

Olivet Nazarene University

## Digital Commons @ Olivet

---

Ed.D. Dissertations

School of Graduate and Continuing Studies

---

5-2011

### An Evaluation of the Chicago Police Department's Recruit Curriculum in Emergency Response Week Relating to Terrorism Awareness and Response to Terrorism Incidents

Mark T. Sedevic

*Olivet Nazarene University*, [msedevic@live.olivet.edu](mailto:msedevic@live.olivet.edu)

Follow this and additional works at: [https://digitalcommons.olivet.edu/edd\\_diss](https://digitalcommons.olivet.edu/edd_diss)



Part of the [Curriculum and Instruction Commons](#), and the [Law Enforcement and Corrections Commons](#)

---

#### Recommended Citation

Sedevic, Mark T., "An Evaluation of the Chicago Police Department's Recruit Curriculum in Emergency Response Week Relating to Terrorism Awareness and Response to Terrorism Incidents" (2011). *Ed.D. Dissertations*. 33.

[https://digitalcommons.olivet.edu/edd\\_diss/33](https://digitalcommons.olivet.edu/edd_diss/33)

This Dissertation is brought to you for free and open access by the School of Graduate and Continuing Studies at Digital Commons @ Olivet. It has been accepted for inclusion in Ed.D. Dissertations by an authorized administrator of Digital Commons @ Olivet. For more information, please contact [digitalcommons@olivet.edu](mailto:digitalcommons@olivet.edu).

AN EVALUATION OF THE CHICAGO POLICE DEPARTMENT'S RECRUIT  
CURRICULUM IN EMERGENCY RESPONSE WEEK RELATING TO TERRORISM  
AWARENESS AND RESPONSE TO TERRORISM INCIDENTS

by

Mark T. Sedevic

Dissertation

Submitted to the Faculty of

Olivet Nazarene University

School of Graduate and Continuing Studies

in Partial Fulfillment of the Requirements for

the Degree of

Doctor of Education

in

Ethical Leadership

May 2011

AN EVALUATION OF THE CHICAGO POLICE DEPARTMENT'S RECRUIT  
CURRICULUM IN EMERGENCY RESPONSE WEEK RELATING TO TERRORISM  
AWARENESS AND RESPONSE TO TERRORISM INCIDENTS

by

Mark T. Sedevic

Dissertation



Dissertation Adviser

May 4, 2011

Date



Dissertation Reader

5-4-2011

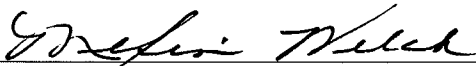
Date



Dissertation Coordinator

May 4, 2011

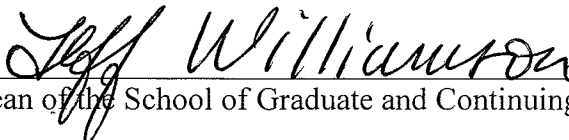
Date



Program Director

May 4, 2011

Date



Dean of the School of Graduate and Continuing Studies

6/6/11

Date



Vice President for Graduate and Continuing Education

6/13/11

Date

© 2011

Mark T. Sedevic

All Rights Reserved

## ACKNOWLEDGEMENTS

The journey towards a doctoral perspective would not have been possible without the help and support of many friends at Olivet Nazarene University. Dr. Stanton Tuttle, my dissertation advisor, challenged me from the beginning, kept me on target, and gave excellent advice that helped the dissertation to take on a life of its own. Dr. Brian Woodworth, my dissertation reader, gave critical insights and assistance throughout the entire journey. Dr. Melvin Welch, the program coordinator, was a source of emotional support and good humor during the best and worst times. Also, the members of Cohort II inspired me with their passion for education and dedication to servant leadership.

Special thanks need to be given to the members of the Chicago Police Department Education and Training Division for their approval and support of this project. Also, to all of the Chicago Police Department recruits who answered the questions on my survey instrument, your enthusiasm and participation in the study was appreciated greatly.

This dissertation could not have been possible without the loving support of my family. My mother and father gave their continual support in countless ways that can never be repaid. Additionally, my wife, Janel, sacrificed the most for me to attain this doctoral degree. Her loving patience, dedication, and encouragement helped make my dreams become a reality.

Above all, I would like to thank the almighty creator of our world, God, for assisting me in this endeavor and granting numerous blessings upon me.

## DEDICATION

This dissertation is dedicated to all of the men and women of the United States military and police departments nationwide. These individuals serve their country honorably and make sacrifices every day that adds to the overall security of our nation. Without their dedication to duty and acts of courage, the United States would not be the great and free nation that it is today. Freedom is not free.

Additionally, I would like to dedicate this dissertation to my two young daughters, Abigail and Allison. This dissertation is proof that Abigail and Allison can accomplish anything through hard work, dedication, and determination.

## ABSTRACT

by

Mark T. Sedevic, Ed.D.  
Olivet Nazarene University  
May 2011

Major Area: Ethical Leadership      Number of Words: 117

Police recruits need to be prepared the moment they graduate from the police academy for any type of situation, especially terrorism. This study examined whether the Emergency Response Week portion of the Chicago Police Department Recruit Academy curriculum was adequate and provided Chicago Police Department recruits with appropriate knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident. The results indicated that the Chicago Police Department recruit curriculum in Emergency Response Week was perceived as above adequate by Chicago Police Department recruits. Additionally, the Chicago Police Department recruits perceived their knowledge concerning terrorism awareness and their skill levels concerning responding to a terrorism incident as above adequate following completion of Emergency Response Week.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION .....	1
Statement of the Problem.....	4
Background .....	7
Research Questions .....	14
Description of Terms .....	14
Significance of the Study .....	17
Process to Accomplish.....	19
II. REVIEW OF THE LITERATURE .....	23
Introduction.....	23
History of Police Training .....	23
History of Police Training in Illinois .....	28
The Chicago Police Recruit Academy .....	30
Police Curriculum Studies .....	30
Disaster Preparedness Studies.....	50
Conclusion .....	57
III. METHODOLOGY .....	58
Introduction.....	58
Research Design.....	58
Population .....	62



Chapter .....	Page
Data Collection .....	66
Analytical Methods .....	71
Limitations .....	73
IV. FINDINGS AND CONCLUSIONS .....	75
Introduction .....	75
Findings .....	76
Conclusions .....	96
Implications and Recommendations .....	101
REFERENCES .....	106
APPENDIXES	
A. Appendix A .....	115
B. Appendix B .....	121
C. Appendix C .....	127
D. Appendix D .....	133
E. Appendix E .....	138
F. Appendix F .....	146
G. Appendix G .....	153
H. Appendix H .....	155
I. Appendix I .....	161

## LIST OF TABLES

Table	Page
1. Rating of the ER Week Courses .....	78
2. Rating of the ER Week Courses .....	80
3. Knowledge of Terrorism Awareness .....	84
4. Knowledge of Terrorism Awareness .....	86
5. Skill of Responding to a Terrorism Incident.....	90
6. Skill of Responding to a Terrorism Incident.....	92

## CHAPTER I

### INTRODUCTION

On the morning of September 11, 2001, a rookie police officer had just finished working the midnight shift for the Chicago Police Department. He was fatigued from the adrenaline rushing action of police work in the high crime area that he was working in, but needed to attend to his military obligation. Besides being a Chicago Police Officer, he was a citizen soldier in the Illinois Army National Guard and needed to report for his scheduled military duty. Upon arrival at the Army National Guard armory, he was given a simple administrative task to accomplish and thought the entire work day would be mundane and boring. He could never have been more wrong.

At 8:46 A.M., on September 11, 2001, American Airlines flight 11 crashed into the North Tower of the World Trade Center in New York City (Thompson, 2004). Shortly thereafter, a soldier alerted the rookie police officer, who was attending to his military obligation, and stated that a plane crashed into the World Trade Center and that the aftermath was being shown on television. The rookie police officer's first thought was to turn on the television, which he did, to discover exactly what was happening. His second thought was about the cause of the plane crashing into the World Trade Center. Was this event an accident or a deliberate act of evil?

At 9:03 A.M., on September 11, 2001, United Airlines flight 175 struck the World Trade Center South Tower (Wright, 2006). Once the second plane crashed into the World Trade Center, the whole world knew that the United States of America was under attack. As the rookie police officer sat in front of the television, with a gaping jaw and wide eyes, he felt helpless and terrified. He wanted to help the people in the World Trade Center Towers, but was instead sitting in an office in Chicago. Also, he was terrified about the idea of another attack and if Chicago would be the next target.

Then, the world watched as all of the other events of the day unfolded. American Airlines flight 77 crashed into the Pentagon and United Airlines flight 93 burst into flames in a Pennsylvania field (Combs, 2003). Desperate people jumped from the Twin Towers to escape the extreme heat and smoke, as both World Trade Center Towers collapsed, and weary, terrified bystanders on the New York City streets were left covered in debris. The terrorist attacks of September 11, 2001, killed 3047 innocent people, including 72 who were local, state, and federal law enforcement officers (U.S. Department of Justice, 2002).

The catastrophic events of September 11, 2001, changed the world as we knew it. Life would no longer be the same in any profession, city, state, or country. Many individuals were affected by the September 11<sup>th</sup> attacks physically, emotionally, cognitively, socially, and spiritually. Little did the rookie police officer know when he trudged into work on the morning of September 11, 2001, that the police profession would change drastically and that he would be sent overseas as part of Operation Enduring Freedom with the United States Army. Life was no longer simple for the rookie

police officer; it had become very complex. The rookie police officer and citizen soldier described in the previous paragraphs was me.

The September 11, 2001, terrorist attacks displayed law enforcement's critical role in preventing and responding to acts of terrorism. A major terrorist attack in the United States will require local law enforcement agencies to use their knowledge and skills to coordinate response efforts with agencies at the state and federal levels rapidly (Mosser, 2007). Law enforcement agencies must have knowledge and expertise in all phases of disaster management, including preparation, response, mitigation, and recovery (Haddow & Bullock, 2006). According to *The National Strategy for Homeland Security*, an effective response to a terrorist incident depends on being prepared, and the *Strategy* further states that response units must plan, equip, and train in order to mobilize without warning for any emergency (Office of the President of the United States, 2002).

Initial police training begins at the police academy. It is at the police academy where police recruits learn the basics about how to be an effective police officer. Police recruits take classes in criminal law, patrol procedures, control tactics, firearms, and many other courses that deal with becoming a police officer. Also, hands-on scenarios are conducted at the police academy in order for police recruits to take the knowledge gained in the classroom and apply it to real-world situations. If police agencies require officers to become proactive problem solvers, resource catalysts, and communicators, they need to instill this philosophy at the recruit level (Birzer, 1999). It is during the initial recruit training phase at the police academy where police recruits need to learn about terrorism and how to respond to a terrorism incident. A rookie police officer may have to deal with a terrorism incident on the first day of work after graduating from the police academy;

therefore, police recruits need to have knowledge of terrorism awareness and need to be able to respond to a terrorism incident.

Police recruits need to be prepared the moment they graduate from the police academy for any type of situation, especially terrorism. Feltes (2002) stated that in order to keep up with an ever-changing world, the police need to become more versatile, and to do so without losing sight of their core functions. According to the National Intelligence Council (2007), the United States will face a persistent and evolving terrorist threat over the next three years, with the main threat coming from radical Islamic terrorist groups. Further, the Council stated that terrorists are likely to continue to focus on prominent political, economic, and infrastructure targets with the goals of producing mass casualties, visually dramatic destruction, significant economic aftershocks, and fear among the United States population. Since the likelihood of another terrorist attack in the United States is great, police recruits need to have terrorism awareness and must be able to respond to a terrorist attack.

#### Statement of the Problem

Since its inception in 2006, the Emergency Response (ER) Week curriculum of the Chicago Police Department (CPD) Recruit Academy had never been evaluated. The ER Week curriculum was put together by a single individual with the intent to provide Chicago Police Department recruits with knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident. There was no way of knowing whether or not the ER Week curriculum of the Chicago Police Department Recruit Academy was adequate in providing Chicago Police Department recruits with knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident because the

curriculum had never been evaluated (M. Engstrom, personal communication, September 10, 2008).

In order to gain knowledge of terrorism awareness from the ER Week curriculum, Chicago Police Department recruits need to be familiar with multiple aspects of terrorism. The term terrorism has to be defined and it needs to be understood by police recruits. Weapons of mass destruction, such as chemical agents, biological agents, radiological materials, nuclear materials, and explosive devices need to be addressed. Different types of terrorist groups, such as state-sponsored, formalized, extremists, and single-issue groups have to be covered. Terrorist objectives, potential terrorist targets, and terrorist planning need to be studied. Also, suspicious objects that could be explosive devices need to be examined. All of the aforementioned topics would help Chicago Police Department recruits to gain knowledge of terrorism awareness (Louisiana State University, Center for Domestic Preparedness, Texas A & M University & New Mexico Institute of Mining and Technology, 2004; United States Department of Homeland Security, 2004; New Mexico Institute of Mining and Technology Energetic Materials Research and Testing Center, 2006a).

In order to gain the skills necessary to respond to a terrorism incident from the ER Week curriculum, Chicago Police Department recruits have to be exposed to multiple terrorist incidents. Police recruits need to identify signs of a suspicious incident and implement appropriate self-protective measures during a hazardous materials situation. Controlling a disaster scene, evacuation procedures, and using the North American Emergency Response Guidebook (ERG) are critical to successful terrorism response. Responding to a bomb threat and dealing with persons wearing an explosive device are

important to police incident response. Also, handling an active shooter in a public venue and rendering aid to injured persons are crucial skills to obtain. All of the aforementioned skills are necessary in order for Chicago Police Department recruits to obtain an effective, successful response to a terrorism incident (Louisiana State University et al., 2004; United States Department of Homeland Security, 2004; New Mexico Institute of Mining and Technology Energetic Materials Research and Testing Center, 2006a).

Researchers have stated that police training curricula were designed and implemented mostly by subjective decisions and that police training academies should evaluate their curricula on a continual basis (Stroupe, 2003; Talley, 1986). Police academies exercise considerable latitude over the content, techniques, and instructional methods of their own programs, so police academy curricula needs to be evaluated and studied (Morrison, 2006; Talley). Previous studies have found that while law enforcement plays a critical role in preventing, deterring, and responding to terrorist acts, state and local law enforcement agencies throughout the United States have not been prepared to address terrorism (Davis et al., 2004; Riley & Hoffman, 1995).

Although there has never been a study conducted addressing the Chicago Police Department Recruit Academy curriculum as a whole, there have been numerous studies conducted by researchers in other states examining police recruit curriculum as a whole and the knowledge obtained and usefulness of the information given. This study was unique in that it focused on the Chicago Police Department Recruit Academy curriculum in Emergency Response Week and how the ER Week curriculum related to terrorism awareness and response to terrorism incidents, and not the general Chicago Police Department Recruit Academy training.



This study examined whether the Emergency Response (ER) Week portion of the Chicago Police Department (CPD) Recruit Academy Curriculum was adequate and provided CPD recruits with appropriate knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident.

### Background

In order to understand the research problem fully, prior research needed to be examined concerning police curricula and terrorism preparedness. There have been some police curricula studies over the past 25 years, but not many police preparation-for-terrorism studies. Additionally, numerous terrorist incidents needed to be highlighted to show the importance of this study. Also, an introduction to the CPD Recruit Academy's ER Week curriculum will be given.

Talley (1986) stated that basic police academy curricula were vulnerable to becoming outdated, unrealistic, and ineffective if not evaluated on a continual basis. Talley evaluated the Oakland Police Academy (OPA) basic training program in Oakland, MI. The author found that the OPA curriculum effectively prepared police officers to perform a majority of entry-level job tasks adequately, but graduates responded that they were not adequately prepared for approximately 34 percent of the important job-tasks officers may have to perform.

Ness (1991) investigated the Illinois Minimum Standards Basic Law Enforcement Training Course in order to extend previously developed methodology on how well training and the curriculum prepared police recruits to perform individual police tasks after graduation. Ness' findings indicated that, overall, the recruits felt the police academy adequately prepared them to perform police tasks. However, training for a

majority of the tasks and task training groups was rated less than adequate, which indicated a need for a task analysis study of a police officer's work.

Brand and Peak (1995) conducted a study in Nevada about police academy graduates' perceptions of the general usefulness of the instruction at the police academy and their comprehension of material in preparation for Nevada police certification examinations. Although the respondents provided an above-average rating to the academy training overall, more than half of the respondents requested additional areas of instruction. Yet the respondents felt they were prepared to take the Nevada police examination.

Morrison (2006) conducted a study to examine the perceptions of police departments and instructors in the state of Washington regarding academy-based pre-service firearm and deadly force training. Morrison found that academy graduates' skills concerning deadly force program outcomes were generally rated as adequate. The skills of general gun handling, marksmanship, drawing the handgun, and maintenance of the handgun received above adequate ratings. The skills that needed some attention were tactics and judgment, combat shooting techniques, and shotgun training.

Mosser (2007) stated that little research had been conducted concerning the preparedness of law enforcement against terrorism. A survey was administered to municipal and county law enforcement chiefs in the state of Florida to explore their agency's preparedness against terrorism. Overall, Florida law enforcement agencies were rated at 33 percent prepared to deal with a terrorism incident.

In the past 20 years, there have been numerous catastrophic terrorist attacks around the world. Many of these terrorist attacks have caused mass casualties and

injuries, critical infrastructure damage, and psychological stress upon the population in the attacked area. A terrorist attack is a horrible act of violence perpetrated by an individual or group of individuals that intends to coerce a civilian population, influence a governmental policy, or affect the conduct of a government (Louisiana State University et al., 2004). Some examples of terrorist attacks will be discussed in the following paragraphs.

On March 20, 1995, members of a religious sect in Japan, called Aum Shinrikyo, released sarin nerve gas in the Tokyo subway system. The members of Aum Shinrikyo placed five packages containing liquid sarin on five different subway trains. The packages were punctured by umbrellas with sharp tips, thus spreading out the sarin vapors. A total of 11 persons were killed and approximately 3500 were injured because of the sarin nerve gas attack on the Tokyo subway system (United States Department of Homeland Security, 2004).

On April 19, 1995, a large Ryder truck, containing approximately 4800 pounds of ammonium nitrate fuel oil (ANFO), which is an explosive material, detonated while parked alongside the Alfred P. Murrah Federal Building in Oklahoma City, Oklahoma. There were 168 persons killed and approximately 700 persons injured because of the blast. The explosion destroyed the Murrah Federal Building and other structures in the surrounding area. Timothy McVeigh, Terry Nichols, and Michael Fortier were all tried and convicted because of their roles in the Oklahoma City bombing. (New Mexico Institute of Mining and Technology Energetic Materials Research and Testing Center, 2006a).

On September 1, 2004, a group of armed rebels took more than 1100 persons hostage at Middle School Number One in Beslan, Russia. The hostage situation lasted three days until Russian security forces stormed the school using tanks and multiple heavy weapons (Dorn & Dorn, 2005). At least 334 hostages were killed in the Beslan school tragedy and over 1200 persons were injured. Of the 334 hostages who were killed, 186 were school children (Giduck, 2005).

Considering the intensity and violent nature of the aforementioned terrorist attacks, warriors are needed who are willing to confront terrorism and such warriors can be produced through training (Grossman & Christensen, 2004). The men and women who serve and protect our citizens while serving on our police forces are the front line warriors who need to combat and respond to terrorism. The 9/11 Commission (2004) recommended that future planning and preparations against terrorism begin at the local levels because local governments exercise the primary authority for protecting the people and property. Therefore, police recruits need to be properly trained in order to prevent and respond to terrorism incidents.

In 2006, the CPD Recruit Academy implemented a new program and called it "Emergency Response (ER) Week." ER Week was developed in response to numerous terrorist attacks around the globe and the growing threat of terrorism to the city of Chicago (D. Shaw, personal communication, September 10, 2008). In 2007, Chicago attracted over 46 million domestic and international visitors because of its many attractions, such as 54 museums, over 200 theatres, 15 miles of bathing beaches, and some of the world's tallest buildings (Visitor Impact, 2008). Also, the city of Chicago contains numerous critical infrastructures, has a population of almost three million, and is

home to a countless number of dignitaries. The CPD Recruit Academy established ER Week because every large metropolitan city in the world is currently a target for a terrorist attack.

The CPD Recruit Academy's curriculum, during ER Week, covers a wide range of courses to help the CPD recruits get acquainted with subjects concerning terrorism and emergency response. According to the CPD Education and Training Division (2008b), the following courses are covered during ER Week at the CPD Recruit Academy.

1. Critical Incident Response – This course identifies disaster scenes and outlines the responsibilities of the recruits at disaster scenes. Also, it warns recruits of the hazards associated with disaster scenes and emphasizes team work between all first responders.
2. The Active Shooter Incident Plan – This class covers the CPD policy to be utilized in response to any violent incident where an armed assailant has remained at or near a location, like a school or shopping mall, and continues to present a threat to the safety of the citizens.
3. Introduction to the Chicago Fire Department (CFD) – This segment of training introduces recruits to the CFD's protocols and responses to a wide variety of calls for service. The different roles of police and fire personnel are discussed relative to responding to scenes and the manner in which police officers can be the greatest assistance to CFD units responding to calls for service.
4. Introduction to the CPD Special Weapons and Tactics Team (SWAT) – The recruits are instructed on the duties and responsibilities of the patrol officer when encountering a SWAT incident during this course.

5. Introduction to the CPD Critical Incident Response Team (CIRT) – This class introduces recruits to the functions and responsibilities of the CIRT. The course also explains what weapons of mass destruction (WMD) are and when a recruit needs to notify the CIRT.
6. Personal and Family Preparedness – This course identifies how recruits can ensure their families and themselves are ready for any type of disaster. This segment of training also describes disaster plans and disaster supply kits.
7. Hazardous Materials – This course examines the procedures and responsibilities involved in the production, storage, transportation, and disposal of toxic wastes and materials. The hazards of exposure to the police and public, as well as prevention and treatment, are discussed.
8. Crowd Behavior and Control – This block of instruction analyzes different types of crowds, informs recruits of legal issues concerning crowds, introduces crowd control formations, and helps the recruits become familiar with gas masks.
9. Midwest Disasters – This segment of training familiarizes the recruits with natural disasters that occur in the Midwestern portion of the United States.
10. Homeland Security Orientation – The recruits are made aware of the Homeland Security Advisory System, the Illinois terrorism law, the sensitivity of arresting foreign nationals, and common types of bombs during this course.
11. Terrorism Detection for Law Enforcement – This class is designed to introduce the recruits to different terrorist groups, terrorist goals, terrorist targets, and terrorist activities.

12. Introduction to the CPD Bomb and Arson Section – This course familiarizes recruits with the components of bombs, how recruits need to respond to a bombing incident, and describes the CPD policy on evacuations.
13. Incident Command System (ICS) IS-100 – This course is required by the United States Federal Government and describes the history, features, principles, and organizational structure of the Incident Command System.
14. The National Incident Management System (NIMS) IS-700 – This class is required by the United States Federal Government and shows recruits how NIMS provides a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work together during domestic incidents.

Of the 14 courses mentioned, only three of the courses in ER Week are mandated by the Illinois Law Enforcement Training and Standards Board (ILETSB). The three courses required by the ILETSB are Hazardous Materials, Crowd Behavior and Control, and Homeland Security Orientation (ILETSB, 2007). The remaining courses in ER Week were developed by the CPD Education and Training Division staff.

As society continues to move, it will place more demands on police agencies at every level to ensure national safety and security. Police officers now have the added responsibility of training for and dealing with homeland security issues (Phillips, 2005). Considering all the factors involved, including both state and federal law and mandates, the CPD recruits need to be trained on terrorism awareness and how to respond to a terrorism incident with the proper police recruit curriculum. Our way of life and our lives may depend on training the CPD recruits receive at the CPD Recruit Academy.

## Research Questions

The study was guided by the following research questions:

1. How was the CPD recruit curriculum in Emergency Response Week perceived by CPD recruits?
2. How did CPD recruits perceive their knowledge concerning terrorism awareness following completion of Emergency Response Week given at the CPD Recruit Academy?
3. How did CPD recruits perceive their skill levels concerning responding to a terrorism incident following completion of Emergency Response Week given at the CPD Recruit Academy?
4. What improvements should be made to the CPD recruit curriculum in Emergency Response Week?

## Description of Terms

*Assistant Deputy Superintendent (ADS).* An appointed rank that is the head of the Education and Training Division of the Chicago Police Department. An ADS directs the resources of the Education and Training Division of the Chicago Police Department and represents the CPD Superintendent on the Illinois Law Enforcement Training and Standards Board (ILETSB) (Chicago Police Department Education and Training Division, 2008a).

*Control Tactics.* Instruction of self defense and the physical control of others (Chicago Police Department Education and Training Division, 2008b).

*Critical Infrastructures.* Things essential to a society such as telecommunications, electrical power, oil production facilities, gas storage sites, banking and financial



institutions, transportation systems, water supply systems, emergency services, and government operations (United States Department of Homeland Security, 2004).

*Emergency Response (ER) Week.* A weeklong training program given to CPD Academy recruits with the intention of giving the CPD Academy recruits the knowledge of terrorism awareness and the skills to be able to respond to a critical incident such as a terrorist attack (Chicago Police Department Education and Training Division, 2008b).

*Illinois Law Enforcement Training and Standards Board (ILETSB).* The Illinois agency mandated to promote and maintain a high level of professional standards for law enforcement and correctional officers. The Responsibilities of the ILETSB include developing and providing quality training and education, setting standards, aiding in the establishment of adequate training facilities, and providing financial assistance (Illinois Law Enforcement Training and Standards Board, 2007).

*In-Service Training.* Training designed for a police officer who has graduated from a police academy and is working for a police department (Morrison, 2006).

*Police Academy.* Any teaching facility that educates and trains police recruits and police officers (Renahan, 2005).

*Police Officer.* An individual who has successfully completed a training curriculum of a police academy and actively works as a police officer. Also, police officers conduct the frontline work of a police department (Poradzisz, 2004).

*Recruit.* A new police hire who attends the police academy and has not yet graduated from the police academy (Poradzisz, 2004).

*Recruit Academy Instructor.* Any individual given authority to teach police recruits at a police academy (Illinois Law Enforcement Training and Standards Board, 2007).

*Student Performance Objective (SPO).* A term used by the State of Illinois to mandate the content that recruits should know from the basic Illinois prescribed training curricula (Illinois Law Enforcement Training and Standards Board, 2007).

*Terrorism.* An act that is dangerous to human life or potentially destructive to critical infrastructures or resources and is a violation of criminal law. This act also intends to coerce or intimidate a civilian population, or influence governmental policy, or affect the actions of a government (Louisiana State University et al., 2004).

*Terrorism Awareness.* A general awareness of the many aspects of terrorism such as weapons of mass destruction, different terrorist groups, terrorist objectives, terrorist targets, terrorist planning, and suspicious objects (Louisiana State University et al., 2004).

*Terrorism Awareness and Response Academy (TARA).* An in-service training program taught by CPD in-service instructors that bestows knowledge upon CPD Police Officers in terrorism awareness and response to terrorism incidents.

*Terrorism Awareness and Response Academy (TARA) Instructor.* An in-service instructor who teaches for the CPD TARA program and is certified to teach numerous Federal terrorism courses.

*Terrorist.* A person or group of persons who conspire to commit or commit an act of terrorism (McDermott, 2005).

