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Collaborating for Synchronized Disaster Responses in the National Capital Region

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2016

Abstract

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by

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MS, National Defense University, 2005

MBA, Fairleigh Dickenson University, 1989

BS, Texas Tech University, 1976

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

In many urban areas, there are multiple and overlapping layers of governments, which can be problematic for purposes of emergency operations planning for a multiple jurisdiction disaster response. The purpose of this single case study of the National Capital Region was to understand (a) the emergency operations planning collaboration process and (b) how cross-sector collaboration results in synchronized regional disaster responses. Theories of competitive federalism and cross-sector collaboration served as the basis of this study. Research questions explored how organizations collaborate; their organizational structures, processes, and practices; and how relationships between them affect collaboration. Data were collected through reviews of the National Capital Region Homeland Security Strategic Plan and the Regional Emergency Coordination Plan and interviews with 5 network members. A coding map was created to correlate interview responses to research questions and then cross-checked to provide the basis for a thick description of the evidence. The documents provided a basis for understanding how the network operated. Comparing these 2 data sources with coded transcripts and field notes substantiated the evidence. Results indicated that planning network guidance provided the structure for network participants' collaboration to facilitate planning and disaster responses. This research may contribute to positive social change by expanding emergency management network understanding of a cross-sector collaboration planning model that addresses disaster support requirements, enabling better protection of people, property, and the environment.

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Dedication

   This research study is dedicated to the men and women who work tirelessly to anticipate and plan for contingencies and disasters in order to make life safer for all of us, especially the logistics and operations planners that were my mentors, leaders, colleagues, and wing men. I also dedicate this dissertation to my family and friends who were constant sources of encouragement on this journey.

Acknowledgments

First, I acknowledge that it was God's grace that carried me and led me to those who helped me during this journey. He enabled me to stand by the still waters when I needed to regain focus and repeatedly restored me when I was distracted.

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Finally, I am forever grateful for the wisdom and encouragement that my parents, Raymond and Murry Peppers, provided. My son, Marcel, was my inspiration. To my husband, Jesse, thank you for being my sounding board and for your confidence in my abilities.

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Chapter 1: Introduction to the Study

Introduction

The purpose of this study was to describe the cross-sector emergency planning network collaboration process used to develop emergency operations plans for regionally synchronized responses to disasters. Collaboration within the emergency management network is critical to large scale natural and manmade disaster response such as hurricanes, floods, tornadoes, fires, acts of terrorism, and technological events like power failures and hazardous material incidents (Eller & Gerber, 2010, Federal Emergency Management Agency [FEMA], 2013c; Henderson, 2009; Herrick, 2009; Kapucu, Augustin, & Garayev, 2009; Lester & Krejci, 2007). The response to the September 11, 2001 attack on the Pentagon was an example of how regional collaboration can enhance disaster response. The response was led by Arlington County, Virginia and included members of a regional emergency management network that had collaborated prior to the incident to build relationships and address how the network should and would support incidents (Kettl, 2003). Lindell (2013) stated that research on planning that addresses hazards would be beneficial to emergency management community and Comfort, Waugh, and Cigler (2012) determined that future research will be more interrelated as emergency management is recognized to have local, national, and international implications.

The number and magnitude of disasters has increased during the last 30 years (Comfort, Waugh, & Cigler, 2012; Springer, 2010). This increase resulted in required improvements in how the emergency management community responds to disasters. Disasters occur at the local community level, but response requirements can quickly

escalate to include broader jurisdictional, government, private, and nongovernmental assistance (Brooks, Bodeau, & Fedorowicz, 2012; Chenoweth & Clarke, 2010; Comfort, Birkland, Cigler, & Nance, 2010; Gooden, Jones, Martin, & Boyd, 2009; Mann, 2012; Stewart, 2011). Disaster preparedness is a role of federal, state, and local governments that requires functional involvement from multiple organizations at each level of government to ensure a constant state of preparedness and to improve national resilience (Robinson & Gerber, 2007; Springer, 2010). Without adequate preparation, the devastating impact of disasters is intensified as was seen in the aftermath of Hurricanes Katrina and Rita where emergency planning and collaboration failed at multiple levels of government (Kapucu, Arslan, & Collins, 2010; Robinson & Gerber, 2007). Conversely, the September 11, 2001 attacks, the Interstate 35 West bridge collapse in Minnesota, and Hurricane Sandy are examples of the how emergency preparedness planning can mitigate human and property loss and the importance of intergovernmental cross-sector collaboration in the planning process (Cook, 2009; U.S. Senate, 2013).

