of applied science
5. bachelor of arts
6. bachelor of science
7. master of arts
8. master of science
9. doctorate in education
10. doctorate in philosophy
11. other _____

46. If you have received a degree, please indicate what your **major** and **minor** field of study was, (e.g. criminal justice, business, education, etc.). If you have not received a degree, please go on to question 48.

1. Major: _____
2. Minor: _____

47. If you have received an undergraduate degree, (e.g. B.A. or B.S.) and are continuing your education toward a master's degree or doctorate degree, but have not completed the master's degree or doctorate degree, please indicate the number of credit hours you have completed in this endeavor as well as your major field of study.

1. number of hours completed toward your graduate or post-graduate degree _____
2. Major area of study _____

48. If you have had any military experience, please indicate which branch. (If this does not apply, go to question number 52.)

Branch of service:

1. Army
2. Navy
3. Air Force
4. Marine Corps
5. Coast Guard
6. Other _____

49. Length of military service: _____

50. What was your primary job in the military? _____

51. What was your highest rank attained, (e.g. E-4, O-3)? _____

52. Please list any **promotion(s)** you have received while serving with the Virginia State Police and the approximate date of you promotion(s).

Promotion(s)

Date(s)

53. Please list any **citations** or **awards** you have received while serving with the Virginia State Police.

54. Please list the approximate number of complaints, citizen and/or administrative, made against you since 1990. (This being a confidential research study, specifics are **not** required, only the approximate number.)

55. If you have had any prior law enforcement experience, please indicate the organization, length of employment, and type of duty.

1. Law enforcement organization _____ .
2. Length of employment _____ .
3. Type of duty(s), (e.g. patrol, vice, detective, etc.) _____ .

56. Please feel free to add any additional comments you may wish to make in the space below. You may use the back of this sheet if needed.

194

Thank you for taking the time to respond to this survey. Your honest and **rapid** response is greatly appreciated.

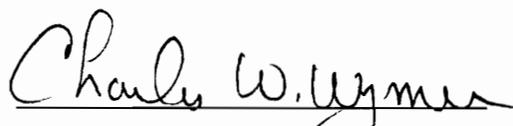
195
VITA

Charles William Wymer was born and reared in the beautiful mountains of Southwest Virginia. He is married to the former Nancy Carolyn King, who is a business teacher at Richlands High School. They resides in Richlands, Virginia, with their two sons, Matthew and Adam.

Following a four-year stint in the United States Navy, one year which was spent in Vietnam, Charles decided to pursue a career in criminal justice, specifically in law enforcement. He obtained a Bachelor of Science degree from East Tennessee State University in Criminal Justice and a Master of Science degree from Radford University in Criminal Justice Organization and Management. Charles' practical experience includes working as a deputy sheriff for the Sullivan County Tennessee Sheriff's Department and a patrol officer with the Richmond Bureau of Police, Richmond, Virginia.

After several years working as a police officer, Charles took a position as program head of the Administration of Justice Department with Southwest Virginia Community College, where he is currently employed. The Administration of Justice Department has approximately 200 full- and part-time students and offers degrees in Police Science and Wildlife Management and Enforcement. In addition, there are certificate and program specialities offered in security and corrections.

Charles holds membership in several professional and civic organizations. His outside interests include backpacking, hiking, camping, and travel.


Charles W. Wymer