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# Terrorism Preparedness, Collaboration, and Organizational Culture in the National Capital Region

Anderson Percival Padmore

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# Walden University

College of Health Sciences and Public Policy

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Anderson Padmore

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Walden University

2022

Abstract

Terrorism Preparedness, Collaboration, and Organizational Culture in the National Capital

Region

by

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MPA, Troy University, 2009

BS, Southern Illinois University, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration

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## Abstract

Terrorism preparedness is essential for federal, state, and local governments. However, literature indicated that local governments may not be ready to respond to a terrorist event. The purpose of this quantitative study was to determine terrorism preparedness levels related to collaboration in the National Capital Region (NCR) of the United States to determine first responders' perspectives regarding challenges of organizational change. The research questions for this study concentrated on the evaluation of terrorism-preparedness and organizational changes among first response agencies since 2014, Schein's ideas of organizational cultural change were the theoretical foundation. Four NCR public safety agencies were randomly sampled, and participants provided data by completing the First Response Organizational Terrorism Preparedness Survey, a modified version of Rand Corporation's Combating Terrorism Survey. The data were analyzed to measure terrorism preparedness and look at organizational leadership challenges since 2014. Regression analysis was used to analyze the independent variables (processes, resources, personnel, and organizational culture) and terrorism preparedness was the dependent variable. Findings showed that first response agencies are slightly better prepared for terrorism today than in 2014, and processes are a stronger predictor than personnel and resources. Organizational culture was not as strong as the other predictors of terrorism preparedness. The findings in this study have potential Implications for positive social change by providing first responders in the NCR with better information about terrorism preparedness to protect communities during a terrorist event.

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## Chapter 1: Introduction to the Study

### Introduction

First response public agencies in all cities are not prepared for terrorist attacks. Areas like the National Capital Region (NCR), which comprises Prince George's County, Arlington County, and the District of Columbia, where more than one local government body exists, must have more cohesion to prepare for a terrorist attack fully. The NCR public safety managers experience regular encounters with terrorism and must be prepared to face challenges during terrorist attacks.

Hostility toward Americans is increasing (McEntire, 2009). A more modernized approach for addressing terrorism preparedness in a metropolitan area would have every local government think creatively and become a cohesive element by being less reactive and more anticipatory. The 9/11 attack showed the lack of preparedness to deal with efficient collaboration among neighboring jurisdictions, and first responders experienced difficulties resulting in failed communication. The *9/11 Commission Report* stated communication between public safety managers needs to be centralized in the NCR. The *NCR Strategies Voice Communications Plan and Radio Capabilities Assessment Post 9/11 Report* suggested the following for Arlington County: (a) include a clearinghouse hospital to organize communication between the disaster site and backup treatment facilities, (b) develop a method of communication to activate joint resources, (c) establish procedures to guarantee timely public medical recalls at large-scale training, (d) plans should exist for common communication channels to be shared by all area responders and hospitals for wide-ranging communications, and (e) establish federal regulations for equipment bought by first responders or their organizations. Terrorism preparedness has significantly improved since the 9/11 terrorist

attack. Nonetheless, specialists in the field suggest terrorism challenges will always continue to exist with terrorism preparedness mainly at the local government level (Gerber et al, 2005; Hillyard, 2004; Stewart, 2005).

Public safety managers must guarantee first response efforts in a terrorist attack. Somers and Svava (2009) suggested that responsibility involves the ability to research, implement, prepare, evaluate, and identify any potential risks to the community, regardless of the federal or state governments' ability or inability to offer support to the local governments. After looking at improving preparedness since 9/11, the NCR in 2014 saw the strategic voice communications plan needed improvement. Governance in the Washington, D.C., area that seats all three branches of the national government is a problem because more than one county representing different states exists, and the leader of each state and county has a different agenda. The Department of Homeland Security is also located in the NCR and should assist in the NR's preparedness. Koehn (2011) suggested that all involved parties respond to a first responder drill and activate all tactical teams. All parties, including the tactical teams responding to drills, demonstrate a collaborative effort in terrorism preparedness and increase cohesiveness. Involvement from different agencies and counties within the area would result in better collaboration and increased communication. Koehn (2011) also stated that preparedness backed by a policy in place and training decisions will pay off in the future.

This study is important because the federal government has given generalized guidance about combatting terrorism since 9/11. The generalized guidance is broad and does not pertain to a particular state or county. Business, legislation, and politics differ in every state. Local governments must make specific guidelines and formalize a successful method to increase efficiency in preparedness for their area. NCR consists of five local governments that must work together in the event of a terrorist attack. The Washington, D.C., metropolitan local

governments, including Montgomery County, Prince George's County, and Arlington County, can create positive social change by participating in training exercises and decreasing the communication challenges, which includes ordering the needed pieces of equipment to assemble a designated channel to increase communication within the NCR.

## **Background**

All local governments encounter different obstacles and diverse challenges concerning terrorism preparedness. Some of the barriers and challenges include policy making and implementation, which must entail guidance for first responder preparedness and the ability to manage hazards economically and politically. Field et al. (2012) stated that hazards are managed economically by looking at the probable cost before the disaster and comparing the actual cost after the disaster. Kaplan and Rice (2020) suggested dividing hazards into preventable and nonpreventable ways to manage hazards politically. All local governments experience different problems, and Dunn (2004) said federal policies direct local managers without being given the supplies or means needed to implement the necessary changes. Dunn (2004) also supported that many policy problems are citizens' interpretations as learned from the media and papers. Dunn (2004) emphasized that policy provides solutions to problems.

A citizen's view can be skewed about the expected outcome of the policy to solve the problem. A problem in one population may not be a problem in another. In Washington, D.C., area policy exists on multiple levels because of the federal government's existence in conjunction with the other states and county governments within the NCR. The federal government, situated in the Washington, D.C., metro area, makes policies for the entire nation. The local area government includes Washington, D.C., which is not a state, Montgomery County, Prince George's County, and Arlington County. The local area governments make policies to

cover their specific region. The Washington, D.C., metropolitan government makes policies and follows the command of the mayor. All other local governments in the NCR make policies and follow the command of their respective state governor. Terrorism preparedness at the local government level varies significantly from terrorism preparedness at the federal level. The local governments of different jurisdictions, like Washington, D.C., and Montgomery County, make different policies and handle problems differently because of cultural differences. McEntire (2009) supported the suggestion that scholars, practitioners, and members of the integrated emergency management system must consider the vulnerability of cultural differences.

Each local government in the NCR has different priorities and methods for handling processes, resulting in ineffective preparedness for a terrorist act in NCR. A collaborated approach for dealing with terrorism and addressing the goal to eliminate the challenges with emergency communication, which can hinder rescue efforts, is necessary. Local governments can document how they intend to collaborate and agree on roles and responsibilities. Practicing terrorism preparedness and involvement in the planning process concerns public safety managers' first responders. Matusitz and Breen (2011) emphasized that limitations like budgetary issues and community size include the resources and workforce constraints contributing factors to the problem. The federal government makes a budget that governs the United States, and monies are divided among the 50 states. Each state is responsible for supplying funding for its different regions. Because the NCR comprises portions of several states, and the Washington, D.C., metropolitan region, creating a budget and policies specifically for terrorism preparedness for the NCR would make it possible to purchase communication equipment and eliminate resources and workforce constraints.

The research literature related to this topic's scope is Schein's (2004) *Organizational Culture and Leadership*, which emphasizes that a new culture is formed when a new

organization forms. The leadership is responsible for the backbone of the culture created. The leader shapes the type of culture developed, and the literature emphasizes certain types of leadership work better with culture formation. Bass (1997) said transactional leadership leans toward promises and provides rewards, while transformational leadership is about educating followers about outcomes, being influential, and acting as role models. Nanjunderswaraswamy and Swamy (2014) said transformational leadership is a better forecaster for job fulfillment, and both transformational and transactional leadership are suited for organizational change in public and private organizations.

Andrew et al. (2015) said different agencies try to make their goals the centerpiece for preparedness. Nigro and Demarco's (1979) research suggests training among local governments develops a new organization, and it is assumed when various local government agencies engage in training and preparedness, new goals become the centerpiece, and the mission is different for each agency; the results could be the likeness of a new organization. Andrew et al. (2015) also mentioned collaboration through preparedness will promote working relationships before the event occurs. Preparedness and training are cooperative processes with everyone interacting within the different local governments and their first responders. Myers (1999) described the emergency planning procedure as a subjective discussion. Each agency, including the private sector, has a different preparedness method. The emergency manager must be genuine about the preparedness strategy, the emergency planning process, and the goal's reality as time evolves. Preparedness, viewed as a continuum, is vital when disaster comes. The community will benefit when the planning goals are realistic and practical.

Dunn (2004) provided information supporting the local government's different challenges from the federal government regarding policy making. Terrorism preparedness is essential, but the various governments' diverse interests and goals make the process a

complicated and intricate process for all government levels. Anderson (2006), Dunn (2004), and Somers and Svava (2009) noted that emergency management policy reform and the preparedness policy for first responders at the local government level could become a challenge. The challenges include the process necessary for putting a policy in place. Ferretti et al. (2018) stated the process entails brainstorming and analyzing an appropriate policy to handle the expected problems in implementation and after implementation, monitoring the observed policy outcomes, and evaluating the policy performance.

In large disasters like the 9/11 terrorist attack, Hillyard (2004) and Swartz (2005) pointed out that first responders were confronted with many difficulties like failed coordination, unsuccessful mutual aid agreements, and missed communication. Missed communication includes inoperable radios and hinders communication across agencies and local governments when responding to incidents. Drake (2007) suggested communication challenges can cause loss of life when public safety officials experience hindrance from communicating with each other. Schein (1993) discussed that constant conversation must exist for problem solving.

The National Commission on Terrorist Attacks (2004) commented that local jurisdictions like those victims of the terrorist attack were overwhelmed and inundated. Hillyard (2004) and Swartz (2005) stated that first responders experience many obstacles, comprising missed communications, unsatisfied mutual-aid arrangements, and botched coordination that repeatedly hinders response and recovery. Hallsworth et al. (2011) emphasized policy creates innovation and makes a more realistic process. Putting policies in place would enhance preparedness among the local governments by promoting relationships among the local government and making changes more manageable. Gerber, et al. (2005), Hillyard (2004), and Swartz (2005) agreed the terrorism policy reform was faced with questions that had multifaceted and complicated answers. Anderson (2006) offered the following

questions that policy analyst should ask: Who are the terrorists? Where are they located? How long will the terrorism last? The questions include challenging and complicated answers about theory, implementation, and application. The challenging solutions are complicated by the difference in the division in preparedness policy analysis. The division consists of resolving preparedness policy difficulties for the first responder and local government while policy analysis stresses.

Specifically, complicated solutions create an atmosphere of division in homeland security and emergency management policy analysis. O'Brien (2012) encouraged decision makers to step outside their paradigm and think about other alternatives. O'Brien (2012) also said that communities should be interested in innovative problem solving. Briggs (2008) stated that problem solving focuses on the nonroutine, avoids risks, gives accountability, develops partnership within the community, and allows the community to take ownership.

McEntire (2009) suggested that a paradigm shift in increasing preparedness activities in networking and collaboration with other emergency personnel would be a better approach to the situation. Another paradigm shift includes technological innovations like upgrading the communications system to allow all local governments and first responder managers to communicate evenly. Education about preparedness for communities would be beneficial in the event of an emergency. The beneficial qualities of education about preparedness result in (a) clear roles, (b) specific training, (c) roles being undertaken with confidence, (d) absence of missed communication, and (e) transparent chain of command. According to Holtz et al. (2003), the local government must have an emergency preparedness plan that gives guidance. Holtz et al. (2003) agreed the plan must have prearranged committees to include team leaders. The plan must also offer first responders the capability to react to immediate and long-term impacts when a catastrophe occurs. Public safety managers are accountable before, during, and after the

incident to the community they represent. In a GAO report, Pendleton (2010) reported instances in which preplanning and collaboration corrected deficiencies like improving communication between Africa and the United States, including more civilian participation funding and training standards. Bell, et al. (2019) suggested that collaboration produces a mixture of skills and experiences from different backgrounds. When agencies have a relationship existing before an event, the preplanning and collaboration effort can result in a quick investigation with timely results.

Somers and Svara (2009) stated the local government and managers are responsible for preparing for all emergencies. The local government level must be aware of concerns about meeting the policy reform demands and solving the first responders' preparedness policy difficulties. Somers and Syara also highlighted that public safety managers must continually identify and plan for local hazards when federal mandates are absent by documenting the rationale for developing emergency plans (Somers & Svara, 2009). The local government must be involved with the economic and political effects of managing hazards and be familiar with areas of their city vulnerable to risks. McEntire (2009) stated vulnerability is a major contributing factor impacting the emergency. Implementing policies to meet preparedness challenges to enhance response will reduce disaster and eradicate vulnerability. The local government is also responsible for setting the climate for their organization and molding its culture.

Wolpin (1996) stated policy analysis should be supported with proof of performance or the most significant research available. In this study, I identified preparedness improvement changes and conducted a quantitative assessment adding recommendations for change. O'Brien (2012) said that change consists of making things different or new and that, in some cases, small incremental changes are better than highly visible changes. My recommendations and findings

are founded on perceptions and suggestions of the public safety management leaders involved with the aspects of terrorism preparedness and its associated problems.

The 9/11 terrorist attacks showed America its vulnerability against all who want to cause citizens harm. Emergency managers preparedness for any unthinkable act is a necessity. According to Holtz et al. (2003), the 9/11 terrorist attacks resulted in the most massive human toll generated in a disaster that a local government, state, or federal system had managed. This catastrophe demonstrated a vital problem for local government emergency managers.

The study is needed to increase all local governments' collaborative preparedness in the Washington, D.C., metropolitan areas and similar sites. Holtz et al. (2003) suggested emergency preparedness is essential for every local government. This emergency preparedness relates to Washington, D.C., one geographical area in the NCR. The NCR consists of several local government regions with different priorities and policies in different states. The Washington, D.C., area must collaborate preparedness with other regions in NCR for terrorist events. Holtz et al. (2003) also stated that first responders must respond to long-term and current impacts when a disaster occurs. Committees and team leaders are part of the plan, and the public safety manager oversees the entire process, emphasizing emergency management processes.

Different local governments and their communities present the most difficulty for safety managers and first responders. The government of each county has a different mission with budgetary constraints and different goals. This difficulty hinders their ability to plan and practice terrorism preparedness policy.

Somers and Svara (2009) expressed that terrorist attacks rarely occur in multijurisdictions. In the NCR, where multijurisdictions exist, the local government emergency planners must ensure preparedness and be ready to handle all events. Somers and Svara (2009)

also said the managers must research, evaluate, and identify every possible risk the community can face despite the state and the federal government's degree of help.

### **Problem Statement**

According to Crossley et al. (2010), a problem exists for the NCR. The local governments in the region needs to be better prepared to handle terrorist attacks. Gerberet al. (2005) and Swartz (2005) stated that collaboration has been a problem facing different local governments in the metropolitan area on terrorism preparedness since the terrorist attacks on September 11, 2001. The NCR consists of three separate local governments: Arlington County in Virginia, Prince George's County in Maryland, and the Washington, D.C., government.

First responder agencies' inability to be better prepared to meet terrorist attacks than they were on September 11, 2001, shows weak cohesion among the local governments resulting in unsuccessful communication. The NCR plans pointed out how unwritten roles specifying how the local governments should work together negatively impactNCR agencies. Caruson and MacManus (2008) and Somers and Svara (2009) have conducted research on terrorism preparedness and given guidance on the effectiveness of local government agencies who will respond to a terrorist attack in the NCR. County and city managers should ensure districts are prepared for terrorism by conducting more training and fixing the deficiencies described in the NCR communications plan. No other local governments are similar to that in the NCR, resulting in no benchmark from another local government. The benchmark for this area would be the NCR communications plan.