*Superintendent.* The overall head of the Chicago Police Department (Ward, 2000).

*Weapons of Mass Destruction.* Weapons that have the power to cause mass casualties such as chemical agents, biological agents, radiological materials, nuclear weapons, and explosive devices (United States Department of Homeland Security, 2004).

### Significance

There are many stakeholders who may want to see the results of this research. The stakeholders who may be interested in this study are the citizens of Chicago, the managers of the CPD, the mayor of Chicago, the CPD Recruit Academy instructors, the CPD recruits, and other police agencies.

First and foremost, the citizens of the city of Chicago may want to see the results of this study. When Sir Robert Peel created the London Metropolitan Police, he purposely created the force to be a democratic body that drew its authority from the people (Critchley, 1972). The Chicago Police are empowered by and work for the people of Chicago. The residents of the city of Chicago may want to know whether or not the CPD Recruit Academy is providing the education and training necessary for CPD recruits to gain knowledge of terrorism awareness and the skills necessary to respond to a terrorist attack. The citizens of Chicago need the police in times of crisis and the residents may want to know if the CPD would be ready when the citizenry needed their help, advice, and expertise.

The managers within the CPD wanted to examine the results of this research. The President's Commission on Law Enforcement and Administration of Justice (1967) recommended that large police departments conduct operations research within their

organization. Operations research means a systematic, method-oriented, basic inquiry into the structure, characteristics, functions, and relationships of an organization (Fyfe, Greene, Walsh, Wilson, & McLaren, 1997). Therefore, the managers of the CPD wanted to review the results of this study and make modifications to ER Week, if necessary, to accommodate changes in need. Basically, the managers of the CPD needed to know what was working, what was not working, and what could be improved in ER Week at the CPD Recruit Academy.

The mayor of the city of Chicago is a stakeholder and wanted to analyze the results of this study. The mayor appoints the Superintendent to lead the Chicago Police Department. If a CPD program excels or fails, the credit or blame is normally given to the CPD Superintendent by the public. Because the Superintendent is appointed by the mayor, the mayor usually receives credit or blame along with the CPD Superintendent. The importance of this study for the mayor of Chicago is that the success or failure of ER Week can be attributed to the mayor and influence the citizens' opinions of the mayor.

The CPD Recruit Academy instructors benefitted from this ER Week study. The CPD Recruit Academy instructors looked at the benefits and drawbacks of the curriculum in ER Week and are now able to revise the ER Week curriculum based upon the data provided by this study. The CPD Recruit Academy instructors can have peace of mind that they are properly training CPD recruits in terrorism awareness and responding to terrorism incidents.

The CPD recruits expressed interest in the results of this study. The CPD recruits may look at the results of this study and realize that they received adequate training concerning terrorism awareness and responding to a terrorism incident. The CPD recruits

may have confidence in their abilities because they know they were trained well at the CPD Recruit Academy. Also, CPD recruits can sleep well at night knowing that the CPD is well prepared to deal with a terrorism incident.

Finally, this study will add to the limited literature concerning police curriculum studies. Police curriculum and training studies are a growing field, but need to be expanded upon. With this expansion, police agencies around the world can review the data collected and conduct their own studies to build upon this study. Also, other police agencies can use this study's results to model their agencies after the CPD and its ER Week curriculum or modify their recruit curriculum to conform to their agency's needs.

#### Process to Accomplish

Descriptive research with a non-experimental fixed design was conducted because dealing with things as they are has the advantage of not disturbing what the researcher is interested in (Robson, 2002). This study was quantitative because survey research was conducted. Survey research involves acquiring information about one or more groups of people by asking them questions on a questionnaire and tabulating their answers using statistical indexes to draw inferences about a particular population (Leedy & Ormrod, 2005).

This study surveyed CPD recruits from the CPD Recruit Academy within one week after the CPD recruits completed ER Week at the CPD Recruit Academy. This study evaluated the attitudes of the CPD recruits about the curriculum in ER Week from the CPD Recruit Academy and if the curriculum in ER Week provided CPD recruits with knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident.

The survey instrument used in this study was developed by the author. Once the questionnaire was designed, an expert panel examined the questionnaire for content validity and reliability. The expert panel consisted of members of the Terrorism Awareness and Response Academy (TARA) of the Chicago Police Department. TARA members teach in-service courses relating to terrorism awareness and response for the Chicago Police Academy. After revisions were made to the survey instrument based upon the TARA members' recommendations, the questionnaire was pilot-tested. The questionnaire was pilot-tested to sort out technical matters concerning methods of data collection and to ensure the researcher was on the right track conceptually (Robson, 2002). After the pilot test, the questionnaire was ready to be used in my study.

The first research question in this study was, "How was the CPD recruit curriculum in ER Week perceived by CPD recruits?" This question elicited information from the CPD recruits about their attitudes concerning the courses given during ER Week at the CPD Recruit Academy. A Likert-type scale was used in the questionnaire to measure the attitudes of the CPD recruits for each individual class given during ER Week. Numbers were assigned to the Likert-type scale responses for coding and analysis. This question strived to examine the satisfaction of the CPD recruits concerning every class presented at the CPD Recruit Academy during ER Week.

The second research question in this study was, "How did CPD recruits perceive their knowledge concerning terrorism awareness following completion of Emergency Response Week given at the CPD Recruit Academy?" This question was answered by a series of sub-questions that were analyzed after tabulating the Likert-type scale responses on the questionnaire. Numbers were assigned to the Likert-type scale responses for

coding and analysis. Having numerous sub-questions was a form of triangulation because each response told something about the respondent's attitude (Robson, 2002).

The third research question in this study was, "How did CPD recruits perceive their skill levels concerning responding to a terrorism incident following completion of Emergency Response Week given at the CPD Recruit Academy?" Like the second question, this question was answered by a series of sub-questions that were analyzed after tabulating the Likert-type scale responses on the questionnaire. Numbers were assigned to the Likert-type scale responses for coding and analysis. This question elicited information from the CPD recruits about their attitudes of their skills acquired during ER Week at the CPD Recruit Academy.

The fourth research question in this study was, "What improvements should be made to the CPD recruit curriculum in Emergency Response Week?" This question was asked in order to receive responses that could inform potential changes in the CPD recruit curriculum in ER Week. Multiple sources of data were collected with the intention that they would converge to support triangulation (Leedy & Ormrod, 2005). This one open-ended question was asked and the coding of the open-ended question responses involved combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002). An additional open-ended sub-question was asked in order to solicit further information on the strengths of the curriculum in ER Week. The additional sub-question was, "What was done well concerning the CPD recruit curriculum in ER Week?" The sub-question responses were also coded and examined for emerging themes by combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002).

The study surveyed whole CPD recruit classes that were in the CPD Recruit Academy and took the courses in ER Week. The researcher received permission from the Chicago Police Department before distributing the survey to the CPD recruits. The sample was a purposive sample because the intent of the research was to examine the CPD recruits' attitudes for a purpose. The survey was distributed to whole CPD recruit classes during the first hour of the CPD Recruit Academy work day. The CPD recruits were advised that the survey was optional and that their individual identities would remain anonymous. This survey was not administered to recruit instructors at the CPD Academy because only a limited number of CPD recruit instructors taught the classes during ER Week.

A terrorism attack would force our nation's police officers to confront enormously challenging circumstances and extreme tactical hurdles. Police officers must prepare to deal with factors that are not normally part of everyday police work, no matter how terrible or difficult (Giduck, 2005). The CPD Recruit Academy curriculum, during ER Week, strove to provide CPD recruits with the necessary tools to have terrorism awareness and respond to a terrorism incident.

In order to understand the present fully and prepare for the future, there needs to be a strong grasp of the past. The next chapter will look at the history of police training, prior police academy curricula studies, and previous police disaster preparedness studies. After analyzing all of this information, a clearer picture of the basis for this study will evolve.



## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

This chapter will identify previous literature on police training and review research on police training programs. First, the history of police training will be explored and the individuals who left a legacy on police training will be mentioned. Second, police academy curriculum studies will be discussed in order to see the progression of these studies and what has been discovered thus far about police academy curricula. Lastly, disaster preparedness studies will be examined in order to gain a foundational background on police terrorism awareness and response to terrorism incidents.

#### History of Police Training

History has made scant reference to training issues concerning police officers in Colonial America. However, it was evident that there was awareness for the need to provide some type of training for police officers (Walling, 2007). Boone (1710) wrote a manual designed to help new police officers understand the demands of their profession and the need for training. Also, Benjamin Franklin was an advocate for police training and inspired Philadelphia to pass a law that called for educating police officers to create a sufficient watch (Bridenbaugh, 1938).

In 1829, Sir Robert Peel formed the first modern police department in England, the Metropolitan Police of London. Peel advocated for a professionally trained police force that would prevent crime and maintain order through preventive patrol. Peel's Metropolitan Police of London would eventually become the model for future American municipal police forces (Fyfe et al., 1997; Schmallegger, 1999).

The need for formal training of police officers became evident in the late 1800s in the United States. Walling (1887) called for a School of Department, where police officers would learn decorum and how to wear the uniform. Roe (1890) advocated for formal training of the Cincinnati Police Department to produce physically and mentally fit police officers. Additionally, Seavey (1895) discussed the benefits of disciplining and training police officers uniformly throughout the country so that America could have a formidable army at a moment's notice.

There were influential police executives in the early 20<sup>th</sup> century who believed in the idea of police professionalism and that professionalism could be attained through training. With this belief, cities such as New York, Cincinnati, Berkeley, Chicago, and Philadelphia were the first to establish police training schools in the early 1900s. Around 1900, the typical police officer in a large urban area participated in some amount of classroom education which was supplemented by on-the-job "street" instruction (Morrison, 1995).

August Vollmer, known as the father of modern professional policing in the United States, was the most influential police executive in the early 20<sup>th</sup> century. In 1905, Vollmer became head of the Berkeley Police Department in California and initiated a formal school for his officers in 1908 (Deakin, 1988). Vollmer conducted academic

studies in his police academy, but focused mainly on technical training for routine and investigative police work (Regents of the University of California, 1972). He was the first police administrator to suggest that police officers should have a college degree and, accordingly, Vollmer recruited many university students into the Berkeley Police Department. Also, Vollmer helped to establish the first university-level police science program in the United States at the University of California at Berkeley in 1916 (Fyfe et al., 1997).

By the 1930s, the police profession had deteriorated to a horrible state because of police brutality and corruption. Many crime commissions at the local, state, and federal levels found American police organizations to be inept (Walling, 2007). For example, the National Commission on Law Observance and Enforcement (1931), also called the Wickersham Commission, found that police departments were generally deficient and poorly run. This Commission also noted that no intensive effort was made to educate, train, and discipline officers, or to eliminate those officers shown to be incompetent. The Wickersham Commission undertook the first federal assessment of law enforcement agencies in the United States (Vila & Morris, 1999). Something needed to be done about the state of policing in the United States.

Some police reformers in the 1930s believed that the police profession could be rectified through better formal training. In turn, many state and local police agencies established their own training programs in order to improve their agencies (Bopp & Schultz, 1972). During this time, the most prominent police training program was the National Academy, run by the Federal Bureau of Investigation (FBI). The National Academy opened in 1935 and offered extensive instruction to the best officers from local

and state law enforcement agencies nationwide (Fogelson, 1977). Also, O.W. Wilson's police academy in Wichita, Kansas exemplified the professional model of policing in the 1930s. Wilson was a believer in strong managerial control, rigid hierarchical organizational structures, and operational efficiency. Wilson's police academy had a stringent curriculum and he also administered a series of psychological tests to his police officers in order to find out who his best officers were. Wilson instituted a semi-military atmosphere, stressed integrity, and talked about positive community relations in his police academy (Ward, 2000).

Even though there were pioneers, like Vollmer and Wilson, who believed in police education and training, there were still few changes in police education and training until the 1960s. The majority of police departments did little to train their police officers to any type of standard, if they trained their officers at all. The stereotype of the "dumb or corrupt cop" was consistently reinforced (Johnson, 1983).

In the 1960s and 1970s, the American people experienced a period of extreme social unrest and change that involved the civil rights and anti-Vietnam war movements, increases in crime, and the rise of fears in the general population. The civil rights and anti-war movements directly challenged the legitimacy of the police and the tactics used by them (Fyfe et al., 1997). The increase in the crime rate was dramatic for violent personal crimes, crimes that the general public feared most. For example, the robbery rate almost tripled between 1960 and 1970 (Uchida, 1993). The police profession entered a period of crisis and self-examination that started the social reconstruction of American policing (Bayley, 1986).

In response to the issues of the 1960s and 1970s, many commissions and programs were instituted to upgrade policing in America. President Lyndon Johnson's 1965 Crime Commission established a task force to study police training in the United States. In 1967, the commission made numerous recommendations for police agencies. The recommendations were to (a) establish minimum selection standards, (b) establish minimum standards for training, (c) certify police officers, (d) conduct research designed to improve the police profession, (e) perform inspections to determine compliance, and (f) provide funds to aid in training (President's Commission on Law Enforcement and Administration of Justice, 1967). President Johnson also formed the National Advisory Commission on Civil Disorders in order to explain the rioting that was taking place in many cities in the United States during the summer of 1967 (American Social History Productions, 2006). The Report of the National Advisory Commission on Civil Disorders (1968), which is also known as the Kerner Commission, stated that African Americans felt that the police expressed racism to the African American community through brutality and a double standard of justice. Then, the Safe Streets Act of 1968 provided changes to the police profession through federal government assistance to both state and local police agencies in order to upgrade police training programs (Foote, 1973). Finally, the National Advisory Commission on Criminal Justice Standards and Goals (1973) recommended that police training program development include the identification of specific objectives and instructional methods. The aforementioned were the most influential developments to bring about change in police training in the 1960s and 1970s.

In the 1980s and 1990s, community-oriented policing programs were started and emphasis in training was placed on working with the community to solve neighborhood

problems. Foot patrols were brought back to communities because studies showed that they contributed to the quality of community life, reduced fear, increased citizen satisfaction with the police, and increased officer morale (Trojanowicz & Bucqueroux, 1990). Community policing is still in place today and is one of the many initiatives that help the police to prevent and solve crime.

#### History of Police Training in Illinois

On August 18, 1965, the *Illinois Police Training Act* was approved by the Governor of Illinois, and the Illinois Local Governmental Law Enforcement Officers Training Board (ILGLEOTB) was established, which would later become the Illinois Law Enforcement Training and Standards Board (ILETSB). The ILGLEOTB was given the responsibility of establishing and certifying training programs for police recruits from local law enforcement agencies (Johnson, 1983). Also, the Illinois Police Training Act established a voluntary 160-hour police recruit training program. The Act tried to entice police departments to participate in training police recruits by offering police departments 50 percent of the total training costs to train new police recruits.

In 1968, a full-scale study was conducted on police education and training in Illinois, through the request of O.W. Wilson, who by this time was serving as superintendent of the Chicago Police Department. The study determined that the major weakness of police recruit training in Illinois was the voluntary nature of the program. There were not enough police officers being trained and the 160-hour voluntary recruit course was found to be inadequate. Further, the study concluded that voluntary police training needed to be eliminated and that mandatory police training was a necessity (Public Administration Service of Chicago, 1968).

In the 1970s and 1980s, police recruit training in Illinois experienced several major changes. On January 1, 1970, the ILGLEOTB expanded the length of the basic recruit training curriculum to 240 hours. At first, the curriculum was an expansion of curriculum already in place, but then more emphasis was placed on performance and practical exercises as time went on. In 1976, mandatory police recruit training in Illinois became a reality, but all full-time police officers working for police departments in 1976 were “grandfathered” under the law. This meant that those police officers who never participated in police recruit training did not have to complete the required training and would still be police officers (S. Albright, personal communication, August 25, 2008). In 1982, the Illinois police recruit training curriculum was increased to 400 hours after an extensive task analysis that took two years to complete (Johnson, 1983). Additionally, the Illinois State Certification Exam for police officers was established in 1984 (S. Albright, personal communication, August 25, 2008). Illinois dramatically upgraded their police recruit training in the 1970s and 1980s.

Currently, the state of Illinois mandates that a minimum of 400 hours of instruction be given to police recruits at police recruit academies. The ILETSB is in charge of setting standards for police training, evaluating the state curriculum every two to three years, certifying law enforcement instructors, certifying police recruits to become police officers, and conducting research on police training issues (Illinois Law Enforcement Training and Standards Board, 2008). The ILETSB is the entity that controls all police training in the state of Illinois.

## The Chicago Police Recruit Academy

The Chicago Police Department (CPD) Recruit Academy is a paramilitary academy that conducts over 1000 hours of instruction for each CPD recruit. The CPD Recruit Academy delivers the mandated 400 hours of instruction by the state of Illinois, but also conducts over 600 additional hours of instruction for its police recruits. The CPD Recruit Academy prepares CPD recruits mentally and physically for police work and instills the CPD core values into the CPD recruits. The core values of the CPD are professionalism, obligation, leadership, integrity, courage, and excellence (Chicago Police Department Education and Training Division, 2008a).

## Police Curriculum Studies

Fullerton (1983) noted that there were numerous changes to the police recruit curriculum at the Indiana University of Pennsylvania (IUP) part-time municipal police academy in the early 1980s because of a mandate by the state of Pennsylvania to have better-trained police officers. The changes that were made to the IUP curriculum, according to Fullerton, were put together in an unorganized fashion because a needs assessment was never conducted. The researcher wanted to know if the graduates of the IUP part-time municipal police academy perceived the IUP police curriculum as effective or ineffective pertaining to on-the-job competence. Also, Fullerton wanted the graduates to answer the following:

Whether or not they acquired the necessary police skills from training in the IUP Police Academy; if they had acquired the necessary police skills, at what level of skill they perceived themselves as performing both at graduation and the present



time; and the value of the skills to each of the police officers in their present police positions. (p. 6)

Fullerton (1983) developed his own questionnaire and surveyed 375 graduates of the IUP Police Academy. The graduates perceived that they acquired the abilities to determine probable cause, evaluate crime scenes, call for assistance, and search people effectively at the IUP Police Academy. The graduates perceived that they gained their knowledge of firearms and report writing elsewhere, prior to attending the IUP Police Academy. Also, the graduates of the IUP Police Academy felt that they did not receive adequate training on how to deal effectively with a hostage situation, investigate forgery and fraud, and understand the basics of a crime lab report.

Talley (1986) observed a problem with basic police academy curricula. Talley indicated that basic police academy curricula were vulnerable to becoming outdated, unrealistic, and ineffective if not evaluated on a continual basis. Also, Talley stated that police academy curricula needed to be studied more closely because of the rapid changes that take place within the police occupation and the large amount of subjectivity that goes into writing police academy curricula. Talley evaluated the Oakland Police Academy (OPA) basic training program in Oakland, Michigan, in order to identify and prioritize curriculum deficiencies to facilitate program improvement.

The research questions that Talley (1986) examined were:

1. “Does the OPA curriculum, in reality, effectively prepare police officers to adequately perform important entry-level job-tasks?” (pp. 113-114).

2. “Which job-tasks are addressed by the curriculum more or less effectively than other job-tasks for the purpose of determining which tasks need additional curriculum attention and consideration?” (p. 114).
3. “What recommendations can be suggested by OPA graduates concerning how the OPA curriculum can be improved for the purpose of increasing the training programs effectiveness to adequately prepare recruits for realistic police work?” (p. 114).

After serving as police officers on the street for one to two years, the OPA graduates were mailed a task inventory instrument that requested evaluative measures regarding the police officers’ attitudes concerning the adequacy of the training they received at the OPA. The results showed that the OPA curriculum effectively prepared police officers to perform a majority of entry-level job tasks adequately. However, for approximately 34 percent of the important job-tasks officers may have to perform, graduates responded that they were not adequately prepared to do them (Talley, 1986).

The study conducted by Talley was one of the first police academy curriculum studies and made a large contribution to this area of research. Its limitations were that it only surveyed the graduates of the OPA. It did not take instructors or their teaching methods into account, and the questions were limited to the OPA basic training program. This study made a large contribution to the area of police curriculum studies because it showed other police academies that their curriculum also needed to be assessed in order to discern if recruits were receiving the education and training the recruits needed for effective police work.

Ness (1991) investigated the Illinois Minimum Standards Basic Law Enforcement Training Course in order to extend previously developed methodology on how well training and the curriculum prepared police recruits to perform individual police tasks after graduation. The population included all police recruits who had completed the mandated Illinois Minimum Standards Basic Law Enforcement Training Course given at the five certified Illinois training academies from January 1, 1986 to June 30, 1987. The five certified Illinois training academies were the Police Training Institute, Chicago Police Academy, Cook County Sheriff's Police Academy, Illinois State Police Academy, and Belleville Area College Academy. Respondents were mailed a task-inventory instrument on January 1, 1988, that asked the police officers to rate the adequacy of the training they received at their respective Illinois police academy.

The findings indicated that, overall, the recruits felt their police academy adequately prepared them to perform police tasks. However, training for a majority of the tasks and task training groups was rated less than adequate, indicating a need for a task-analysis study of a police officer's work. The conclusion was that some of the basic training courses in Illinois did not prepare officers adequately for entry-level police work (Ness, 1991).

Holmes, Cole, and Hicks (1992) surveyed police academy graduates of the South Carolina Criminal Justice Academy in order to examine whether or not the graduates were receiving training that was relevant or applicable to law enforcement activities. A questionnaire consisting of 209 curriculum items was sent to all 505 officers who took the South Carolina basic training course in 1985. The graduates were asked to rate each curriculum item as to how useful it was in their day-to-day law enforcement activities.

The results indicated that the curriculum in the South Carolina Police Academy was highly relevant to the law enforcement graduate. The highest rated items were defensive tactics, responses to traffic stops, the maintenance and use of firearms, searches and seizures, and the use of force. The lowest rated items were motorcycle gangs, European gypsies, safety procedures around water, maintenance of patrol vehicles, and structure of the community (Holmes et al., 1992).

Brand and Peak (1995) developed a survey instrument that could be used to determine the usefulness and comprehension of police training at the police academies in the state of Nevada. This study was conducted to evaluate and identify deficiencies of the training academies in Nevada. The authors surveyed graduates of the Nevada Police Officer Standards and Training (POST) Academy about the basic curriculum's 47 performance objectives. Their study had two main themes: graduates' perceptions of the general usefulness of the instruction and their comprehension of material in preparation for Nevada POST certification examinations. The rating scales for both questions had five levels. The usefulness item ranged from "no value" to "essential," while the comprehension item ranged from "no understanding" to "complete understanding."

The research questions that Brand and Peak (1995) asked the respondents were:

1. "Did the mandated curriculum effectively prepare recruits to adequately perform important entry-level responsibilities?" (p. 51).
2. "Which job tasks addressed by the curriculum needed additional attention?" (p. 51).

3. “What recommendations could be suggested by academy graduates for curriculum improvement to increase training program effectiveness for preparing recruits for police work?” (p. 52).

In the Brand and Peak (1995) study, the respondents provided an above average rating to the overall academy training. Defensive tactics was the performance objective for which the highest usefulness ranking was found. Firearms training, use of force, and officer survival ranked very high on perceived usefulness and were, respectively, second, third, and fourth among the 47 performance objectives. More than half of the respondents requested additional areas of instruction, like verbal judo, courtroom testimony, field sobriety testing, street Spanish, and gangs. Over 60 percent of the respondents requested improvement of the performance objectives. Also, the data showed that the respondents felt they were prepared to take the POST examination.

Brand and Peak (1995) noted some limitations to their study. These limitations included the fact that they only surveyed the graduates of four Nevada police academies, that they did not take instructors or their teaching methods into account, and that the scope of their questions were limited to inquire about the mandated courses. However, this study made a large contribution to the area of police curriculum studies because it showed other police academies that their curriculum needed to be assessed in order to find out if new police officers were receiving the proper training to do their jobs effectively.

Marion (1998) conducted a study that analyzed police academy training at one police training facility in Ohio. Marion’s goal was to assess the police training academy and find out if the academy was providing the essential instruction to train future law

enforcement officers adequately. Three types of learning were focused on that were considered essential by police practitioners and scholars: knowledge learning, skill learning, and attitude learning.

Marion (1998) took an ethnographic approach to the study and attended a state-accredited police training academy as if a recruit. The author's identity and intentions were quickly and easily revealed because the author had to miss more than the allowable 10 percent of the total hours of instruction, did not take exams, and was not present at all classes.

Marion's (1998) observations indicated that the police training program at the police academy being studied provided the knowledge and skills training required to prepare recruits to be police officers. Marion stated that a majority of the elements that scholars and practitioners identified as being essential to police recruit training were present, except for ethics classes and helping the elderly classes. Also, there were no night training exercises, as recommended by scholars and practitioners. Marion stated that the police academy being studied lacked the ability to transmit the proper attitudes for new police officers. There remained an element of sexism and elitism on the part of some instructors. Marion stated that the recruits, who were learning to act and think like police officers, would absorb the improper attitudes and start to act in a similar fashion.

Marion (1998) gained keen insight into what police recruits were taught at the training academy and assessed the police training academy's curriculum and functions. Marion made some good observations, but could not fully assimilate into the culture because the true purpose for Marion being in the recruit classes was discovered by the recruits and academy instructors. Because of these issues, the data may not be completely

accurate because the instructors and recruits could have altered their behaviors and attitudes in order to influence the outside observer. Overall, the police academy being studied provided police recruits with the majority of the knowledge and skills necessary to do their jobs effectively and to protect the public.

McLellan (1998) said that a major concern of police executives was the appropriateness of police training based on certain needs of the community. Police officers from rural, urban, and suburban police agencies differed in the challenges they faced and had a disproportionate number in the types of calls for service waiting for them. McLellan felt that police curriculum and the adequacy of instruction that police recruits received, with respect to their individual communities of assignments, were important issues. The researcher attempted to determine if police executives in a multi-jurisdictional area of southeastern Michigan viewed the curricula and instruction at the state's regional academies as adequate for their respective communities. The police agencies that were surveyed represented Genesee, Lapeer, Livingston, Macomb, Oakland, Washtenaw, and Wayne Counties in Michigan.

The research questions that McLellan (1998) examined were:

1. "How do police executives located in rural, suburban, and urban areas differ in their evaluations of the competency levels of newly trained recruits from regional basic police academies in Michigan?" (p. 7).
2. "What is the relationship between the actual competency level of newly trained police recruits and the frequency of use among the three types of communities?" (p.7).

3. “What is the relationship between the actual competency level of newly trained police recruits and the frequency of use among the three types of communities?” (p. 7).

McLellan (1998) asked the police executives who participated in the study to complete a questionnaire regarding their perceptions of training in terms of actual and desired competency levels of police academy trainees. Also, the researcher wanted to know the frequency that each of the 97 core competencies required by the Michigan Law Enforcement Officers’ Training Council was used in their department.

McLellan (1998) found that the correlation between rural, urban, and suburban police agencies regarding specific types of training designed to reflect the needs of a community type was not statistically significant. The police agencies surveyed preferred to use the current academy curricula to provide the essential courses to police recruits and use their field training officer program to address issues related to their respective communities. Furthermore, the author stated that there were statistically significant correlations between perceptions of desired competency levels of new police recruits and the actual levels of competency. This finding indicated that police agencies with a higher desired competency level tended to have a more positive view of the new recruits’ application of knowledge and skills.