Responsibility for emergency preparedness flows vertically from and to local, state, and federal levels and horizontally within city and county jurisdictions and between states (Caruson & MacManus, 2012. Effectively planning for disasters is a continuous process that requires organizational commitment. Emergency operations planning is a community-based risk analysis of hazards that the community is likely to encounter in preparing for, mitigating, responding to, or recovering from serious or catastrophic incidents (FEMA, 2010). These types of disasters can be overwhelming, resulting in communities requiring outside assistance to support its citizens (Kapucu, 2009). When

this occurs, external support is required to respond to and recover from a disaster. The emergency management network requires collaboration at multiple levels to develop emergency operations plans that ensure that the jurisdiction or region is prepared to survive and recover from a disaster.

Substantial research about the failure of emergency management coordination and cross-sector planning showed how critical coordination is to effectively responding to disasters (Caruson & MacManus, 2006, 2008a; French & Raymond, 2009; Kapucu, Arslan, & Collins, 2010; Kapucu et al., 2009; McGuire & Silva, 2010). This research described a cross-sector intergovernmental regional emergency operations planning collaboration process used to effectively develop operations plans for synchronized regional disaster responses that could be emulated in other regions in the country.

This chapter provides the purpose of the study and an overview of the purpose of the theoretical frameworks used to conduct research. The nature of the study and study assumptions provide a foundation for the study. Finally, limitations associated with this study and the significance of the study are outlined.

<div style="text-align:center">Problem Statement</div>

Complex matters associated with the scope of disaster response, large populations, and a vast amount of resources cross traditional jurisdictions and state responsibilities resulting in a number of planning and collaboration relationships. Federal, state, regional, and local entities collaborate to walk their way through the complicated operations planning process. An already complex process is amplified by the density of governments in the National Capital Region. The National Capital Region is a diverse

region comprised of more than 5 million people who live within 22 county, municipality, and city jurisdictions within the District of Columbia, State of Maryland, and the Commonwealth of Virginia (FEMA, 2014c; Metropolitan Washington Council of Governments [MWCOG], 2010).

Local governments are responsible for the safety and wellbeing of their citizens and, rather than state or federal governments, are the first line of planning for disaster preparedness (Chenoweth & Clarke, 2010; Henstra, 2010; Schneider, 2008; Stewart, 2011). Therefore, integrated collaboration in the National Capital Region allows stakeholders to leverage individual competencies to resolve challenges that partners could not solve independently (Kapucu et al., 2010). The problem in the National Capital Regions is that the process for cross-sector collaboration is not codified in the region's emergency management network governance, providing specific guidance on how collaboration should occur.

Purpose of the Study

The purpose of this study was to understand the National Capital Region's emergency management operations planning collaboration process and how it facilitates the development of emergency operations plans that support state preparedness goals and initiatives that are integrated and synchronized for a prepared and resilient region. The study explored a regional approach to collaboration as it applies to emergency operations planning. Collaboration was studied to codify the cross-sector emergency preparedness network collaboration process and the level of expected regional response synchronicity as perceived by network partners. A synchronized disaster response requires multiple

levels of public and private cross-sector planning and collaboration (Eisinger, 2006; Kapucu et al., 2010; Koliba, Mills, & Zia, 2011; Roberts, 2008).

Disaster responses provide contrasting examples about how intergovernmental collaboration or the lack of collaboration affects responses. The September 11, 2001 terrorist attacks in New York and Virginia and Hurricanes Katrina and Rita in 2005 were costly in terms of human and economic losses, and each negatively impacted the nation's sense of security from manmade and natural disasters. The lack of communication and coordination between first responders hindered the Hurricane Katrina response, despite the Government Accounting Office identifying this as a shortfall in reports published before the hurricane (Comfort et al., 2010; Kapucu et al., 2010). Emergency preparedness was not a national priority prior to the September 11 attacks (Cook, 2009). However, in northern Virginia, emergency operations planners and first responders from multiple jurisdictions practiced together to simulate how they would respond in a disaster (Cook, 2009). As a result, cross-sector problems that could have hampered the real world response were addressed beforehand. Through intergovernmental cross-sector collaboration, emergency response planning can be coordinated to facilitate effective emergency responses (Caruson & MacManus, 2008a; Kapucu et al., 2010; Kettl, 2003; Schneider, 2008).