More importantly, a metropolitan area with several local government jurisdictions should be equally prepared collaboratively for terrorist activities by making the necessary improvements, as suggested in the Post 9/11 Report's cross-cutting analysis. Rham and Reddick

(2011) asserted that cities with dense populations are more vulnerable to terrorist attacks. The population density of Washington, D.C., is 21,850, and the past 9/11 terrorist attack on the Pentagon combined with the three parts of the government housed in Washington, D.C., makes the metropolitan area a high risk. Goldstein (2016), in the GAO report to Congress, showed the failed communication that hindered rescue during the 9/11 terrorist attacks and recommended installing radios and other equipment capable of allowing communication across agencies and jurisdictions. Department of Homeland Security designated the Emergency Preparedness council with Maryland, District of Columbia, and Virginia representatives to oversee the recommendations. According to the NCR Plan, agencies can access the DHS's Urban Area Security Initiative grant program, supplying funds to upgrade the current communications system. The Joint Federal Committee, which coordinates with the federal agencies, needs restructuring to clarify the NCR agencies' roles and responsibilities.

Therefore, a collaboration between the three local governments in this area should be a priority. Rham and Reddick (2011), Reddick (2008), and Swartz (2005) also stated that when the city council and city manager have a productive relationship, the coordination, collaboration, and accomplishments for the community are increased. Gerber, et al. (2007) agreed that inconsistency across state and local governments could hinder effective preparedness, rendering the population vulnerable to increased terror hazards and compromising homeland security policy.

The NCR falls in this category, and Basolo et al. (2009) commented that there should be an increased preparedness level when the risk level is high. Wise and Nader (2002) described responsibilities local governments should follow to facilitate preparation for terrorist encounters. To examine preparedness effectiveness in the NCR, a study investigating first responder agencies about improved preparedness for terrorist attacks like the one on

September 11, 2001, would change leadership behaviors and cultures across the three local governments to remedy the improvement for preparedness and fill this gap. The same relationship between the three different governments would increase coordination, collaboration, and implementation of the suggested improvements for metropolitan area preparedness.

### **Purpose of the Study**

The purpose of this study was to explore quantitatively collaborative public safety preparedness improvements against violent terrorist acts in the NCR. Schein's (1992) theory of changing the organizational culture was used to pinpoint factors of the cohesion of the local areas' public safety managers to move the different local agencies to increase their attitude about preparedness for terrorism. Mills (2006) indicated that President Bush encouraged organizations to help each other in disastrous settings after the Hurricane Katrina disaster. Katz et al. (2006) pointed out that the terrorist attacks of 9/11 demonstrated the necessity for collaboration across sectors. Describing terrorism preparedness at the local government level and pinpoint the standard factors is essential. Another critical point is to establish the current level of preparedness and the circumstances that affect preparedness.

According to Schein (1999), a leader is responsible for the success of the organizational change. One of a leader's roles is to understand and appreciate the organization's culture. Challenges are gladly received, and resistance to change is lessened when leadership and management support the cultural angle. A leader must understand the organization's culture to successfully create an environment for organizational change. Measuring both leader and follower involvement in creating and observing them is a suitable method to access the process.

## Research Questions and Hypotheses

This study is concentrated on four of the local government public safety-first response agencies within the NCR to answer the following research questions:

RQ1: Have first-response public safety agencies in the NCR changed their policies to respond to terrorist acts since the 2014 strategic planning recommendations?

*H<sub>0</sub>1*: First-response public safety agencies in the NCR have not changed their policies to respond to terrorist acts since 2014.

*H<sub>1</sub>1*: First-response public safety agencies in the NCR have changed their policies to respond to terrorist acts since 2014.

RQ2: Have first-response public safety agencies in the NCR changed processes, resources, and personnel to address terrorism preparedness since the 2014 strategic planning recommendations?

*H<sub>0</sub>2*: First-response public safety agencies in the NCR have not changed processes, resources, and personnel to address terrorism preparedness since.

*H<sub>1</sub>2*: First-response public safety agencies in the NCR have changed processes, resources, and personnel to address terrorism preparedness since 2014.

RQ3: From an executive leadership viewpoint looking at public safety, have first-response organizations in the NCR changed organizational leadership or organizational learning since the 2014 strategic planning recommendations?

*H<sub>0</sub>3*: First response organizations in the NCR have not changed organizational leadership or organizational learning since 2014.

*H*<sub>13</sub>: First response organizations in the NCR have changed organizational leadership or organizational learning since 2014.

### **Theoretical Foundation**

The theoretical foundation of this study was based on Schein's (1999) work on organizational leadership and change through research and organizational culture application. Preparedness for the NCR will give the semblance of forming a new organization. Each agency will have to work collaboratively together for effective preparedness. I studied organizational change and organizational culture and leadership, public policy preparedness, the definition of terrorism, the reflective theory of preparedness policy, the individual local government approach to preparedness, and intergovernmental collaboration. Schein's (1999) theory provided the foundation for the theoretical framework, which concentrated on organizational change by comprehending, altering, and adjusting a specific cultural trait. Schein (1999) found that organizational culture is essential because undesirable consequences occur when decisions are made without knowing established cultural customs. Understanding the nature of organizational culture is vital to organizational leadership changes. Leaders are obligated to appreciate the function of culture in an organization's lifespan. Schein applies organizational change and leadership theories by transforming organizational culture learned from his research in the 1960s. Austin and Claassen (2008) and Baumgartner (2009) said Schein is the founder of organizational psychology because of his years in organizational transformation research.

### **Conceptual Framework**

The concept that defines the groundwork of the study resembles the creation of a new organization that will result in organizational change by collaborating with the metropolitan

local governments. Schein's (1992) theory of organizational culture and leadership is the concept that grounds the theory. Schein showed that organizational culture covers every facet of life, and organizational change includes confronting the simple mechanisms through the key components of an organization's cultural evolution. Schein demonstrated that organizational culture meanders through organizational change and leadership, despite its identity maturity level or methodology of assumptions. To make the new organization's culture, the new first response emergency leader must be familiar with each local agency's culture. Schein (1999) said a leader must be willing to examine cultures to create the necessary change. The Washington, D.C., metropolitan area has various local government agencies. For a successful and concise response to any terrorist attack, preparedness must be a collaborative effort.

Schein's (1999) theory relates to this study because it shows a leader's responsibility as the fundamental element for successful organizational change. Schein (1999) also explained that a leader's responsibilities for change are first to understand the organization's culture. Schein (1999) specified that learning about the organization's culture is imperative and requires plenty of work.

Schein (1992) said an effective leader in an organization will know, understand, and value its rooted culture. Schein's (1992) definition of organizational culture indicates teaching new members is necessary. Artifacts, values, and assumptions form three levels within the definition of culture (Schein, 1992). Schein (1992) identified each level as having different challenges that vary from the visible to tacit to invisible. The artifacts are those which are visible organizational structures and processes. The unspoken are the adopted values, strategies, goals, and philosophies. The invisible is the elementary assumptions, unconscious, taken-for-granted beliefs, insights, thoughts, and feelings.

Schein (1999) said an artifact is the most significant visible level of the organizational culture and identifies the categories of artifacts within the organization as unique. These categories in public safety agencies can be termed as variables of personnel, resources, and processes. Schein (1999) also said a more profound cultural variable like the adopted values and elementary underlying assumptions exists under the visible artifacts' layer. The leader must go where the deep cultural variables are to make the necessary changes.

Internal and external facets, leadership, and organizational learning are within the deeper levels. The internal facets involve group formation in team formation within the boundaries created by the organization structure. An example of an internal facet for first responders is the ability to work together. An external facet is the ability of different agencies to function together. Kilroy (2008) expressed that terrorist acts, including 9/11, introduced the beginning of the first response public safety agencies working together, resulting from using the internal and external facets important to an organization's culture. Schein (1999) stated the change leader must realize that comprehension of these more profound levels of culture is essential.

Schein (1999) said that a leader should ponder three fundamental facets while revising the organizational culture. Schein (1999) also stated that culture manages the organization more than the organization controls the culture. Culture is interlaced in every organization's area, complicating the situation and making it difficult for leaders. On the other hand, Schein (1999) stated that culture is stable and is always the focal point, even in an unconscious or subliminal state. The leader must be prepared to handle any anxiety and challenges for stability to continue within the organization.

Communication is one of the key elements to assist with the new culture to be formed by collaborating with different local agencies for preparedness. Chapter Two gives a more detailed analysis of communication's part in applying the collaboration factor. Schein (1992) stated that when the key concepts are redefined, each individual's behavioral changes are refrozen as the norm in the group; cultural change will occur at the different developmental stages in an organization. Psychological safety guilt or anxiety will be disconfirmed. Leadership in managing cultural differences will happen at different organizational developmental stages.

Schein (1992) endorsed the idea of a common thread of organizational culture interlaced throughout organizational change and leadership, despite the organization's maturity level methodology of assumptions and identity. Schein (1992) showed organizational changes test some underlying mechanisms through the vital components of an organization's cultural evolution.

Hoffman (2006) said public safety organizations at the local government level have been defiant to change since the 9/11 attacks. Schein (1999) focused on the challenges produced by the influence of an organization's culture. Schein's simple theoretical construct is pertinent in the first responder's leadership of organizational culture. Schein (1992) discussed the act of unfreezing the identified forces, restructuring those forces to the new assumptions, and enabling the new assumptions to refreeze, resulting in reduced created anxieties from the changing process.

Schein (1999) stated that terrorism preparedness requires the leaders to evaluate an organization's culture and apply the tools needed for organizational change. To assist with this transition, the leaders must become learners and make that a part of the organization's environment.

The framework relates to the study in that Schein's theory on organizational culture and leadership shows that leaders play an essential role in organizational culture. The Washington, D.C., metropolitan area needs a collaborative effort for effective terrorist preparedness. The numerous Washington, D.C. metropolitan area agencies have many different organizational cultures. The approach will be to allow the leaders of the various agencies to collaborate, which will form a new organization and, in the process, guide and mold the resulting culture.

The logical connection is for the different local agencies to collaborate and train for emergency preparedness. According to Daley (2008), the process will be similar to a partnership involving the other agencies within the NCR. Sullivan, William, and Jeffares (2012) suggested that the leaders in the various agencies would combine efforts in leadership styles and traits needed for the task during this process. The collaboration of the different agencies would result in a new culture and Service, and Kavore (2012) showed in the process of combining culture, cultural knowledge helps the relationship. The leaders would play an essential role in this process.

Another logical connection in this process is communication. Levy and Sidel (2006) demonstrated how communication is vital for offering the competent use of assets while removing work duplication. The communication among the different agencies for one common cause would improve services for the area's citizens. Drake (2007) said policymakers will also have to focus on communication issues. Communication preparedness should be at the forefront. Without efficient communication, collaboration would fall apart. In 2014 the NCR was considering a strategic voice communication plan, and some limitations were as follows:

1. The ability to monitor radio traffic for an incident before entering the coverage footprint of the coverage system

2. The inability to communicate with home system dispatchers when roaming off the system

3. The inability to carry primary system coverage during extended pursuits, emergency medical service (EMS) transports, prisoner transfers, or other wide-area responses

4. The cluttered and complicated nature of interoperability fleet maps

The strategic planning recommendations are:

1. Strategic vision and voice communication plan.
2. Region-wide schedule for radio reprogramming.
3. Regional buying power.
4. Inter-jurisdictional mutual aid.
5. COG communications interoperability governance structure.

The key research question would give information about the overall knowledge of the first responder protocol for their terrorism preparedness, their existing challenges, if any, and the role their leaders play in the process. The framework includes showing the leader's part in an organization's culture by forming the culture and changing an existing culture.

Davis et al. (2004) supported the type of instrument used, which is survey questionnaires. This survey questionnaire has been used previously in other quantitative studies for terrorism in different geographical regions and will question the preparedness, challenges of their area, and response to their organizational culture. Babbie (2007) stated that a survey is used extensively in social research.

A descriptive research design will be used for this research because it allows for a questionnaire to obtain the data needed for the research. The descriptive research will also aid with the multiple variables in this study.

The key study independent variables are the processes, resources, personnel, and organizational culture. Processes include communication, planning, and training. Levy and Sidel (2006) discussed the importance of communication and supply a proficient use of assets to eliminate work replication. Communication between the local government agencies in the metropolitan area is essential for successful collaboration. Schneider and Kalbfleisch (2013) stated communication must be present to lessen complications and inform coordinators for preparedness. The final product of communication among the local governments within the metropolitan area would be improved service for the citizens in the area. The efficiency and effectiveness of the first responders would be enhanced.

Myers (1999) termed the whole emergency management planning process is subjective. Emergency managers should be practical about preparedness planning, the method of emergency planning, and the goals that show success as time passes. Emergency planning is not a challenging or complicated task and is part of preparedness.

Alexander (2002) offered a basic list for the process. The principles can be used in different situations for emergency planning. The information about the process is specific but also affords flexibility. According to Alexander (2002), the parts of any emergency plan should be organized to include legislation and participating organizations; scenarios to include hazards, risks, vulnerabilities, and impact; emergency needs which include search and rescue, medical care, public safety, food, and shelter; the available resources which include equipment,

personnel, buildings facilities and shelters; and resource utilization. Emergency planning occurs continually and endures continuous examination.

Potter et al. (2010) stated that the Center for Disease Control and Prevention (CDC) has backed public preparedness for several years. Training is an integral part of preparedness, and Hites et al. (2012) agreed that training reaches all regions and cultures within the United States. Hites et al. (2012) also stated that training gives a sufficient level of preparedness and promotes an enhanced level of preparedness for everyone involved. Hites et al. (2012) demonstrated that emergency preparedness training is an essential pursuit for all healthcare and first response personnel but could also be complex depending on the geographic area. Ablah et al. (2010) emphasized that collaborative training before an incident demonstrates how critical a common understanding of the response roles is in a response attempt. It also demonstrates how the agencies involved can better evaluate their operation plans. Nazli, Sipon & Radzi (2014) stated that training is essential for those who will be active in making the changes to disaster preparedness and those who give the warnings. Wetta-Hall et al. (2006) research resulted in an agreement that training should be an ongoing process with mock exercises.

Mishra, Fuloria, and Bisht (2012) emphasized that insufficient resources in a disaster result in inadequate preparation for any disaster and hinder the recovery plan's resilience. Vardalis and Waters (2010) stress the importance that proper equipment must be available for terrorism preparedness. Vardalis and Waters (2010) also noted that the public could be affected negatively by inadequate equipment and under the training of law enforcement personnel. Shouldis (2012) stated in a preparedness plan, equipment plays an essential role in strategic performance.

Personnel needed for the preparedness process of a terrorist attack includes the police, firefighters, medical staff, and hazmat team. Involvement of all these personnel within the Washington, D.C., Metropolitan area requires well-coordinated planning. GAO-05-652 emphasized initiatives to boost the development of emergency preparedness capabilities of response personnel are of utmost importance, and Homeland Security has placed exclusive measures for national emergency preparedness. GAO-5-652 stressed the national strategy recognized that improving tactical counterterrorism capabilities for state and local response could help prevent terrorist attacks. Knapp (2007) stated a strong response strategy with well-trained responders and informed leadership would be the key to hindering an attack from the enemy. On the other hand, Kimery (2014) recognized the line police officer as the first line of defense and has constant interaction with their area, has a good understanding of the environment and its culture, and notices suspicious activities.

As efforts heighten terrorism preparedness, a myriad of duties confronts the personnel involved, which must include preparedness. Shouldis (2012) shared that preparedness entails a wide variety of educational events for first responders, including the private sector, public sector, volunteers, and contractors. Burke (2013) reported that the fire department's collaboration and police in Gwinnett County, Georgia, became a response model for other agencies within the Southeast region.

The methodology used in this dissertation will be quantitative. Data will be collected from randomly selected first response public agencies within the Washington metropolitan area. A letter of explanation will be sent to the Chief executives of agencies with directions to fill out the survey assessment. The chief executives of each agency will be permitted to assign the individual(s) to complete the survey. The various organizations include emergency medical services, fire departments, and law enforcement agencies.

## Nature of the Study

In this study, exploratory data was used to measure terrorism preparedness. Data were collected through public safety managers responses to a survey instrument. As supported by Davis et al. (2006), I used Frances's self-administered web-based National Capital Terrorism Preparedness Survey. This survey was validated by the RAND Corporation in 2004, modified by Jeremy Francis, and RAND approved the modification. This survey consisted of seven sections with questions to measure terrorism preparedness. The variables measured were (a) communication, (b) planning and training, (c) personnel, (d) organizational culture, and (e) resources, including equipment. The modified survey consisted of 45 questions that collected data to assess terrorism preparedness, leadership, organizational challenges, and organizational climate for social change in first-response public personnel.