Bradford and Pynes (1999) noted that the movement toward community-oriented policing and problem-solving policing required the development of new police officer competencies. However, the authors noted that police academy training had changed very little in 20 years. The researchers examined the syllabi and curricula of many different police academies around the United States in order to find out if basic police training was



task-oriented or cognitive-oriented. Some of the states clearly described their curriculum as task-oriented and other states did not provide enough information on the syllabi or curriculum for the researchers to make a decision. When a judgment could not be made, the training directors from the state in question were called on the telephone and asked to explain the objectives of the particular training subject.

Bradford and Pynes (1999) found that less than three percent of the basic training academy time was spent in the cognitive and decision-making domain. The remaining basic training academy time was spent in task-oriented activities. The authors recommended that police academies move beyond task analyses and the traditional components and include training in the skills necessary to be effective community-oriented and problem-solving police officers. The authors stated increased time should be spent on police recruits developing problem-solving, interpersonal, and decision-making skills.

Traut, Feimer, Emmert, and Thom (2000) conducted a study that surveyed local, county, and state law enforcement agency recruits who participated in the South Dakota Law Enforcement Training Basic Certification Course from 1996-1998. Respondents were asked individual questions about whether their training and instruction adequately prepared the recruits to perform necessary tasks in 12 specific areas of policing. The 12 specific areas were then broken down into three broad categories: criminal procedure, traffic control, and non-traditional issues. Criminal procedure questions included areas such as arrest, search and seizure, interrogation, and firearms training. Traffic control questions examined the areas of driving under the influence, vehicle pursuits, and traffic

stops. Also, non-traditional questions covered the areas of juvenile procedure, domestic violence, and community relations.

Evaluations of training in criminal procedure were highest, followed by assessments of training in traffic control in South Dakota academies. Recruits rated their training in nontraditional areas of police work lowest of all. A multivariate analysis of factors indicated that recruits from larger police departments were less positive in evaluations of their recruit training (Traut et al., 2000).

Stroupe (2003) conducted a study concerning police cadet curriculum because he stated that not many police curriculum studies had been conducted and most police cadet curriculums were put together in an unorganized fashion. The author examined the perceptions of four graduating cadet classes of the West Virginia State Police Academy concerning the relevance of the higher education police science curriculum as well as the degree of competence achieved by the students.

The following research questions were examined by Stroupe (2003):

1. “To what extent do graduates of the West Virginia State Police Academy perceive the pre-1995 higher education police science curriculum of the West Virginia State Police Academy as relevant?” (p. 11).
2. “To what extent do graduates of the West Virginia State Police Academy perceive the pre-1995 higher education police science curriculum of the West Virginia State Police Academy as providing them with training leading to competent performance?” (p. 11).

3. “To what extent do graduates of the West Virginia State Police Academy perceive the post-1995 higher education police science curriculum of the West Virginia State Police Academy as relevant?” (p. 11).

4. “To what extent do graduates of the West Virginia State Police Academy perceive the post-1995 higher education police science curriculum of the West Virginia State Police Academy as providing them with training leading to competent performance?” (p.11).

Stroupe (2003) replicated a similar study completed by Brand and Peak (1995), reviewed previously, that examined the usefulness and comprehension of the Nevada Peace Officers Academy Training. Stroupe’s 2003 study adapted the survey instrument used by Brand and Peak in the early 1990s to measure the perceptions of four graduating cadet classes of the West Virginia Peace Officers Academy curriculum. The study showed that the West Virginia cadets perceived the academy as preparing them well and helping them to obtain a good knowledge base from the academy curriculum.

Pinto (2004) indicated that law enforcement personnel were increasingly becoming the first line of response in emergency situations involving mentally ill persons. However, research continued to show that police training with respect to mental illness was inadequate. Thus, Pinto believed that police officers felt they were not prepared to handle crisis situations involving the mentally ill.

Pinto (2004) stated that due to the complex nature of police encounters with the mentally ill, communities and police departments across the United States were gradually discovering the need for policies and procedures that safely and effectively addressed the handling of mentally ill persons in crisis. As a result, some departments increased the

amount of training that their officers received regarding mental illness. In addition, collaborative efforts between police departments and the mental health system were slowly emerging.

Pinto's (2004) research reviewed existing research regarding police handling of mentally ill persons in crisis. The study provided an overview of police education and training guidelines regarding the mentally ill and examined the interrelationship between the police and mental health professionals in responding to mentally ill persons in crisis.

Following Pinto's (2004) review of the data, the results of a survey completed by police officers in a suburban Midwestern city were presented. The name of the suburban Midwestern city was withheld for confidentiality purposes. The survey was designed to investigate police training regarding mental illness, the perceived effectiveness of police contact with the mentally ill, and the need for various kinds of information, assistance, or training in collaboration with the mental health community.

Pinto's (2004) survey findings showed that although most of the respondents reported that they received five or less hours of academy training regarding mental illness, the majority of respondents felt adequately prepared to handle crisis situations involving the mentally ill. However, the results also demonstrated that the majority of respondents were willing to receive further training from the mental health community. These findings suggested that, in order to ensure the safe and effective handling of mentally ill persons in crisis, police departments should consider supplementing training with the establishment of cooperative agreements with local mental health providers.

Poradzisz (2004) observed a problem with the media and citizens demanding more from the police. Poradzisz noted that police departments should examine the

objectives based behaviorist model of teaching at police academies and examine alternative methods of teaching to help recruits get more out of their police academy experience. The author's purpose was that he wanted to determine if an alternative teaching method, through stories, would affect students' learning outcomes and satisfaction with the instructional presentation.

Poradzisz (2004) conducted a quasi-experimental cohort design in a formal institution with cyclical turnover and utilized analysis of variance (ANOVA) and t-tests to compare and contrast intact recruit classes for comprehension and satisfaction with instruction. This was done by using either an existing academy lesson plan or an alternative narrative approach at the Chicago Police Academy. Two instructors were employed to teach both methods on the same subject, which was *Dealing with Variant Behavior*.

Poradzisz (2004) used three components to assess results. The first quantitative component measured content comprehension on a 30-question exam from the Chicago Police Department's test bank on the subject. The main effect for method was statistically significant, but not for the effect of the instructor or interaction. A second quantitative component, a self-report 11-item instrument, measured overall satisfaction with instruction, which revealed that one instructor did better on the narrative method and the other demonstrated no difference between methods. Personal backgrounds in teaching and street experience appeared to account for this difference. The third component, which was qualitative, used written comments to explain paradoxes such as the interaction noted above, and appeared to support the conclusion for the discrepancies in results between the two instructors on satisfaction with teaching each method. Overall, the results were

encouraging because recruit comprehension improved for both instructors using the narrative method and one instructor was perceived as more effective by utilizing the narrative method over the traditional.

Finnimore (2005) indicated that there was a lack of evidence to support the duration of academy training and the relevancy of the required curriculum prepared by the Delaware Police Training Commission. The author wanted to see if police officers working in a county in Delaware felt that they were adequately trained and prepared for their jobs. Also, the researcher wanted to determine if any areas of the state mandated curriculum could be improved or eliminated.

The research questions that Finnimore (2005) examined were:

1. “What differences, if any, exist between what police officers want and feel they need to know for effective job performance and the requirements of the State Training Committee’s Basic Course for Police Officers standard curriculum?” (p. 11).
2. “To what extent do police officers feel they are adequately trained after attending the Gettrained Police Training Academy and would they make any changes in instructional material or methods of instruction?” (p. 11).
3. “What parity, if any, exists among patrol officers in determining what functional areas of the Basic Course for Police Officers are more important?” (p. 12).
4. “How do demographics impact perceptions regarding specific training practices and outcomes?” (p. 12).

Finnimore (2005) examined police officers' feelings regarding training provided by a county police academy in Delaware. For purposes of confidentiality, the name of the police academy and county where the study took place was changed. Gettrained Police Academy was used as a pseudonym and Small Town County was used to reference the county where the Gettrained Police Academy was located. A survey developed by the author was completed by 239 municipal police officers working in the Small Town County. Officers were asked to report their feelings on 12 functional areas of the curriculum mandated by the state's police training commission. Also, five interviews with police officers in the county were conducted and the responses were placed into themes and compared against the survey results.

The results from Finnimore's (2005) research indicated that the Small Town County police perceived the state mandated curriculum to be relevant, but felt more training was needed. A statistically significant number of respondents felt the Gettrained Police Academy needed to provide more scenario based or practical training. The overall responses from the interviews provided evidence that the police officers in the county were not satisfied with the Gettrained Police Academy training.

Renahan (2005) examined the perceptions of municipal police executives in New Jersey regarding the end product from the significantly revised Basic Course for Police Officers. The author wanted to find out if New Jersey was getting better trained police officers.

The research questions that drove Renahan's (2005) study consisted of the following:

1. “Does the new Basic Course for Police Officers, with emphasis on the principles of community policing, taught at a Police Training Commission approved police academy provide a better trained recruit?” (p. 12).
2. “Do the police executives located in rural, suburban, and urban areas differ in their assessment of the competency levels of the new recruits?” (p. 12).
3. “Is there any relationship between the actual competency levels of the newly trained recruit and the desired level of competency among the three types of communities?” (p. 13).
4. “What skill areas are identified as not being adequately trained?” (p. 13).

Renahan (2005) constructed a survey to measure the police executive's assessments regarding 32 defined outcomes in the areas of Knowledge, Personal Character Traits, and Skills and Abilities. The survey sought to determine frequency of use, desired level of competency, and actual level of competency. The survey was mailed to municipal police agencies that had recently employed a police officer who graduated from the recently revised Basic Course for Police Officers.

The results of Renahan's (2005) study showed that there was no statistical difference between the three types of police agencies (urban, suburban, rural) in their response to the outcomes posed. A statistically significant number of the respondents indicated that they were getting a better trained police officer and that the recently modified Basic Course for Police Officers was meeting their training needs. Also, Renahan noted, importantly, that the actual versus the desired outcome comparison reflected a statistically significant difference. In every case, the actual outcome was lower than the executive's desired outcome. In other words, the police executives in New Jersey



felt they were getting well- trained police officers after they completed the academy, but that the police officers could have been trained to an even higher standard.

Morrison (2006) conducted a study that focused on firearm and deadly force training, areas that consume a large share of pre-service training resources. The author noted that the use of deadly force occurs during incidents involving extreme levels of danger to police, suspects, and communities. Therefore, its use can pose adverse affects for officer well-being, seriously strain police-community relations, and lead to substantial financial settlements or protracted lawsuits. Morrison noted that learning more about firearm and deadly force training had important implications for officer and public safety. The purpose of Morrison's (2006) study was to examine the perceptions of police departments and instructors in the state of Washington regarding academy-based pre-service firearm and deadly force training. Surveys of academy instructors and state and local police departments in Washington State provided ratings and other data on pre-service academy training.

Morrison (2006) found that academy graduates' skills concerning deadly force program outcomes were generally rated as adequate in the state of Washington. The skills of general gun handling, marksmanship, drawing the handgun, and maintenance of the handgun received above adequate ratings. The skills that needed some attention were tactics and judgment, combat shooting techniques, and shotgun training. Also, Morrison suggested that more training needed to be given on tactics and judgment while using computer-based, role-playing, or live-fire scenarios.

Walling (2007) indicated that there were many issues in policing, like police administrators not being in touch with officers on the street, litigation against the police,

changing laws, and new technology. Walling indicated that police administrators implement training programs for police officers in order to minimize civil litigation against police departments, but that police administrators should be training police officers in personal safety and giving job enrichment courses.

Walling (2007) said that the ultimate goal of the study was to identify any inconsistencies or disconnects between top administrators' perceptions of police training needs, the training officers' perceptions of police training needs, and those needs as perceived by the officers for whom the training was designed. Walling also wanted to know if time in service and level of education impacted the perceptions of training needs for law enforcement officers.

Walling's (2007) study was descriptive and examined the correlations among the respondents' rank or position within their organization and the perceptions of those respondents regarding 57 topics of police training recommended by the Nevada Administrative Code. Walling developed a questionnaire and administered it to the respondents via the Internet. The Nevada law enforcement agencies represented in the study were the Boulder City Police Department, the Henderson Police Department, the Las Vegas Metropolitan Police Department, and the Nye County Sheriff's Office.

With the exception of Crime Scene Processing, Walling's (2007) analysis of the data displayed a statistically significant difference in the perceived need for training between patrol officers and top administrators. No statistically significant difference existed in the perceived need for training between patrol officers and training officers, years of service in law enforcement, or level of education on their perceptions.

Chappell (2008) was interested in police academy training and wanted to examine whether police recruits performed better after receiving the traditional model of police training or the community policing model of police training in the state of Florida. The traditional model focused solely on areas such as marksmanship, defensive tactics, driving skills, and the mechanics of arrest. The community policing model focused more on community relations, problem solving, and scenarios, but did not diminish the traditional roles of policing.

The two research questions that Chappell (2008) strove to answer were:

1. "To what extent are quantifiable differences in academy recruit performance predicted by the community policing curriculum?" (p. 38).
2. "Does a different "type" of recruit perform better under the community policing curriculum compared to the traditional curriculum?" (p. 38).

Chappell's (2008) study analyzed 300 police academy recruits, of whom 155 went through the traditional policing curriculum and 145 of whom went through the community policing curriculum. The sample included all persons who entered this police academy in Florida from 1998 through 2004. The term "academy performance" was used to refer to recruits' successes in the academy and their likelihood of gaining employment by a police department. The three dependent variables were average academy examination scores, failure experiences, and post-academy employment. The independent variables were age, race, gender, military experience, education, and special position within the academy.

The results of Chappell's (2008) study showed that there was not a statistically significant difference, concerning recruit performance, between the traditional and

community policing curricula. The results showed that recruits with more education and female recruits fared better in the community policing curriculum because more educated recruits received higher test scores and female recruits were more likely to become employed after graduation by a police agency. Also, recruits in the community policing curriculum performed similarly to the recruits who took the traditional policing curriculum, so the community policing curriculum did not help recruits to perform better.

#### Disaster Preparedness Studies

Davis et al. (2004), in a study conducted for the RAND Corporation, argued that law enforcement played an important role in responding to, preventing, and deterring terrorist attacks and would continue to play an important role in the future. The purpose of the RAND study was to assess how prepared for terrorism state and local law enforcement agencies were. The RAND nationwide survey asked questions about the overall national preparedness of law enforcement. The research questions focused on law enforcement's experience with terrorism, efforts to counter the threat of terrorism, efforts to shore up vulnerabilities and support needs, and the resourcing of preparedness activities. The study focused on the relationship among perceived risk, jurisdiction size of the law enforcement agency, and preparedness activities.

Based upon their research, Davis et al. (2004) discovered many interesting aspects about law enforcement agencies. After September 11, 2001, half of the local law enforcement agencies and most of the state law enforcement agencies were involved in responding to a terrorist-related incident. In addition, law enforcement agencies introduced a number of procedures to improve their preparedness after September 11, 2001, including increasing the number of emergency planning personnel, updating

response plans and mutual aid agreements, and conducting an internal reallocation of resources and funding to focus on terrorism.

The 2004 RAND study found that there were significant differences in law enforcement threat perceptions, contingency planning, and preparedness between larger law enforcement agencies and smaller law enforcement agencies. Most law enforcement agencies, regardless of size, requested assistance to conduct future threat assessments from other entities. After September 11, 2001, about a quarter of local law enforcement agencies increased spending on terrorism preparedness. Additionally, law enforcement agencies that perceived the risk of future terrorist attacks as high for their jurisdiction were more likely to update response plans, conduct or participate in joint training, and internally reallocate departmental resources to focus on preparedness against attacks of terrorism (Davis et al., 2004).

Epperson (2005) noted that policy makers were forced to acknowledge, after the terrorist attacks of September 11, 2001, that terrorists will use any means necessary to attack governments and civilian populations. The researcher went on to say that law enforcement first responders will play a key role in preventing, interdicting, and managing outcomes of terrorist events. Even though law enforcement will be vital to the outcome of the terrorist event, Epperson said that the capabilities of law enforcement to address the terrorist threat were not improved or altered in any meaningful way.

Epperson's (2005) purpose was to produce a policy recommendation to improve preparation of law enforcement officers in the United States for a terrorist attack. In order to accomplish the objective, Epperson reviewed counter-terrorism policy and theory in order to identify relevant concepts and recommendations for law enforcement officers in

the United States. Furthermore, the research included direct investigation into the capabilities of law enforcement first responders in foreign countries, such as Israel, England, Northern Ireland, and Spain, that have dealt with serious terrorist attacks. Specifically, Epperson wanted to find out if there was a need to improve the capabilities of law enforcement first responders in the United States, and, if there was a need, what were the capabilities that needed to be addressed. Epperson also sought out the ways in which foreign law enforcement agencies combated terrorism and how these tactics could help law enforcement in the United States.

Epperson (2005) discovered some common themes through a review of United States policy and theory. First, law enforcement first responders need to deter, prevent, and interdict actions of terrorists. Second, law enforcement first responders need to respond to terrorist acts as they would during a natural or man-made event that requires disaster mitigation and management.

After investigating foreign terrorist attacks and how foreign governments dealt with the attacks, Epperson (2005) analyzed the terrorist threat, the law enforcement first responder's role during a terrorist incident, technical capabilities needed, counter-terrorism laws, the importance of the community, and intelligence utilization for law enforcement first responders in the United States. Epperson found many themes from the foreign governments' experiences and made several recommendations based upon the discovered themes. The terrorist threat to the United States is largely conventional and terrorists will most likely use firearms and conventional explosives for their attacks. The law enforcement officer's main role concerning terrorism is to prevent, deter, and detect terrorism. In order to achieve the greatest level of deterrence, body armor, ballistic

helmets, and automatic rifles should be part of the law enforcement officer's technical equipment. Laws should be enacted during terrorist-related emergencies that give law enforcement broader search powers. Partnerships should be established between law enforcement officers and members of the community in order to gain intelligence. Also, there needs to be a one-stop clearing house for submitting data and inquiries that would provide access to all data bases for every law enforcement officer in the United States.

Mosser (2007) indicated that little research had been conducted concerning the preparedness of law enforcement against terrorism and that there was no universal definition of preparedness. The purpose of Mosser's research was to complete a quantitative descriptive study of law enforcement preparedness against terrorism in the state of Florida.

Mosser's (2007) study answered the following research questions:

1. "What is preparedness and what are the factors that define preparedness?" (p.13).
2. "How important is each factor to preparedness?" (p. 13).
3. "Given the study's definition of preparedness and its identification preparedness factors, what is Florida law enforcement's assessment of their preparedness against terrorism in the state of Florida?" (p. 13).

The definition that Mosser (2007) used for preparedness was "an ongoing effort to lessen the impact of disasters of people and property" (p. 46). Mosser used this definition of preparedness because it was the definition that appeared most frequently in the disaster management literature. The researcher surveyed terrorism experts in the state of Florida and determined that preparedness factors, in order of importance, were personnel,

communications, training, planning, equipment, and procedures. Finally, a survey was administered to municipal and county law enforcement chiefs in the state of Florida to explore their agency's preparedness against terrorism. Overall, Florida law enforcement agencies were rated at 33 percent prepared to deal with a terrorism incident, with county law enforcement agencies being slightly more prepared than municipal law enforcement agencies.

Fitzgerald (2008) conducted a disaster response study in order to find out if Massachusetts nursing home administrators were prepared to respond to a major disaster. The author wanted to assist nursing home administrators by giving them guidelines to evaluate and improve their disaster preparedness. Fitzgerald wanted to impart knowledge upon emergency organizations, non-profit disaster relief organizations, and state and local government officials by exhibiting the value of disaster plans.

Fitzgerald's (2008) study analyzed the following research questions:

1. "How prepared are Massachusetts nursing home administrators for dealing with a natural or human-made disaster?" (p. 7).
2. "What can be done to enhance the safety of nursing home residents?" (p. 7).
3. "How are nursing homes, state and local agencies, and providers for nursing homes currently coordinating plans in the event of a disaster?" (p. 7).
4. "What are the strengths and weaknesses of the existing regulations surrounding nursing home emergency preparedness?" (p. 7).

Fitzgerald (2008) used a multi-method approach to evaluate the disaster preparedness of all the nursing homes located in the state of Massachusetts. First, nursing



home disaster plans and survey responses from nursing home administrators were used to determine if facilities had met federal and state requirements. Second, a comparison to Florida's improved and expanded nursing home emergency preparedness plans was made in order to evaluate preparedness. Lastly, the answers given by nursing home administrators on the survey instrument were compared to comments made by nursing home and disaster experts in order to ascertain if nursing homes in Massachusetts met what the experts felt were basic preparedness guidelines.

Fitzgerald (2008) concluded that nursing homes in Massachusetts did not appear to be prepared for a major disaster, but could deal with small isolated incidents. Evidence from the data sources revealed that nursing homes needed to address disaster preparedness further and that emergency response agencies needed to evaluate their roles in helping nursing homes prepare for disasters. The survey results indicated that Massachusetts nursing homes were prepared for disasters, but interviews and a review of disaster plans demonstrated that they were not as prepared as first shown by the survey responses. The two key areas that were identified as needing improvement were training and communication. Fitzgerald asserted that the research suggested that state regulations needed to be updated to include well-defined minimum requirements for nursing home disaster preparedness.

Twomey (2009) analyzed the readiness level of Illinois school district's to react to a disaster and the preparation necessary to obtain a comprehensive crisis management plan. This study examined the readiness levels of small, medium-sized, and large K-12 public school districts in Illinois to respond to serious crisis situations. For classification purposes, small school districts contained less than 1200 students, medium-sized school

districts contained between 1201 and 3000 students, and large school districts contained more than 3000 students. The author wanted to determine if Illinois public school districts met identified guidelines concerning preparedness and focused on the contents of emergency management plans in Illinois school districts.

The overarching question that Twomey (2009) wanted to answer was, "What was the readiness level of small, medium-sized, and large Illinois public school districts?" (p. 3). The readiness level was ascertained by the comprehensiveness and operational practices of the Illinois school district's crisis management plans. A stratified random sample produced 10 small, 10 medium-sized, and 10 large Illinois school districts. In addition, the crisis management plans for these 30 Illinois school districts were analyzed. The author analyzed the data using the Comprehensive Crisis Plan Assessment Instrument, which was created by the author, and rated the critical components of the crisis management plans as identified by the Department of Homeland Security.

Twomey (2009) concluded that the small school districts in Illinois were not as prepared as the medium-sized and large school districts. The large Illinois school districts were the most prepared for a crisis situation after examining their crisis management plans. The small Illinois school districts scored lower than the medium-sized and large school districts in each of the categories of mitigation/prevention, preparedness, response, and recovery. The results of this study suggest that small Illinois school districts were not prepared and that medium-sized and large school districts were prepared for potential crisis situations based upon their crisis management plans.

## Conclusion

This chapter examined police training over time and studies that relate to the research topic. Police curriculum and disaster preparedness studies were highlighted. This literature review built a foundation for the research at hand, which was an evaluation of the CPD Recruit Curriculum in Emergency Response Week as it related to terrorism awareness and response to terrorism incidents.

## CHAPTER III

### METHODOLOGY

#### Introduction

The previous chapter explored the history of police training and reviewed research on police training programs. This chapter will provide a detailed explanation of the methodology used in the current research and describe how the research questions were addressed. The research design, population sample, data collection, analytical methods, and limitations will all be examined in this chapter. A thorough description of the methods used in this research will be provided in order for other researchers to be able to replicate this study.

#### Research Design

This study evaluated the attitudes of the Chicago Police Department (CPD) recruits about the curriculum in Emergency Response (ER) Week from the CPD Recruit Academy and if the curriculum in ER Week provided CPD recruits with knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident. Previous researchers mostly examined the breadth of police recruit curricula and job tasks, which has left the knowledge base lacking in depth and detail (Morrison, 2006). This study probed deeply into the satisfaction of the ER week curriculum at the CPD Recruit Academy and narrowed the focus from previous studies.

Descriptive research was conducted because it requires extensive previous knowledge of the situation to be researched. Armed with that knowledge, one will know the appropriate aspects on which to gather information (Campbell, Draft, & Hulin, 1982). The author was deployed with the United States Army to prevent and respond to terrorism incidents for Operation Enduring Freedom in Italy, and also was a Terrorism Awareness and Response Academy (TARA) instructor for 1.5 years with the Chicago Police Department. The author has extensive knowledge of terrorism awareness and how to respond to a terrorism incident.

Descriptive research was used with a non-experimental fixed design because dealing with things as they are has the advantage of not disturbing what is of interest (Robson, 2002). A non-experimental fixed design can be defined as a systematic inquiry in which the researcher does not have direct control of the independent variables because the manifestations of the independent variables have already occurred (Kerlinger, 1986). Fixed designs generally have a detached researcher to protect against the researcher having an effect on the results of the research (Robson, 2002). Sometimes the participants in a research study change their behavior because they know they are in a research study, which is known as the Hawthorne effect (Leedy & Ormrod, 2005). Fixed designs aim to prevent the Hawthorne effect because the researcher stays at a greater emotional and physical distance from the study.

This study was quantitative because questions were answered about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena (Leedy & Ormrod, 2005). Self-report or survey research was used in this study that required a questionnaire, which is a written group of questions that are

answered by a select group of research participants (Gay, Mills, & Airasian, 2006).

Survey research involves acquiring information about one or more groups of people by asking them questions on a questionnaire and tabulating their answers using statistical indexes to draw inferences about a particular population (Leedy & Ormrod, 2005).

This study surveyed CPD recruit classes 09-1 and 09-2. The CPD recruit class number designators have a unique meaning assigned to them. The 09 designator stands for the year that the CPD recruit class started in, which was 2009. The numbers 1 and 2 are used to designate successive CPD recruit classes throughout the year. Both CPD recruit classes were in the CPD Recruit Academy and took the courses in ER Week.

The sample was purposive because the researcher wanted to examine the CPD recruits' attitudes for a purpose. Purposive sampling is the process of choosing a sample that is believed to be representative of a given population and the researcher identifies criteria for selecting the sample (Gay et al., 2006). Entire CPD recruit classes were surveyed because this was not a large-scale study. The researcher used his experience and knowledge as a police trainer to select the sample, and the CPD recruits' attitudes were examined for a purpose.

Permission from the Chicago Police Department and approval from the Institutional Review Board at Olivet Nazarene University was received before the survey was distributed to the CPD recruits. Initially, the Assistant Deputy Superintendent of the Education and Training Division of the Chicago Police Department approved the request to survey the CPD recruits in January 2009. There was a change in command at the Education and Training Division in late January 2009 and the approval of the new command staff was needed to conduct my study. Permission was then received to survey

the CPD recruits from the Lieutenant, Commander, and Assistant Deputy Superintendent of the Education and Training Division of the Chicago Police Department in February 2009.

The first research question in this study was, “How was the CPD recruit curriculum in ER Week perceived by CPD recruits?” This research question elicited information from the CPD recruits about their attitudes concerning the courses given during ER Week at the CPD Recruit Academy. A Likert-type scale was used in the questionnaire to measure the attitudes of the CPD recruits for each individual class given during ER Week. Numbers were assigned to the Likert-type scale responses for coding and analysis. This question strived to examine the satisfaction of the CPD recruits concerning every class presented at the CPD Recruit Academy during ER Week.

The second research question in this study was, “How did CPD recruits perceive their knowledge concerning terrorism awareness following completion of Emergency Response Week given at the CPD Recruit Academy?” This research question was answered by a series of sub-questions that were analyzed after tabulating the Likert-type scale responses on the questionnaire. Numbers were assigned to the Likert-type scale responses for coding and analysis. Having numerous sub-questions was a form of triangulation because each response told something about the respondent’s attitude (Robson, 2002).