Research on various aspects of emergency planning and intergovernmental collaboration in Florida provided a basis for conducting similar research in other states and regions throughout the United States (Caruson & MacManus, 2006, 2007, 2008a, 2008b, 2012; MacManus & Caruson, 2011). Research showed that even with Florida's

extensive experience planning for and responding to natural disasters, there are still areas for improvement in the Florida emergency management network (Caruson & MacManus, 2006, 2007, 2008a, 2008b, 2012; Caruson, MacManus, & McPhee, 2012). This qualitative case study provides a similar framework for understanding collaboration in the context of the National Capital Region. Local, state, and regional organizations throughout the United States could partially replicate the National Capital Region collaboration process model. Additionally, codifying the National Capital Region process better identifies strengths and portions of the process to improve in order to better synchronize planning and responses in the National Capital Region.

Nature of the Study

In this study, I used a case study design to examine a contemporary collaboration process of emergency operations planning within the theoretical frameworks of competitive federalism and collaborative governance. The context of this study was a regional emergency operations planning network that included regional, state, local, and military emergency management organizations. State and local jurisdictions routinely collaborate to develop individual state emergency operations plans that support both state and regional emergency operations requirements (MWCOG, 2010). Regional, military, and other network members also operate within the context of regional requirements (MWCOG, 2010). The strength of the case study was that various methods of evidence were used to expand knowledge of a phenomenon from a real-world perspective (Yin, 2014). Sources of evidence and data were interviews with people involved in the

collaboration process and document reviews. Data validated through triangulation presented an analytic generalization within the framework of theoretical concepts.

This case study described how emergency preparedness policy makers and emergency operations planners work together to prepare for a regionally synchronized response to a disaster. Case study methodology presented a study of cross-sector collaboration within a bounded system (Yin, 2014). I used an empirical inquiry to conduct in-depth investigation within the context of the phenomenon without attempting to control or manipulate behaviors.

In this study, I strove to understand the collaboration process that the National Capital Region emergency operations planning network uses to develop plans and guidance that ensures synchronized regional responses to disasters. The National Capital Region is a densely populated area. It is comprised of federal, state, regional, and local branches of government that also include the nation's capital, the three branches of federal government, and several universities, hospitals, and transit systems (FEMA, 2012; MWCOG, 2010). Other metropolitan areas are in proximity of the National Capital Region. A catastrophic disaster within the National Capital Region would have regional and national repercussions. Emergency preparedness planning requires federal, state, regional, and local jurisdiction participation. However , since disasters are local, local and county jurisdictions are the first line of action in response to a disaster (Comfort et al., 2010; Mann, 2012; Roberts, 2008; Stewart, 2011).

Research Question

The overarching research question was: How does the National Capital Region emergency operations planning network collaborate to create plans that support a synchronized regional response to disasters? The following subquestions were investigated to further explain the overarching question:

1. How do planners and policy makers perceive regional response synchronization?

2. How do state and regional organizational structures support collaboration within the emergency operations planning network?

3. How do state and regional institutional processes and practices support collaboration within the emergency operations planning network?

4. How do relationships within the emergency operations planning network support collaboration?

Theoretical Framework

Research can be explored to provide different perspectives or to substantiate or test a theory when theoretical research is available. In situations where there is less research available, inquiry can be centered on a theoretical framework, with the frameworks used to describe actions or methods of thinking in qualitative research that support or inform research (Creswell, 2009; Merriam, 2009; Reynolds, 2010). Inquiry begins with determining whether theoretical or conceptual frameworks are appropriate. The study protocol connects the research topic to the question, and the theoretical framework substantiates the study protocol (Miles & Huberman, 1994).