## Definitions

*Antiterrorism*: "Passive or defensive measures against terrorism" (Sauter & Carefano, 2005, p. 261).

*Collaboration*: "The coordination among the governmental agencies and organizations responsible for disaster management" (Caruson & MacManus, 2006). The coordination within the federal government promotes efficiency and effectiveness while diminishing overlap and redundancy, and fragmentation (Verkull & Fountain, 2014, p. 169).

*Combating terrorism survey*: A questionnaire that has several structured, semistructured, and open-ended questions to obtain data from respondents about terrorism preparedness (Belisario et al, 2015, p.1).

*Counterterrorism*: “Proactive measures against terrorism, to include targeting terrorism personnel and supporters” (Sauter & Carafano, 2005, p. 261).

*Emergency management*: Consists of four components of “mitigation, preparedness, response, and recovery” (Sauter & Carefano, 2005, p. 315).

*First responders*: Persons responsible for evaluating an incident at the onset and making critical decisions at the scene to save lives and decrease the event’s impact. These individuals include firefighters, law enforcement officers, and emergency medical technicians (Kamien, 2007, p. 665).

*Homeland security*: “Those activities that protect people, critical infrastructure, key resources, economic activities, and our way of life” (Kilroy, 2008, p. 364).

*Intergovernmental collaboration*: “A combined, interagency effort between military, government, non-government and business emergency response resources necessary for the United States to react to and recover from a terrorist attack” (Holcomb, 2004, p. 41).

*Likert scale*: A scaling method designed to measure attitudes (Nachmias & Nachmias, 2008, p. 422).

*Organizational culture*: “A pattern of shared basic assumptions that the group learned as it solved its problem of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel about those problems” (Schein, 1992, p. 312).

*Organizational change*: The ability to redefine key concepts resulting in the unfreezing of the old organizational behavior and the refreezing of the new organizational behavior of the norms and routines (Schein, 2004, p. 19).

*Preparedness:* “The measurable demonstrated capacity by communities, States, and private sector entities throughout the United States to respond to acute threats with well-planned, well-coordinated, and effective efforts by all of the essential participants, including elected officials, police, fire, medical, public health, emergency managers intelligence, community organizations, the media, and the public at large” (Kamien, 2006, p. 229).

*Respondent:* A person who “provides data for analysis by responding to a survey questionnaire” (Babbie, 2010, p. 215).

*Safety organizational challenges:* All agencies must establish priorities to ensure safety is at the highest level in the organization, specifically communications upgrades. (NCR Strategic Voice Communications Plan and Radio Capabilities, 2014, p. 20).

*Survey:* A questionnaire that contains “questions and other types of items designed to solicit information appropriate for analysis” (Babbie, 2010, p. 211).

*Terrorism:* “The deliberate creation and exploitation of fear through violence or the threat of violence in the pursuit of political change. All terrorist acts involve violence or the threat of violence. Terrorism is specifically designed to have far-reaching psychological effects beyond the immediate victim(s) or object of the terrorist attack” (Hoffman, 2006, p. 40).

*National Capital Region (NCR):* For this research, the NCR includes Washington, D.C. and the surrounding counties of Montgomery and Prince George’s in Maryland, and Fairfax and Arlington in Virginia.

## **Assumptions**

Simon and Goes (2011) stated that assumptions are elements in research out of a researcher’s control but related to a study’s integrity. This study assumes first responders in the

Washington, D.C., metropolitan area do not interact with each other in a preparedness training environment. I assumed that heads of the different local first-responder agencies follow individual protocol and, if combined in training, would demonstrate a well-prepared team for terrorist attacks. The aspect of the research problem that the study addresses was collaboration in training. Collaboration for training was chosen because of the uniqueness of the metropolitan area. The Washington, D.C., metropolitan area consists of more than one local government. Washington, D.C., is not a state and is partially governed by the U.S. Congress. The other parts of the NCR are within the states of Maryland and Virginia. Funding for these states to handle terrorism in an emergency is available. Washington, D.C., also has funding for terrorism and emergencies. Unification of training among local governments would result in a more efficient defense against terrorist actions.

The population included in the study will be the managers and the first responders of the different agencies. Culture is the theoretical framework used for this study, and the managers influence cultural changes. Responders usually follow the manager's instructions and are not decision makers. The cultural change beginning at the top will impact better preparedness for first responders. Other metropolitan areas with similar criteria exist in the United States. Collaboration with all local governments in every metropolitan area will benefit from this research in preparedness for terrorism and other disasters.

### **Scope**

The scope of this research contained randomly selected first response public agencies in the NCR. The agencies were sent a link to complete the online survey assessment via Qualtrics. All respondents were encouraged to complete the survey. The survey was limited to the randomly selected department in the NCR.

## **Delimitations**

The respondents were asked to participate in this study because they work and are knowledgeable about their organizations. They participate in all exercises and daily operations. Executives are also included because they understand the need to prepare for terrorist attacks and are responsible for change through the organization's culture and leadership. The study also focused on urban and rural response agencies within the NCR.

## **Limitations**

The NCR has five different local governments. I chose four local governments for this research, limiting the study comparison of the NCR. One limitation is that participants may not want to select the appropriate response for their genuine opinions and feelings about a topic, which would present bias. The study is focused on the Washington, D.C., metropolitan area, which is unique. Surveys were restricted only to the Board of Governors and police, and therefore the expressions from all first responders will be limited. The sincerity of the respondents could be questionable and the perceptions different.

The study outcomes can be influenced if some chief executives think collaboration already exists among local governments. The survey responses may not represent the views of the Washington D.C. area's general population, which could affect the generalizability of the results. Distributing the surveys evenly among the four local governments was a measure to address limitations.

## **Significance**

More than one metropolitan area exists in the United States, and few studies have been conducted on improvement in terrorism preparedness. Terrorism preparedness for areas like

the NCR can be complex, and little focus has been given to collaborating agencies within the area. A collaborative process in the Washington, D.C., metropolitan area would be an example and guide for all other metropolitan areas interested in copying this process. Using culture to promote this collaborative process would be a different angle.

The findings of this study have the potential to promote positive social change. This research can provide a greater understanding of terrorism preparedness among first response agencies in the Washington, D.C., metropolitan area. The communities in the different jurisdictions will be more knowledgeable about the terrorism preparedness plan and may be able to participate in preparedness exercises. The findings of this study may offer a boost of knowledge for the Washington, D.C., metropolitan area and provide a tool for organizational change in area safety organizations.

### **Summary**

A terrorist attack could occur within the NCR that could be large enough to shut down the entire area and will directly affect first responders. This study was conducted to evaluate preparedness within the region. The findings of this study may provide guidance in how collaboration could be achieved using culture as a factor for organizational change. In Chapter 2 I establish the theoretical foundation for this research and introduce the literature used to support the study.

## Chapter 2: Literature Review

### **Introduction**

Terrorist attacks were attempted in the United States long before September 11, 2001, and most of them received assistance with some collaboration. Increased terrorist attacks have created a need for collaboration among first-response public safety agencies in local governments throughout the United States. The 9/11 attack revealed that a lack of collaboration and preparedness for terrorist attacks can result in inefficiency and poor results. Responsibility for training and preparedness for response rests with local government, which is a premise of the federal government (Brundy & Gazley, 2009).

Surveys were sent to county emergency managers containing questions on logistical preparedness, professional training, and joint planning efforts regarding respondents' perspectives about preparation for future terrorist events. The results provided a budget to involve volunteer and voluntary organizations as part of the usual operations. According to Gerber et al. (2007), local government collaboration among multiple agencies and first responders would provide better protection from acts of terrorism. A review of the literature indicates the importance for local governments in surrounding metropolitan areas to collaborate in training efforts for their citizens.

Chapter 2 includes a section on the literature search strategy, revealing the scholarly literature used in this research and the databases used. Schein's (1992) theory of organizational culture and leadership was the theoretical basis for presenting changes in the local government and is discussed in the section on theoretical foundation. In the literature review related to key variables and concepts, I synthesized the studies relating to the variables in the hypothesis. I conclude the chapter with a summary and conclusion that transitions into Chapter 3.

## Literature Search Strategy

The databases used for the literature research were ProQuest Dissertations and Theses, Policy File, and ProQuest database hosts, Walden University's EBSCO host, Walden University Dissertations, and Sage Publications portal. The key search terms used were *terrorism*, *terrorism preparedness*, *emergency management*, *first responders*, *organizational culture*, *organizational change*, *preparedness policy*, and *counterterrorism*. In this literature review, I provided information about the emergency management system, specifically the law enforcement organizations, the emergency medical services, and the fire departments. This review helps to (a) evaluate the metropolitan approach to terrorism preparedness; (b) focus on the theoretical framework of changing organizational culture and describing terrorism as it relates to uniting the local government; (c) use emergency management literature to study the actions of different local governments; (d) study the approach the different local governments share concerning terrorism preparedness; and (e) look at social change resulting from organizational culture change.

## Theoretical Foundation

The theory used for this research was Schein's (1992) theory of organizational culture and leadership. Schein showed that leadership forms the culture in some instances and that leaders should leave their culture on occasions of organizational change. The NCR consists of many different local governments with varying styles of leadership and culture. With terrorism as a continuous threat, local governments must unite in training their first responders for a smooth and organized response.

Creating a leadership that would govern the different cultures in the various local governments and first responders is essential for successful collaboration within the NCR. For

local governments to work together, the cultures must blend. This blending would include organizational change, along with collaboration among various leadership styles. Schein's (1999) research on leadership and culture showed that undesirable consequences may occur when there is ignorance about different operative cultural forces.

Schein (1999) addressed organizational leadership and change by showing the application of organizational culture through research. Schein (1999) debated that organizational culture plays a vital role in decision making, influenced by cultural forces. Schein (1999) also emphasized that a leader must understand and appreciate the role of culture in organizational life. Schein has extensively researched change and leadership by transforming organizational culture since the 1960s and participated in various research activities with prisoners of war. Schein studied management and clinical work in which organizations were nurtured with passion in organizational culture and resulting in a noticeable culture.

Friedmann and Cannon (2007) found that 9/11 showed a need for strengthened effort for local governmental protection, which would be boosted by terrorism preparedness. Somers and Svara (2009) agreed that a post-9/11 effect should be that public safety agencies provide the first line of defense against a terrorist attack, throughout the terrorist attack, and after a terrorist attack. Loring and Duffy (2011) added that cross-cultural dynamics and power issues are essential assets in combining organizational collaboration. Schein's (1992) theory of organizational culture enables public safety managers to move local organizations to increase terrorism preparedness through collaboration.

The rationale for this theory is that different leadership styles and cultures govern local agencies. Combining the various agencies for a common cause could create contention. Sullivan et al. (2009) commented that systems thinking, vision-based leadership, collateral leadership,

power sharing, and power-based leadership are necessary ingredients for leadership collaboration.

### **Conceptual Framework**

The concept is to have local emergency policies promoting terrorism preparedness. Yim (2002) stated that policy makers must make and support information to promote collaboration and sharing among government and private agencies to respond to terrorist attacks. An effective leadership style would improve the communication system. Emergency managers can unite leadership styles with organizational change using organizational culture as support. Friction can arise among local NCR agencies when combined. Managers and policymakers are responsible to the first responders for adequate equipment, which will promote a more effective response.

### **Literature Review**

#### **Terrorism**

Terrorism is a frequent and increasing occurrence in the United States. Terrorism infringes on citizens' liberty and safety and can demand timely emergency preparation for a response. In the years since 9/11, terrorism has existed in various forms, and the Department of Homeland Security was formed to address national public security. Included within the department's duties is terrorism preparedness. The Department of Homeland Security has given each state the responsibility for preparedness against terrorism. Putting local governments together for preparedness creates collaboration, which is necessary for successful counterterrorism activities in a metropolitan area.

Collaboration infers factors such as leadership, the type of work being done, and supporters' qualities (Sullivan & Williams, 2012). Therefore, the framework's key statements are terrorism, terrorism preparedness, and collaboration. Kamien (2006) suggested that a standard definition for each of these key statements would provide a base to apply a policy.

Agencies define some critical statements like terrorism differently, and these agencies are active players in counterterrorism measures within the United States. The National Commission on Terrorist Attacks (2004) supplied examples of those agencies: Department of State, Department of Justice, Department of Homeland Security, and Federal Bureau of Investigation. Hoffman (2006), Kamien (2006), and Kilroy (2008) indicated that each agency defines terrorism differently.

A conventional theoretical framework of terrorism does not address the comprehension of the primary causes of terrorism or how to approach repetitive and persistently developing challenges. Frank (2009) stated that any definition of terrorism can only be established by rejecting traditional terrorism theory. Hoffman (2006) defined terrorism as a thoughtful construction and mistreatment of fear using violence or the threat of violence to obtain a political change. Findley and Young (2011) suggested that terrorism could also be described as radical interest groups' ability to use violence to transmit political points. Terrorism also has psychological effects, not only on the immediate victims but also on citizens who participate in the political process. Somers and Svara (2009) supported the idea that a mutual definition of terrorism between first-response public safety agencies reinforces the population's security.

### **Terrorism Preparedness**

The occurrence of 9/11 demonstrated the need for terrorism preparedness. Areas susceptible to terrorism must ensure safety for all citizens and understand its importance.

Ziskin and Harris (2007) identified the federal government's necessity for preparedness and its authorization of policies that emergency managers must follow in multiple municipalities within the United States.

The federal government also offers financial resources for development and implementation. Perry (2006) found that emergency preparedness could be termed preemptive activities that would provide readiness for serious adverse events that would affect a community. According to Lindel et al. (2006), preparedness reduces harmful impact by guarding a community's health and safety and ensuring properties' integrity and work.

## **Collaboration**

Collaboration plays a vital role in areas where multiple organizations must work toward a common purpose. Collaboration must come from all organizational levels and across barrier spans. In this study, I focused mainly on how leadership plays a significant role in collaboration. Collaboration in this study can be defined as different local governments in the Washington, D.C., metropolitan area, working together for practical terrorism preparedness training. Sullivan et al. (2012) identified collaboration as learning from the past in expectation for upcoming events with the ability to balance power for the relationship. Sullivan, Williams, and Jeffares (2012) emphasized that all actors come together for reasoning in the situation of collaboration. Sullivan, Williams, and Jeffares (2012) found variations in leadership styles help shape the collaboration process.

Benton (2013) explained that collaboration among local governments can be formal and informal. Benton's (2013) research supports this dissertation by stating that when local governments get together in a situation with emergency measures, the result is a formal collaboration.

## Policy

Collaboration plays a vital role in areas where multiple organizations must participate in working toward a common purpose. Collaboration must come from all organizational levels, top to bottom, and across barrier spans. I will focus mainly on how leadership roles play a significant role in collaboration.

The definition of collaboration in this paper is the working together of the different local governments in the Washington, D.C., metropolitan area for practical terrorism preparedness training. Sullivan, Williams, and Jeffares (2012) identified collaboration as learning from the past in expectation for upcoming events with the ability to balance power for the relationship.

Sullivan, Williams, and Jeffares (2012) emphasized that all the actors come together for reasoning in the situation of collaboration. Sullivan, Williams, and Jeffares (2012) found variations in leadership styles help shape the collaboration process. Benton (2013) explained that collaboration among local governments can be formal and informal. Benton's (2013) research supports this dissertation by stating that when local governments get together in a situation with emergency measures, the result is a formal collaboration. Kiltz (2011) mentioned Homeland Security has prepared many programs that local governments must implement.

Implementing these policies in the Washington, D.C. metropolitan area will collaborate with the different local governments to adequately train and prepare the first respondents for these occasions. Education at various levels will assist in smoother collaboration for the local governments. Kiltz (2011), from an educational point of view, emphasized that a challenge in developing the Homeland security program is determining which department at a university level is most appropriate for the introduction of the topic. From an on-the-job training

perspective, I would recommend that the local governments' collaborative efforts handle the programs.