The third research question in this study was, “How did CPD recruits perceive their skill levels concerning responding to a terrorism incident following completion of Emergency Response Week given at the CPD Recruit Academy?” Like the second research question, this research question was answered by a series of sub-questions that

were analyzed after tabulating the Likert-type scale responses on the questionnaire.

Numbers were assigned to the Likert-type scale responses for coding and analysis. This question elicited information from the CPD recruits about their attitudes of their skills acquired during ER Week at the CPD Recruit Academy.

The fourth research question in this study was, “What improvements should be made to the CPD recruit curriculum in Emergency Response Week?” This research question was asked in order to receive responses that could inform potential changes in the CPD recruit curriculum in ER Week. Multiple sources of data were collected with the intention that they would converge to support triangulation (Leedy & Ormrod, 2005). This one open-ended question was asked and the coding of the open-ended question responses involved combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002). An additional open-ended sub-question was asked in order to solicit further information on the strengths of the curriculum in ER Week. The additional sub-question was, "What was done well concerning the CPD recruit curriculum in ER Week?" The sub-question responses were also coded and examined for emerging themes by combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002).

### Population

The Chicago Police Department is a law enforcement organization with over 12,000 men and women who serve the citizens of Chicago in many different facets. Being in law enforcement is an exciting career that allows one to serve the community



and use problem-solving skills on an everyday basis. The Chicago Police Department provides a decent living wage, affordable health care, and a good retirement plan.

The minimum qualifications to become a Chicago Police officer deal with age, validity of a driver's license, education and military service, and residency. An individual who applies for the Chicago Police Department must be between the ages of 21 and 39 and have a valid driver's license. An applicant must have at least 60 semester hours of college credit or four years of continuous active duty service in the armed forces of the United States or 30 semester hours of college credit along with one year of continuous active duty service in the armed forces of the United States. Also, proof of residency is required in the city of Chicago at the time of employment (Chicago Police Department, 2008).

If the minimum qualifications are met, one can then begin the employment process for the Chicago Police Department. A written examination is administered that tests for vocabulary, reading comprehension, and critical thinking skills on a pass or fail basis. If an individual passes the written exam, he or she moves on to the physical fitness test. The physical fitness test is comprised of a bench press, sit and reach, sit-ups, and a 1.5 mile run. The physical fitness test standards are the minimum standards allowed by the state of Illinois on a pass or fail basis. If the physical fitness test is passed, the applicant will be given a drug screening, a medical examination, and a psychological test. If the preceding series of tests are passed, the next step in the employment process is a background investigation by the Chicago Police Detective Division. If all of the steps are passed by the applicant, he or she will take the physical fitness test for a second time. If

the second physical fitness test is passed, the applicant will then be sent to the CPD Recruit Academy (Chicago Police Department, 2008).

In order to become a Chicago Police officer, an individual must go through recruit training at the CPD Recruit Academy. While in training at the CPD Recruit Academy, all of the trainees are referred to as recruits because they have not yet graduated from the CPD Recruit Academy. CPD recruits receive over 1000 hours of classroom and scenario-based training while at the CPD Recruit Academy. All CPD recruits must maintain at least a 70% average on all written examinations, pass the physical fitness test three times during their training, and pass the Illinois state firearms qualification course. The CPD Recruit Academy provides progressive and comprehensive training to develop policing skills, enhance leadership abilities, and promote a solid ethical foundation to all CPD recruits so that the Chicago Police Department will remain one of the nation's premier law enforcement organizations. Additionally, throughout the entire time the recruit is at the CPD Recruit Academy, the CPD core values of professionalism, obligation, leadership, integrity, courage, and excellence are stressed and reinforced. (Chicago Police Department Education and Training Division, 2008b).

This study surveyed CPD recruit classes 09-1 and 09-2. Both CPD recruit classes attended the CPD Recruit Academy and took the courses in ER Week. There were 45 CPD recruits in class 09-1 and 88 CPD recruits in class 09-2. In all, 133 CPD recruits completed the questionnaire for this study.

The demographics for CPD recruit class 09-1 included an age group category, the gender of respondents, the education of respondents, the military experience of respondents, and any prior police experience of the respondents, as delineated in

Appendix A. Concerning the age of the members of CPD recruit class 09-1, 11 CPD recruits (24.4%) were between the ages of 21 and 25, 22 CPD recruits (48.9%) were between the ages of 26 and 30, 11 CPD recruits (24.4%) were between the ages of 31 and 35, and one CPD recruit (2.2%) was between the ages of 36 and 40. There were 38 (84.4%) males and seven (15.6%) females in CPD recruit class 09-1. The CPD recruits' educational backgrounds consisted of 25 CPD recruits (55.6%) reporting some college and 20 CPD recruits (44.4%) reporting that they had obtained a bachelor's degree. The CPD recruits in class 09-1 reported that 15 (33.3%) had prior military experience, while 30 CPD recruits (66.7%) did not have any prior military experience. Also, five CPD recruits (11.1%) had prior police experience, while 40 (88.9%) did not have any prior police experience (See Appendix A).

The demographics for CPD recruit class 09-2 also included an age group category, the gender of respondents, the education of respondents, the military experience of respondents, and any prior police experience of the respondents, as delineated in Appendix B. Concerning the age of the members of CPD recruit class 09-2, 20 CPD recruits (22.7%) were between the ages of 21 and 25, 42 CPD recruits (47.7%) were between the ages of 26 and 30, 18 CPD recruits (20.5%) were between the ages of 31 and 35, and eight CPD recruits (9.1%) were between the ages 36 and 40. There were 69 males (78.4%) and 19 females (21.6%) in CPD recruit class 09-2. The CPD recruits' educational backgrounds consisted of three CPD recruits (3.4%) with a high school diploma, 29 CPD recruits (33%) with some college, 54 CPD recruits (61.4%) with a bachelor's degree, one CPD recruit (1.1%) with a master's degree, and one CPD recruit (1.1%) with a doctoral degree. The CPD recruits in class 09-2 reported that 22 (25%) had prior military

experience, while 66 CPD recruits (75%) did not have any prior military experience.

Also, seven CPD recruits (8%) had prior police experience, while 81 (92%) did not have any prior police experience (See Appendix B).

The overall demographic totals for the entire population of CPD recruit classes 09-1 and 09-2 included an age group category, the gender of respondents, the education of respondents, the military experience of respondents, and any prior police experience of the respondents, as delineated in Appendix C. Concerning the age of the members of CPD recruit classes 09-1 and 09-2, 31 CPD recruits (23.3%) were between 21 and 25 years old, 64 CPD recruits (48.1%) were between 26 and 30 years old, 29 CPD recruits (21.8%) were between 31 and 35 years old, and nine CPD recruits (6.8%) were between 36 and 40 years old. There were 107 males (80.5%) and 26 females (19.5%) in the total sample population. The CPD recruits' educational backgrounds consisted of three CPD recruits (2.3%) with a high school diploma, 54 CPD recruits (40.6%) with some college, 74 CPD recruits (55.6%) with a bachelor's degree, one CPD recruit (.8%) with a master's degree, and one CPD recruit (.8%) with a doctoral degree. The CPD recruits reported that 37 (27.8%) had prior military experience, while 96 CPD recruits (72.2%) did not have any prior military experience. Also, 12 CPD recruits (9%) had prior police experience, while 121 CPD recruits (91%) did not have any prior police experience (See Appendix C).

### Data Collection

The survey instrument used in the study was developed by the author and is located in Appendix D. No existing survey instrument was sufficient for what was to be measured, so ideas from multiple sources were gathered and developed into a

questionnaire from this theoretical framework. As Mulaik (1972) stated, “One’s own direct experience with a phenomenon often suffices to suggest hypotheses” (p. 269). The author is considered a content expert in the terrorism awareness and response field for numerous reasons, including having served in the United States Army as an infantryman for six years and having over 10 years of police experience in the Chicago Police Department. The author’s qualifications include certifications in the National Weapons of Mass Destruction Standardized Awareness course from the Department of Homeland Security, the Incident Response to Terrorist Bombings course from the New Mexico Institute of Mining and Technology (New Mexico Tech), the Law Enforcement Prevention to Terrorist Incidents course from the Department of Homeland Security, the National Incident Management System (NIMS) IS-700 course from the Federal Emergency Management Agency (FEMA), the Incident Command System (ICS) IS-100 and 200 courses from FEMA, the Narco-Terrorism course from the Northeast Counter-Drug Training Center, the Prevention and Response to Suicide Bombing Incidents course from New Mexico Tech, and the Understanding and Planning for School Bomb Incidents course from New Mexico Tech. The author is also a certified State of Illinois Law Enforcement Instructor.

Once the questionnaire was designed, it was reviewed by an expert panel for validity. The degree to which a questionnaire measures what it is supposed to measure and allows for appropriate interpretation of data is validity (Gay et al., 2006). The expert panel that reviewed the questionnaire consisted of six members of the Terrorism Awareness and Response Academy (TARA) of the Chicago Police Department. TARA members teach in-service courses relating to terrorism awareness and response for the

Chicago Police Academy. All TARA members have instructor certifications for the National Weapons of Mass Destruction Standardized Awareness course from the Department of Homeland Security, the Incident Response to Terrorist Bombings course from New Mexico Tech, the Law Enforcement Prevention to Terrorist Incidents course from the Department of Homeland Security, the National Incident Management System (NIMS) IS-700 course from FEMA, the Incident Command System (ICS) IS-100, 200, 300 and 400 courses from FEMA, the Narco-Terrorism course from the Northeast Counter-Drug Training Center, the Prevention and Response to Suicide Bombing Incidents course from New Mexico Tech, the Understanding and Planning for School Bomb Incidents course from New Mexico Tech, the Weapons of Mass Destruction Radiological and Nuclear Course from the National Nuclear Security Administration, and are certified State of Illinois Law Enforcement Instructors. All TARA members are sworn law enforcement officers for the Chicago Police Department and many have had past military experience.

Revisions were made to the survey instrument based upon the TARA members' recommendations and the questionnaire was then pilot-tested. The questionnaire was pilot-tested to sort out technical matters concerning methods of data collection and to ensure the author was on the right track conceptually (Robson, 2002). The survey instrument was pilot-tested with CPD Metro recruit class 09-101 in pre- and post-hoc administrations. The CPD Metro recruits were in training at the CPD Recruit Academy to become police officers for various municipalities in the greater Chicago area. The CPD Metro recruit class number designators have a unique meaning assigned to them. The 09 designator stands for the year that the recruit class started in, which was 2009. The

number 101 is used to identify this group of CPD Metro recruits as the first class of the year 2009. There were 27 CPD Metro recruits who took the pre-hoc administration and the same 27 CPD Metro recruits took the post-hoc administration of the questionnaire.

The pre- and post-hoc administrations of the questionnaire were completed by the CPD Metro recruit class 09-101 in order for the author to establish reliability of the questionnaire instrument. Reliability is the degree to which an instrument consistently measures whatever it is intended to measure (Gay et al., 2006). “Test-retest reliability is the extent to which the same instrument yields the same result on two different occasions” (Leedy & Ormrod, 2005, p. 93). CPD Metro recruit class 09-101 completed the questionnaire on two separate occasions and the two sets of obtained scores for each variable were then correlated. There was a high significant correlation between the variables of the pre- and post-hoc administration, which meant that the questionnaire had good test-retest reliability. A *t* test for non-independent samples was used on the pre- and post-hoc administrations given to the CPD Metro recruit class in order to determine whether the means were significantly different between the two separate administrations (Gay et al.). The results of the *t* test for non-independent samples indicated that there was not a significant difference between the means of the pre- and post-hoc administrations. Also, the author wanted to establish internal consistency reliability of the survey instrument. “Cronbach’s alpha estimates internal consistency reliability by determining how all items on a test relate to all other test items and to the total test” (Gay et al., p. 142). A Cronbach’s alpha test analysis was used to determine internal consistency on the pre- and post-hoc administrations taken by CPD Metro class 09-101. The alpha value for the pre and post-test comparison was .973, which indicated high internal consistency

reliability. After analyzing the results of the pilot test, the questionnaire was ready to be used in the current study.

This study surveyed CPD recruit classes 09-1 and 09-2 from the CPD Recruit Academy within one week after the CPD recruits completed ER Week at the CPD Recruit Academy. The informed consent document was distributed to the CPD recruit classes 09-1 and 09-2 during the first hour of the CPD Recruit Academy work day and the informed consent document was read out loud. The first hour of a CPD recruit's work day is called "reinforcement hour" and it is an hour of time where uniform inspections are conducted and topics are covered that are not in the CPD recruit curriculum. "Reinforcement hour" can also be a time when extra physical training is administered to the CPD recruits. The informed consent document and survey instrument were administered during reinforcement hour because it was the only time slot that did not interfere with the CPD recruits' standard curriculum and schedule.

A detailed explanation was given to the CPD recruits about the purpose of the project, the procedures to be used, the potential benefits, and the foreseeable risks of participation. The CPD recruits were told that the information collected from them, if they chose to participate, would be held in the strictest confidence and that no information regarding specific participants would be released to anyone. It was explained to the CPD recruits that at no time would their names or identifying information be used even though analysis of the data could be published in the future. The CPD recruits were allowed to ask any and all questions to help them understand the research project.

If the CPD recruits decided to participate in the research project, they signed the last page of the informed consent form in the presence of the author and were given a



copy of the form. The CPD recruits who agreed to participate in this study were told that they were free to withdraw from the study at any time. The survey instrument was passed out to those CPD recruits who wanted to take part in the study and they signed the informed consent document. The CPD recruits were asked to fill out the questionnaire honestly and objectively. The survey instrument was collected when the CPD recruits finished answering the questions on the survey instrument. The CPD recruits were allowed one hour to complete the survey instrument.

The informed consent document and survey instrument were administered to the CPD recruits in the South Atrium at the CPD Recruit Academy. The South Atrium is a large classroom that seats up to 200 people comfortably. The CPD recruits sat in a chair and filled out the informed consent document and questionnaire at a desk in the South Atrium at the CPD Recruit Academy.

#### Analytical Methods

The information from the questionnaires was tabulated and examined utilizing the Statistical Package for the Social Sciences (SPSS) Predictive Analytics Software (PASW) Statistics Grad-Pack 18 for Windows (hereinafter referred to as SPSS/PASW 18), except for the two open-ended questions that were coded for patterns. With the use of the Likert-type scale responses, a numerical identity was given to the responses given by the CPD recruits for the rating of each class, for the knowledge of terrorism awareness questions, and for the skill level of responding to a terrorist incident questions. The choice of poor received a 1; the option of fair received a 2; the choice of adequate received a 3; the option good received a 4; and a 5 was assigned to the rating of excellent. Also, a numerical identity was given to the responses given by the CPD recruits

concerning their demographic information. The choice of the age group 21-25 received a 1; the age option 26-30 received a 2; the age selection 31-35 received a 3; and a 4 was assigned to the 36-40 age group. Concerning gender, males were coded as 1 and females were coded as 2. For education, a high school diploma was assigned a 1; the choice of some college received a 2; the option of a bachelor's degree was coded as a 3; the selection of a master's degree received a 4; and a 5 was assigned to the choice of doctoral degree. Concerning military experience, yes was assigned a 1 and no was coded as 2. Lastly, prior police experience was given a 1 for yes and a 2 was assigned for a no response. These number assignments allowed for the data to be compiled and analyzed by SPSS/PASW 18.

There were multiple procedures used to analyze the data from the survey instrument. Graphs and charts were examined to see what the distribution of scores looked like (Gay et al., 2006). One measure of central tendency, the mean, was analyzed because the mean deals with the level of distribution of a set of data (Robson, 2002). The standard deviation, which is a measures of variability, was examined because its measures deal with the spread of a set of data (Leedy & Ormrod, 2005). Frequencies were analyzed because they report, for each value of a variable, the number of times that a particular score shows up in a data set (Argyrous, 2005). The Pearson  $r$  was used because it is a measure of correlation for interval data that indicates the degree to which two sets of scores are related and it is the most stable measure of correlation (Gay et al.). In order to determine whether two means are significantly different at a selected probability level,  $t$  tests are used and their results analyzed. One-sample  $t$  tests for a mean were used for the responses given by the CPD recruits for the rating of each class, the

knowledge of terrorism awareness ratings, and for the rating of the skill level of responding to a terrorist incident in order to compare the means obtained from the sample of scores and a hypothesized mean (Robson, 2002). Additionally, Cohen's *d* was used to show effect sizes of the statistically significant differences of the one-sample *t* tests (Cohen, 1992).

Two open-ended questions were asked to gather additional data from CPD recruit classes 09-1 and 09-2. Multiple sources of data were collected with the intention that they would converge to support triangulation (Leedy & Ormrod, 2005). The coding of the open-ended questions' responses involved combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002).

#### Limitations

All research projects face limitations due to various factors. Although this research contained some limitations, a good knowledge base may be gained from this research. The limitations of this study will be examined in the following paragraphs.

This research surveyed CPD recruits from the CPD Recruit Academy only. Police recruits could be unconsciously predisposed towards higher ratings because of the paramilitary atmosphere at the CPD Recruit Academy and the assumption that all of the training received has been quality training. Many CPD recruits did not have prior police or military experience and may not have known the difference between outstanding and unsatisfactory terrorism training. Due to several factors, including the Chicago Police Department bureaucracy and time constraints, experienced "street" police officers who had received the courses in ER week at the CPD Recruit Academy prior to the time of this research were not surveyed.

Because the CPD Recruit Academy is a paramilitary organization and the CPD recruits are continuously kept “on their toes,” the CPD recruits may have felt the need to rush through each question on the survey instrument. Many CPD recruits did not take the time to write many comments on the open-ended questions in the questionnaire, even though they had an ample amount of time to do so. The CPD recruits may have seen the questionnaire as one more thing to accomplish during a stressful work day.

Another limitation of the study was that the evaluation of the task items may have been affected by the CPD recruits’ evaluations of the instructor’s knowledge and ability to teach (Marsh & Grosskopf, 1991). The instructors who taught the courses in ER Week at the CPD Recruit Academy were either assigned to the Recruit Training Section at the CPD Recruit Academy or were guest instructors from outside units within the CPD or outside governmental agencies. Some instructors who taught the courses in ER Week had a great amount of knowledge in the subject area, while others may have had less knowledge in the subject area than other instructors. Also, some instructors taught directly from a lesson plan, some used stories and experience to instruct, some were very animated, and others encompassed all the previously mentioned teaching methods. The questionnaire used in this study did not contain any items that allowed the CPD recruits to evaluate the instructors in each course. Therefore, the CPD recruits’ perceptions about the adequacy of their training and whether it would be influenced by their evaluations of the instructors or the instructional formats was not measured.

## CHAPTER IV

### FINDINGS AND CONCLUSIONS

#### Introduction

The previous chapter provided a detailed explanation of the methodology used in this research and described how the research questions were answered. The current chapter will focus on the findings, conclusions, implications, and recommendations of the study. Once the results of the data collection are analyzed, implications and recommendations will be produced.

This study examined whether the Emergency Response (ER) Week portion of the Chicago Police Department (CPD) Recruit Academy curriculum was adequate and provided CPD recruits with appropriate knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident. The study was guided by the following research questions:

1. How was the CPD recruit curriculum in ER Week perceived by CPD recruits?
2. How did CPD recruits perceive their knowledge concerning terrorism awareness following completion of ER Week given at the CPD Recruit Academy?
3. How did CPD recruits perceive their skill levels concerning responding to a terrorism incident following completion of ER Week given at the CPD Recruit Academy?
4. What improvements should be made to the CPD recruit curriculum in ER Week?

## Findings

### *The CPD Recruit Curriculum in ER Week*

The first research question in this study was, “How was the CPD recruit curriculum in ER Week perceived by CPD recruits?” This research question elicited information from the CPD recruits about their attitudes concerning the courses given during ER Week at the CPD Recruit Academy. A Likert-type scale was used in the questionnaire to measure the attitudes of the CPD recruits for each individual class given during ER Week. Numbers were assigned to the Likert-type scale responses for coding and analysis. The choice of poor received a 1; the option of fair received a 2; the choice of adequate received a 3; the option good received a 4; and a 5 was assigned to the rating of excellent. This question strived to examine the satisfaction of the CPD recruits concerning every class presented at the CPD Recruit Academy during ER Week.

Frequencies were analyzed because they report, for each value of a variable, the number of times that a particular score shows up in a data set (Argyrous, 2005). Appendix E contains all of the frequency tables for the ER Week course ratings by all 133 CPD recruits. The following highlight some important aspects about the frequencies of the ER Week course ratings by the CPD recruits: The Critical Incident Response course was rated as "good" 91 times (68.4%) and “excellent” 16 times (12%); the Active Shooter Incident Plan course was rated as "good" 73 times (54.9%) and “excellent” 29 times (21.8%); the Chicago Fire Department presentation was rated as "good" 63 times (47.7%) and "excellent" 47 times (35.3%); the SWAT presentation was rated as "good" 62 times (46.6%) and "excellent" 46 times (34.6%); the Introduction to the CPD Critical Incident Response Team (CIRT) presentation was rated as "good" 62 times (46.6%) and

“excellent” 26 times (19.5%); the Personal and Family Preparedness course was rated as "good" 59 times (44.4%) and "excellent" 40 times (30.1%); the Hazardous Materials course was rated as "good" 77 times (57.9%) and “excellent” 29 times (21.8%); the Crowd Control and Behavior course was rated as "good" 51 times (38.3%) and "excellent" 53 times (39.8%); the Midwest Disasters course was rated as "good" 61 times (45.9%) and “excellent” 15 times (11.3%); the Homeland Security Orientation course was rated as "good" 57 times (42.9%) and “excellent” 16 times (12%); the Terrorism Detection for Law Enforcement course was rated as "good" 63 times (47.4%) and “excellent” 29 times (21.8%); the Bomb and Arson Section presentation was rated as "good" 54 times (40.6%) and excellent 55 times (41.4%); the Incident Command System course was rated as "good" 70 times (52.6%) and “excellent” 17 times (12.8%); and the National Incident Management System course was rated as "good" 63 times (47.4%) and “excellent” 19 times (14.3%).

Descriptive statistics are the numerical and tabular methods for organizing, separating, and delivering data (Argyrous, 2005). The descriptive statistics that were analyzed in Table 1 were the standard deviation, mean, and standard error of the mean. The standard deviation is the most frequently used measure of variability because of its stability and the fact that it includes every score in its calculation. A small standard deviation indicates that scores are close together and a large standard deviation indicates that the scores are spread apart. The mean is the most preferred measure of central tendency and is calculated by adding all of the scores together and dividing that total by the number of scores. The mean represents the average score among a group of scores. Also, the standard error of the mean describes how much one can expect the sample

means to differentiate if other samples are used from the same population. A small standard error of the mean indicates less sampling error (Gay et al., 2006).

Table 1

*Rating of the ER Week Courses*

	<i>N</i>	<i>M</i>	<i>SE</i>	<i>SD</i>
Rating of Bomb and Arson Section	133	4.2180	.06694	.77203
Rating of Chicago Fire Dept	133	4.1654	.06420	.74040
Rating of Crowd Behavior and Control	133	4.1504	.07199	.83026
Rating of SWAT	133	4.1353	.06647	.76655
Rating of Personal and Family Preparedness	133	4.0150	.07079	.81636
Rating of HAZMAT	133	4.0075	.05797	.66852
Rating of Active Shooter	133	3.9624	.06261	.72201
Rating of Critical Incident Response	133	3.9098	.05170	.59618
Rating of CIRT	133	3.8271	.06709	.77373
Rating of Terrorism Detection	133	3.8195	.07684	.88621
Rating of Incident Command System	133	3.7293	.06504	.75003
Rating of National Incident Management System	133	3.6692	.07373	.85033
Rating of Midwest Disasters	133	3.6090	.06904	.79615
Rating of Homeland Security	133	3.5865	.07090	.81768

Table 1 indicated that 133 respondents answered the questions concerning all of the courses presented at the CPD Recruit Academy during ER Week. The highest rated course was the Bomb and Arson Section presentation, with a mean score of 4.218, while



the lowest rated course was Homeland Security Orientation, with a mean score of 3.5865. All 14 of the rated courses had a mean higher than "adequate." Six of the rated courses had a mean higher than "good," which were the Bomb and Arson Section, the Chicago Fire Department presentation, Crowd Behavior and Control, SWAT, Personal and Family Preparedness, and Hazardous Materials. The course with the lowest standard error of the mean was Critical Incident Response, with a standard error of .05170, while the course with the highest standard error of the mean was Terrorism Detection for Law Enforcement, with a standard error of .07684. Additionally, the course with the lowest standard deviation was Critical Incident Response, at .59618 and the course with the highest standard deviation was Terrorism Detection for Law Enforcement, at .88621.

Table 2 displays one-sample  $t$  tests for a mean. A  $t$  test for a mean determines whether a statistically significant difference exists between two means (Leedy & Ormrod, 2005). One-sample  $t$  tests for means were computed for the responses given by the CPD recruits for the rating of each course in order to compare the means obtained from the sample of scores and a hypothesized mean (Robson, 2002). The hypothesized population mean for the one-sample  $t$  tests was the middle rating score of 3, which was the choice of "adequate."

The null hypothesis for each course was that the mean of the sample population and the hypothesized population mean were equal, while the alternative hypothesis for each course was that the mean of the sample population and the hypothesized population mean were different or not equal. A two-tailed test was conducted, so the alpha level was

Table 2

*Rating of the ER Week Courses*

	Test Value = 3					
	<i>t</i>	<i>df</i>	<i>p</i>	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Rating of Bomb and Arson Section	18.195*	132	.000*	1.21805	1.0856	1.3505
Rating of Chicago Fire Dept	18.153*	132	.000*	1.16541	1.0384	1.2924
Rating of Critical Incident Response	17.599*	132	.000*	.90977	.8075	1.0120
Rating of HAZMAT	17.381*	132	.000*	1.00752	.8929	1.1222
Rating of SWAT	17.081*	132	.000*	1.13534	1.0039	1.2668
Rating of Crowd Behavior and Control	15.979*	132	.000*	1.15038	1.0080	1.2928
Rating of Active Shooter	15.372*	132	.000*	.96241	.8386	1.0862
Rating of Personal and Family Preparedness	14.339*	132	.000*	1.01504	.8750	1.1551
Rating of CIRT	12.328*	132	.000*	.82707	.6944	.9598
Rating of Incident Command System	11.214*	132	.000*	.72932	.6007	.8580
Rating of Terrorism Detection	10.665*	132	.000*	.81955	.6675	.9716
Rating of National Incident Management System	9.076*	132	.000*	.66917	.5233	.8150
Rating of Midwest Disasters	8.822*	132	.000*	.60902	.4725	.7456
Rating of Homeland Security	8.272*	132	.000*	.58647	.4462	.7267

Note. \*  $t > 1.96$ . \*  $p < .025$ .

set at .025. The critical  $t$  value was 1.960, with 132 degrees of freedom, at the .025 level. In order to reject the null hypothesis, the  $p$  value must be below .025, the  $t$  value has to be greater than 1.960, and the confidence interval level cannot cross zero.