Two theoretical frameworks, competitive federalism and collaborative governance, were used in this study and viewed through the social constructivism interpretation. First, competitive federalism provided a basis for understanding the environment in which jurisdictions operate in order to provide for the safety of their citizens (Clovis, 2006; Lee, Feiock, & Lee, 2012; McGinnis, 2012). Authority is decentralized to the local jurisdiction with states partnering regionally to facilitate resource sharing among local governments and cooperatively competing for funding, goods, and services (Clovis, 2006; Lee, Feiock, & Lee, 2012; McGinnis, 2012). National Capital Region emergency operations planning network partners conduct independent planning to support their jurisdictions (MWCOG, 2010). Participants also collaborate interdependently within the network to support the missions of prevention, protection, response, and recovery through core regional capabilities such as interoperable communications, sharing information, and protecting critical infrastructure (MWCOG, 2010).

Federalism offers a general perspective concerning how the government conducts emergency preparedness planning and is essential to effective intergovernmental relations (Clovis, 2006). The nature of intergovernmental relationships determines how to manage crises. Interdependent relationships between the federal government and state and local governments became more apparent as emergencies and disasters, politics, and economics made competitive federalism a reality (Clovis, 2006). State and local governments finance their own activities (Clovis, 2006). Congressional reduction in homeland security grants and citizens demanding more from all levels of government

make cooperation and resource sharing vital to emergency operations planning

(Chenoweth & Clarke, 2010; FEMA, 2013a; McGuire & Agranoff, 2011).

Collaborative governance is the second theoretical framework used in this study. In a cross-sector intergovernmental environment, collaboration is used to solve problems and meet goals that individual organizations cannot resolve independently (Clovis, 2006; Lee et al, 2012; McGinnis, 2012). The collaboration framework considers conditions, process, structure, governance, contingencies, constraints, accountability, and outcomes to understand the collaboration process (Bryson, Crosby, & Stone, 2006). Legitimacy, trust, leadership, strategic planning, organizational structure, regionalization, and planning are aspects of the emergency management and emergency operations planning networks that influence the collaboration process (Bryson, Crosby, & Stone, 2006). A more detailed discussion of competitive federalism and collaboration governance will be provided in Chapter 2.

Local jurisdiction first responders lead disaster response and recovery actions with state and federal governments providing critical disaster preparedness and response capability when and where needed (Eisinger, 2006; Mann, 2012; McGuire & Silva, 2010). These actions occur within a competitive federalism environment of limited resources. In cases of severe and catastrophic incidents, multiple jurisdictions are impacted and can overstress support services. A successful response is predicated on cross-sector partnerships and collaboration within the emergency management network. Stakeholders plan collaboratively within the emergency management network to address

the competition for limited resources in emergency operations plans (Comfort et al.,

2010; Kapucu et al., 2010; Koliba, Mills, & Zia, 2011; Murray, 2011; Watkins, 2013)

Collaboration and emergency operations planning and execution failures are the

subjects of much emergency management related research (Caruson & MacManus, 2006,

2008a; Hildebrand, 2009, Kapucu et al., 2009, 2010; McGuire & Silva, 2010). Studies

have concluded that cross-sector planning and collaboration influence emergency and

disaster response (French & Raymond, 2009). The complex nature of disasters will

continue to require a network of emergency preparedness partners that have a common

understanding of requirements for managing crises (Dobel, 2010).

A qualitative case study was applicable for this study because the research was

meant to provide a rich description of the National Capital Region cross-sector

collaboration process (Creswell, 2007; Merriam, 2009). Qualitative research was used to

support an understanding of the planning collaboration process rather than for testing

theories (Merriam, 2009). In qualitative research, theories are the basis used to describe

actions, attitudes, and illustrations related to the research topic and its environment.

Theoretical frameworks explain how research questions are related to social problems

(Creswell, 2013). Social constructivism applied in this study helps to explain how the

collective intention of the emergency operations planning network impacts the

collaboration process (Creswell, 2013; O'Shaughnessy & O'Shaughnessy, 2002; Searle,

2006). Though existing theory and the theories associated with it lead to understanding a

phenomenon, the researcher should remain focused on the purpose of the research topic

(Maxwell, 2013). Thus, by conducting an intrinsic case study, I gained an in-depth

understanding of how National Capital Region cross-sector collaboration facilitates regional disaster preparedness (Creswell, 2007). Data were collected from interviews with emergency preparedness policy makers and planners, document reviews, and observation. The data were interpreted and generalized to depict patterns that help to understand the planning collaboration process and the level of perceived regional response capability.