According to Muller (2011), from a risk management perspective, the terrorists plan their attack method and wait until the appropriate time for implementation. However, from a preparedness standpoint, policymakers can plan a unified process to handle injuries and evacuation in the event of a disaster or terrorist attack. Along with Muller (2011), I consider that idea a valid trade-off that policymakers should consider and implement. Eller and Gerber's (2011) response to Mueller's (2010) assessment pointed out that comprehension of terror threats is complicated. Saving lives in a terrorist situation is more critical. Muller (2010) looked at several premises to include abandonment or a large-scale back of a terrorist target list. Muller mentioned the Washington, D.C. metropolitan area as a high-risk area in the paper.

Muller also mentioned that the human cost would be high. This statement supports the theory of collaboration for preparedness in the Washington, D.C., Metropolitan area. In the research Popp (2012) showed that politics, including the Democratic and Republican, have issues because of the short span of terrorism. Undoubtedly, the Washington, D.C., metropolitan area is a prime site for any terrorist activity, as seen in 9/11, and should always be ready to take preventative action.

Eller and Gerber (2010) emphasized that the frequencies of terrorism activities make the origination and enforcement of terrorism policies complicated. Homeland Security policies have uncertainties about the exact character of terrorism hazards. On the other hand, Eller and Gerber (2010) stated the 9/11 occurrence enable Homeland Security to boost state and local government's ability to support emergency management responsibilities.

Two of the instruments used to facilitate the implementation of policies are cost-efficiency and cost-effectiveness. These provide valuable information for policy implementation and improvement. Homeland security is responsible for the overall policy of terrorism preparedness.

The local governments are responsible for putting those policies in place and creating policies to enhance homeland security policies.

Somers and Svara (2009) highlighted that the city and county managers must be concerned about the degree of preparedness of their respective city or state needs. This statement lays the foundation for local governments to develop policies that enhance preparedness.

Moreover, the collaboration of different local governments in policy-making incentives helps terrorism preparedness in the Washington, D.C., metropolitan area. The leadership needed to create policies for collaboration in training and preparedness within the metropolitan area must come from local governments.

The public depends on this type of leadership for safety, and the leadership must be proactive in anticipating future events' needs. The collaboration of the different governments may cause a small amount of friction because of each agency's cultural difference. Applying Schein's organizational change theory through culture would make a smoother transition.

Gelaidan and Ahmad (2013) looked at leadership style and a commitment to change. They include different leadership styles like transformational and transactional leadership with the responsibility to change. The findings demonstrate that the leadership style and the employee's normative commitment to change had a moderating effect on the culture.

Further finding is that public agencies interested in making changes must consider the leadership style and culture. Tilchin and Essawi (2013) used employees' practical knowledge management as a vigorous model for employees' experiences as an organizational culture change. Huddy and Feldman (2011) demonstrate through research that supported national security policies toward terrorism that anxiety would significantly increase when those attacks occur in a high tourist area. The Washington, D.C. metropolitan area is a high tourist area and should be well-equipped to handle all incidents efficiently.

### **Collaboration Factor**

In this paper, the collaboration factor is the various local governments' ability to join to perform preparatory emergency tasks in a terrorist emergency. Daley (2008) referred to the process as partnership synergy, which involves three agencies in Wisconsin. Daley (2008) used the premise that interagency collaboration would improve the quality of the environment and boost public health by looking at the collaborative relationships' level and effectiveness and seeing a wide variation in the frequency. Trust plays a crucial role in the process. The result of the research shows positive outcomes among government agencies. The first responders include the police, paramedics, and firefighters for this study. Daley's (2008) researched weakness is that collaboration occurred only among the public health care department and the state environmental agency.

Collaboration for this study would be among the police, firefighters, and paramedics. Sullivan, Williams, and Jeffares (2012) looked at the styles and traits of leadership and demonstrate that the various agencies' different structures combine to shape the leadership needed for the tasks. The agencies' expertise and experience and the difference in culture play an essential role in the process.

The collaboration of the different agencies for terrorism preparedness will be like forming a new agency because of the new organizational culture. The leaders must be ready for the new cultural change and understand and appreciate the difference. Schein (1999) emphasized that leaders will accept challenges, and resistance will be less when they comprehend and value the cultural angle. As a result, the leaders will assist the different agencies with conforming to the new culture and successfully create an atmosphere of organizational change. Organizational culture is described as the prime assumptions a group learns while solving problems and adapting to internal integration.

This study would benefit from these collaboration factors by combining the different agencies' cultures, which depending upon the agencies, the leader shapes the culture, or the culture shapes the leader. Each agency brings different skills for the tasks to be accomplished. They represent different areas in the Washington, D.C., metropolitan area and should give input for approaching the various obstacles to be encountered.

Service and Kavore (2012) studied cross-cultural leadership's cross-cultural experiences from an African perspective. This research looks at the different cultures among the African races and the effects of combining cultures. In some instances, they realize that cultural knowledge helps relationships, an important issue one must have when undertaking the leadership role. Service and Kavore's (2012) research also demonstrated that each culture possesses our thoughts, convictions, and values, which must be considered. The research results show that culture makes it very difficult for management and leadership, but it is not impossible to do so.

Examining organizations' intricate consistencies with a combination of culture and leadership is essential in this paper. Buble (2012) examined the interdependence of organizational culture and leadership styles in large firms in Croatia, suggesting that a healthy organizational culture could hurt an organization. One of the hypotheses in this research is that "the interdependence between organization culture and leadership style is positive and statistically significant."

The factor decentralization was one of the least developed factors, and for that research, decentralization was low on the list because there was no weight on the size of the firms sampled. Decentralization would not be effective because cohesiveness is needed to get the task done. Decentralization would be required only with the different job skills among the first responders. Another point in the conclusion was that a consultative leadership style would be more suitable than an authoritative style to give more strength to participate in a training situation. The weakness in Service and Kavore, and Buble's research is that the study was done outside of the United States; therefore, the population would have different work ethics and day-to-day culture.

The collaboration factor must be practiced and accepted to be effective. The collaboration factor entails the different local governments working together with a leadership style that could emulate a consultative method because of the cross-cultural presence and diversification. Ganapati and Reddick's (2014) research found that collaboration positively affects the government.

Communication Among Local Government Communication among local government agencies is a crucial component for collaboration to be successful. The absence of communication would significantly affect the ability for collaboration to work. According to Levy

and Sidel (2006), communication is crucial because it offers an innovative use of assets to eliminate work duplication and expedite the implementation of prevention processes.

Communication must not only exist among agencies but within the agencies. Schneider and Kalbfleisch (2013) emphasized that communication must exist to lessen complications, such as coordinators being ill-informed of information needed to implement suggested preparedness activities for the program successfully. The end product of communication among the local governments will be better service to the citizens and enhanced effectiveness among the first responders. Drake's (2007) research showed the policymakers' interest in the first responder is to protect the first responder's efforts, which would cause the policymaker to address communication issues.

Organizational learning spearheaded by its leaders allows individual applications collectively, making smoother transitions. Schein (1996) states increasing communication across cultures fuels mutual understanding. A leader who communicates continually with the organization will receive feedback regularly, and their organizational learning will coincide with the organization's learning. Schein (1996) also mentions that organizational learning is achieved when leaders learn how to analyze their own cultures.

In an interview, Fulmer and Keys (1998) record Argyris stating learning has to be practiced.

Schein (1999) states it is common for learning leaders to be involved in an effective organizational learning system. Humans are very active problem solvers. Schein (1996) said organizations would learn effectively only when recognizing and tackling occupational cultures' implications. The constant push for terrorism preparedness results in challenges that lead to various learning methods for public safety agencies. These challenges enable the learning

leaders who know their organizational cultures to make the best organizational change approach.

Leaders must use a calculated approach for overall organizational participation. Schein (1999) believes organizational learning and change must not be forced on the organization's personnel. The application of organizational learning in the organization results in the learning leaders initiating an organizational change. The organization's personnel play an essential role in this learning and changing process. Yu and Chen (2014) state learners must be committed to learning in forming a learning culture, which will result in continuous organizational improvement.

Palattala and Vos (2012) used the scoreboard model, a fairly new instrument used to evaluate communication. The tool shows that it is essential to consider practicing communication in a crisis to improve decision-making.

Ae Chun, Sandoval, and Arens's (2011) research suggested that communications should adjust to suit as time and technology change. Ae Chun, Sandoval, and Arens's (2011) research found that Twitter is growing rapidly among government agencies and can inform citizens in emergencies.

### **Collaboration (Partnership) Enhances the Effectiveness**

This dissertation uses collaboration and partnership interchangeably. Survival in the local community is of the utmost importance when a disaster strikes. Getha-Taylor's (2006) research showed that collaboration between government agencies is crucial for preparation and involvement in immediate responses. Buckman (2005) reveals that the National Response Plan

(NRP) of the United States and many university programs involved in developing and implementing a Homeland Security curriculum are three relevant standards for public policymakers to contemplate in intergovernmental or multiagency collaboration.

The three key standards identified by Geta-Taylor (2006) that policymakers must consider were:

Collaboration is needed to maximize strengths and fill gaps in the federal government's capabilities. Because there are limitations on federal response efforts, we must develop state and local response capacity. Part of creating that capacity is the coordination of response plans. When plans aren't- coordinated, unexpected stumbling blocks will stall recovery efforts.

When drafting response plans, government officials must always consider and include citizens. In the first few hours of any emergency, citizens will be without assistance, and they must be adequately prepared to face that reality.

Education and training must serve as the foundation for any planning and response initiative. Everyone—from senior officials to first responders to citizens—needs to know what to do in an emergency, regardless of whether it is a homeland security threat or a natural event (p.160). Benton (2013) viewed collaboration as a win-win situation from which the following features can be produced:

1. Costs can be cut or shared among local governments
2. Efficiency and effectiveness can be improved
3. Opportunities to share and deal with regional matters are created
4. Transparency to the public is increased

## 5. Economic success is improved

Existing scholars have stressed the importance of regional partnerships to facilitate terrorism preparedness and connect policy reform for local governments. The interagency collaboration incorporates the cooperation between the public sector (government and non-government organizations, military) and private sector assets. Caruson and MacManus (2008), Caudle (2007), and Somers and Savra (2009) implied that regional partnership has strengthened homeland security attitude by enabling preparedness, supporting response, and increasing recovery.

In their research, Sullivan, Williams, and Jeffares (2012) mentioned that there was a problem because of actors' diversity. In my opinion, the diversity of actors offers different ways of solving problems and different wavelengths for brainstorming, which would enhance preparedness.

Sullivan, Williams, and Jeffares (2012) emphasized that collaboration gives leaders the ability to work indifferently. On the opposite end, leadership is also essential for collaboration to be successful.

Manly (2008) emphasized that trust is essential for collaboration to be effective. Maldonado et al. (2012) did a qualitative study of two public health agencies in southern California. The result shows that training among the two agencies would provide the tools needed to overcome the organizational barriers. Trust must be present for collaboration, mainly when emergency safety management exists.

Caruson and MacManus (2008) offered benefits to intergovernmental relationships with regionalism. On the other hand, Baker (2007) discussed that reform is crucial, and terrorism policy, multijurisdictional boundaries, and established laws need to be clearly defined. Caudle

(2007) suggested that goals, objectives, and measures across the local regions for outcomes must be introduced early in the process. The collaboration effect, which makes the local resource more readily available during a terrorist attack, allows the region to be less dependent on the slow federal response. Caudle's (2007) research suggested that the collaborative effect is also beneficial to the first responders because of the customized response plan. All agencies should promote an environment that reinforces the bottom line in protecting the United States. Holcomb et al. (2002) research showed that an effective way to initiate the process in areas where current mobilization efforts are lacking is to have bilateral agreements. Ensuring that the local community has priority for the first critical response will guarantee the citizens' survival and welfare.

Another research about leadership and communication by de Vries, Baker-Pieper, and Oostenveld (2009) demonstrated that task-oriented leadership styles were less communicative than charismatic and human-oriented leadership styles. A collaborative preparedness atmosphere is more task-oriented because most of the first respondents are experts in their technical capacity and already know the process. The major limitation of this research is that the data obtained was limited to one source. The methods used to measure the predictor and criteria variables were limited because they were based on a particular leadership study outcome.

Researching different leadership styles related to communication in multicultural groups in a case study format, Aritz and Walker (2014) found that leadership styles significantly impact cultural differences. They find that the directive leadership style causes an imbalance among the group members and that the inclusive leadership style enhances balance among the group members.

The corporate leadership style is too aggressive and inappropriate for some cultures. Many factors hinder collaborative leadership style causing it to be useless, including language proficiency, communication apprehension, level of comfort, and familiarity. Some limitations are variables that play an essential role in most organizations, such as the role of leader, manager, or supervisor, the organization's culture, and the level of expertise needed for specific tasks.

The collaboration process must also consider the effects of culture, as described in Schein's theory. The collaboration of agencies is like the transformation of a company. Latham's (2013) research realized that an organizational transformation is complex, and a multitude of things (referred to as "silver bullets") must exist to have a successful transformation.

Leaders must be aware of this fact and be able to use as many silver bullets as possible. According to Latham (2013), collaboration in this sense entails using diverse populations' talents. Marek, Brock, and Salva's (2014) research confirmed that continual education and training must occur for collaboration to be successful.

Northouse (2007) commented that the situational approach entails the directive and supportive concepts for all situations when approaching leadership. The emergency manager will develop objectives and relationships using a familiar situational leadership style. Organizational culture allows emergency managers to mix situational leadership with organizational culture. Organizational culture is intertwined in the organization; it is deep, stable, and controls the organization. Schein (1996) noted that culture develops through shared occurrences in success. Schein (1999) expressed that emergency managers can use situational leadership and still have flexibility and adaptability while drawing on the organization's cultural strength.

A leader realizes whether or not the group is operating cohesively to focus on any problem in organizational culture and leadership. Schein's (1999) theory supported situational leadership and enables the leader to adapt to the situation to stabilize the internal organizational system. Situational leadership enables the leader, through a reputable relationship, to provide the group with an alternative solution. Schein (1999) noted that before and throughout a disaster, a manager has practical ideas but is inclined to identify weaknesses and modify any situation.

Schein (1996) shared that overt behavior must not be the only thing that could be used to translate culture because situational incidents will make us act in conflict with our deep values. Schein (2004) also pointed out that different job styles carry their own culture. Therefore, situational leadership would be favorable.

### **Leadership in Collaboration**

It has been already pointed out that collaboration in this dissertation is the unified ability of different organizations within the Washington, D.C. metropolitan area to train together in preparation for a terrorist disaster. Each local government in the metropolitan area has individual leaders. Tsai (2011) demonstrated that team communication and encouragement would be well-practiced with fruitful connections between the leader and subordinates. All agencies must train together during non-emergency situations, which will result in automatic cohesion during any disastrous conditions. Culture plays a crucial role in the process, and Tsai (2011) also showed that a satisfactory work environment promotes the employee's effectiveness, supporting successful goal accomplishments. Sullivan, Williams, and Jeffares (2012) showed that leaders often encounter conflicts with agency diversity, interpretation, and influences, which promote tension and conflict in collaboration. Claude (2007) stated that a

united working front in any collaboration or partnership among the senior leaders would dissolve all conflicts across agency boundaries.

As mentioned previously, agency collaboration results in a new culture, which would resemble an organization's transformation. Veiseh et al. (2014) demonstrated that the best-suited type of leader would be a transformational leader who positively affects organizational culture development. Veiseh et al. (2014) also showed that intellectual encouragement would not impact organizational culture.

### **Cultural Change**

A collaboration of different agencies will result in cultural differences. Working together results in forming a new culture, and as a result, the existing individual cultures will change. As the different cultures join in accomplishing a mission, a new culture will form. Schein (2004) referred to the term "unfreezing," which should end the individual agency culture, and "freezing," which will result in the new multiagency culture. There must be an unfreeze, reconstruction and a refreeze in cultural change.