After analyzing all of the data in Table 2, the null hypothesis for each course was rejected. All of the courses had a  $p$  value below .025, the  $t$  values were greater than 1.960, and none of the courses had confidence interval levels that crossed zero. Every course in ER Week rated by the CPD recruits had a statistically significant  $t$  score and  $p$  value.

Even though the courses in ER Week had statistically significant results, effect sizes still needed to be accounted for. Effect sizes show the size of the statistically significant differences (Thalheimer & Cook, 2002). Cohen's  $d$  was used to analyze the effect size and was calculated by taking the mean difference over the standard deviation for each course in ER Week. The effect sizes of .2 to .49 were interpreted as small, .5 to .79 were interpreted as medium, and .8 and above were interpreted as large (Cohen, 1992). The course "Introduction to the Bomb and Arson Section" had a Cohen's  $d$  of 1.58 (large effect size); the course "Introduction to the Chicago Fire Department" had a Cohen's  $d$  of 1.57 (large effect size); the course "Critical Incident Response" had a Cohen's  $d$  of 1.52 (large effect size); the course "Hazardous Materials" had a Cohen's  $d$  of 1.51 (large effect size); the course "Introduction to SWAT" had a Cohen's  $d$  of 1.48 (large effect size); the course "Crowd Behavior and Control" had a Cohen's  $d$  of 1.39 (large effect size); the course "Active Shooter Incident Plan" had a Cohen's  $d$  of 1.33 (large effect size); the course "Personal and Family Preparedness" had a Cohen's  $d$  of 1.24 (large effect size); the course "Introduction to the CIRT" had a Cohen's  $d$  of 1.07 (large effect size); the "Incident Command System" course had a Cohen's  $d$  of .97 (large

effect size); the course “Terrorism Detection for Law Enforcement” had a Cohen’s *d* of .92 (large effect size); the “National Incident Management System” course had a Cohen’s *d* of .79 (medium effect size); the course “Midwest Disasters” had a Cohen’s *d* of .77 (medium effect size); and the course “Homeland Security Orientation” had a Cohen’s *d* of .72 (medium effect size).

### *Knowledge Gained*

The second research question in this study was, “How did CPD recruits perceive their knowledge concerning terrorism awareness following completion of ER Week given at the CPD Recruit Academy?” This research question was answered by a series of sub-questions that were analyzed after tabulating the Likert-type scale responses on the questionnaire. Numbers were assigned to the Likert-type scale responses for coding and analysis. The choice of poor received a 1; the option of fair received a 2; the choice of adequate received a 3; the option good received a 4; and a 5 was assigned to the rating of excellent. Having numerous sub-questions was a form of triangulation because each response told something about the respondent’s attitude (Robson, 2002).

Frequencies were analyzed because they report, for each value of a variable, the number of times that a particular score shows up in a data set (Argyrous, 2005). Appendix F contains all of the frequency tables for the ER Week knowledge ratings by all 133 CPD recruits. The following highlight some important aspects about the frequencies of the ER Week knowledge ratings by the CPD recruits: Knowledge of the term "terrorism" was rated as "good" 59 times (44.4%) and "excellent" 63 times (47.4%); knowledge of chemical agents was rated as "good" 72 times (54.1%) and “excellent” 18 times (13.5%); knowledge of biological agents was rated as "good" 63 times (47.4%) and

“excellent” 20 times (15%); knowledge of radiological agents was rated as "good" 59 times (44.4%) and “excellent” 17 times (12.8%); knowledge of nuclear materials was rated as "good" 58 times (43.6%) and “excellent” 13 times (9.8%); knowledge of explosive devices was rated as "good" 65 times (48.9%) and “excellent” 36 times (27.1%); knowledge of terrorist groups was rated as "good" 54 times (40.6%) and "excellent" 45 times (33.8%); knowledge of terrorist objectives was rated as "good" 61 times (45.9%) and "excellent" 57 times (42.9%); knowledge of potential terrorist targets was rated as "good" 52 times (39.1%) and "excellent" 65 times (48.9%); knowledge of terrorist planning was rated as "good" 58 times (43.6%) and "excellent" 43 times (32.3%); and knowledge of suspicious objects was rated as "good" 61 times (45.9%) and "excellent" 42 times (31.6%).

The descriptive statistics that were analyzed in Table 3 were the standard deviation, mean, and standard error of the mean. The standard deviation is the most frequently used measure of variability because of its stability and includes every score in its calculation. A small standard deviation indicates that scores are close together and a large standard deviation indicates that the scores are further spread apart. The mean is the most preferred measure of central tendency and is calculated by adding all of the scores together and dividing that total by the number of scores. The mean represents the average score among a group of scores. Also, the standard error of the mean describes how much one can expect the sample means to differentiate if other samples are used from the same population. A small standard error of the mean indicates less sampling error (Gay et al., 2006).

Table 3

*Knowledge of Terrorism Awareness*

	<i>N</i>	<i>M</i>	<i>SE</i>	<i>SD</i>
Knowledge of the Term Terrorism	133	4.3759	.05904	.68093
Knowledge of Potential Terrorist Targets	133	4.3534	.06332	.73025
Knowledge of Terrorist Objectives	133	4.2707	.06928	.79894
Knowledge of Suspicious Objects	133	4.0526	.07105	.81942
Knowledge of Terrorist Planning	133	4.0451	.07228	.83362
Knowledge of Terrorist Groups	133	4.0226	.07731	.89160
Knowledge of Explosive Devices	133	3.9850	.07079	.81636
Knowledge of Chemical Agents	133	3.7669	.06394	.73739
Knowledge of Biological Agents	133	3.7068	.07062	.81447
Knowledge of Radiological Materials	133	3.6090	.07226	.83334
Knowledge of Nuclear Materials	133	3.5564	.06701	.77277

Table 3 indicated that 133 respondents answered the questions concerning all of the knowledge items presented at the CPD Recruit Academy during ER Week. The highest rated knowledge item was "knowledge of the term terrorism," with a mean score of 4.3759, while the lowest rated knowledge item was "knowledge of nuclear materials," with a mean score of 3.5564. All 11 of the rated knowledge items had a mean higher than "adequate." Six of the rated knowledge items had a mean higher than "good," which were knowledge of the term terrorism, knowledge of potential terrorist targets, knowledge of terrorist objectives, knowledge of suspicious objects, knowledge of terrorist planning,

and knowledge of terrorist groups. When all 11 means of the knowledge items were added together and divided by 11, a knowledge item mean of 3.977 was obtained. The knowledge item with the lowest standard error of the mean was "knowledge of the term terrorism," with a standard error of .05904, while the knowledge item with the highest standard error of the mean was "knowledge of terrorist groups," with a standard error of .07731. Additionally, the knowledge item with the lowest standard deviation was "knowledge of the term terrorism," at .68093 and the knowledge item with the highest standard deviation was "knowledge of terrorist groups," at .89160.

Table 4 displays one-sample  $t$  tests for a mean. A  $t$  test for a mean determines whether a statistically significant difference exists between two means (Leedy & Ormrod, 2005). One-sample  $t$  tests for means were used on the responses given by the CPD recruits for the rating of all knowledge items in order to compare the means obtained from the sample of scores and a hypothesized mean (Robson, 2002). The hypothesized population mean for the one-sample  $t$  tests was the middle rating score of 3, which was the choice of "adequate."

The null hypothesis for each knowledge item was that the mean of the sample population and the hypothesized population mean were equal, while the alternative hypothesis for each knowledge item was that the mean of the sample population and the hypothesized population mean were different or not equal. A two-tailed test was conducted, so the alpha level was set at .025. The critical  $t$  value was 1.960 with 132 degrees of freedom at the .025 level. In order to reject the null hypothesis, the  $p$  value

Table 4

*Knowledge of Terrorism Awareness*

	Test Value = 3					
	<i>t</i>	<i>df</i>	<i>p</i>	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Knowledge of the Term Terrorism	23.304*	132	.000*	1.37594	1.2591	1.4927
Knowledge of Potential Terrorist Targets	21.373*	132	.000*	1.35338	1.2281	1.4786
Knowledge of Terrorist Objectives	18.342*	132	.000*	1.27068	1.1336	1.4077
Knowledge of Suspicious Objects	14.815*	132	.000*	1.05263	.9121	1.1932
Knowledge of Terrorist Planning	14.458*	132	.000*	1.04511	.9021	1.1881
Knowledge of Explosive Devices	13.914*	132	.000*	.98496	.8449	1.1250
Knowledge of Terrorist Groups	13.227*	132	.000*	1.02256	.8696	1.1755
Knowledge of Chemical Agents	11.994*	132	.000*	.76692	.6404	.8934
Knowledge of Biological Agents	10.008*	132	.000*	.70677	.5671	.8465
Knowledge of Radiological Materials	8.428*	132	.000*	.60902	.4661	.7520
Knowledge of Nuclear Materials	8.303*	132	.000*	.55639	.4238	.6889

Note. \*  $t > 1.96$ . \*  $p < .025$ .



must be below .025, the  $t$  value has to be greater than 1.960, and the confidence interval level cannot cross zero.

After analyzing all of the data in Table 4, the null hypothesis for each knowledge item was rejected. All of the knowledge items had a  $p$  value below .025, the  $t$  values were greater than 1.960, and none of the knowledge items had confidence interval levels that crossed zero. Every knowledge item in ER Week rated by the CPD recruits had a statistically significant  $t$  score and  $p$  value.

Even though the knowledge items in ER Week had statistically significant results, effect sizes still needed to be accounted for. Effect sizes show the size of the statistically significant differences (Thalheimer & Cook, 2002). Cohen's  $d$  was used to analyze the effect size and was calculated by taking the mean difference over the standard deviation for each knowledge item in ER Week. The effect sizes of .2 to .49 were interpreted as small, .5 to .79 were interpreted as medium, and .8 and above were interpreted as large. (Cohen, 1992). The following are the Cohen's  $d$  effect sizes for the rated knowledge items in ER Week: "knowledge of the term terrorism" was 2.02 (large effect size); "knowledge of potential terrorist targets" was 1.85 (large effect size); "knowledge of terrorist objectives" was 1.59 (large effect size); "knowledge of suspicious objects" was 1.28 (large effect size); "knowledge of terrorist planning" was 1.25 (large effect size); "knowledge of explosive devices" was 1.21 (large effect size); "knowledge of terrorist groups" was 1.15 (large effect size); "knowledge of chemical agents" was 1.04 (large effect size); "knowledge of biological agents" was .87 (large effect size); "knowledge of radiological materials" was .73 (medium effect size); and "knowledge of nuclear materials" was .72 (medium effect size).

The Pearson  $r$  was used on the knowledge items because it is a measure of correlation for interval data that indicates the degree to which two sets of scores are related and it is the most stable measure of correlation (Gay et al., 2006). The value of Pearson's  $r$  gives the strength and direction of association between two variables. The standard used for correlation strength was .2 to .299 as a weak correlation; .3 to .599 was a moderate correlation; .6 to .799 was a strong correlation; and .8 or greater was a very strong correlation (Argyrous, 2005). Appendix G shows the strength and direction of the correlated knowledge items. Four of the correlated knowledge items had very strong correlations, 15 of the correlated knowledge items had strong correlations, and 36 of the correlated knowledge items had moderate correlations. All 55 correlated knowledge items were statistically significant at the .01 level (2-tailed). The highest correlated knowledge items were "knowledge of biological agents" and "knowledge of chemical agents" at .920. The lowest correlated knowledge items were "knowledge of the term terrorism" and "knowledge of explosive devices" at .337.

#### *Skill Level*

The third research question in this study was, "How did CPD recruits perceive their skill levels concerning responding to a terrorism incident following completion of ER Week given at the CPD Recruit Academy?" Like the second research question, this research question was answered by a series of sub-questions that were analyzed after tabulating the Likert-type scale responses on the questionnaire. Numbers were assigned to the Likert-type scale responses for coding and analysis. The choice of poor received a 1; the option of fair received a 2; the choice of adequate received a 3; the option good received a 4; and a 5 was assigned to the rating of excellent. This question elicited

information from the CPD recruits about their attitudes of their skills acquired during ER Week at the CPD Recruit Academy.

Frequencies were analyzed because they report, for each value of a variable, the number of times that a particular score shows up in a data set (Argyrous, 2005).

Appendix H contains all of the frequency tables for the ER Week skill ratings by all 133 CPD recruits. The following discussion highlights some important aspects about the frequencies of the ER Week skill ratings by the CPD recruits: The skill of identifying a suspicious incident was rated as "good" 76 times (57.1%) and "excellent" 22 times (16.5%); the skill of implementing self-protective measures was rated as "good" 72 times (54.1%) and "excellent" 20 times (15%); the skill of controlling a disaster scene was rated as "good" 69 times (51.9%) and "excellent" 13 times (9.8%); the skill of evacuating persons from a dangerous area was rated as "good" 72 times (54.1%) and "excellent" 19 times (14.3%); the skill of using the Emergency Response Guidebook (ERG) was rated as "good" 53 times (39.8%) and "excellent" 42 times (31.6%); the skill of responding to a bomb threat was rated as "good" 68 times (51.1%) and "excellent" 15 times (11.3%); the skill of dealing with a person wearing an explosive device was rated as "good" 36 times (27.1%) and "excellent" 5 times (3.8%); the skill of handling an active shooter was rated as "good" 57 times (42.9%) and "excellent" 15 times (11.3%); and the skill of rendering aid to injured persons was rated as "good" 58 times (43.6%) and "excellent" 46 times (34.6%).

The descriptive statistics that were analyzed in Table 5 were the standard deviation, mean, and standard error of the mean. The standard deviation is the most frequently used measure of variability because of its stability and includes every score in

its calculation. A small standard deviation indicates that scores are close together and a large standard deviation indicates that the scores are further spread apart. The mean is the most preferred measure of central tendency and is calculated by adding all of the scores together and dividing that total by the number of scores. The mean represents the average score among a group of scores. Also, the standard error of the mean describes how much one can expect the sample means to differentiate if other samples are used from the same population. A small standard error of the mean indicates less sampling error (Gay et al., 2006).

Table 5

*Skill of Responding to a Terrorism Incident*

	<i>N</i>	<i>M</i>	<i>SE</i>	<i>SD</i>
Skill of Rendering Aid to Injured Persons	133	4.0827	.07243	.83526
Skill of Using the ERG	133	3.9699	.07839	.90403
Skill of Identifying a Suspicious Incident	133	3.8872	.05909	.68151
Skill of Implementing Self-Protective Measures	133	3.7895	.06584	.75931
Skill of Evacuating Persons from a Dangerous Area	133	3.7744	.06718	.77476
Skill of Responding to a Bomb Threat	133	3.7068	.06204	.71544
Skill of Controlling a Disaster Scene	133	3.6541	.06496	.74919
Skill of Handling an Active Shooter	133	3.4887	.08241	.95041
Skill of Dealing with a Person Wearing an Explosive	133	2.9474	.08757	1.00992

Table 5 indicated that 133 respondents answered the questions concerning all of the skill items presented at the CPD Recruit Academy during ER Week. The highest

rated skill item was the "skill of rendering aid to injured persons," with a mean score of 4.0827, while the lowest rated skill item was the "skill of dealing with a person wearing an explosive device," with a mean score of 2.9474. All of the rated skill items had a mean higher than "adequate," except for the "skill of dealing with a person wearing an explosive device." Only one of the rated skill items had a mean higher than "good," which was the "skill of rendering aid to injured persons." When all nine means of the skill items were added together and divided by nine, a skill item mean of 3.7 was obtained. The skill item with the lowest standard error of the mean was the "skill of identifying a suspicious incident," with a standard error of .05909, while the skill item with the highest standard error of the mean was the "skill of dealing with a person wearing an explosive device," with a standard error of .08757. Additionally, the skill item with the lowest standard deviation was the "skill of identifying a suspicious incident," at .68151 and the skill item with the highest standard deviation was the "skill of dealing with a person wearing an explosive device," at 1.00992.

Table 6 displays one-sample  $t$  tests for a mean. A  $t$  test for a mean determines whether a statistically significant difference exists between two means (Leedy & Ormrod, 2005). One-sample  $t$  tests for means were used on the responses given by the CPD recruits for the rating of each skill item in order to compare the means obtained from the sample of scores and a hypothesized mean (Robson, 2002). The hypothesized population mean for the one-sample  $t$  tests was the middle rating score of 3, which was the choice of "adequate."

Table 6

*Skill of Responding to a Terrorism Incident*

	Test Value = 3					
	<i>t</i>	<i>df</i>	<i>p</i>	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Skill of Identifying a Suspicious Incident	15.014*	132	.000*	.88722	.7703	1.0041
Skill of Rendering Aid to Injured Persons	14.949*	132	.000*	1.08271	.9394	1.2260
Skill of Using the ERG	12.373*	132	.000*	.96992	.8149	1.1250
Skill of Implementing Self-Protective Measures	11.991*	132	.000*	.78947	.6592	.9197
Skill of Evacuating Persons from a Dangerous Area	11.528*	132	.000*	.77444	.6415	.9073
Skill of Responding to a Bomb Threat	11.393*	132	.000*	.70677	.5841	.8295
Skill of Controlling a Disaster Scene	10.069*	132	.000*	.65414	.5256	.7826
Skill of Handling an Active Shooter	5.930*	132	.000*	.48872	.3257	.6517
Skill of Dealing with a Person Wearing an Explosive	-.601	132	.549	-.05263	-.2259	.1206

Note. \*  $t > 1.96$ . \*  $p < .025$ .

The null hypothesis for each skill item was that the mean of the sample population and the hypothesized population mean were equal, while the alternative hypothesis for each knowledge item was that the mean of the sample population and the hypothesized population mean were different or not equal. A two-tailed test was conducted, so the alpha level was set at .025. The critical  $t$  value was 1.960 with 132 degrees of freedom at the .025 level. In order to reject the null hypothesis, the  $p$  value must be below .025, the  $t$  value has to be greater than 1.960, and the confidence interval level cannot cross zero.

After analyzing all of the data in Table 6, the null hypothesis failed to be rejected for the skill item "dealing with a person wearing an explosive device" because the  $p$  value was above .025 (.549), the  $t$  value was less than 1.960 (-.601), and the confidence interval levels crossed zero (-.2259 to .1206). The null hypothesis was rejected for the remaining eight skill items because they had a  $p$  value below .025, the  $t$  values were greater than 1.960, and the skill items had confidence interval levels that did not cross zero. All skill items in ER Week, except for the skill of dealing with a person wearing an explosive device, had a statistically significant  $t$  score and  $p$  value.

Even though eight of the nine skill items in ER Week had statistically significant results, effect sizes still needed to be accounted for. Effect sizes show the size of the statistically significant differences (Thalheimer & Cook, 2002). Cohen's  $d$  was used to analyze the effect size and was calculated by taking the mean difference over the standard deviation for each statistically significant skill item in ER Week. The effect sizes of .2 to .49 were interpreted as small, .5 to .79 were interpreted as medium, and .8 and above were interpreted as large (Cohen, 1992). The following are the Cohen's  $d$  effect sizes for the skill items in ER Week: "skill of identifying signs of a suspicious incident" was 1.30

(large effect size); “skill of rendering aid to injured persons” was 1.30 (large effect size); “skill of using the North American ERG” was 1.07 (large effect size); “skill of implementing appropriate self-protective measures” was 1.04 (large effect size); “skill of evacuating persons from a dangerous area” was 1.00 (large effect size); “skill of responding to a bomb threat” was .99 (large effect size); “skill of controlling a disaster scene” was .87 (large effect size); and the “skill of handling an active shooter” was .51 (medium effect size).

The Pearson  $r$  was used on the skill items because it is a measure of correlation for interval data that indicates the degree to which two sets of scores are related and it is the most stable measure of correlation (Gay et al., 2006). The value of Pearson's  $r$  gives the strength and direction of association between two variables. The standard used for correlation strength was .2 to .299 as a weak correlation; .3 to .599 was a moderate correlation; .6 to .799 was a strong correlation; and .8 or greater was a very strong correlation (Argyrous, 2005). Appendix I shows the strength and direction of the correlated skill items. One of the correlated skill items had a strong correlation, 33 of the correlated skill items had moderate correlations, and two of the correlated skill items had weak correlations. There were 34 correlated skill items that were statistically significant at the .01 level (2-tailed) and two correlated skill items that were statistically significant at the .05 level (2-tailed). The highest correlated skill items were the "skill of controlling a disaster scene" and the "skill of evacuating persons from a dangerous area" at .674. The lowest correlated skill items were the "skill of using the ERG" and the "skill of handling an active shooter" at .211.



### *Improvements and Things Done Well Concerning the Curriculum in ER Week*

The fourth research question in this study was, “What improvements should be made to the CPD recruit curriculum in ER Week?” This research question was asked in order to receive responses that could inform potential changes in the CPD recruit curriculum in ER Week. Multiple sources of data were collected with the intention that they would converge to support triangulation (Leedy & Ormrod, 2005). This one open-ended question was asked and the coding of the open-ended question responses involved combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002). An additional open-ended sub-question was asked in order to solicit further information on the strengths of the curriculum in ER Week. The additional sub-question was, "What was done well concerning the CPD recruit curriculum in ER Week?" The sub-question responses were also coded and examined for emerging themes by combining the responses into a limited number of categories that enabled description of the data and statistical analysis (Robson, 2002).

A total of 113 CPD recruits responded to the fourth research question, “What improvements should be made to the CPD recruit curriculum in Emergency Response Week?” In other words, 20 of the 133 CPD recruits (15%) did not answer the research question. Fifty-two of the 113 CPD recruits (46%) stated that the curriculum should include more hands-on scenario-based training where CPD recruits would respond to a terrorism incident. Twenty-two of the 113 CPD recruits (19%) stated that more time needed to be spent on the entire ER Week curriculum because too much information was given in one week and the ER Week curriculum could thereby go into more detail. Seven of the 113 CPD recruits (6%) stated that more terrorism training videos should be added

into the ER Week curriculum. Further, seven of the 113 CPD recruits (6%) stated that more time needed to be spent on persons wearing an explosive device.

A total of 114 CPD recruits responded to the sub-question, "What was done well concerning the CPD recruit curriculum in ER Week?" In other words, 19 of the 133 CPD recruits (14%) did not answer the sub-question. Forty-six of the 114 CPD recruits (40%) stated that the instructors of the ER Week curriculum were knowledgeable, passionate, and interesting. Twenty-three of the 114 CPD recruits (20%) stated that they enjoyed the group project because it helped the CPD recruits apply what they learned throughout the entire ER Week. The group project was conducted at the end of ER Week and consisted of the CPD recruits having to formulate a plan on how to respond to a hazardous materials incident as a team. The group project was not a hands-on scenario-based exercise, but was conducted in the classroom as a team. Twelve of the 114 CPD recruits (11%) stated that the curriculum was organized well. Additionally, 11 of the 114 CPD recruits (10%) stated that the ER Week curriculum gave them the knowledge and skills necessary to understand and respond to a terrorism incident.

### Conclusions

The first research question in this study examined how the CPD recruit curriculum in ER Week was perceived by CPD recruits. Frequencies, descriptive statistics, and one-sample *t* tests for means were analyzed in order to answer the first research question. The frequency tables in Appendix E showed that there was a very high frequency count of CPD recruits rating the courses in ER Week as "adequate" or higher. The descriptive statistics for each course given in ER Week were shown in Table 1 and all ER Week courses exhibited small standard deviations, which indicated that the scores

were close together. All 14 of the rated ER Week courses had a mean higher than "adequate." The one-sample  $t$  tests for mean results in Table 2 displayed that every course in ER Week rated by the CPD recruits had a statistically significant  $t$  score and  $p$  value. Lastly, the Cohen's  $d$  results displayed that 11 of the courses in ER Week had large effect sizes, while three of the courses in ER Week had medium effect sizes. Considering the aforementioned statistical findings, the CPD recruit curriculum in ER Week was perceived as "above adequate" by CPD recruits.

Past studies have revealed similar findings to the current study concerning police academy curricula. In 1995, Brand and Peak found that the graduates of the Nevada Police Officer Standards and Training (POST) Academy provided an above average rating to the overall academy training. Additionally, Renahan (2005) examined the perceptions of municipal police executives in New Jersey regarding the end product from the significantly revised Basic Course for Police Officers. Renahan found that a statistically significant number of the respondents were getting a better trained police officer and that the recently modified Basic Course for Police Officers was meeting their training needs. The current study's findings mirrored the above findings and discovered that the CPD recruit curriculum in ER Week was perceived as "above adequate" by CPD recruits.

The second research question in this study examined how the CPD recruits perceived their knowledge concerning terrorism awareness following completion of ER Week given at the CPD Recruit Academy. Frequencies, descriptive statistics, one-sample  $t$  tests for means, and correlations were analyzed in order to answer the second research question. The frequency tables in Appendix F showed that there was a very high

frequency count of CPD recruits rating the knowledge items as "adequate" or higher. The descriptive statistics for the knowledge items were shown in Table 3 and all knowledge items exhibited small standard deviations, which indicated that the scores were close together. All 11 of the rated knowledge items had a mean higher than "adequate" and an overall knowledge item mean of 3.977 was obtained. The one-sample *t* tests for mean results in Table 4 displayed that every knowledge item rated by the CPD recruits had a statistically significant *t* score and *p* value. The Cohen's *d* results displayed that nine of the knowledge items in ER Week had large effect sizes, while two of the knowledge items in ER Week had medium effect sizes. Lastly, Appendix G showed that all 55 correlated knowledge items were statistically significant at the .01 level (2-tailed). Considering the aforementioned statistical findings, the CPD recruits perceived their knowledge concerning terrorism awareness as "above adequate" following completion of ER Week given at the CPD Recruit Academy.

One study revealed a similar finding to the current study concerning knowledge obtained at a police academy. Marion's (1998) observations indicated that the police training program at a police academy in Ohio provided the knowledge and skills training required to prepare recruits to be police officers. The current study's findings mirrored Marion's findings and discovered that the CPD recruits perceived their knowledge concerning terrorism awareness as "above adequate" following completion of ER Week given at the CPD Recruit Academy.

The third research question in this study examined how the CPD recruits perceived their skill levels concerning responding to a terrorism incident following completion of ER Week given at the CPD Recruit Academy. Frequencies, descriptive

statistics, one-sample  $t$  tests for means, and correlations were analyzed in order to answer the third research question. The frequency tables in Appendix H showed that there was a very high frequency count of CPD recruits rating the skill items as "adequate" or higher. The descriptive statistics for the skill items were shown in Table 5 and all skill items exhibited small standard deviations, which indicated that the scores were close together. All of the rated skill items had a mean higher than "adequate," except for the "skill of dealing with a person wearing an explosive device." The overall skill item mean was 3.7.

The one-sample  $t$  tests for mean results in Table 6 displayed that all skill items in ER Week, except for the skill of dealing with a person wearing an explosive device, had a statistically significant  $t$  score and  $p$  value. The Cohen's  $d$  results displayed that seven of the statistically significant skill items in ER Week had a large effect size, while one of the statistically significant skill items in ER Week had a medium effect size. Lastly, Appendix I showed that there were 34 correlated skill items that were statistically significant at the .01 level (2-tailed) and two correlated skill items that were statistically significant at the .05 level (2-tailed). Considering the aforementioned statistical findings, the CPD recruits perceived their skill levels concerning responding to a terrorism incident as "above adequate" following completion of ER Week given at the CPD Recruit Academy.