Definitions of Terms

The following definitions clarify the meaning of terms as used in this study:

Catastrophic disaster: A large, extreme, unpredictable disaster that involves all levels of government and results in major disruptions and high loss of life or property, or both, overwhelming the emergency response system. (Demiroz & Kapucu, 2012; FEMA, 2013b; Van Wart & Kapucu; 2011).

Collaboration: The process of multiple organizations working across boundaries to achieve mutual goals. A relationship of highly interdependent organizations that have shared processes and expertise (Gazley, 2010; Kapucu et al., 2009; Lester & Krejci, 2007; O'Leary, Yujin, & Gerard, 2012; Robinson & Gaddis, 2012).

Collaborative governance: The process of shared decision making among stakeholders who create and implement public policies and procedures to manage public resources (Ansell & Gash, 2008; Johnston, Hicks, Nan, & Auer, 2011).

Collaborative leadership: Leaders who think strategically, are highly motivated to achieve goals, find win-win solutions, and tap into the abilities of others to achieve organizational success (Linden, 2013)

Cross-sector collaboration: Sharing resources and capabilities among organizations in at least two sectors, in order to reach a goal that individually would not be possible. Sectors can be public, private, or nonprofit. They can also be functional such as transportation, police, fire, public works, education, or community services. (Bryson, Crosby, & Stone, 2006; Chen & Thurmaier, 2009; Comfort, Haase, & Namkyung, 2006; Kapucu et al., 2009; O'Leary et al., 2012; Robinson, 2008).

Disaster: An uncommon, sudden, and extreme event, natural or manmade, that can result in dangerous circumstances and a high stress environment (Basher, 2008; FEMA, 2010; James, 2011).

Emergency management: Implementing processes and policies to reduce vulnerabilities, protect people and property from hazards through tiered government response, and improve disaster coordination. Local governments are first to respond and are supported by higher levels of government (Demiroz & Kapucu, 2012; Henstra, 2010; Mann, 2012)

Network: Refers to a nonhierarchal method of collaboration where multiple interdependent volunteer participants from a variety of functions and organizations are connected by resource dependencies (Kapucu et al., 2009; McGuire & Agranoff, 2011).

Partnership: Refers to a limited scope method of collaboration where independent organizations work together to support a mutually agreed upon goal (Chenoweth & Clarke, 2009; Kapucu et al., 2009).

State: For the purpose of this paper and to simplify reading, the term, "state," applies to the State of Maryland, Commonwealth of Virginia, and District of Columbia (Washington, DC).

Assumptions

The major assumption of this study was that collaboration within the National Capital Region emergency operations planning network existed and resulted in state operation plans and a regional strategy that ensures preparation for and responses to disasters are coordinated (MWCOG, 2010). I assumed that collaborative governance within a competitive federalism environment can describe the emergency operations planning process (Bryson et al., 2006; Clovis, 2006). The focus of this study was to understand how the collaboration process is implemented to ensure that disaster responses are integrated regionally and to ensure that the strategy for collaboration is disseminated to emergency operations planners.

Scope and Delimitations

The scope of this study was limited to a single case within a region of the United States. Qualitative case study research methodology provided a detailed description and analysis of National Capital Region emergency operations planning collaboration, a subset of the emergency management collaboration network. In this study, I conducted an in-depth exploration of a bounded system unit of analysis that occurs within a competitive federalism environment. Competitive federalism and collaboration theory provided a framework to assist in understanding the collaboration process. Participants in the study were purposefully selected based on their roles within the emergency operations

planning network. Data collected from multiple participants provided a rich description of the collaboration process.

Limitations

Qualitative research relies heavily on the subject and the setting for the research making it a suitable method for the challenge of understanding collaboration interdependence. Interdependence was a causal relationship between the outcome of the case study and was impacted by change or outcome (Patton, 2002; Reybold, Lammert, & Stribling, 2012; Starke, 2013). Study limitations were related to the situation, time, and topic chosen for study.