Schein (2004) emphasized that agencies would have to unlearn their distinct culture, which is problematic. Schein (2004) gave an example of the Amoco Company engineers who had to change their operation way but could not make that change to conform to the company's new direction. They failed to unfreeze. Schein (1999) also explained that a leader's responsibilities for change is first to understand the organization's culture. After the managers and the leaders understand the culture, they would anticipate the expected resistance to change, and the challenges would be easier to accept. The mission of the leader in organizational change is not simple.

Schein (2004) discussed that a new learning process needs to occur after unfreezing. This new learning process is more of a behavior change and, in other terms, restructuring. Schein (2004) emphasized that the leader's goal must be well defined. In his Amoco example, the goals were established. The engineers knew they had to put several small concepts in place, such as becoming freelance consultants and competing with outsiders.

Schein (2004) described refreezing as the final step in cultural change. He stated that it is an uncomfortable stage, and actions like training, learner involvement, reward, and discipline should reinforce the change.

### **Summarization of Major Themes in the Literature**

Leadership plays an essential role in all organizational changes or formation. The process does not call for a particular leadership style. Veisoh et al. (2014) noted that research had presented situations that resulted in the recommendation of specific leadership styles like transformational leadership, which would give more profitable results if used. To add to the leadership style and not oppose it, de Vries, Baker-Pieper, and Oostenveld (2009) showed that a charismatic leadership style would also produce positive results in a collaborative effort for agencies.

Myers (2013) supported the comment that local government and agency collaboration in the NCR would use the latest technology and collective knowledge, which would enhance the efficiency and effectiveness of preparedness. Bromberg and Henderson (2014) state that trust must exist in a collaborative effort, and the municipal managers are responsible for ensuring this occurs. Zhang (2012) demonstrated in his research that local government managers play a very active role in leading policymaking when higher managerial personnel disagree.

A cultural change would be needed to collaborate with several agencies belonging to the different local governments to work together. Schein (2004) discussed that an unfreezing, restructuring, and refreezing process is necessary for a transformation culture.

Reddick (2008) recognized that the managers must be optimistic about their conviction for the community, city, or municipal to perform efficiently and effectively.

Reddick's (2008) research identified that manager who believed their jurisdiction had a low probability of terrorism displayed that their preventative and preparedness approaches were weak in their leadership style. Somers and Svara (2009) supported that the public depends on the local government leaders' wisdom in terrorist preparation. Local managers must always be prepared for all disasters. Reddick's (2008) research also demonstrated that collaboration positively affects the understanding of preparedness, as presented by Homeland Security.

Huddy and Feldman (2011) asserted that when the nation is seen as under threat, leadership would be forced to demand more leadership diligence. Gerber, Cohen, and Stewart (2007) also support preparedness is crucial for effective disaster management. In a collaborative process, leadership diligence is vital.

Matusitz and Breen (2011) showed that a collaborative effort involving communication among the local and state governments at the preparedness level helps eradicate terrorism. Matusitz and Breen (2011) also showed that from a non-terrorism perspective and only on a disaster level, Hurricane Katrina would not have had such an impact if preparedness had been more efficient.

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disaster level, Hurricane Katrina would not have had such an impact if preparedness had been more efficient.

In 2009 Brudney and Gazley stated that all local jurisdictions within the United States would be better prepared for any disaster by ensuring that training and preparedness include collaboration. Wood, Mileti, Kano, Kelley, Regan, and Bourque (2011) state that lessons learned from past experiences make a foundation for progress. McEntire (2009) expresses that the effort to apply every possible theory or professional act to reduce the disastrous impact would be victorious. Basolo et al. (2009) said research studies have shown that trust and confidence must be present in all aspects, including the collaboration process and local and federal government. Matusitz and Breen (2011) also agreed with Basolo et al. (2009) that communication needs to be effective for preparedness to be helpful and should occur at all levels of government.

The implication of this research demonstrates an increased perception through an assessment of terrorism preparedness posture among the NCR's first responders through collaborative efforts with the different local governments. The research also demonstrates provision for the improvement of area-wide public policymakers' leadership and the impending impact of public policy awareness on the metropolitan community. Terrorism preparedness policies have an effect on all citizens in every community.

Caruson and Mac Manue( 2008), Sauter and Carefano (2005), and Somers and Svara( 2009) all emphasized all government levels are crucial in homeland protection, but the local government plays the most vital role.

I evaluated the products of Schein's (1990) theory of organizational change, specifically using organizational culture and leadership to enhance and change the mechanism for terrorism

preparedness policy. Schein (1990) showed that organizational culture develops when organizations undergo various situations, handle the situation in a specific manner internally, and accept and apply that methodology continually. Culture will begin forming with the collaboration of the government agencies and the private sector. Miller, Adame, and Moore (2013) agreed that the targeted audiences, including first responders from the local jurisdictions, would harvest the key components necessary to begin the formation of the culture, which in the end would be crucial for social change.

The gap to be filled would be the example of the collaborative efforts using culture and leadership among the agencies in the different local governments within the Washington, D.C. metropolitan area. This would enable them to cultivate the best available practices in terms of leadership and operational tools and put a plan in place for area-wide first responders.

Possible recommendations would be passed on to federal government agencies in the Washington D.C. metropolitan area. The 9/11 occurrence brought first responders in the New York City area together to respond to a vast magnitude disaster. Since 2014, the NCR has identified other deficiencies that need to be addressed. Addressing the shortcomings found in 2014 will raise the level of preparedness.

Homeland Security has set guidelines that local governments should follow. The government's ability within different jurisdictional areas to work together and follow those guidelines is essential and needs to perform smoothly.

For this to occur, training through the process of collaboration is necessary. Caruson and MacManus (2005), Perry and Lindell (2003), and Somers and Svava (2009) all supported the idea of terrorism preparedness. With that in mind, the local governments must be involved in policy reform and reconstruction to protect the United States' national security.

## **Transition**

Different local government first responders' ability to work together for a common cause is a gap that needs to be filled. Miller et al. (2013) said that local jurisdictions' first responders must be the entity that plays an essential role in forming the culture to fill this gap. Therefore, survey participants were first responders in the NCR. Participants and methodology, along with research design and rationale, are discussed more fully in Chapter 3.

## Chapter 3: Research Method

### Introduction

In this quantitative study, I looked at collaborative first-response public safety preparedness against terrorism in the NCR. I reviewed the NCR local government public safety agencies' first response position and investigated the organizational culture of NCR agencies' first response. In Chapter 2, I discussed communication, planning and training variables, resources such as spending and equipment, and personnel. The problem statement suggests a need for the collaboration of different local governments. In the NCR, the local government needs to be better prepared to handle terrorist attacks. Each local government will consider different issues necessary for their jurisdictions, hindering collaborative preparedness. This research offers a baseline for regional preparedness among local communities.

The theoretical foundation used was Schein's (1999) organizational leadership and change in organizational culture. Leaders must understand the importance of organizational culture in making changes. The conceptual framework showed collaboration among different local agencies resembles forming a new organization, including taking on a new culture. According to Schein (1999), leaders must study the new organization's culture and abilities and apply the tools needed to make the change.

Organizational leadership and learning are cultural variables. Kilroy (2008) supported the NCR after 9/11. First response public safety agencies are combining, which results in leadership and learning playing an essential part in organizational culture. I looked at the organizational culture's underlying levels by quantitatively measuring leadership and learning variables with a modified survey instrument. The findings of this study can provide a reference for the preparedness of several neighboring local jurisdictions. The unit of analysis for the data

was the public safety agency's first responders in the NCR. A discussion concerning the research question, research design, approach, targeted population and sample, instrumentation, data collection and analysis procedures, validity and reliability, and ethical considerations occurred.

Quantitative research uses statistical significance to offer a value that can allow scholars to accept or reject a null hypothesis (McNabb, 2008). Descriptive and inferential statistics were used for data analysis. In this study, I concentrated on the local government public safety-first response agencies in the NCR. The research was guided by the following questions and hypotheses:

Has the level of terrorism preparedness for first response public safety agencies in Montgomery County, Prince George's County, Washington DC and Arlington County changed since 2014?

*H<sub>0</sub>1*: First response agencies have not changed their policies to respond to a terrorist act since 2014

*H<sub>1</sub>1*: First response agencies have changed their policies to respond to terrorist acts since 2014

RQ2: Have first-response public safety agencies in the NCR changed processes, resources, and personnel to address terrorism preparedness since the 2014 strategic planning recommendations?

*H<sub>0</sub>2*: First-response public safety agencies in the NCR have not changed processes, resources, and personnel to address terrorism preparedness since.

*H<sub>1</sub>2*: First-response public safety agencies in the NCR have changed processes, resources, and personnel to address terrorism preparedness since 2014.

From an executive leadership viewpoint, what is the assessment of first response organizational culture?

*H<sub>03</sub>*: First response has not changed organizational leadership organizational learning since 2014

*H<sub>13</sub>*: First response has changed organizational leadership or organizational learning since 2014

### **Research Design and Rationale**

Exploratory research designs offer researchers the opportunity to understand issues connected to the research problem (McNabb, 2008). In the literature review, I discussed the first response culture about preparedness and other circumstances for terrorism preparedness for local agencies. The first response organizational culture categorizes the elements of preparedness and related policies. I also referenced the factors of terrorism preparation among agencies in the NCR. In this research, I used the exploratory method with a random sample from the population of first response public safety agencies in the NCR area. The selected design was the exploratory method with random samples from the targeted population, including the NCR leaders.

Time and resource constraints were minimal because survey instruments were sent via email and were followed periodically via email or telephone. Creswell (2007) said that qualitative research requires extended time and resources because of personal contact through personal interviews and direct observation.

The design choice is consistent with research designs needed to advance knowledge in the discipline. The research design was a quantitative, non-experimental descriptive design that

explored terrorism preparedness from a theoretical approach using data from the survey. The survey included executive leadership and first responders within the NCR public safety agencies.

## **Methodology**

I chose the quantitative method instead of a qualitative approach because the quantitative approach catered to a specified timeframe measurement. According to Creswell (2007), qualitative research calls for substantial time and resources with interactive contact like personal interviews and direct observation. The study's geographic area and sample size were of concern because the study encompasses more than one state with many counties in the NCR.

This study was designed to examine terrorism preparedness improvement since 2014 and to measure preparedness based on preparedness variables determined by processes, resources, personnel, and organizational culture. Creswell (2007) explained that the qualitative method calls for a sizeable amount of time and resources in conjunction with personal interviews and observation. Davis et al. (2004) confirmed the use of quantitative methods in other terrorism preparedness studies in other territories. Daniels (2007) also affirmed the use of surveys in the emergency management arena to set up policy reform and organizational transformation.

The target population was the NCR response agencies, specifically the agency leaders, the Council of Governors in the NCR, and the police departments. The Council of Governors, agency leaders, and police departments were chosen because I sought to address the region's accomplishments and lack of accomplishments in communication preparedness. The Council of Boards is responsible for addressing the region's communications as agreed upon in the NCR Strategic Voice Communications Plan and Radio Capabilities Assessment submitted in June 2017 to Northern Virginia Emergency Response System. As of 2015, the NCR has a population of

approximately 6,097,684. The NCR consists of 30 police districts. The number of Council of Governors and police officers selected were  $N = 600$ . The survey measured the insight the Council of Governors and police departments have for the different counties in the region.

The type of sampling strategy was stratified sampling. Frankfort-Nachmias and Nachmias (2008) stated, "stratified sampling is primarily to ensure that different groups of a population are represented adequately in the sample to increase the level of accuracy when estimating parameters" (p. 171). Stratified sampling was used so that all agencies in the NCR were represented. The population was divided into nonoverlapping groups, known as strata. The NCR has several agencies, and a sample of all the agencies would create a homogenous group to be sampled. Stratification can do the following: (a) yield less error, (b) reduce cost per observation, and (c) identify if there are subgroups in the population.

The sampling strategy was to take close to equal portions of the police and fire/EMS in each county and the District of Columbia. However, Arlington County has only three divisions equaling 321 police, and they all declined to be surveyed. Montgomery County has six police districts and five fire battalions, Prince George's has seven police districts and seven fire/EMS battalions, and Washington, D.C., has seven police districts and nine fire battalions. I sampled three communities from Washington, D.C., and counties with six or seven districts and their fire departments and 28 of the Board of Governors.

The sampling frame included members from the Board of Governors for the NCR and police departments. Each of these individuals is responsible for ensuring that their district or agency meets the desired goal of increasing the communication preparedness within the region by fulfilling the projected recommendations. No particular district was chosen, attempting to eradicate bias. Selected district, fire battalion, and Council of Boards personnel

were written on pieces of paper and 19 pieces of paper were selected at random. The chosen papers represented the districts, fire battalions, and Council of Boards that would not participate in the survey. One specific agency or group may have a unified opinion or interest in any factor, creating a bias for that factor, resulting in a swayed outcome. Different groups and agencies may have different views on a particular topic, resulting in an actual outcome representing the population. Selecting random Council of Boards, fire battalions, and police districts would eliminate bias and offer sample accuracy.

Babbie (2007) suggested random collections provide a better body for probability theory. Each component has an equal opportunity for selection independent of any other event in the selection process, which offers the foundation for assessing the characteristics of the population and estimating the accuracy of the samples. For this study, a simple random collection of the Board of Governors, fire battalions, and police districts mirrored the total population. A random selection offers accountability against bias and provides a gate to the body of probability theory, resulting in appraising the population's characteristics and the samples' accuracy.

To collect data, I used the First Response Organizational Terrorism Preparedness Survey by Francis (2011). The survey has three sections: processes, resources, and organizational culture. This instrument was appropriate for this study because it has been used to assess public safety agencies' preparedness in other regions of the United States. Several attempts to contact Francis by email were made but no response was received.

The first Response Organizational Terrorism Preparedness Survey was tested and retested for reliability and validity by RAND Corporation when modified. The responders will answer questions based on facts. Perception and opinions would not be the central point of the research. Davis et al. (2006) suggested cross-checking the survey for reliability. The consistency of responses was assessed from the different sections of the survey relating to the indexes (terrorism preparedness, processes, resources, personnel, and organizational culture).

Creswell (2007) stated participation from the targeted population can affect the limitation of survey research. Respondents from agencies were randomly selected to participate in the study. The rate of responses covered a wide range of participants. Barbie (2007) stated a researcher should be aware a 50% response rate is suitable for both analysis and reporting. Response rates for the 2006 Combating Terrorism Survey was about 40%.

Frankfort-Nachmias and Nachmias (2008, p151) stated predictive validity is obtained by “comparing their measuring instrument’s outcomes with outcomes obtained by other measuring instruments.” Field (2009) stated a researcher should believe in getting 10 to 15 cases of responses per variable to receive an acceptable sample of measurement. Checking the rate of responses assured suitability for a satisfactory sample size. Curtis (2009) said a response rate of 20% is acceptable for a researcher, equating to an adequate response rate. Frankfort-Nachmias and Nachmias (2008) also stated construct validity must exist to provide a measuring instrument to the study’s theoretical framework to establish if the instrument ties empirically to the concepts and theoretical assumptions.

The instrument is a modified version of the 2002 RAND survey questionnaire, Combating Terrorism Survey. The RAND Corporation approved the use of the survey in 2002 for Jeremy Francis’s research. Jeremy Francis, 2011, modified the RAND survey to fit his research

entitled "Terrorism Preparedness of Municipal First Response Public Safety Agencies in the North Central State."

Creswell (2007) suggested the population targeted can limit the survey's research. Selecting agencies in each geographic region to participate in the study would represent the entire region. The targeted population consists of the Council of Governors, the police departments, and the fire/EMS in the NCR. Participants in the NCR were asked to participate via a consent form with an invitation and the electronic survey address at the bottom. The consent form described the study's purpose and included the researcher's contact information, the dissertation committee chair, and Walden IRB.

### **Data Collection**

Data collection consisted of three phases. The survey questions were the same as the preparedness factors described in the literature, identified as the process (communication), resources (spending, equipment), and organizational culture. No debriefing guidelines were necessary. The survey contained questions, and the participants gave their answers. No, follow-up procedures were required.