Past studies have revealed similar findings to the current study concerning skill levels obtained at police academies. The study conducted by Morrison (2006) found academy graduates' skills concerning deadly force program outcomes were generally rated as adequate in the state of Washington. Epperson (2005) discovered some common themes through a review of United States policy and theory. First, law enforcement first

responders need to deter, prevent, and interdict actions of terrorists. Second, law enforcement first responders need to respond to terrorist acts as they would during a natural or man-made event that requires disaster mitigation and management. The current study's findings mirrored the above findings and determined that the CPD recruits perceived their skill levels concerning responding to a terrorism incident as "above adequate" following completion of ER Week given at the CPD Recruit Academy.

The fourth research question in this study examined the improvements that should be made to the CPD recruit curriculum in ER Week. The recommended additions by the CPD recruits were, in descending order; further hands-on scenario-based training, additional time needed on the entire ER Week curriculum, more terrorism training videos to be added into the ER Week curriculum, and additional time needed on persons wearing an explosive device. An additional sub-question was analyzed that probed into what was done well concerning the CPD recruit curriculum in ER Week. In descending order, the CPD recruits stated that the instructors of the ER Week curriculum were great, that they enjoyed the group project, that the curriculum was organized well, and that the ER Week curriculum gave the CPD recruits the knowledge and skills necessary to understand and respond to a terrorism incident.

Past studies have revealed similar findings to the current study regarding recommendations for improvements. The results from Finnimore's (2005) research indicated that the Small Town County police perceived the state mandated curriculum to be relevant, but felt more training was needed. A statistically significant number of respondents felt the Gettrained Police Academy needed to provide more scenario based or practical training. Additionally, Morrison (2006) found that the respondents wanted

more training on tactics and judgment while using role-playing or live-fire scenarios. The current study's findings mirrored the above findings and discovered that more hands-on scenario-based training would benefit the CPD recruit curriculum in ER Week.

### Implications and Recommendations

The findings clearly indicated that the CPD Recruit Academy leadership needs to enhance the ER Week curriculum concerning dealing with a person wearing an explosive device. The mean for the skill level of dealing with a person wearing an explosive device, or suicide bomber, was below adequate. Of all the skill items in the curriculum, this was the only mean that was below adequate. A suicide bombing is the voluntary act of detonating an explosive device with knowledge that the person carrying the explosive device is likely to be killed during the explosion. Suicide bombers have been referred to as “delivery devices” and “human guided missiles” because of their ability to gain access to intended targets and the precision of their targeting. Terrorist groups often choose this tactic because these types of explosive devices are easy and inexpensive to make. Also, suicide bombings substantially damage the morale of the bomber’s enemy and can have vast psychological consequences (New Mexico Institute of Mining and Technology Energetic Materials Research and Testing Center, 2006b). The leaders of the CPD Recruit Academy should find ways to improve the ER Week curriculum that involves dealing with a person wearing an explosive device.

The CPD ER Week curriculum can be enhanced by providing more scenario-based training concerning terrorism incidents. The CPD recruits stated that the curriculum should include more hands-on scenario-based training where CPD recruits would respond to a terrorism incident, such as an active shooter or a bomb threat. Police officers who

encounter few scenarios might be far less prepared for managing dangerous encounters than those police officers who experience greater numbers of scenarios. Police officers who expand their useful range of options, refine their abilities, and confront their personal limitations maximize their own and the public's safety (Morrison, 2005). More hands-on scenario-based training concerning terrorism incidents needs to be added throughout the ER Week curriculum at the CPD Recruit Academy.

The policy implications of the above findings are clear. The ER Week portion of the CPD Recruit Academy Curriculum was more than adequate and provided CPD recruits with appropriate knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident. Only three of the 14 classes in ER Week are mandated by the ILETSB. The three classes required by the ILETSB are Hazardous Materials, Crowd Behavior and Control, and Homeland Security Orientation (ILETSB, 2007). The remaining classes in ER Week were developed by the CPD Education and Training Division staff. The ILETSB should consider adding more Illinois state mandated courses to its curriculum concerning knowledge of terrorism awareness and the skills necessary to respond to a terrorism incident. All police recruits in the state of Illinois should be prepared equally to deal with a terrorism incident because a terrorist attack could occur anywhere and not just in large metropolitan areas.

Because the literature did not reveal much research in the area of terrorism awareness and response for police recruits, it is recommended that continued research be conducted in order to determine the most current and essential preparation for new police recruits. Terrorists continue to alter their strategies, and advances in technology give



terrorists more opportunities than ever before. Police recruits need to stay abreast of the latest trends in terrorism through education and training.

It would be important for future researchers to explore the differences in types of academy training concerning terrorism awareness and response. Every state in the United States mandates different training for police recruits and individual police academies often have the flexibility to expand their curriculum beyond state mandates. Do different police academies train differently concerning terrorism awareness and response, and if so, what are the overall effects on police recruits? (Ness, 1991). Expanding the scope of a study such as this one to a broader level, regionally or nationally, would help answer questions about police recruit training concerning terrorism awareness and response across a wider array of locations around the country.

The survey instrument used in this study did not contain any questions that allowed for the CPD recruits to evaluate the instruction that they received by CPD instructors. An evaluation of task items can be affected by the police recruits' evaluations of an instructor's knowledge and ability to teach (Marsh & Grosskopf, 1991). Training-specific variables should be included in future research concerning terrorism awareness and response. These variables include such items as recruit evaluations of instructor competence and the training methods used by the instructors (Traut et al., 2000).

This research surveyed CPD recruits from the CPD Recruit Academy only. Police recruits could be unconsciously predisposed towards higher ratings because of the paramilitary atmosphere at the CPD Recruit Academy and the assumption that all of the training received has been quality training. Also, police recruits may have limited personal experience on which to base their perceptions about the adequacy of their

training (Morrison, 2006). Future research concerning terrorism awareness and response could include surveying police officers who took the ER Week courses at the CPD Recruit Academy and have several years of “street” experience on the Chicago Police Department.

Additional research can be conducted that replicates this study as related to age, gender, educational level, ethnicity, military experience, and prior police experience (Brand & Peak, 1995). The CPD recruits perceptions' of the CPD recruit curriculum in ER Week can be compared and contrasted with the various cross-sections of the demographics. Furthermore, the CPD recruits perceptions' of their knowledge concerning terrorism awareness and their skill levels concerning responding to a terrorism incident can be compared and contrasted with the demographic variables. After comparing and contrasting the demographic variables with the CPD recruit perceptions of the CPD recruit curriculum in ER Week, the knowledge items, and the skill items, a clearer picture could emerge on how the demographic variables influence the dependent variables.

Chappell (2008) examined whether or not a different "type" of police recruit performed better after receiving the curriculum from a police academy. Chappell (2008) suggested that a number of personal characteristics may affect the performance of police recruits. In future terrorism curriculum studies, a researcher could examine the effects of age, gender, educational level, ethnicity, military experience, and prior police experience on how well a CPD recruit responds to a terrorism incident during a training scenario.

Police officers throughout the world need to remain vigilant to the ever-evolving threat of terrorism. The continuous terrorist attacks around the globe display law enforcement's critical role in preventing, planning, and responding to terrorism. A major

terrorist attack in the United States will require local law enforcement agencies to use their knowledge and skills to coordinate response efforts with agencies at the state and federal levels rapidly (Mosser, 2007). It is during the initial recruit training phase at the police academy where police recruits need to learn about terrorism and how to respond to a terrorism incident. The CPD recruits gained a great deal of knowledge and skills pertaining to terrorism, thanks to the ER Week curriculum. When disaster strikes, the CPD recruits, who are now Chicago police officers, will take action and rely on their training received at the CPD Recruit Academy. Our way of life and our lives may depend on that training.

## REFERENCES

- American Social History Productions. (2006, March 31). *History matters*. Retrieved March 7, 2009, from <http://historymatters.gmu.edu/d/6545/>
- Argyrous, G. (2005). *Statistics for research with a guide to SPSS*. (2nd ed.). Thousand Oaks, CA: Sage.
- Bayley, D.H. (1986). *The new blue line: Police innovation in six American cities*. New York: Free Press.
- Birzer, M.L. (1999). Police training in the 21<sup>st</sup> century. *FBI Law Enforcement Bulletin*, 68(7), 16-19.
- Boone, N. (1710). *The constable's pocket-book*. Washington, DC: Library of Congress.
- Bopp, W.J., & Schultz, D.O. (1972). *A short history of American law enforcement*. Springfield, IL: Charles C. Thomas.
- Bradford, D., & Pynes, J. (1999). Police academy training: Why hasn't it kept up with practice? *Police Quarterly*, 2(3), 283-301.
- Brand, R., & Peak, K. (1995). Assessing police training curricula: "Consumer reports." *The Justice Professional*, 9, 47-55.
- Bridenbaugh, C. (1938). *Cities in the wilderness: The first century of urban life in America, 1625-1742*. New York: Ronald Press.
- Campbell, J.T., Draft, R.L., & Hulin, C.L. (1982). *What to study: Generating and developing research questions*. Newbury Park, CA: Sage.

- Chappell, A.T. (2008). Police academy training: Comparing across curricula. *Policing: An International Journal of Police Strategies and Management*, 31(1), 36-56.
- Chicago Police Department. (2008). *Chicago Police Department recruitment and employment*. Retrieved May 14, 2009, from <https://portal.chicagopolice.org/portal/page/portal/ClearPath/About%20CPD/RecruitmentEmployment>
- Chicago Police Department Education and Training Division. (2008a). *Basic recruit procedural manual rules and regulations*. Chicago: Author.
- Chicago Police Department Education and Training Division. (2008b). *Chicago Police basic recruit program*. Chicago: Author.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Combs, C. (2003). *Terrorism in the twenty-first century* (3<sup>rd</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Critchley, T.A. (1972). *A history of police in England and Wales* (2<sup>nd</sup> ed.). Montclair, N.J.: Patterson Smith.
- Davis, L., Riley, J., Ridgeway, G., Pace, J., Sarah, C., Steinberg, P., et al. (2004). *When terrorism hits home: How prepared are state and local law enforcement?* Santa Monica, CA: RAND.
- Deakin, T.J. (1988). *Police professionalism: The renaissance of American law enforcement*. Springfield, IL: Charles C. Thomas.
- Dorn, M., & Dorn, C. (2005). *Innocent targets: When terrorism comes to schools*. Macon, GA: Safe Havens International.

- Epperson, C. (2005). *Law enforcement first responders and terrorism: An international comparison of needs and capability requirements*. Unpublished master's thesis, California State University, Long Beach.
- Feltes, T. (2002). Community-oriented policing in Germany. *Policing*, 25(1), 48-59.
- Finnimore, I. (2005). *The efficacy of police academy training: A study of the relationship between suburban police officers and their training at a regional police academy*. Unpublished doctoral dissertation, Wilmington College, New Castle, DE.
- Fitzgerald, K.G. (2008). *Evaluation of the preparedness of Massachusetts nursing homes to respond to a catastrophic natural or human-made disaster*. Unpublished doctoral dissertation, University of Massachusetts, Boston.
- Fogelson, R.M. (1977). *Big-city police*. Cambridge, MA: Harvard University Press.
- Foote, J. (1973). *Police*. Washington, DC: U.S. Government Printing Office.
- Fullerton, E. (1983). *A survey of needs for curriculum revision based on selected law enforcement competencies perceived as valuable by graduates of the Indiana University of Pennsylvania part-time municipal police academy*. Unpublished doctoral dissertation, University of Pittsburgh, PA.
- Fyfe, J.J., Greene, J.R., Walsh, W.F., Wilson, O.W., & McLaren, R.C. (1997). *Police administration* (5<sup>th</sup> ed.). Burr Ridge, IL: McGraw-Hill.
- Gay, L.R., Mills, G.E., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications* (8<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Giduck, J. (2005). *Terror at Beslan*. Golden, CO: Archangel Group.

- Grossman, D., & Christensen, L. (2004). *On combat: The psychology and physiology of deadly conflict in war and in peace*. Millstadt, IL: PPCT.
- Haddow, G., & Bullock, J. (2006). *Introduction to emergency management* (2nd ed.). New York: Elsevier Butterworth-Heinemann.
- Holmes, G., Cole, E., & Hicks, L. (1992). Curriculum development: Relevancy and innovation. *The Police Chief*, 59(11), 51-52.
- Illinois Law Enforcement Training and Standards Board. (2007). *2007 police officer basic training curriculum*. Huntsville, TX: Justex Systems.
- Illinois Law Enforcement Training and Standards Board. (2008). *About us*. Illinois Law Enforcement Training and Standards Board. Retrieved October 15, 2008, from <http://www.ptb.state.il.us/aboutus.htm>
- Johnson, H. G. (1983). *The history of mandatory police training in Illinois, since 1955, and recommendations for the future*. Unpublished doctoral dissertation, Saint Louis University, MO.
- Kerlinger, F.N. (1986). *Foundations of behavioral research*. Fort Worth, TX: Harcourt, Brace, & Jovanovich.
- Leedy, P.D., & Ormrod, J.E. (2005). *Practical research: Planning and design* (8<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Louisiana State University, Center for Domestic Preparedness, Texas A & M University & New Mexico Institute of Mining and Technology. (2004). *Law enforcement prevention and deterrence of terrorist acts: Train-the-trainer instructor guide*. Baton Rouge, LA: Louisiana State University.

- Marion, N. (1998). Police academy training: Are we teaching recruits what they need to know? *Policing*, 21(1), 54.
- Marsh, H.L., & Grosskopf, E. (1991). The key factors in law enforcement training: Requirements, assessments, and methods. *The Police Chief*, 58(11), 64-68.
- McDermott, T. (2005). *Perfect soldiers*. New York: Harper-Collins.
- McLellan, D. (1998). *Relationship of basic academy training of police officers to appropriate competency levels required for duty in their respective communities*. Unpublished doctoral dissertation, Walden University, Minneapolis, MN.
- Morrison, G. (1995). *A critical history and evaluation of American police firearms training to 1945*. Unpublished doctoral dissertation, University of California, Irvine.
- Morrison, G. (2005). Police in-service deadly force training and requalification in Washington state. *Law enforcement executive forum*, 5(2), 67-86.
- Morrison, G. (2006). Police department and instructor perspectives on pre-service firearm and deadly force training. *Policing*, 29(2), 226-240.
- Mosser, M. E. (2007). *Law enforcement preparedness against terrorism in the state of Florida*. Unpublished doctoral dissertation, Walden University, Minneapolis, MN.
- Mulaik, S.A. (1972). *The foundations of factor analysis*. New York: McGraw-Hill.
- National Advisory Commission on Civil Disorders. (1968). *Report of the National Advisory Commission on Civil Disorders*. Washington, DC: U.S. Government Printing Office.
- National Advisory Commission on Criminal Justice Standards and Goals. (1973). *Report on the police*. Washington, DC: U.S. Government Printing Office.



- National Commission on Law Observance and Enforcement. (1931). *Report on lawlessness in law enforcement*. Washington, DC: U.S. Government Printing Office.
- National Intelligence Council. (2007). *The terrorist threat to the U.S. homeland*. Washington, DC: Author.
- Ness, J. (1991). The relevance of basic law enforcement training-Does the curriculum prepare recruits for police work: A survey study. *Journal of Criminal Justice*, 19, 181-193.
- New Mexico Institute of Mining and Technology Energetic Materials Research and Testing Center. (2006a). *Incident response to terrorist bombings: Instructor guide*. Socorro, NM: Author.
- New Mexico Institute of Mining and Technology Energetic Materials Research and Testing Center. (2006b). *Prevention and response to suicide bombing incidents: Instructor guide*. Socorro, NM: Author.
- Office of the President of the United States. (2002). The national strategy for homeland security. Retrieved September 10, 2008, from [www.dhs.gov/xlibrary/assets/nat\\_strat\\_hls.pdf](http://www.dhs.gov/xlibrary/assets/nat_strat_hls.pdf)
- Phillips, T. (2005). *Public safety curricula in American community colleges: Programs, problems, and prospects*. Unpublished doctoral dissertation, University of North Texas, Denton, TX.
- Pinto, S. (2004). *Police response to mentally ill persons in crisis*. Unpublished doctoral dissertation, The Chicago School of Professional Psychology, Chicago, IL.

- Poradzisz, D. (2004). *Alternative instructional methods in police learning*. Unpublished doctoral dissertation. University of Illinois at Chicago.
- President's Commission on Law Enforcement and Administration of Justice. (1967). *Task force report: The police*. Washington, DC: U.S. Government Printing Office.
- Public Administration Service of Chicago. (1968). *Police training and education in Illinois*. Chicago: Author.
- Regents of the University of California. (1972). *August Vollmer: Pioneer in police professionalism*. Berkeley, CA: Author.
- Renahan, M. (2005). *Perceptions of police executives in New Jersey regarding the relationship of basic police academy training to expectations of proficiency or skills required for duty in their respective communities*. Unpublished doctoral dissertation, Seton Hall University, South Orange, NJ.
- Riley, K., & Hoffman, B. (1995). *Domestic terrorism. A national assessment of state and local preparedness*. Santa Monica, CA: RAND.
- Robson, C. (2002). *Real World Research* (2<sup>nd</sup> ed.). Malden, MA: Blackwell.
- Roe, G.M. (1890). *Our police: A history of the Cincinnati police force from the earliest period until the present day*. Cincinnati, OH: N.P.
- Schmallegger, F. (1999). *Criminal justice today: An introductory text for the 21<sup>st</sup> century*. Englewood Cliffs, N.J.: Prentice Hall.
- Seavey, W.S. (1895). *Proceedings of the second annual conference of the National Association of Chiefs of Police of the United States and Canada*. New York: Arno Press.

- Stroupe, W. (2003). *A study of West Virginia State Police Academy graduates' perceptions of their degrees of competence and the relevance of the Marshall University Community and Technical College Police Science Curriculum*. Unpublished doctoral dissertation, Marshall University, Huntington, WV.
- Talley, R. A. (1986). A new methodology for evaluating the curricula relevancy of police academy training. *Journal of Police Science and Administration*, 14(2), 112-120.
- Thalheimer, W., & Cook, S. (2002, August). *How to calculate effect sizes from published research articles: A simplified methodology*. Retrieved April 13, 2010 from [http://work-learning.com/effect\\_sizes.htm](http://work-learning.com/effect_sizes.htm).
- The 9/11 Commission. (2004). *The 9/11 Commission report: Final report of the National Commission on terrorist attacks upon the United States*. New York: W.W. Norton.
- Thompson, P. (2004). *The terror timeline*. New York: Harper Collins.
- Traut, C., Feimer, S., Emmert, C., & Thom, K. (2000). Law enforcement recruit training at the state level: An evaluation. *Police Quarterly*, 3(3), 294-314.
- Trojanowicz, R., & Bucqueroux, B. (1990). *Community policing: A contemporary perspective*. Cincinnati, OH: Anderson.
- Twomey, P.M. (2009). *Analysis of crisis management planning in Illinois public schools*. Unpublished doctoral dissertation, Western Illinois University, Macomb.
- Uchida, C.D. (1993). The development of the American police: An historical overview. In R.G. Dunham, & G.P. Alpert (Eds.), *Critical issues in policing: Contemporary readings* (pp. 351-372). Prospect Heights, IL: Waveland.

- United States Department of Homeland Security. (2004). *WMD awareness level training: Instructor manual*. Baton Rouge, LA: Louisiana State University.
- U.S. Department of Justice. (2002). Law enforcement officers killed and assaulted: 2001. Retrieved September 10, 2008, from <http://www.fbi.Gov/ucr/killed/2001leoka.pdf>
- Vila, B., & Morris, C. (1999). *The role of police in American society: A documentary history*. Westport, CT: Greenwood Press.
- Visitor Impact. (2008). *Visitor impact*. Retrieved October 4, 2008, from [http://www.choosechicago.com/media/statistics/visitor\\_impact/Pages/default.aspx](http://www.choosechicago.com/media/statistics/visitor_impact/Pages/default.aspx)
- Ward, B. (2000). *Orlando W. Wilson and the development of his education and training policies while superintendent of the Chicago police department, 1960-1967*. Unpublished doctoral dissertation, Loyola University, Chicago, IL.
- Walling, G.W. (1887). *Recollections of a New York chief of police*. New York: Caxton Book Concern.
- Walling, N. (2007). *Perceptions of the training needs of law enforcement officers*. Unpublished doctoral dissertation, University of Nevada, Las Vegas.
- Wright, L. (2006). *The Looming Tower: Al Qaeda and the road to 9/11*. New York: Random House.

## APPENDIX A

### Demographic Results of CPD Recruit Class 09-1

Table 1

*Age of Respondent*

Age	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
21-25	11	24.4	24.4
26-30	22	48.9	73.3
31-35	11	24.4	97.8
36-40	1	2.2	100.0
Total	45	100.0	

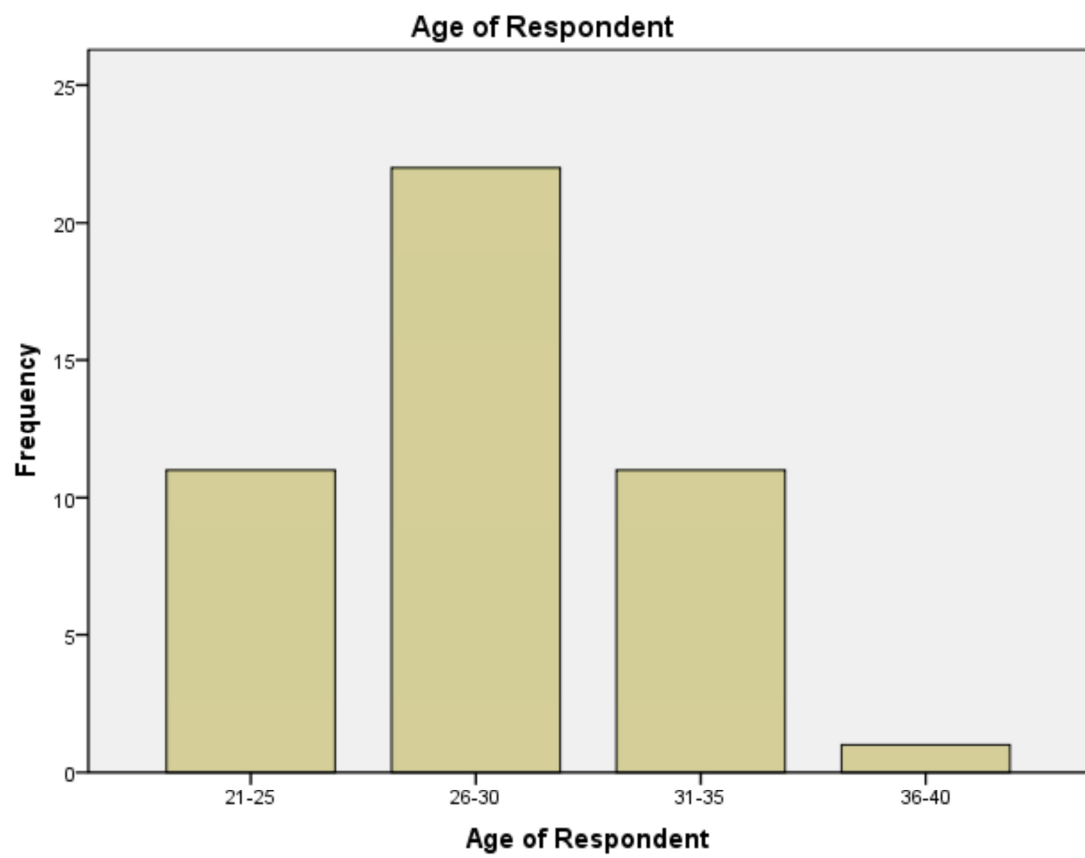


Table 2

*Gender of Respondent*

Gender	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Male	38	84.4	84.4
Female	7	15.6	100.0
Total	45	100.0	

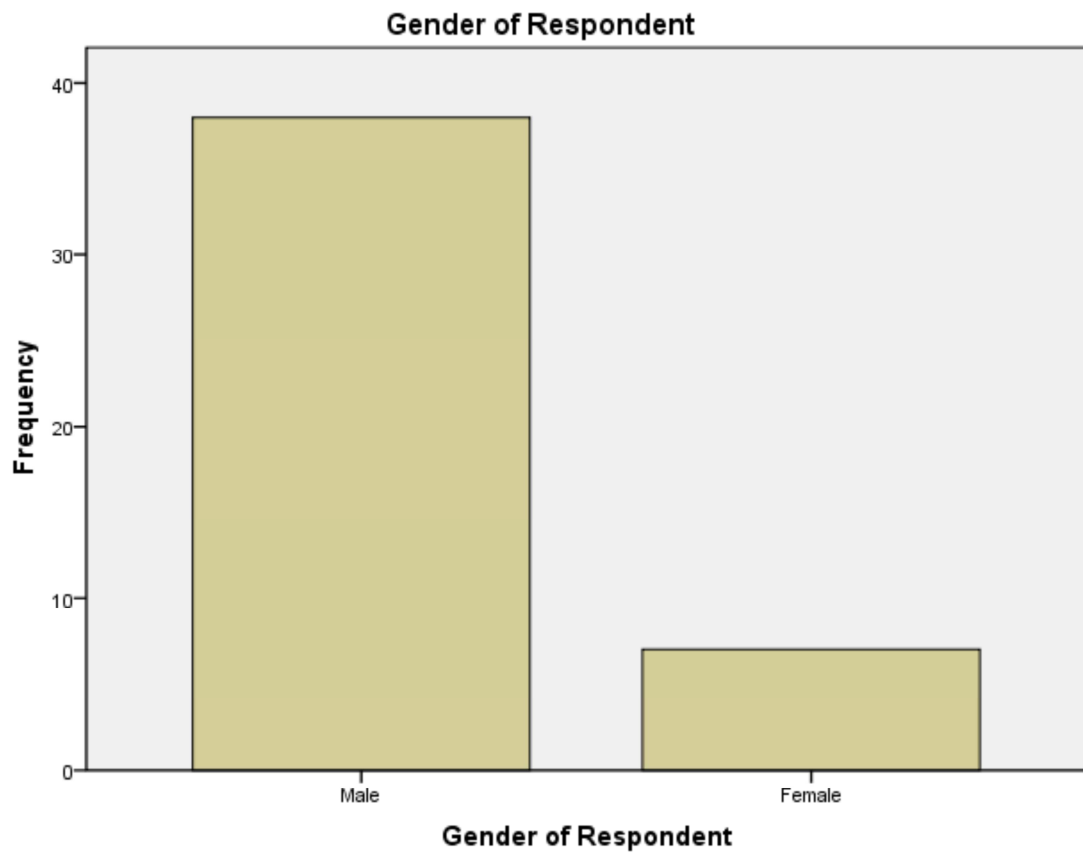


Table 3

*Education of Respondent*

Education	$f$	$P$	Cumulative $P$
Some College	25	55.6	55.6
Bachelor's Degree	20	44.4	100.0
Total	45	100.0	