This study was limited to one region with the main sources of data being representative of regional, state, local, and military planning personnel who were recruited based on their positions in the network. Data collected were triangulated to strengthen rigor and validity of the evidence. The outcome of state collaboration impacts the outcome of regional collaboration.

By definition, purposeful sampling would limit what was to be studied. Thus, interview and document review methods of data collection were used. I was the main source of the collection. Consequently, the sensitivity and integrity of the inquiry was based on my perceptions as the researcher making rigor in data collection and analysis a prerequisite for avoiding the dilemmas associated with bias (Merriam, 2009). Confusion about a lack of rigor and an inability to generalize findings are sometimes associated with qualitative case study research (Gibbert & Ruigrok, 2010; Yin, 2014). Therefore, the research protocol was adhered strictly. The source of data collected from interviews was

strictly based on what I experienced. Otherwise, I might have unintentionally affected

data analysis because of personal biases, politics, or emotions leading to inadvertent data

distortion (Patton, 2002).

Proven qualitative approaches were applied in order to prove that data analysis

was valid and credible (Creswell, 2007). Validation methods, such as triangulation and

peer review, were used to ensure analysis validity and credibility. I did not contend with

outlying evidence that disconfirmed the competitive federalism or collaboration theories

(Creswell, 2007). Participant review of research evidence ensured that efforts to translate

participant responses to make the data more understandable were avoided.

Significance of the Study

An inappropriate disaster response in the National Capital Region would impact

local, regional, and national economies and politics (MWCOG, 2010). Collaboration

within the emergency management network ensures that emergency operations plans

address integrating and balancing community needs with capabilities (FEMA, 2010;

French, 2011; Miehl, 2011; Nicoll & Owens, 2013). Operations plans provide guidance

to emergency management personnel responsible for operational activities by identifying

how jurisdiction and network responders should conduct operational activities, thereby

enabling the network to provide support without duplicating efforts.

A robust collaboration process that includes federal, regional, and state

emergency operations planners enables synchronized preparedness and response and

economical apportionment of limited resources (Kapucu et al., 2009). In contrast to the

bureaucratic structures in place in 1996, prior to legislation enacting the Emergency

Management Assistance Compact (EMAC), a system in which states provide disaster relief assistance to each other, joint partnerships are effective alternatives (EMAC, 2013). The National Capital Region emergency operations cross-sector collaboration process is a joint partnership model that could benefit other regions around the country, based on requirements.

A cross-sector collaboration process model based on the National Capital Region framework would assist other state and regional emergency response planners in establishing similar processes that could increase preparedness, security, and safety for their jurisdictions. Thoroughly understanding the process would help emergency operations planners create environments and networks to create synchronized responses across jurisdictions and within regions and ensure balanced participation. Department of Homeland Security (DHS) Headquarters and FEMA would benefit from the results of this study by having increased visibility of the cross-sector collaboration process used in the National Capital Region. The process impacts how the region functions during disaster responses and the region's ability to provide regional safety and security.

Comfort, Waugh, and Cigler (2012) found that the top emergency management related topics researched included collaborative leadership, intergovernmental relations, and urban planning. Fellows from FEMA and the National Association of Schools of Public Affairs and Administration jointly determined that collaboration, communications interoperability, integrated hazard mitigation, and building community resilience to vulnerabilities have become increasingly more complex issues (Comfort et al., 2012). Research conducted through 2022 is expected to be "more interdisciplinary,

interorganizational, and interjurisdictional" with the realization that disasters affect society, not just a local jurisdiction (Comfort et al., 2012, p. 547).

The relationship between collaboration and internal organization structure, general public policy collaboration structure, how emergency management and other government functions differ, and assessing collaboration in non-human services environments are areas that warrant future research (McGuire & Silva, 2010; Page, 2004). Future research on the impact of previous incidents, such as the September 11, 2001 attacks, and possible terrorist threat scenarios would provide insight into the future of intergovernmental collaboration. This research could extend to include international intra- and intergovernmental collaboration.

Summary

The National Capital Region was the representative case of this study designed to understand the emergency operations planning collaborative process within the region and how the process results in regionally synchronized disaster responses. The study was framed with competitive federalism and collaborative governance theoretical frameworks. The methodology, theoretical framework, assumptions, limitations, and delimitations of the study were discussed in this chapter.