The pilot study addressed preparedness against terrorism within the northern Illinois area. The study examined the first response position of the NCR local government public safety agencies and examined the first response agencies' organization culture. McNabb (2008) explained surveys are valuable for gaining data from large populations, have significant strength in standardized measurement, and are flexible. Babbie (2007) stated surveys are an efficient approach for data collection, which would be exceptionally large for one researcher to observe with a constrained deadline. It was a survey consisting of 44 questions for collecting data that will not need modification.

Barbe (2007) stated the statistical significance results of both Web-based surveys and non-web-based surveys are similar. On the other hand, research done in Web-based style offers distinctive challenges and limitations. The survey needed no modification to fit the constraints of the study.

## **Operationalization**

This research process's operationalization definition improves communication as outlined by the NCR (NCR) Strategic Voice Communication Plan and Radio Capabilities Assessment. Resources are another variable that consists of spending and equipment and can find revenue to update, replace, or introduce new equipment as outlined by the NCR. The third variable, personnel, consists of the personnel involved in acquiring the budget necessary to purchase the upgrades or new equipment needed to improve preparedness since 2014

Each variable was measured using Likert-scale responses in which values were numerically given to each variable and related to the response scale. The variable scale was assigned a score of 1 to 5. No response was given a score of zero. Each column's headings were Inadequate, Below Average, Average, Above Average, and Excellent. Their scores would be as follows: Inadequate = 1, Below Average = 2, Average = 3, Above Average = 4 and Excellent = 5.

McNabb (2008) stated that quantitative research's statistical significance gives a value that permits researchers to agree or not agree with the null hypothesis. The phenomenological analysis is associated with qualitative research and concentrates on the harmony of the experience of a particular group. This research is quantitative and relies on the answers selected from a survey. Descriptive and inferential statistics were used for data analysis. Statistical Package for the Social Sciences (SPSS 27.0) was the software used for this analysis.

For the data cleaning and screening, the data received from the Likert scales was examined and the data supporting the independent and dependent variables for normal distribution were reviewed. Nachmias and Nachmias (2008) referred to data cleaning as proofreading the data to ensure no errors and inconsistencies.

## **Descriptive Statistics**

Babbie (2007) states that a numerical value will be assigned to the variables to perform the quantitative data analysis. The survey instrument will collect data using the Likert scales. When the survey was completed, I downloaded the data, coded them, and entered them on my computer, and analyzed the electronic survey.

Correlation and regression analysis was applied using the Statistical Package for the Social Sciences (SPSS 27.0) software for data analysis. McNabb (2008) described correlation as a statistical analysis to “indicate relationships or associations between two or more variables or subjects.”

McNabb (2008) described correlation as a statistical analysis that shows relationships or associations between two or more variables or subjects. The correlation will be used to detect relationships between variables and their indicators. According to Babbie (2007), regression analysis is a “method of data in which relationships among variables are represented in an equation, known as a regression equation.” Regression analysis was an essential factor in deciding which independent variables are critical in calculating terrorism preparedness. Babbie 2007 states that linear regression is valuable since a “given dependent variable is affected simultaneously by several independent variables.” Regression analysis established terrorism preparedness (dependent variable) using independent variables like communication, training,

personnel, organizational culture leadership, and learning. Likert scale was used to show indicators of terrorism preparedness which could be tied to indicators of predictive variables.

### **Confidence**

Babbie (2007) stated inferential statistics works better when researching samples with a large population. A random selection was represented in this sample of the public safety-first response agencies in the NCR. For social science studies, a 95% level was used for the level of confidence. Therefore, for this study,  $p=.05$ .

### **Validity and Reliability**

Besides the challenges and limitations generated by the web-based survey, the surveyor answering the questionnaire poses the only form of external validity. Stressing the importance of answering the questions as truthfully as possible to the respondents, addressed external validity. Another limitation was the respondents' perception of preparedness, which was considered when reviewing the survey.

The instrument is a survey created for The First Response Organizational Terrorism Preparedness (2006) modified for Preparedness of the Public Safety Agencies in the North Central State of Illinois (2012), shown as Appendix A. A modified survey was used for this research. Davis et al. (2006) suggest testing for reliability and validity, and the originator tested this survey in the RAND Corporation. Open-ended questions were removed from this survey instrument. Permission from the author of the modified survey was requested with no response.

## **Ethical Procedures**

The research was performed in compliance with Walden University's Institutional Review Board (IRB). The first responders, including the police departments and the Board of Governors, were randomly selected. The head of board received an email with the consent form inviting participants to the electronic correspondence (email).

The consent form stated the study and contained the researcher's and dissertation committee chair's information. The consent form also included the procedures and access to the database. The participants were identified in the study and were voluntary.

I adhered to the terms of the Qualtrics privacy agreement. After the publication date of this research, Qualtrics was asked to delete all the information offered by the respondents within 30 days. All respondents' data are secured on my computer at home and password protected after downloading the data from Qualtrics.

## **Summary**

This is a quantitative study used to look at first response public safety preparedness dealing with terrorism in the NCR. The chapter explained a nonexperimental survey that was used to measure terrorism preparedness. The chapter also discussed the research design, the samples, and the setting and gave details about the procedures for data collection. Chapter 4 will present the findings.

## Chapter 4: Results

### Introduction

The purpose of this quantitative study was to explore collaborative public safety preparedness improvements against violent terrorist acts in the NCR that have occurred since 2014. Contemporary state research has implied that measurable terrorism preparedness is vital for first response safety organizations to respond to a terrorist attack (Militello et al., 2007; Peha, 2007; Strohm, 2008). Using the factors determined for preparedness, including processes (communication, planning, and training), resources (spending, equipment), personnel, and organizational culture, the NCR's first response agencies' terrorism preparedness was measured. In this study, I aimed to explore public safety preparedness against acts of terrorism in the NCR. This chapter presents and discusses the findings obtained from the data analysis.

The data collected from the Board of Governors and public safety agencies were used to establish the current level of preparedness against terrorism acts at the local government level in the NCR. The following research questions and hypotheses guided the study:

RQ1: Have first-response public safety agencies in the NCR changed their policies to respond to terrorist acts since the 2014 strategic planning recommendations?

$H_0$ 1: First-response public safety agencies in the NCR have not changed their policies to respond to terrorist acts since 2014.

$H_1$ 1: First-response public safety agencies in the NCR have changed their policies to respond to terrorist acts since 2014.

How do your agency's safety organizational challenges correlate to terrorism preparedness in the NCR first response agencies?

$H_02$  = Public safety agencies have not changed processes, resources, and personnel to address terrorism preparedness since 2014.

$H_12$  = Public safety agencies have changed processes, resources, and personnel to address terrorism preparedness since 2014.

From a leadership viewpoint, what is the assessment of first response organizational culture?

$H_03$ : First response has not changed organizational leadership and organizational learning since 2014.

$H_13$ : First response has changed organizational leadership and organizational learning since 2014.

Data were collected from the Board of Governors and the first response public safety agencies using the NCR Terrorism Preparedness Survey. Those data were analyzed to answer the research questions.

### **Data Collection**

The time frame for data collection was approximately 2 months. A strategy with three phases was used to answer the research questions. Recruitment consisted of emailing each agency's media department with the study's informed consent form. After 1 week, I sent a reminder email with the consent forms. Arlington County police department replied with a negative response; those chose not to participate in the survey. There were no discrepancies in data collection from the plan presented in Chapter 3.

As specified in Chapter 3, a self-administered web-based questionnaire named First Response Organization Terrorism Preparedness Survey evaluated terrorism preparedness index (dependent variable) and four indexes independent variables, which were processes (communication planning and training), resources (spending equipment), personnel, and organizational culture. The survey contained 44 questions (also classified as scales) for data collection.

### **Demographics**

The survey was aimed at  $N=600$  respondents, including 16 boards of directors. The random selection as described in Chapter 3 yielded a response from 111 respondents. The 111 respondents of the sample population resulted in an average of 22 cases of data per variable (index), which is an acceptable sample according to Field (2009). Terrorism preparedness, resources, personnel, process, and organization culture were the five indexes identified. Curtis (2009) suggested that researchers expect a response rate of about 29%. According to Field (2009), the 111 responses produced a small effect on the data for regression analysis.

The survey's last section asked for demographic data about the type of agency, their role, and the size of the population represented. The fire department in the counties and the District of Columbia perform a large portion of the emergency medical service. The sample population consisted of 75% law enforcement personnel and 25% EMS personnel. The demographic of the sample population showed 73.9% of the respondents were law enforcement personnel, 13.5% fire department, and 10.8% were emergency medical service (see Table 1 and Table 2).

Table 1

*Demographic Information From First Response Public Safety Personnel*

Demographic information	Number responded	Percentage responded
Law enforcement agency	82	73.9
Fire Department	15	13.5
Emergency medical service department	12	10.8
Not reported	2	1.8
Total	111	100.0

Table 2

*Population Size of Response Agencies in the National Capital Region*

Population Size	Number responded	Percentage responded
1-15,000	9	8.1
15,001-30,000	36	32.4
30,001-65,000	40	36.0
65,001-250,000	18	16.2
250,001-1,00,0000	6	5.4
No report in response	2	1.8
Total	111	100.0

The study represented agencies in two counties in Maryland (Montgomery and Prince George's) and the District of Columbia. Arlington County opted not to participate in the study. Among participants, 92.7% were from jurisdictions with populations less than 250,000. Descriptive analysis showed consistency of each variable having a reasonable bell curve. Skewness for all the variables showed distribution to be approximately symmetric. The median

was 3.2(resource), 3.7 (processes), 3.6 (personnel) and 3.8 (culture). The mean 3.1 (resources), 3.6 (processes), 3.6 (personnel) and 3.8 (culture). Field (2009) emphasized data reliability, and I focused on reliability through Cronbach's alpha. I evaluated preparedness, processed resources, personnel, and organizational culture, and the values were greater than .78 showing a reliable survey (see Table 3). I included an outline of the reliability measurement in the appendix.

Table 3

*Test of Reliability Using Cronbach's Alpha*

Terrorism preparedness	.787
Resources	.848
Processes	.930
Personnel	.910
Organizational culture	.904

### Correlation Matrix

A correlation matrix was used to compare the five indexes and confirmed a significant relationship between the five indexes using Pearson,  $p < .05$ . Complex interrelationships existed between the five variables, with terrorism preparedness and processes having the strongest relationship,  $r = .84$ . Terrorism preparedness and resources had the second strongest relationship,  $r = .75$ . The third strongest relationship existed between terrorism preparedness and personnel,  $r = .73$ . The smallest relationship was between terrorism preparedness and organization culture,  $r = .51$ , which was still significant. Significant relationships exist among terrorism preparedness, resources, processes, personnel, and organizational

culture, which answers the research question in this study. The overall regression model was significant  $F = 75.1$ ,  $p < .001$ ,  $R^2 = .77$ .

### **Research Question 1**

RQ1 was addressed by comparing the correlation matrix to the responses of terrorism preparedness since 2014 (Q1, Q2, Q3). I found a significant relationship between the scales using Pearson's  $r$  two-tailed test and determined 56.8% rated their organization's overall level of change in terrorism preparedness as average (Q4), and 49.5% rated their organization's change in terrorism preparedness to respond to a terrorist event as below average (Q11). Among respondents, 72.1% agreed they were better prepared to respond to terrorism related incidents since 2014 due to changes. Overall, for preparedness changes, the data showed 5% selected *below average*, 59% selected *average*, 31% selected *above average*, and 2% selected *excellent* (Appendix C). RQ1 showed a greater relationship existed (.58) between their organization's change in preparedness to respond to a terrorist event and terrorism related incidents since 2014 (see Table 4). The survey also showed 108 respondents answering the preparedness questions.

Table 4

*Correlation Matrix for Terrorism Preparedness*

		Preparedness	Personnel	Resources	Processes	Organization culture
Preparedness	Pearson's correlation	1.000	.736**	.748**	.844**	.516**
	Sig (1-tailed)		.000	.000	.000	.000
	N	108	106	106	100	101
Personnel	Pearson's correlation	.736**	1.000	.909**	.918**	.404**
	Sig (1-tailed)	.000		.000	.000	.000
	N	106	107	105	100	100
Resources	Pearson's correlation	.748**	.909**	1.000	.894**	.391**
	Sig	.000	.000		.000	.000
	N	106	105	107	99	101
Processes	Pearson's correlation	.844**	.918**	.894**	1.000	.383**
	Sig	.000	.000	.000		.000
	N	100	100	99	101	96
Organizational culture	Pearson's correlation	.516**	.404**	.391**	.383**	1.000
	Sig	.000	.000	.000	.000	
	N	101	100	101	96	102

*Note.* \*\* Correlation is significant at the 0.05 level (1 tailed).

Preparedness 1 and preparedness 3 showed .48 as the lowest R-value in the terrorism preparedness index. According to Field (2009), researchers commonly accept values greater than .3. This indicated a significant positive relationship for correlation. McNabb (2008) proposed similar examples provide researchers with suggestions for further research.

Regression analysis was used to answer two research questions and determined the value predictors of terrorism preparedness (dependent variable) using linear regression analysis of the independent variables, processes, resources, personnel, and organizational culture. Processes, resources, personnel, and organizational culture were compared in the regression analysis since 2014 for first response agencies. Multiple regression was created for RQ2 and RQ3. This method showed each index as a predictor to the outcome of terrorism preparedness. The ANOVA analysis indicates the F-ratio 77.16,  $p < .05$ . as a strong predictor of the outcome (see Table 5).

**Table 5***Research Question 1 Correlation Matrix of Terrorism Preparedness*

		Preparedness 1	Preparedness 2	Preparedness 3
Preparedness 1	Pearson correlation	1	.647**	.486**
	Sig. (2-tailed)		.000	.000
	N	109	109	108
Preparedness 2	Pearson correlation	.647**	1	.512**
	Sig. (2-tailed)	.000		.000
	N	109	109	108
Preparedness 3	Pearson correlation	.486**	.512**	1
	Sig. (2-tailed)	.000	.000	
	N	108	108	108

*Note.* \*\* Correlation is significant at the 0.01 level (2 tailed).

**Research Question 2**

Analysis between terrorism preparedness (dependent variable) and independent variables, processes, resources, and personnel were used to answer Research Question 2. ANOVA showed the independent variables as strong indicators with the F-ratio 77.16,  $p < .05$  (see Table 5). The model summary showed that R Square accounted for 77.2% variance, which is statistically significant at  $p < .001$ .

Table 6

ANOVA

Model		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig</i>
1	Regression	21.916	4.0	5.479	77.164	<.001 <sup>a</sup>
	Residual	6.461	91	.071		
	Total	28.377	98			

*Note.* a = Predictors- organizational culture; Process; Resources and Personnel

Sixty five percent of the respondents neither agree nor disagree, 27 percent disagree and .9percent agree that resources changed since 2014. Resources according to this research consist of money and equipment. Data showed 20% of the responders agreed, 68% neither agree no disagreed and 7% disagreed money had an impact on resources (Appendix D). Also 34% of the responders agreed, 59% neither agreed nor disagreed and 6% disagreed equipment had an impact on terrorism preparedness (Appendix E).

Processes constitutes planning, communication and training. Sixty percent of the responders agreed, 29% neither agreed nor disagreed, 3% disagreed and 3% strongly agreed planning is an important asset in improving processes (Appendix F). Sixty four percent said communication was average, 25% agreed communication was above average and 7% said communication was below average for improving processes (Appendix G), and 51% neither agree nor disagreed, 38% agreed, 6% disagreed and .9% strongly agreed training is an improvement for processes (Appendix H).

The coefficient table showed the independent variables processes as significant and contributed the most unique variance to terrorism preparedness of all the predictors. Positive b-values (unstandardized coefficients) showed a positive relationship with processes (1.02,  $p < .05$ ) and personnel (.36,  $p < .05$ ). Resources

beta value did not make a significant contribution to the prediction of the outcome (.07,  $p = .602$ ) (see Table 7). The regression model equation for Research Question 2 in this study is explained as follows:

Research Question 2 Terrorism Preparedness Equation

Terrorism Preparedness =  $b_0 + b_1$  processes +  $b_2$  personnel +  $b_3$  resources

Terrorism Preparedness = .97 + 1.02 + .36 + .07

Table 7

*Coefficients*

Model	Standardized coefficient
	beta
Resource	.068
Processes	.180
	1.019*
	.152
Personnel	-.359**
	.154
Organizational Culture	.244*
	.084

*Note.* \* = significant at  $< .001$ ; \*\* = significant at  $< .05$  level; dependent variable: terrorism preparedness.