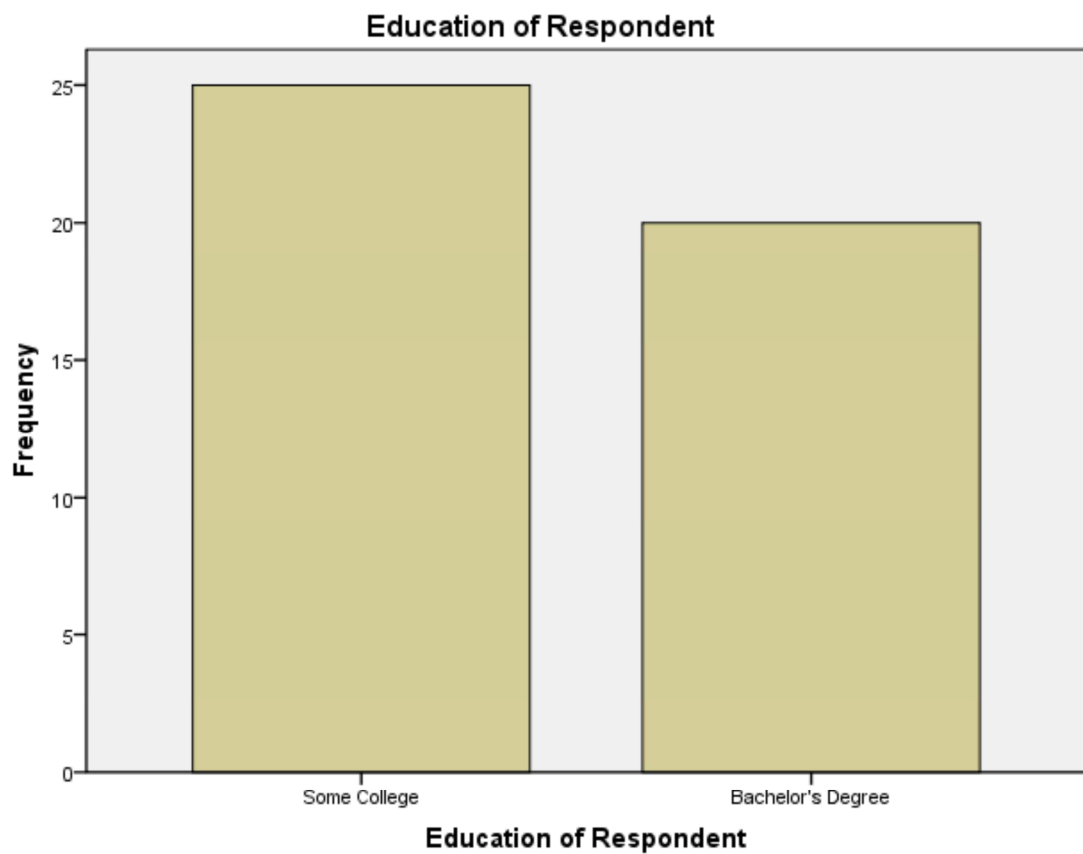




Table 4

*Military Experience*

Military Experience	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Yes	15	33.3	33.3
No	30	66.7	100.0
Total	45	100.0	

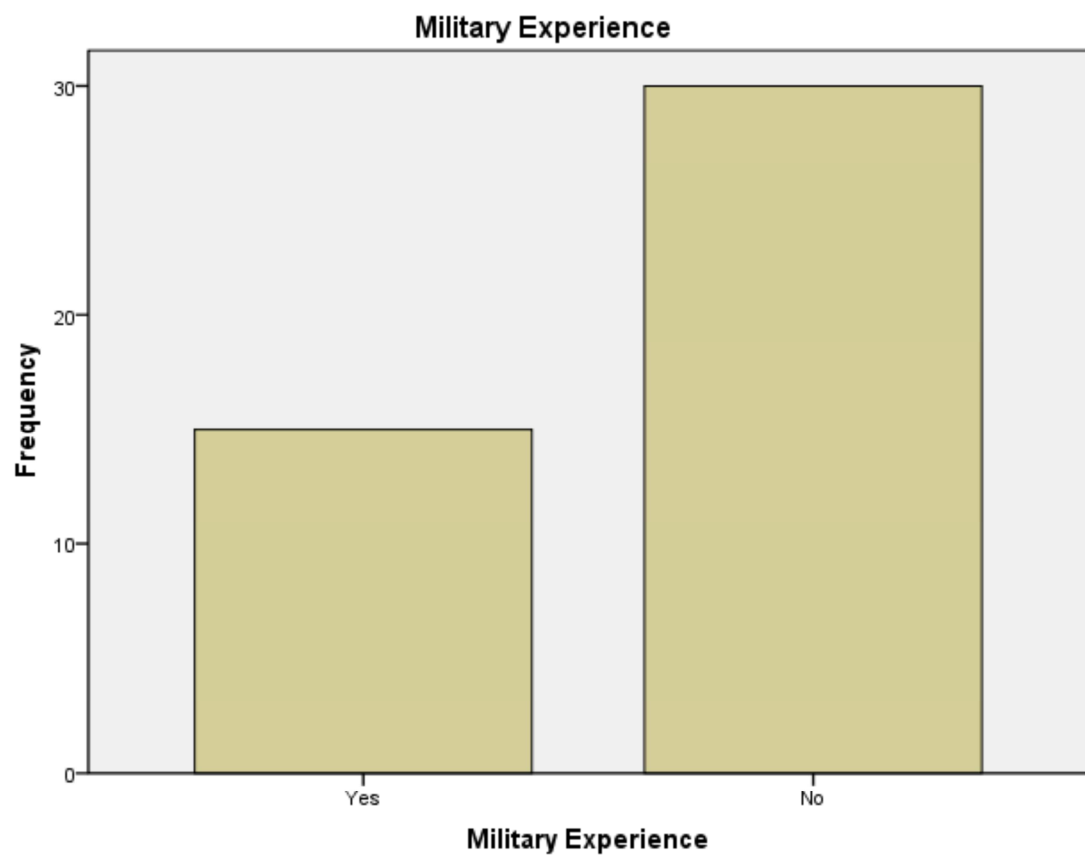
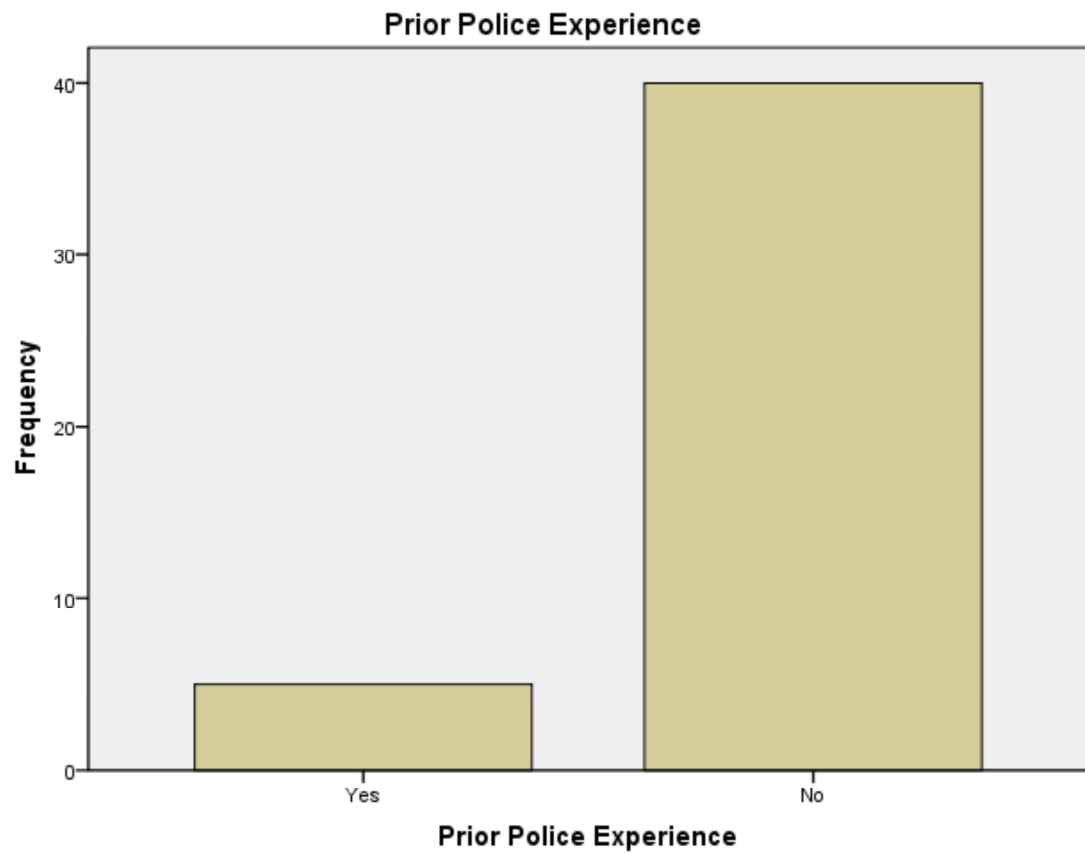


Table 5

*Prior Police Experience*

Prior Police Experience	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Yes	5	11.1	11.1
No	40	88.9	100.0
Total	45	100.0	



## APPENDIX B

### Demographic Results of CPD Recruit Class 09-2

Table 1

*Age of Respondent*

Age	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
21-25	20	22.7	22.7
26-30	42	47.7	70.5
31-35	18	20.5	90.9
36-40	8	9.1	100.0
Total	88	100.0	

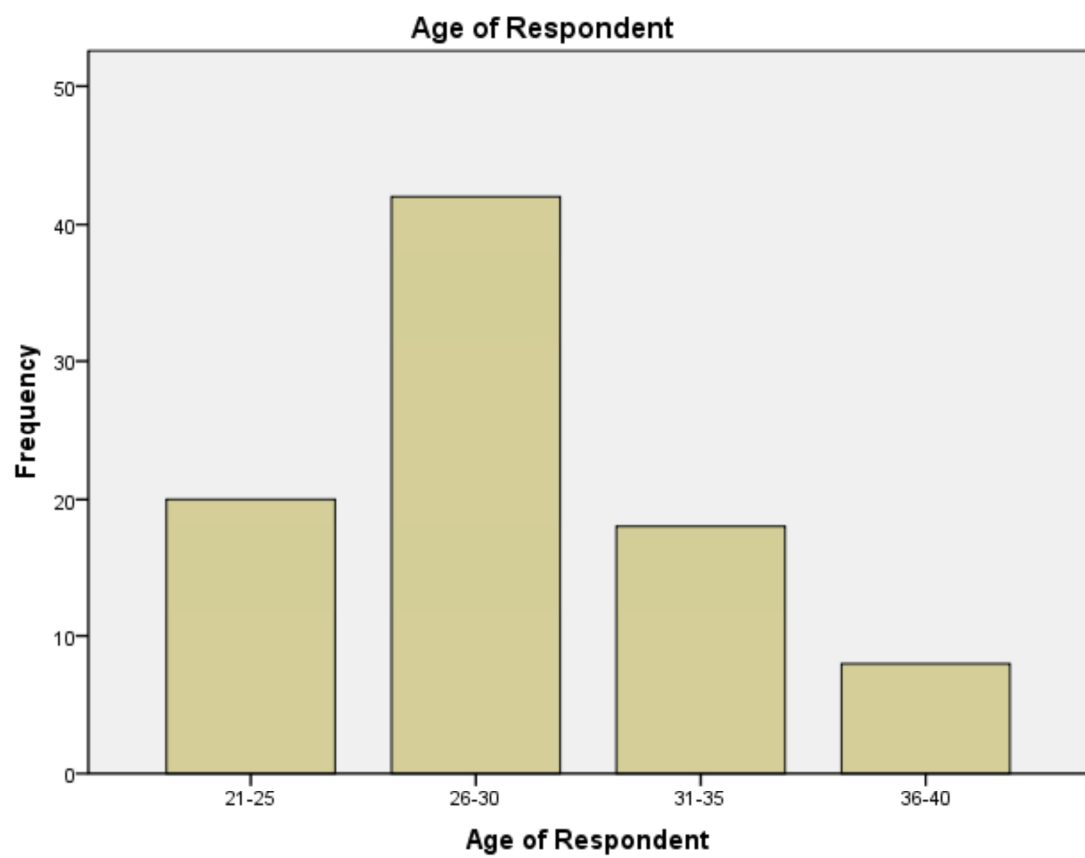


Table 2

*Gender of Respondent*

Gender	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Male	69	78.4	78.4
Female	19	21.6	100.0
Total	88	100.0	

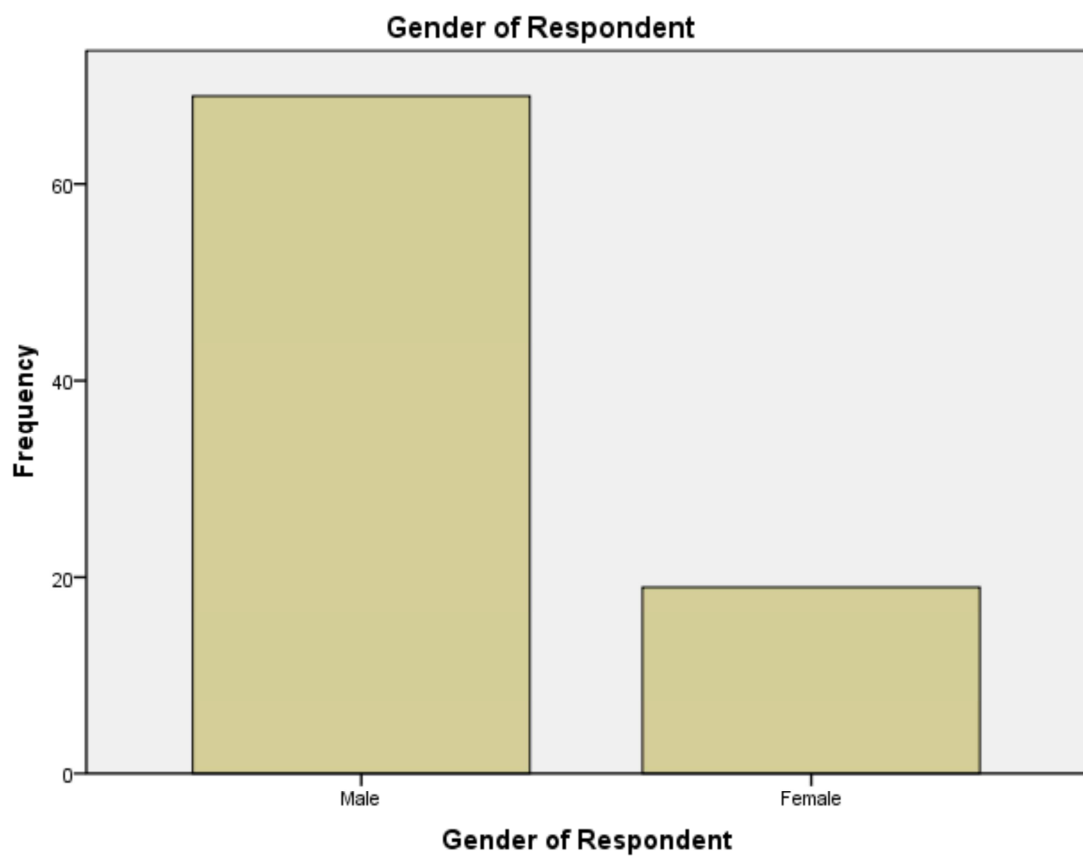


Table 3

*Education of Respondent*

Education	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
High School Diploma	3	3.4	3.4
Some College	29	33.0	36.4
Bachelor's Degree	54	61.4	97.7
Master's Degree	1	1.1	98.9
Doctoral Degree	1	1.1	100.0
Total	88	100.0	

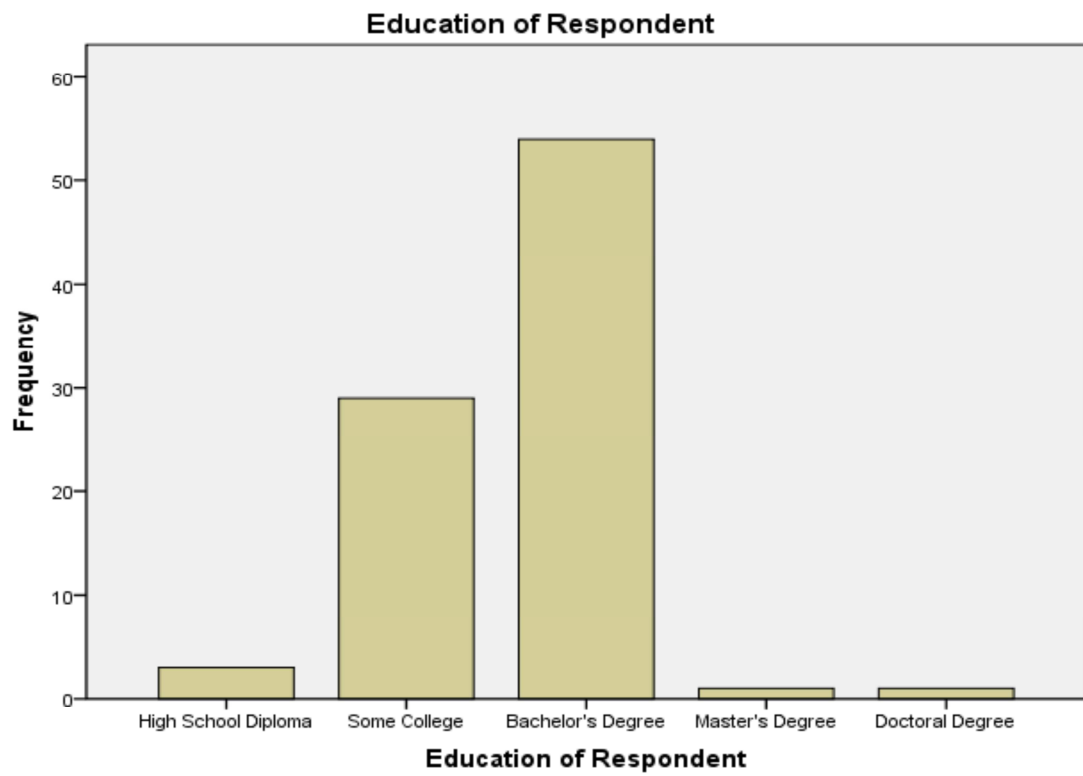


Table 4

*Military Experience*

Military Experience	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Yes	22	25.0	25.0
No	66	75.0	100.0
Total	88	100.0	

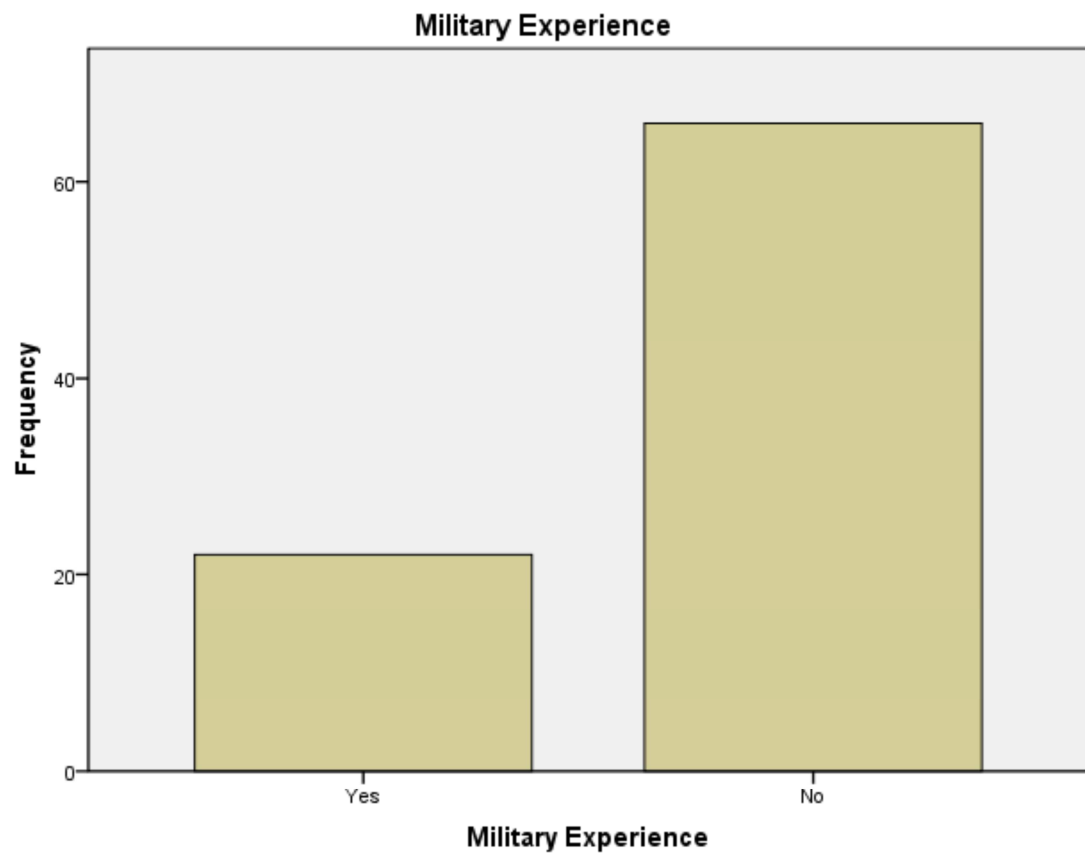
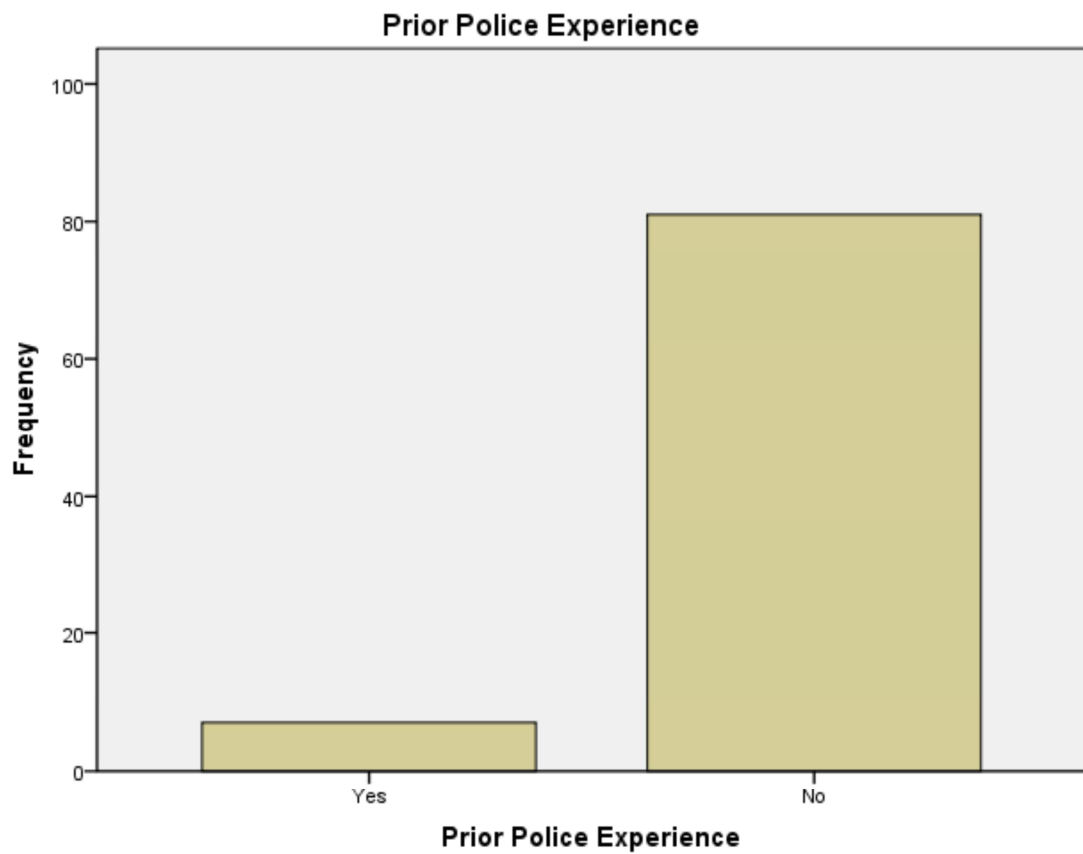


Table 5

*Prior Police Experience*

Prior Police Experience	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Yes	7	8.0	8.0
No	81	92.0	100.0
Total	88	100.0	





## APPENDIX C

### Demographic Results of CPD Recruit Classes 09-1 and 09-2

Table 1

*Age of Respondent*

Age	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
21-25	31	23.3	23.3
26-30	64	48.1	71.4
31-35	29	21.8	93.2
36-40	9	6.8	100.0
Total	133	100.0	

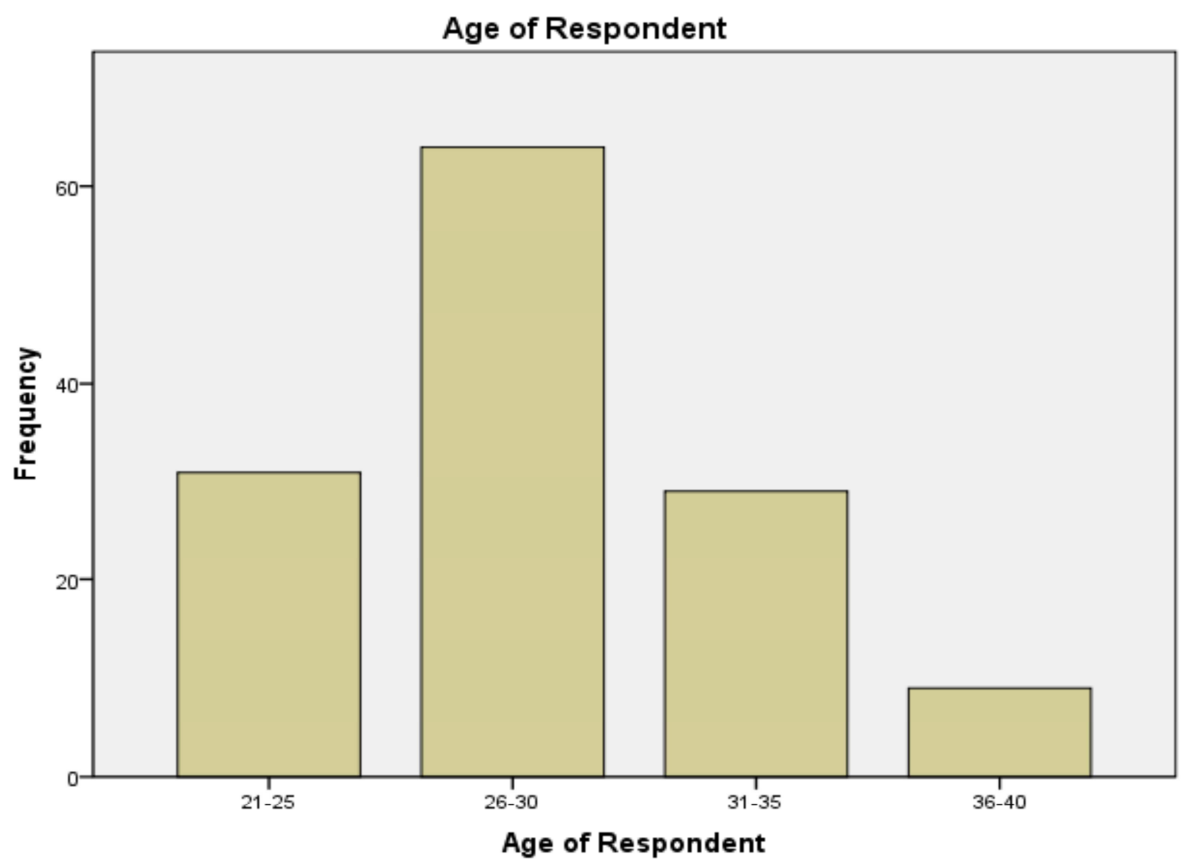


Table 2

*Gender of Respondent*

Gender	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Male	107	80.5	80.5
Female	26	19.5	100.0
Total	133	100.0	