In Chapter 2, I provide a comprehensive review of current literature and the theories and perspectives that comprise the theoretical framework for conducting this study. The research problem and the competitive federalism and collaborative governance theoretical concepts frame the basis of this study. Relevant research about how various components of the collaboration process contribute to an understanding of

cross-sector collaboration, emergency management, and emergency operations planning processes are presented. Two authors recommended more research on state emergency preparedness. However, the unique emergency management network in the National Capital Region necessitated a regional approach that is synchronized with local jurisdictional authorities. This process required a cross-jurisdictional approach to collaboration to disasters.

I then present a detailed methodology discussion in Chapter 3. In the chapter, I also provide the approach for the study and the rationale for the selected research design with attention to the research question and an explanation for why other designs were not selected. Finally, I discuss the methodology for data collection and analysis and evidence of trustworthiness. I present the study setting and results in Chapter 4 and finding interpretation, recommendations for future research, and implications for positive social change are provided in Chapter 5.

Chapter 2: Literature Review

Introduction

Intergovernmental collaboration among federal, regional, state, and local emergency management organizations is a fundamental element of the emergency operations plans development process. The majority of research on the topics of emergency management and emergency preparedness addressed the benefits of collaboration during the planning, response, and recovery phases of emergency operations (Caruson & MacManus, 2007, 2008a, 2008b; Comfort, Birkland, Cigler, & Nance, 2010; Kapucu, Augustin, & Garayev, 2009; Kapucu & Garayev, 2012). However, studies regarding the impact of planning and collaboration on regional operations planning were limited. A catastrophic disaster in the National Capital Region (Washington, DC and portions of Maryland and Virginia) would have national and international economic, political, security, and diplomatic implications and result in substantial loss of human life (Comfort et al., 2012; MWCOG, 2010). Consequently, applicable emergency operations plans for Maryland, Virginia, and Washington, DC should be synchronized to ensure that the region is prepared, to the extent possible, to respond to and recover from a disaster. The problem is that the National Capital Region does not codify its emergency operations plan cross-sector collaboration process, nor do emergency operations planning network partners have a comparable understanding of the process.

In this chapter, I examine emergency management research and the National Capital Region collaboration process within the theoretical frameworks of competitive

federalism and cross-sector collaboration. I also define emergency management,

emergency operations plan development, and frame components of cross-sector

collaboration. In the conclusion, I establish the basis for this study and the research

methodology.

Literature Search Strategy

I used the Walden University online library and the George Mason University

library system in my searches. I reviewed theoretical and contemporary texts and

searched the EBSCO databases and search engines that included Political Science

Complete: A Sage Full-Text Collection, Business Source Complete, Homeland Security

Digital Library, public administration and emergency management periodicals,

dissertations, and theoretical texts. In my searches, I used terms such as: *emergency*

management, *emergency operations*, *emergency preparedness*, *emergency planning*,

federalism, *competitive*, *leadership*, *organizational behavior*, *collaboration*, *strategic*

planning, *theory*, *operational research*, *metropolitan governance*, *multijurisdictional*

partnership, *mutual aid*, *region*, *National Capital Region*, and *economic resilience*.

To facilitate analysis and synthesis, the literature was separated into 13

components: emergency management, collaboration, leadership, Maryland, methodology,

National Capital Region, organizational behavior, planning, regionalization, strategic

planning, theory, Washington, DC, and Virginia. Some of the studies addressed two or

more of the above components. The categorization method led to a comprehensive

understanding of collaboration and its importance to emergency preparedness. There was

less research available on how collaboration influences the emergency operations

planning process.

Competitive Federalism Theoretical Framework

Competitive federalism and collaborative governance frameworks provided the

foundation for understanding the National Capital Region emergency operations planning

collaboration process and how the process affects regional disaster responses. Federal,

state, and local government relationships impact the nation from security and

preparedness perspectives. As long ago as there have been empires, scholars studied the

impact of how levels and types of governments interacted. Flaws in previous government

interactions led to the examination of the U.S. federal government as a topic of discussion

in *Federalist Papers, No. 44* as the United States was developing its own method of

governance (Agranoff, 2011). The United States eventually transitioned from cooperative

federalism, a system in which the government compelled state support through

negotiation, to a coercive federalism system of increased government activity in state

managed programs (Agranoff, 2011; Clovis, 2006; Elazar, 1962; Gooden, Jones, Martin,

& Boyd, 2009). Later, the country evolved to a system of competitive federalism

characterized by decentralized power and levels of government working together to

accomplish tasks and goals (Agranoff, 2011; Clovis, 2006).