Table 8 shows R Square 77% of the variance explains terrorism preparedness. Terrorism preparedness was related positively to the indicators. Field (2009) states the

standardized beta values showed the importance of the predictor in the regression model. The predictor showing the most value to terrorism preparedness was processes with a standardized value of 1.019,  $p < .05$ . The coefficients table also showed personnel as a strong predictor with a standardized beta value of .36,  $p < .05$ . The data showed 59% neither agreed nor disagreed, 6% disagreed and 34% agreed increasing personnel would promote better terrorism preparedness (Appendix I). The resource value was not a significant predictor at a standardized beta value of .069,  $p = .602$ . The resource predictor showing as not significant is unexpected in this research. Katz et al (2006) and Kilroy (2007) indicates resources an important part of terrorism preparedness. The data analysis suggested increasing resources does not increase terrorism preparedness.

Table 8

*Model Summary*

Model	R	R square	Adjusted R square
1	.879	.772	.762

### Research Question 3

Regression analysis was used for Research Question 3, which showed a significant relationship between terrorism preparedness and organization culture. ANOVA showed the independent variables as strong indicators with the F-ratio 77.16,  $p < .05$  (see Table 6). The model summary showed that R Square accounted for 77.2% variance, which is statistically significant at  $p < .001$ .

The coefficient table through regression analysis showed terrorism preparedness was related positively to organizational culture. According to Fields (2009), the standardized Beta

values determined the predictor as being important in the regression model. As the predictor of terrorism preparedness, organizational culture provided a standardized Beta value of .24,  $p < .05$  (see Table 7).

Organization culture entailed two factors learning and leadership. The data revealed 64% of the responders agreed and 28% neither agree nor disagreed learning was an important factor of organizational culture change (Appendix J). The data also showed .9% of the respondents said leadership was below average, 53% said leadership was average, 6% said leadership was excellent and 38% said leadership was above average as an important role in cultural culture (Appendix K).

Regression analysis in SPSS 27 compared terrorism preparedness to all the independent variables. Field (2009) supports the standardized Beta values as showing the importance of a predictor in the regression model. The predictor with the most value to terrorism in the model was processes with a standardized beta value of 1.02,  $p < .05$ . Personnel was a strong predictor in the model with a standardized beta of .36,  $p < .05$ . Resources showed as a lesser predictor in the model with a standardized beta value of .7 and was not significant at  $p = .602$ . The weakest predictor was organizational culture with a standardized beta value of .24,  $p < .05$  (see Table 7).

According to Field (2009), the multiple regression equation for terrorism preparedness was calculated from the standardized coefficients (b-values) of the predictors in the regression. The b-values represented each predictor's contribution in the regression model. The larger number indicated a stronger predictor, and the smaller the numbers, the less effect the predictor has on the relationship in the model. Positive b-values show significant positive relationships with processes (1.02,  $p .05$ ) and personnel, which had a negative coefficient (-.36,  $p < .05$ ). Resources, however, showed the lowest positive relationship, which

was not significant (.07,  $p .602$ ). Organizational culture showed a positive b-value which was significant (.24,  $p <.05$ ) (see Table 7).

### **Terrorism Preparedness Equation**

Terrorism Preparedness =  $b_0 + b_1$  processes +  $b_2$  personnel +  $b_3$  resources

+  $b_4$  organizational culture

Terrorism Preparedness = .97 + 1.02 processes + -.36 personnel + .07 resources + .24

Organizational culture.

### **Summary**

The research answered: (1) The assessment of terrorism prepared for first response public safety agencies in the NCR; (2) the organizational challenges in public safety as it relates to terrorism preparedness in the NCR; and (3) The assessment of first response organization culture from first responder's viewpoint concerning social change. ANOVA and regression analysis answered the research questions. A survey instrument provided the data analysis for this research and was collected from first responders in the NCR using the NCR Terrorism Preparedness Survey. The findings showed that terrorism preparedness was significantly related to the predictors processes (the strongest correlated), personnel, resources (not significant), and organizational culture (least correlated but significant).

First response agencies may not be prepared to the highest degree; the findings verified and interpreted in Chapter 5 offers that agency are slighter better prepared today than they were in 2014 to respond to an act of terrorism. The findings showed the predictor processes as being stronger than personnel (which correlated negatively), and resources were not significant.

The findings also showed that organizational culture was not as strong as the other positively correlated predictors to terrorism preparedness. In chapter 5, I present the interpretation of the findings the implications for social change, with recommendations for action and further study.

## Chapter 5: Discussions, Conclusions and Recommendations

### Introduction

The purpose of this quantitative study was to investigate terrorism preparedness of first response public safety agencies in the NCR. Militello et al. (2007) suggested that measurable terrorism preparedness is essential for a successful first response to a terrorist attack. The gap was explored by quantitatively measuring terrorism preparedness perspectives of the NCR to respond to terrorist attack using processes (communication, planning and training), resources (spending, equipment), personnel, and organizational culture.

The data this research provided determined what factors related to terrorism

RQ1: Have first-response public safety agencies in the NCR changed their policies to respond to terrorist acts since the 2014 strategic planning recommendations?

RQ2: How do your agency's safety organizational challenges correlate to terrorism preparedness in the NCR first response agencies?

RQ3: From an executive leadership viewpoint, what is the assessment of first response organizational culture?

The research questions were answered using the survey data collected from the first response public safety agencies using the NCR Preparedness Survey.

Random sampling was used for a targeted population of first responders to include police departments, fire protection districts, and EMS agencies (N = 600). According to Field (2009), 111 responders (19% response rate) was an acceptable sample of measurement from the NCR Preparedness Survey. The survey results determined that 73.9% of the respondents were law enforcement agencies, 13.5% were fire departments, 10.8% were emergency medical

service department. I discovered that many of the fire departments play a dual role by providing emergency medical services in several districts in the NCR. Overall, the response rate was almost three-quarters law enforcement and one-quarter fire and EMS organizations. Five indexes (variables) were developed from the literature review in Chapter 2: (a) terrorism preparedness (the dependent variable) and (b) processes, (c) resources, (d) personnel, and (e) organizational culture (independent variables).

### **Interpretation of the Findings**

A significant relationship between all the variables using Pearson's  $r$  two-tailed test  $p < .05$  was determined using the correlation matrix. McNabb (2008) supported the finding as each of the variables demonstrating a strength of statistical significance. The strongest relationship existed between preparedness and processes ( $r = .84$ ). The second strongest was terrorism preparedness and resources ( $r = .75$ ). The third strongest relationship was between terrorism preparedness and personnel ( $r = .74$ ). Processes, resources, and personnel were all strong relationships. A moderate relationship existed between terrorism preparedness and organizational culture ( $r = .52$ ). The matrix showed all the relationships as positive with terrorism preparedness and processes as the highest and terrorism preparedness and organizational culture as moderate. Linear regression analysis was used to answer the research questions and their significant relationships among terrorism preparedness, resources, processes personnel and organizational culture.

### **Research Question 1 Interpretation**

Respondents were asked to offer their assessment of terrorism preparedness since 2014. Among respondents, 72.1% agreed they are better prepared to respond to terrorism-related incidents than they were 2014 ( $M = 3.60$ ). RQ1 showed a more significant relationship

existed (.58) between organization preparedness to respond to a terrorist event. Respondents indicated they are also better prepared to respond to terrorism-related incidents than they were in 2014. The null hypothesis was rejected, allowing me to adopt the alternate hypothesis that the first response agencies have changed their policies to respond to terrorist acts since 2014 because of the results from the research analysis for Research Question 1.

Among respondents, 71.1% stated that policies have made them better prepared to respond to an attack in their neighborhood. The remaining 28.9% did not think that sufficient changes have occurred to make them better prepared to respond to a terrorist attack. Somers and Svara (2009) agreed that organizational change from historically reactive policies must occur when looking at threats and vulnerabilities in the future. Since 2014, Austin and Claassen (2008) agreed that first response agencies have been challenged to make changes, especially with communication policies over time. Survey Question 12 covered the timeframe since 2014, while Survey Question 4 covered the present. Somers and Svara (2009) supported the reactivity of first response agencies, as seen in the one local attack since 2014. Somers and Svara (2009) agreed with a challenge that the first response managers react to the most recent disaster instead of looking forward to the assessment of terrorist threats.

### **Research Question 2 Interpretation**

RQ2 was answered with regression analysis between terrorism preparedness (dependent variable) and processes, resources, and personnel (independent variables). The answers to the multiple regression analysis are reported in Chapter 4. Terrorism preparedness related positively to the indicators, and Field (2009) agreed with the beta values from the analysis established the importance of the predictor in the regression model. Processes with a standardized beta value of 1.02,  $p < .05$ , were the predictor with the most value for terrorism preparedness. Personnel with a standardized beta value of .36,  $p > .05$  showed the second-

highest value, and resources showed the weakest value and were not significant with  $.07$ ,  $p = .602$ .

RQ2 answer showed changes to terrorism preparedness in organizational challenges. The null hypothesis was rejected and the alternate hypothesis was adopted with statistical significance. The challenges of processes and resources have changed since 2014 for the public agencies. Personnel showed no change for the challenges. As discussed earlier, the challenges processes, resources, and personnel were concerns for the public safety agencies. Schein (1992) supported processes (communication, planning, and training), resources (spending, equipment), and personnel, which are the independent variables measured as important behaviors for changes in a new organization.

### ***Processes***

Analysis showed processes as being the most valuable of terrorism preparedness,  $1.02$ ,  $p < .05$  in this research over the other variables. This agrees with Austin and Classen (2008), who showed local public safety agencies follow a structured and formal organizational setting that promotes stability and order. According to this study, processes comprised of planning, communication, and training; 63% agree planning is important and has changed since 2014, while 32% responded *neither agree nor disagree* or *disagree*. Brundney and Gazely (2009) stated federal think planning should be done on a local level. Among respondents, 89% indicated seeing communication change as being *average* or *above average* in terrorism preparedness. The NCR considered it important and Palttala and Vos supported communication to improve interaction between organizations; this agrees with the finding in the NCR report. Among respondents, 40% agreed, and 68% responded *neither agree nor disagree* or *disagree* in regard to training that entails the collaboration of different local agencies are important. This finding

aligns agrees with Ablah et al.'s (2010) conclusion that training is an important asset in collaboration. Most organizations have procedures in place that govern hierarchy and delegate authority. Outside procedures are not encouraged, making it difficult for critical thinking for first responders.

Langan-Fox and Tam (1997) suggested that processes are the pillar of public safety organizations. Public safety agencies should use processes as an asset to increase terrorism preparedness because changes and modification can be made without adding personnel or requesting more resources. Increasing terrorism preparedness response enables first responders to better protect the community (Gerber et al., 2005; Hillyard, 2004; Swartz, 2005). Matusitz and Breen (2011) supported a collaborative effort involving communication among local and state governments at the preparedness level, which helps eradicate terrorism with a consistent training schedule.

### ***Resources***

Resources include spending and equipment in this research. This research shows resources as the weakest predictor and not significant in the regression model with a standard beta value of .07,  $p = .602$ . The lack of significance of the resource's predictor was surprising in this research. According to the NCR Strategic Voice Communications Plan and Radio Capabilities 2014 report, communication equipment was one of the concerns for preparedness. Caruson and Manus (2008) supported forecasting instead of reacting in conjunction with considering the cost of equipment as the responsibility of the local government manager. Historically, public safety agencies need resources to dissolve a perception of increased terrorism preparedness.

Resources, as shown in chapter 2, consist of money and equipment. The responders showed in the data that money nor equipment was not necessary for terrorism preparedness.

68% demonstrated that they agreed nor disagreed, and 19% agreed with money as having changed terrorism preparedness. Also, 58% agreed nor disagreed, and 33% agreed equipment changed and impacted terrorism preparedness since 2014.

This research implies that resources do not increase terrorism preparedness. The critical finding is that increased resources have very little weight on public safety agencies' terrorism preparedness posture compared to processes and personnel. Rogers and Collandris (2008) agreed emergency managers can increase resources through regionalism. Another study could be conducted to measure the effect of increased resources through regionalism and terrorism preparedness.

### ***Personnel***

Personnel is an independent variable measured in this research and is the second strongest indicator in the model  $.38, p < .05$ . The data for this research showed that 60% of the responders neither agreed nor disagreed and 34% agreed increasing personnel increased terrorism preparedness. This finding is a little contrary to scholarly findings, which suggest increasing personnel helps in terrorism preparedness. Kilroy (2007) stated historically, public safety agencies increased personnel to address the perception of increased terrorism preparedness.

Kimery (2014) agreed that personnel are needed to interact with the community. Also, Ren, Zang, and Bi (2021) suggest improvement in collaboration. This study is also based on the collaboration of agencies and personnel with different backgrounds, makes the collaboration process smoother, and will also enhance terrorism preparedness.

### Research Question 3 Interpretation

Regression analysis was used to analyze research question 3. Regression analysis showed a significant relationship between terrorism preparedness and organizational culture using Pearson's ( $r$ ) one-tailed test .24,  $p < .05$ .

Terrorism preparedness related positively to organizational culture. Field (2009) agreed with that the standardized regression coefficient shows the importance of the predictor as seen in chapter 4. As a predictor to terrorism preparedness, organizational culture showed a beta value of .24,  $p < .05$  which can show strong suggestions for leadership outlooks of organizational change theory.

From a leadership perspective regarding social change, the first response organizational culture assessment shows 67% of the first responder's organizational leadership or organizational learning has changed since 2014. This was a positive indicator of terrorism preparedness. I rejected the null hypothesis and chose the alternate hypothesis that organizational culture changes terrorism preparedness. The assessment of leadership for Research Question 3 is first response organizations have positively changed organizational leadership or learning since 2014.

Schein (1999) supported this research showing under the layers of processes, resources, and personnel are hidden cultural variables of learning leadership while operating as a team and keeping organizational boundaries. Since 2014, Kilron (2008) supports first responders continue to operate in mixed-jurisdictional environments where processes, resources, and personnel are significant to the organization's culture. This research shows positive organizational culture strengthens an agency's ability to respond to a terrorist attack.

Hoffman (2006) stated public safety organizations are usually resistant to change. To improve terrorism preparedness, public safety managers must promote positive organizational culture. Schein states organizational change through culture decreases the resistance. Leadership plays a vital role in organizational change and Veisoh et al (2014) agrees with using different leadership styles to aid in the process.

Schulz (2009) agreed that organizational change consist of new or different procedures and learning brings a sheared understanding of the new or different processes. 64% agree that learning is an important in changing organizational culture and 53% saw leadership playing an important role in the organizational cultural change.

A leader that promotes changes must also be a leader willing to learn. Schein (1999) stated change leaders must evaluate the organization's culture, understand the organization's talents and encourage the use of tools for organizational changes that decrease distractions. Schein (1999) also stated emergency management leaders must be able to create an atmosphere for learning as learning leaders and that people within the organization must be able and allowed to participate.

Since leadership and learning plays a role in organizational culture according to this study, data revealed responders agreed that leadership plays an important role in promoting and guiding culture change while allowing agency personnel to participate. Responders also agreed that learning in the cultural change at their agency was above average.

A good perception of organizational culture increases terrorism preparedness. According to Schein (1999), public safety emergency managers understand that organizational culture is complex and involves all parts of the organization. This research endorses creating positive organizational change when needed will improve terrorism preparedness.

## Implications for Social Change

This study promotes social change. The outcomes for social change from this research are as follows: 1. It provides a better understanding by assessing the terrorism-preparedness position of first response agencies in the NCR. Challenges still exist internally and externally, although the local first response agencies are better prepared to respond to an act of terrorism. 2. The study offers a tool for organizational change through cultural changes in public safety organizations is important for collaboration. Myers (2013) supported local government collaboration would increase the use of the latest technology and would enhance preparedness efficiency and effectiveness. The research offers increased understanding through assessment to public policy policymakers about the implications for social change. The assessment is from the first responders and their leaders that tackles the terrorism preparedness bearing. 3. The study also adds to the body of knowledge they need to understand the organizational culture in the local public agencies. A significant correlation exists between public safety organizational culture and terrorism preparedness, which this research supplies through data analysis and the findings.