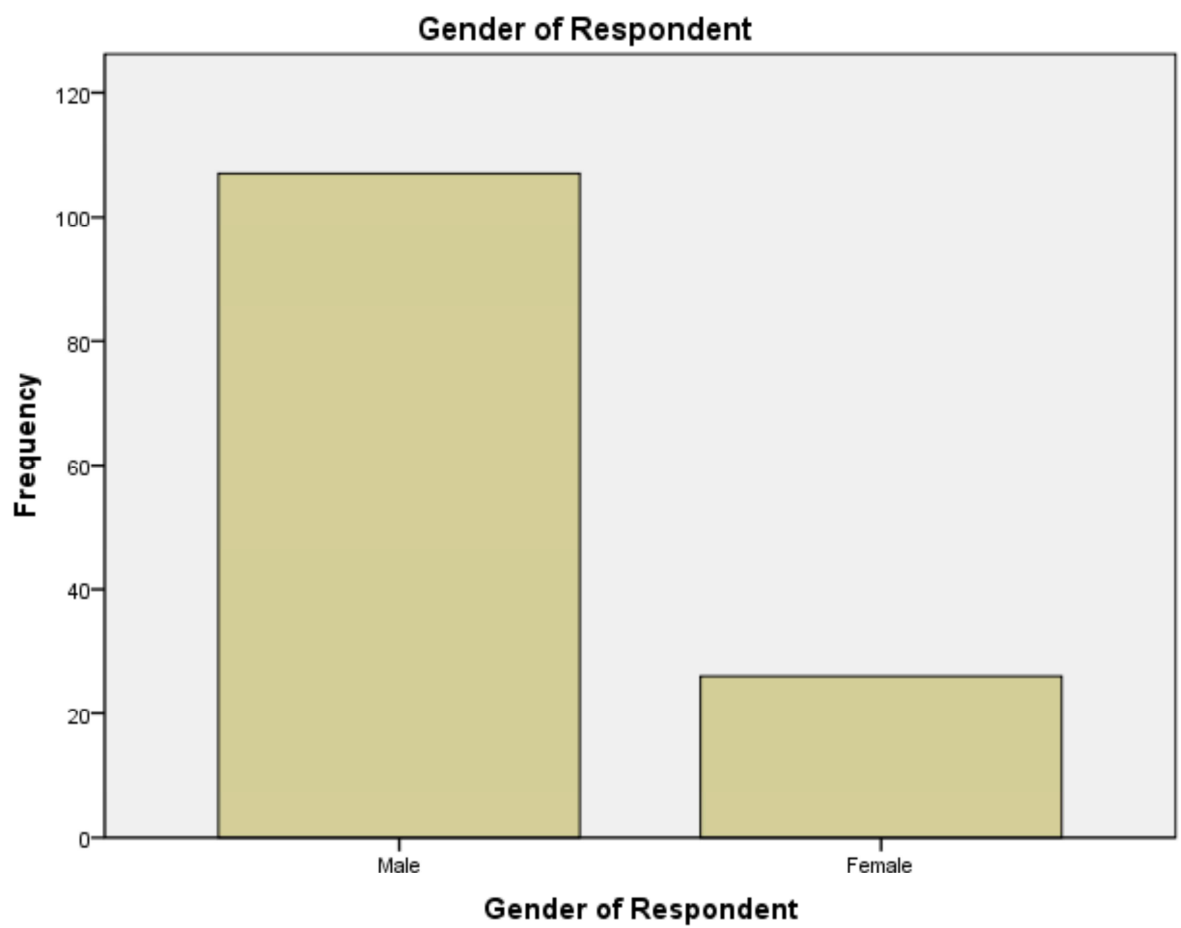


Table 3

*Education of Respondent*

Education	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
High School Diploma	3	2.3	2.3
Some College	54	40.6	42.9
Bachelor's Degree	74	55.6	98.5
Master's Degree	1	.8	99.2
Doctoral Degree	1	.8	100.0
Total	133	100.0	

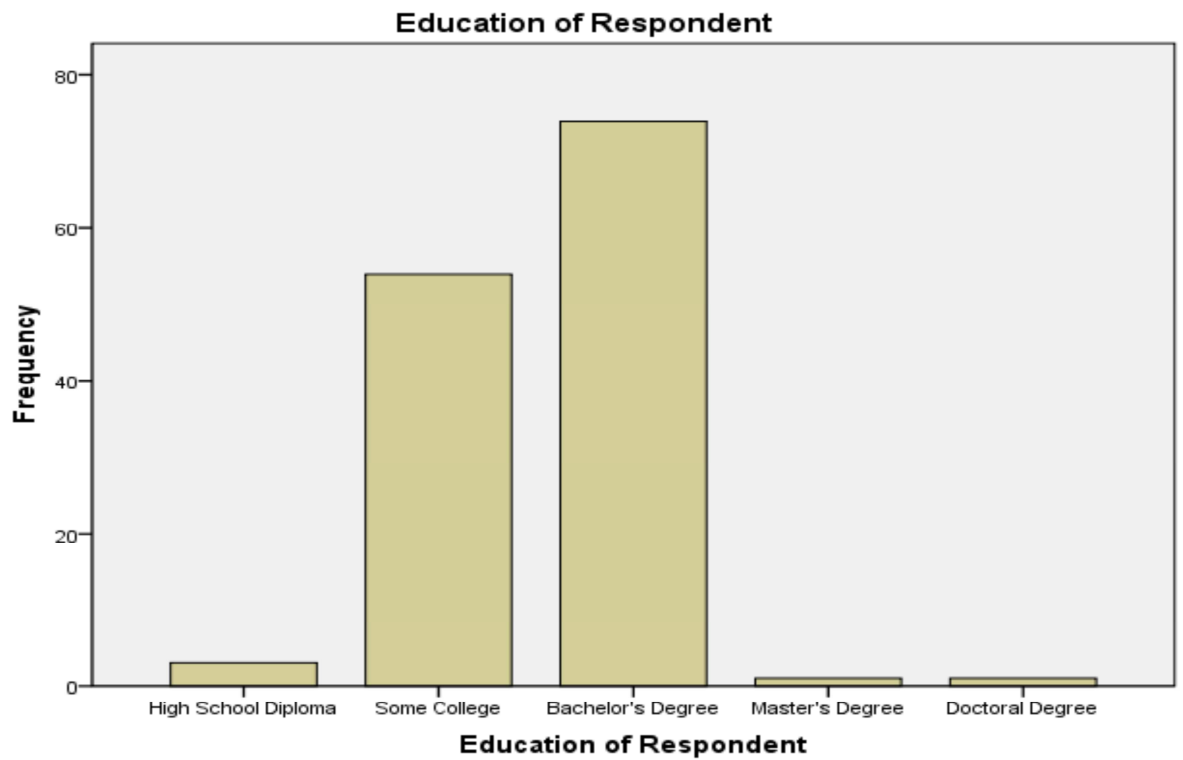


Table 4

*Military Experience*

Military Experience	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Yes	37	27.8	27.8
No	96	72.2	100.0
Total	133	100.0	

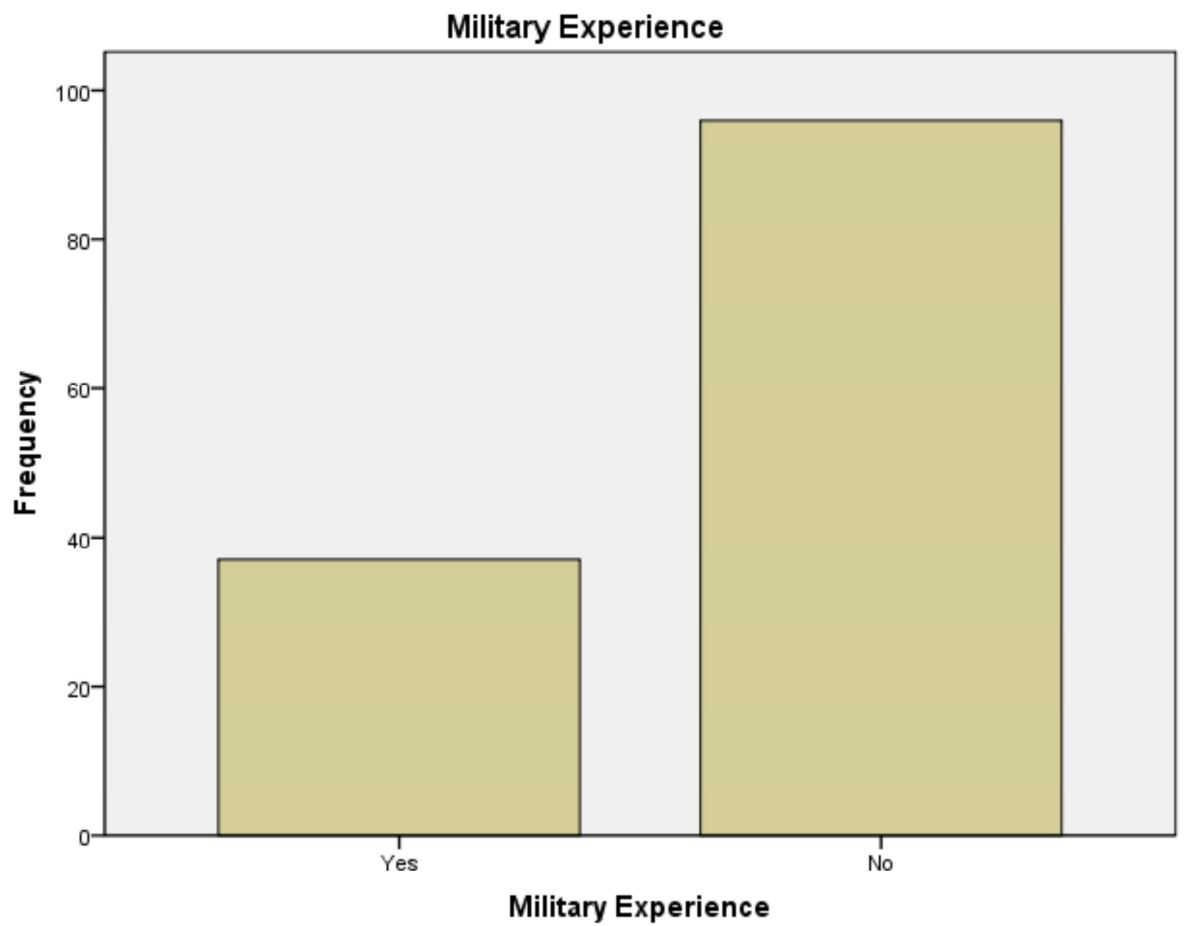
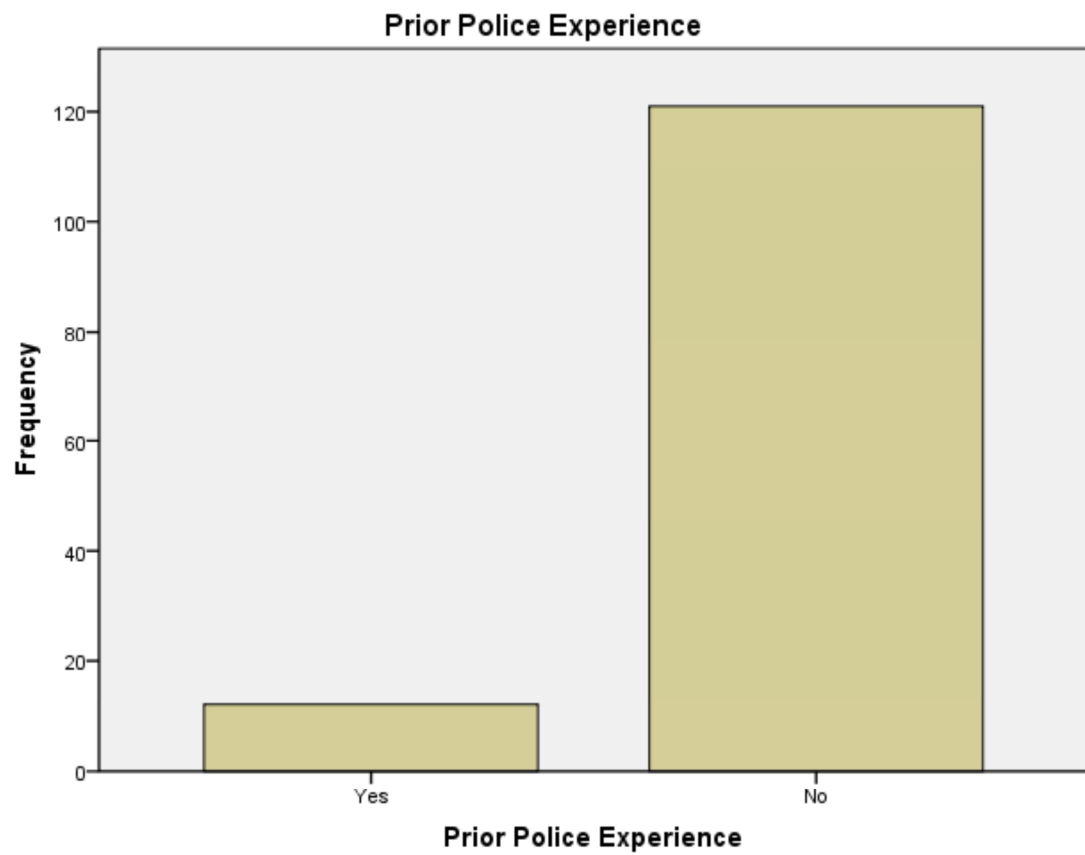


Table 5

*Prior Police Experience*

Prior Police Experience	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Yes	12	9.0	9.0
No	121	91.0	100.0
Total	133	100.0	



APPENDIX D

Survey Instrument

Recruit Class #\_\_\_\_\_ Date \_\_\_\_\_

1. Please rate each course of the Chicago Police Department's recruit curriculum in Emergency Response Week on a scale from 1 to 5, with 1 being poor and 5 being excellent, after taking the courses in Emergency Response Week as a Chicago Police Recruit.

<b>Course</b>	<b>Poor</b>	<b>Fair</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
Critical Incident Response	1	2	3	4	5
The Active Shooter Incident Plan	1	2	3	4	5
Introduction to the Chicago Fire Department (CFD)	1	2	3	4	5
Introduction to the Special Weapons and Tactics Team (SWAT)	1	2	3	4	5
Introduction to the Critical Incident Response Team (CIRT)	1	2	3	4	5
Personal and Family Preparedness	1	2	3	4	5
Hazardous Materials	1	2	3	4	5
Crowd Behavior and Control	1	2	3	4	5
Midwest Disasters	1	2	3	4	5
Homeland Security Orientation	1	2	3	4	5
Terrorism Detection for Law Enforcement	1	2	3	4	5
Introduction to the Bomb and Arson Section	1	2	3	4	5
The Incident Command System (ICS)	1	2	3	4	5
The National Incident Management System (NIMS)	1	2	3	4	5



### Terrorism Awareness Section

2. Please rate your own individual **KNOWLEDGE** of the following items on a scale from 1 to 5, with 1 being poor and 5 being excellent, after taking the courses in Emergency Response Week as a Chicago Police Recruit.

	<b>Poor</b>	<b>Fair</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
The term “terrorism”	1	2	3	4	5
Chemical agents	1	2	3	4	5
Biological agents	1	2	3	4	5
Radiological materials	1	2	3	4	5
Nuclear materials	1	2	3	4	5
Explosive devices	1	2	3	4	5
Different types of terrorist groups, such as state sponsored, formalized, extremists, and single-issue groups	1	2	3	4	5
Terrorist objectives	1	2	3	4	5
Potential terrorist targets	1	2	3	4	5
Terrorist planning, such as recruitment, training, obtaining funding, surveillance, and rehearsals	1	2	3	4	5
Suspicious objects that could be explosive devices	1	2	3	4	5

### Responding to a Terrorist Incident Section

3. Please rate your **SKILL LEVEL** concerning the following on a scale from 1 to 5, with 1 being poor and 5 being excellent, after taking the courses in Emergency Response Week as a Chicago Police Recruit.

	Poor	Fair	Adequate	Good	Excellent
Identifying signs of a suspicious incident	1	2	3	4	5
Implementing appropriate self-protective measures during a hazardous materials incident	1	2	3	4	5
Controlling a disaster scene	1	2	3	4	5
Evacuating persons from a dangerous area	1	2	3	4	5
Using the North American Emergency Response Guidebook (ERG)	1	2	3	4	5
Responding to a bomb threat	1	2	3	4	5
Dealing with a person wearing an explosive device	1	2	3	4	5
Handling an active shooter in a shopping mall or school	1	2	3	4	5
Rendering aid to injured persons	1	2	3	4	5

4. What improvements should be made to the CPD recruit curriculum in Emergency Response Week?

- 4(a). What was done well concerning the CPD recruit curriculum in Emergency Response Week?

### Demographic Information

<b>Age</b> (Circle one)	21-25	26-30	31-35	36-40
-------------------------	-------	-------	-------	-------

<b>Gender</b> (Circle one)	Male	Female
----------------------------	------	--------

<b>Education</b> (Circle one)	High School Diploma	Some College	Bachelor's Degree	Master's Degree	Doctoral Degree
----------------------------------	------------------------	-----------------	----------------------	--------------------	--------------------

<b>Military Experience</b> (Circle one)	Yes	No
--	-----	----

<b>Prior Police Experience</b> (Circle one)	Yes	No
--	-----	----

## APPENDIX E

### Frequency Tables for the Course Ratings in ER Week

Table 1

*Rating of Critical Incident Response*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	2	1.5	1.5
Adequate	24	18.0	19.5
Good	91	68.4	88.0
Excellent	16	12.0	100.0
Total	133	100.0	

Table 2

*Rating of Active Shooter*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	3	2.3	2.3
Adequate	28	21.1	23.3
Good	73	54.9	78.2
Excellent	29	21.8	100.0
Total	133	100.0	

Table 3

*Rating of Chicago Fire Department*

	$f$	$P$	Cumulative $P$
Fair	2	1.5	1.5
Adequate	21	15.8	17.3
Good	63	47.4	64.7
Excellent	47	35.3	100.0
Total	133	100.0	

Table 4

*Rating of SWAT*

	$f$	$P$	Cumulative $P$
Fair	3	2.3	2.3
Adequate	22	16.5	18.8
Good	62	46.6	65.4
Excellent	46	34.6	100.0
Total	133	100.0	

Table 5

*Rating of CIRT*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	4	3.0	3.0
Adequate	41	30.8	33.8
Good	62	46.6	80.5
Excellent	26	19.5	100.0
Total	133	100.0	

Table 6

*Rating of Personal and Family Preparedness*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	2	1.5	2.3
Adequate	31	23.3	25.6
Good	59	44.4	69.9
Excellent	40	30.1	100.0
Total	133	100.0	

Table 7

*Rating of HAZMAT*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	1	.8	.8
Adequate	26	19.5	20.3
Good	77	57.9	78.2
Excellent	29	21.8	100.0
Total	133	100.0	

Table 8

*Rating of Crowd Behavior and Control*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	4	3.0	3.0
Adequate	25	18.8	21.8
Good	51	38.3	60.2
Excellent	53	39.8	100.0
Total	133	100.0	



Table 9

*Rating of Midwest Disasters*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	8	6.0	6.8
Adequate	48	36.1	42.9
Good	61	45.9	88.7
Excellent	15	11.3	100.0
Total	133	100.0	

Table 10

*Rating of Homeland Security*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	9	6.8	7.5
Adequate	50	37.6	45.1
Good	57	42.9	88.0
Excellent	16	12.0	100.0
Total	133	100.0	

Table 11

*Rating of Terrorism Detection*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	10	7.5	8.3
Adequate	30	22.6	30.8
Good	63	47.4	78.2
Excellent	29	21.8	100.0
Total	133	100.0	

Table 12

*Rating of Bomb and Arson Section*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	2	1.5	1.5
Adequate	22	16.5	18.0
Good	54	40.6	58.6
Excellent	55	41.4	100.0
Total	133	100.0	

Table 13

*Rating of Incident Command System*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	7	5.3	5.3
Adequate	39	29.3	34.6
Good	70	52.6	87.2
Excellent	17	12.8	100.0
Total	133	100.0	

Table 14

*Rating of National Incident Management System*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	2	1.5	1.5
Fair	8	6.0	7.5
Adequate	41	30.8	38.3
Good	63	47.4	85.7
Excellent	19	14.3	100.0
Total	133	100.0	

## APPENDIX F

### Frequency Tables for Knowledge Items

Table 1

*Knowledge of the Term Terrorism*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	2	1.5	1.5
Adequate	9	6.8	8.3
Good	59	44.4	52.6
Excellent	63	47.4	100.0
Total	133	100.0	

Table 2

*Knowledge of Chemical Agents*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	6	4.5	4.5
Adequate	37	27.8	32.3
Good	72	54.1	86.5
Excellent	18	13.5	100.0
Total	133	100.0	

Table 3

*Knowledge of Biological Agents*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	7	5.3	6.0
Adequate	42	31.6	37.6
Good	63	47.4	85.0
Excellent	20	15.0	100.0
Total	133	100.0	

Table 4

*Knowledge of Radiological Materials*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	10	7.5	8.3
Adequate	46	34.6	42.9
Good	59	44.4	87.2
Excellent	17	12.8	100.0
Total	133	100.0	

Table 5

*Knowledge of Nuclear Materials*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	10	7.5	7.5
Adequate	52	39.1	46.6
Good	58	43.6	90.2
Excellent	13	9.8	100.0
Total	133	100.0	

Table 6

*Knowledge of Explosive Devices*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	4	3.0	3.8
Adequate	27	20.3	24.1
Good	65	48.9	72.9
Excellent	36	27.1	100.0
Total	133	100.0	

Table 7

*Knowledge of Terrorist Groups*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	6	4.5	5.3
Adequate	27	20.3	25.6
Good	54	40.6	66.2
Excellent	45	33.8	100.0
Total	133	100.0	

Table 8

*Knowledge of Terrorist Objectives*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	2	1.5	1.5
Fair	2	1.5	3.0
Adequate	11	8.3	11.3
Good	61	45.9	57.1
Excellent	57	42.9	100.0
Total	133	100.0	



Table 9

*Knowledge of Potential Terrorist Targets*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	2	1.5	1.5
Adequate	14	10.5	12.0
Good	52	39.1	51.1
Excellent	65	48.9	100.0
Total	133	100.0	

Table 10

*Knowledge of Terrorist Planning*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	3	2.3	3.0
Adequate	28	21.1	24.1
Good	58	43.6	67.7
Excellent	43	32.3	100.0
Total	133	100.0	

Table 11

*Knowledge of Suspicious Objects*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	3	2.3	3.0
Adequate	26	19.5	22.6
Good	61	45.9	68.4
Excellent	42	31.6	100.0
Total	133	100.0	

APPENDIX G

Knowledge Item Correlations

Table 1

<i>Knowledge Item Correlations</i>										
	2	3	4	5	6	7	8	9	10	11
1. Knowledge of the Term Terrorism	.432**	.460**	.461**	.377**	.337**	.473**	.424**	.432**	.410**	.507**
2. Knowledge of Chemical Agents		.920**	.800**	.774**	.623**	.469**	.429**	.393**	.375**	.372**
3. Knowledge of Biological Agents			.834**	.743**	.609**	.447**	.449**	.405**	.388**	.375**
4. Knowledge of Radiological Materials				.846**	.615**	.430**	.399**	.403**	.396**	.474**
5. Knowledge of Nuclear Materials					.650**	.487**	.429**	.387**	.396**	.528**
6. Knowledge of Explosive Devices						.604**	.564**	.466**	.524**	.545**
7. Knowledge of Terrorist Groups							.651**	.558**	.641**	.631**
8. Knowledge of Terrorist Objectives								.796**	.664**	.603**
9. Knowledge of Potential Terrorist Targets									.621**	.640**
10. Knowledge of Terrorist Planning										.551**
11. Knowledge of Suspicious Objects										

Note. \*\*Correlation is significant at the 0.01 level (2-tailed).  $N=133$

Appendix H  
Frequency Tables for Skill Items

Table 1

*Skill of Identifying a Suspicious Incident*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	2	1.5	1.5
Adequate	33	24.8	26.3
Good	76	57.1	83.5
Excellent	22	16.5	100.0
Total	133	100.0	

Table 2

*Skill of Implementing Self-Protective Measures*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	7	5.3	5.3
Adequate	34	25.6	30.8
Good	72	54.1	85.0
Excellent	20	15.0	100.0
Total	133	100.0	

Table 3

*Skill of Controlling a Disaster Scene*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	6	4.5	5.3
Adequate	44	33.1	38.3
Good	69	51.9	90.2
Excellent	13	9.8	100.0
Total	133	100.0	

Table 4

*Skill of Evacuating Persons from a Dangerous Area*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	2	1.5	1.5
Fair	3	2.3	3.8
Adequate	37	27.8	31.6
Good	72	54.1	85.7
Excellent	19	14.3	100.0
Total	133	100.0	

Table 5

*Skill of Using the ERG*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	2	1.5	1.5
Fair	4	3.0	4.5
Adequate	32	24.1	28.6
Good	53	39.8	68.4
Excellent	42	31.6	100.0
Total	133	100.0	

Table 6

*Skill of Responding to a Bomb Threat*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	1	.8	.8
Fair	2	1.5	2.3
Adequate	47	35.3	37.6
Good	68	51.1	88.7
Excellent	15	11.3	100.0
Total	133	100.0	



Table 7

*Skill of Dealing with a Person Wearing an Explosive*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	13	9.8	9.8
Fair	27	20.3	30.1
Adequate	52	39.1	69.2
Good	36	27.1	96.2
Excellent	5	3.8	100.0
Total	133	100.0	

Table 8

*Skill of Handling an Active Shooter*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Poor	6	4.5	4.5
Fair	10	7.5	12.0
Adequate	45	33.8	45.9
Good	57	42.9	88.7
Excellent	15	11.3	100.0
Total	133	100.0	

Table 9

*Skill of Rendering Aid to Injured Persons*

	<i>f</i>	<i>P</i>	Cumulative <i>P</i>
Fair	6	4.5	4.5
Adequate	23	17.3	21.8
Good	58	43.6	65.4
Excellent	46	34.6	100.0
Total	133	100.0	

APPENDIX I  
Skill Item Correlations

Table 1

<i>Skill Item Correlations</i>								
	2	3	4	5	6	7	8	9
1. Skill of Identifying a Suspicious Incident	.510**	.546**	.482**	.388**	.491**	.322**	.402**	.323**
2. Skill of Implementing Self-Protective Measures		.590**	.498**	.344**	.527**	.479**	.375**	.338**
3. Skill of Controlling a Disaster Scene			.674**	.354**	.573**	.506**	.463**	.337**
4. Skill of Evacuating Persons from a Dangerous Area				.380**	.590**	.527**	.532**	.404**
5. Skill of Using the ERG					.466**	.222*	.211*	.314**
6. Skill of Responding to a Bomb Threat						.513**	.502**	.459**
7. Skill of Dealing with a Person Wearing an Explosive							.587**	.382**
8. Skill of Handling an Active Shooter								.407**
9. Skill of Rendering Aid to Injured Persons								

*Note.* \*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed). *N*=133