Terrorism preparedness policies affect all citizens in every community, but the first responders are directly affected by their ability to respond to a terrorist event. Caruson and MacManus (2008) and Somers and Svara (2009) agreed all levels of the government are essential in the process of protecting the United States. Still, the local government is more important in this process. Schein's theory of organizational change through organizational culture and leadership was the tool used in this research for terrorism preparedness, as introduced in chapter 1.

To promote social change, showing that challenges still existed since 2014 was important, although first response agencies are better prepared to respond to a terrorist event. As stated by Schein (1992), this research endorses the most appropriate social change mechanism for rigid public organizations is “managed evolution through hybrids.

Some of the challenges the local government public safety organizations confront continually are in this research. Preservation of the core culture and the motivation to increase terrorism preparedness can still afford room for organizational change.

Hinton (2002) stated that the government plays a part in responding to a terrorist attack in the community. Public policy decision-makers also share a responsibility to the first responder for the community’s preparedness.

This research showed local government terrorism preparedness has improved since 2014. As stated in the NCR, the local government has to work on the first responder’s communication issues. Local government policy must find a useful solution that brings the agencies to a cohesive body.

This study showed local terrorism preparedness is correlated to organizational challenges and organizational culture. Schein’s (1992) theory of organizational change to address the challenges was used. Local response agencies can use the benefits shown by Schein for social change to the first responders. Chapter 2 literature review discussed the resistance of the local government public safety agencies from a reactive attitude to a proactive attitude in disaster preparation. Emergency managers can use Schein’s theory as a tool to create changes to the organization, promoting an increased terrorism preparedness stance for the local community.

## **Limitations**

As stated in chapter one the NCR has five different local governments. Four local governments for this research paper were chosen, and one of the four declined to participate, further limiting the study comparison of the NCR. The study focuses on the Washington, D.C., metropolitan area, which is unique. The Board of Governors, police, fire department, and EMS participated. A small number of the participating responders were from the fire department and EMS limiting the expressions. The sincerity from the respondents could be potentially questionable, and the perceptions different.

The survey responses did not represent the NCR general population, which could affect the generalizability of the results. The surveys were distributed evenly among the four local governments to address limitations.

## **Recommendations for Further Study**

The study concentrates on public safety agencies' terrorism preparedness in the NCR. Since the region comprises of two states and The District of Columbia, further research could be conducted on each state and The District of Columbia state-wide or District approach, giving a state-wide assessment of the preparedness stances described in chapter 2. More research comparing law enforcement agencies, emergency medical service agencies, and fire protection agencies could be done separately to determine how these independent agencies are equipped to respond to a terrorism event. An example is, does the fire services have more resources available than the police department?

## **Implications**

This study looked at terrorism preparedness of first response public safety agencies in the NCR. Potentially public agencies that are better prepared for terrorism preparedness has a positive impact on social change throughout the community to include families and organizations. The study showed collaboration occurred between the different agencies by each agency sending personnel to participate in terrorism training. This study also showed resources as having little impact on social change. Resources according to this study include spending and equipment, and one of the NCR findings is the needed better radio systems to enhance response within the public agencies. However, the study showed processes as the most significant action in the study. Since processes has improved since 2014, positive social change was impacted.

Additional research areas can include:

- What is the impact of increasing processes on organizational change in the NCR first response organizations?
- How has resources within the NCR increase terrorism preparedness?
- From a collaborative point of view, how does personnel, both positive and negative effect terrorism preparedness in the NCR.

At the local government level, what other research techniques can be used most effectively to further boost terrorism preparedness and related reform efforts without compromising the safety of the first responders?

## **Conclusion**

The local first responders will be the participants in the event of another terrorist attack. In this research, I did the following:

- Looked at local first response public safety agencies of the NCR terrorism preparedness posture.
- Described the theoretical framework of organizational behavior with collaboration among the local public agencies.
- Showed the relationship of terrorism preparedness between organizational change and organizational culture.
- Presented a literature review and emphasizes the theoretical framework of organizational change through culture.
- Explained terrorism to show unity and collaboration among the local government,
- Investigated analyzes emergency management literature from the local government standpoint.
- Looked at the effectiveness of the regional attitude to terrorism preparedness and study a social change application through organizational culture.

The research findings propose recommendations for social change in public safety organizations having difficulty with organizational change, to include suggestions for further research about terrorism preparedness in the community. Public safety agencies are not fully prepared in the local community, although they are better prepared to respond to a terrorist attack. Measuring the region's terrorism preparedness posture to respond to a terrorist attack, a gap of knowledge was quantitatively examined by using preparedness, processes (communication, planning, and training), resources (spending, equipment), personnel, and organizational culture. The factors show a measurable relationship between each other. However, there are still challenges to confront, and emergency managers should face the challenges to be better prepared to respond to a terrorism event in the community.

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## Appendix A: Survey Instrument

## NATIONAL CAPITAL TERRORISM PREPAREDNESS SURVEY

For each question below, select the number to the right that best fits your opinion on the importance of the issue.

Use the scale above to match your opinion.

Rating of PREPAREDNESS, PERSONNEL, PROCESSES, and RESOURCES	Inadequate	Below	Average	Above Average	Excellent
OVERALL TERRORISM PREPAREDNESS					
1. In the event of a large-scale emergency involving multiple jurisdictions, how would you rate your organization's ability to communicate <u>with other responding</u>	1	2	3	4	5
2. In the event of a large-scale emergency involving multiple jurisdictions, how would you rate your organization's ability to communicate <u>with other responding</u>	1	2	3	4	5
3. In the event of a large-scale emergency involving multiple jurisdictions, how would you rate your organization's ability to communicate <u>with other responding</u>	1	2	3	4	5
4. How would you rate your organization's overall level of	1	2	3	4	5
5. Since 2014, how would you rate your organization's increased spending, or shifted resources, to	1	2	3	4	5
How would you rate the following?					
6. Your organization's written emergency plan to be used during <u>response to terrorist event</u>	1	2	3	4	5
7. Your organization's knowledge and expertise about responses to <u>terrorist event</u>	1	2	3	4	5
8. Your organization's equipment to respond to a terrorist event	1	2	3	4	5

9. Your organization's training to prepare for a terrorist event	1	2	3	4	5
10. Your organization's ability to communicate and coordinate with other organizations likely to be	1	2	3	4	5

response to a terrorist event					
11. How would you rank your organization's overall preparedness to respond to a terrorist event	1	2	3	4	5
<b>Agreement with PREPAREDNESS, PERSONNEL, PROCESSES, and RESOURCES</b>	<b>Strongly</b>	<b>Disagree</b>	<b>Neither Agree</b>	<b>Agree</b>	<b>Strongly</b>
12. Since 2014, your organization is BETTER prepared today to respond to terrorism related incidents	1	2	3	4	5
Since 2014, your organization is BETTER prepared today to respond to terrorism related incidents specifically as the					
13. Adequate equipment for terrorism related incidents involving hazardous agents	1	2	3	4	5
14. Personnel trained in terrorism related response	1	2	3	4	5
15. Personnel trained in	1	2	3	4	5
16. Resources to address terrorism related preparedness	1	2	3	4	5
17. Planning for terrorism related incidents	1	2	3	4	5
18. Coordination of preparedness activities with other local response organizations and/or interagency tasks	1	2	3	4	5
19. Integration of preparedness activities with that of state and federal	1	2	3	4	5
20. Personnel dedicated to addressing terrorism related preparedness	1	2	3	4	5
21. Since 2014, your organization has increased its spending or shifted resources internally to address	1	2	3	4	5
Since 2014, your organization has increased its spending or shifted resources internally to address the following terrorism related					
22. Increased additional personnel for your organization	1	2	3	4	5
23. Additional training of personnel	1	2	3	4	5
24. Purchase of personal protective equipment or other equipment specific to terrorism response	1	2	3	4	5
25. Planning activities specific to terrorism response	1	2	3	4	5
26. Develop emergency response or contingency plans	1	2	3	4	5
27. Support interagency planning and coordination activities	1	2	3	4	5
28. Create an anti-terrorism position, unit, or division	1	2	3	4	5

29. Assign personnel (full-time or part-time) to the local terrorism-related task force	1	2	3	4	5
30. Assign personnel (full-time or part-time) to the state terrorism-related task force	1	2	3	4	5
31. Since 2014, your organization has received an increase in its funding and/or resources for terrorism	1	2	3	4	5
32. Spending additional resources for combating terrorism is a high priority when compared to the other most important functions of your organization	1	2	3	4	5
<b>ORGANIZATIONAL CULTURE</b>	<b>Inadequate</b>	<b>Below Averag</b>	<b>Average</b>	<b>Above Averag</b>	<b>Excellent</b>
33. From an organizational leadership viewpoint, how would you rate your organization's teamwork or ability to work well with other	1	2	3	4	5
34. From an organizational leadership viewpoint, how would you rate your organization's teamwork or ability to work well with mixed-	1	2	3	4	5
35. Since 2014, how do you rate OTHER organizations' teamwork with your organization	1	2	3	4	5
36. How would you rate your organization's knowledge and expertise about responses to a terrorist event	1	2	3	4	5
From an organizational leadership perspective, how do you rate the following concerning organizational	<b>Strongl y</b>	<b>Disagree</b>	<b>Neither Agree Nor</b>	<b>Agree</b>	<b>Strongl y</b>
37. Subordinates in my organization are continually learning.	1	2	3	4	5
38. Subordinates in my organization are striving to achieve the organizational mission	1	2	3	4	5
39. Subordinates in my organization accept change.	1	2	3	4	5
40. Subordinates in my organization resolve conflict arising from change.	1	2	3	4	5
41. Subordinates in my organization have confidence in the abilities of their	1	2	3	4	5
42. Subordinates have confidence in our primary supervisor's abilities.	1	2	3	4	5
43. Subordinates in my organization have confidence that our primary supervisor is properly using influence to achieve individual,	1	2	3	4	5
44. In the absence of orders or direction from the primary supervisor, subordinates in my organization have authority and direction to	1	2	3	4	5

supervisor's intent.					
45. Subordinates in my organization positively deal with high levels of stress and competition	1	2	3	4	5

### Organizational

#### Information

46. Your first response organization is a (mark one):
- Law enforcement agency
  - Fire department
  - Emergency medical service department
47. Your role is the (mark one):
- Chief/Chief Executive/Director
  - Assistant Chief/Deputy Director
  - Executive Manager within the Department
  - Employee at an agency
48. What is the size of the population your organization serves (mark one):
- 1-15,000
  - 15,001-30,000
  - 30,001-65,000
  - 65,001-250,000
  - 250,001-1,000,000
  - 1,000,001-+

Thank you for taking the time to complete this important survey. If you have questions regarding this study, please contact Anderson Padmore, at  
Anderson.Padmore@Waldenu.edu

## Appendix B: Consent Form

You are invited to take part in a research study about Terrorism Preparedness in the National Capital Region. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study seeks approximately 200 volunteers who are first responders.

This study is being conducted by a researcher named Anderson Padmore, who is a doctoral student at Walden University. Data will be collected from the National Capital Region public agencies to determine the current level of preparedness against acts of terrorism at the local level of government and what affects preparedness.

### **Study Purpose:**

The purpose of this study is to explore public safety preparedness against violent acts of terrorism in the National Capital Region.

### **Procedures:**

The study will involve you completing the following steps:

- Complete an anonymous online survey (30 minutes)

Here are some sample questions:

1. Your organization’s written emergency plan to be used during the response to a terrorist event
  - a. Inadequate
  - b. Below average
  - c. Average
  - d. Above average
  - e. Excellent
2. Since 2014 Is your organization better prepared to respond today to terrorism-related incidents?
  - a. Strongly Disagree
  - b. Disagree
  - c. Neither agree nor disagree
  - d. Agree
  - e. Strongly agree

Voluntary Nature of the study:

Research should only be done with those who freely volunteer. So everyone involved will respect our decision to go in or not. If you decide to join the study now. You can still change your mind later. You may stop at any time.

**Risks and Benefits of Being in the Study:**

Being in this study could involve some risks of the minor discomforts that can be encountered in daily life, such as sharing sensitive information. With her protections in place, this study would pose minimal risk to your wellbeing.

This study offers no direct benefits to individual volunteers. The aim of this study is to benefit society by providing insight about the terrorism preparedness posture of the first response public safety agencies in the National Capital Region. Once the analysis is complete, the researcher will share the overall results posting online in Schoolwork's

**Payment:**

There is no anticipated payment for this study.

**Privacy:**

The researcher is required to protect your privacy. Your identity will be kept confidential, within the limits of the law. The researcher will not ask for your name at any time to link your responses to your contact information. The researcher will not use your personal information for any purposes outside this research project. If the researcher were to share this dataset with another researcher in the future, the dataset would contain no identifiers, so this would not involve another round of obtaining informed consent. Data will be kept secure by password protection. Data will be kept for a period of at least 5 years, as required by the university.

**Contacts and Questions:**

You can ask questions of the researcher by email ([Anderson.Padmore@waldenu.edu](mailto:Anderson.Padmore@waldenu.edu)). If you want to talk privately about your rights as a participant or any negative parts of the study, you can call Walden University's Research Participant Advocate at 612-312-1210 or [irb@mail.waldenu.edu](mailto:irb@mail.waldenu.edu). Walden University's approval number for this study is 09-27-21-0260851 and it expires on September 26, 2022.

You might wish to retain this consent form for your records. You may ask the researcher or Walden University for a copy at any time using the contact info above.

**Obtaining Your Consent**

If you feel you understand the study and wish to volunteer, please indicate you consent by clicking the link.

### Appendix C: Preparedness Frequency

Shows the participants breakdown for preparedness.

	Frequency	Percentage
Below Average	6	5.4
Average	66	59.4
Above Average	34	30.6
Excellent	2	1.9
Missing	3	2.7
Total	111	100

### Appendix D: Money Frequency

Shows the participants breakdown of money in resources for terrorism preparedness.

	Frequency	Percent
Disagree	8	7.2
Neither agree nor disagree	76	68.4
Agree	22	19.2
Missing System	5	4.5
Total	111	100

## Appendix E: Equipment Frequency

Shows participants breakdown of equipment in for terrorism preparedness.

	Frequency	Percent
Disagree	7	6.3
Neither agree nor disagree	65	58.5
Agree	37	33.4
Missing System	2	1.8
Total	111	100.0

### Appendix F: Planning Frequency

Shows participants breakdown for planning in terrorism preparedness.

	Frequency	Percentage
Disagree	3	2.7
Neither agree nor disagree	32	28.8
Agree	67	60.4
Strongly agree	3	2.7
Missing system	6	5.4
Total	111	100

### Appendix G: Learning Frequency

Shows participants breakdown for learning in terrorism preparedness.

	Frequency	Percent
Neither agree nor disagree	31	27.9
Agree	71	64.0
Missing System	9	8.1
Total	102	100

### Appendix H: Communication Frequency Data

Shows participants breakdown for communication in terrorism preparedness

	Frequency	Percentage
Below average	8	7.2
Average	71	63.9
Above average	27	25.3
Missing system	4	3.6
Total	111	100

### Appendix I: Personnel Frequency Data

Shows participants breakdown for personnel in terrorism preparedness.

	Frequency	Percentage
Disagree	8	7.5
Neither Agree nor disagree	63	58.9
Agree	34	33.6
Missing System	4	3.6
Total	105	100

## Appendix J: Training Frequency Data

Shows participants breakdown for training in terrorism preparedness.

	Frequency	Percentage
Disagree	7	6.4
Neither agree nor disagree	57	51.3
Agree	43	38.7
Strongly Agree	1	.9
Missing system	3	2.7
Total	111	100

### Appendix K: Leadership Frequency

Shows participants breakdown for leadership in terrorism preparedness.

	Frequency	Percent
Below Average	1	.9
Average	59	53.1
Above average	42	37.8
Excellent	7	6.3
Missing System	2	1.8
Total	111	100