As perceived imperfections in governing systems continued, the evolution

included an American system of federalism based on collaborative networking (Clovis

2006; Dye, 1990; Simmons & Graefe, 2013). Tensions that existed between federal and

state governments, such as federal attempts to require more consistency in state homeland

security and social practices, increased during the period of 2001–2008. Delineation between federal, state, and local sovereignty continued after that time (Eisinger, 2006; Kettl, 2003; Mintrom, 2009). However, preparing for emergencies required emergency management network partners to work together to identify, negotiate, and solve issues associated with preparing for, responding to, and recovering from disasters (Chenoweth & Clarke, 2010; Roberts, 2008).

A common thread in U.S. government relations from initial federal relationships to current intergovernmental relations is "working connections" (Agranoff, 2011, p. S69). Rather than lines drawn between the federal government and state sovereignty, Roberts (2008) advocated for a system of dispersed federalism where federal government representation physically moved to designated regions of the United States to address the issues the region faced. The federal government did not implement dispersed federalism nationally, but the concept does parallel the FEMA 10 region concept (FEMA, 2014b). Each of the 10 FEMA regional organizations provides federal disaster assistance to the three to seven designated states and U.S. territories for which it is responsible. Region III includes Maryland, Virginia, and Washington, DC, along with Delaware, Pennsylvania, and West Virginia (FEMA, 2014b).

The principal assertion of this study was that the emergency operations planning process is influenced by the concept of competitive federalism and through collaboration the emergency management network negotiates to represent individual jurisdictions, represent the National Capital Region, and develop shared goals. Emergency preparedness and other phases of emergency management are not the sole responsibility

of either federal, state, or local jurisdictions. Therefore, competitive federalism is characterized by jurisdictional competition, an exchange of goods and services, through cooperation (Clovis, 2006; Lee et al, 2012; McGinnis, 2012). The social construct within which the emergency operations planning network operates is a function of the goals and involvement of collaboration network participants (Creswell, 2013; O'Shaughnessy & O'Shaughnessy, 2002; Searle, 2006).

Preparedness is shared accountability accompanied by inherent competition among jurisdictions creating coordination and collaboration complexity (Caruson & MacManus, 2012; Chenoweth & Clarke, 2010; Roberts, 2008; Stewart, 2011). Voters determine their preferences for goods and services and the tax basis required to support the system of exchange through their elected political representatives. Elected public managers and other public officials compete for resources to ensure voter expectations are met. Each level of government decentralizes authority and accountability and finances the exchange of goods and services (Caruson & MacManus, 2012; Chenoweth & Clarke, 2010; Roberts, 2008; Stewart, 2011). There is an expectation that mutual gain for each network stakeholder will be the outcome of cooperation. In addition, each level of government is interdependent and through collaboration works across structural, political, and social boundaries to conduct emergency operations planning. Within the structure of competitive federalism and networked governance, a good or service that meets the need of one jurisdiction could also meet the need of another jurisdiction (Clovis, 2002; Dye, 1990; Kapucu & Garayev, 2012). As jurisdictions compete for finite resources, local, state, and federal responses to disasters continue to show the value of collaboration in

achieving mutual gain during the planning, response, and recovery phases of emergency operations (Chenoweth & Clarke, 2010).

Collaborative Governance Theoretical Framework

Collaboration is the process of solving problems in a multiorganizational environment that could either not be resolved or not resolved easily by organizations individually (Chen & Thurmaier, 2009; O'Leary et al., 2012). The process, frequently used in public government to describe the activity among participants who are dependent upon each other to accomplish agreed upon goals, can lead to innovative solutions to problems that cross multiple government sectors, such as transportation, public works, education, and community services (Kapucu, Augustin, & Garayev, 2009; O'Leary et al., 2012). Collaborative governance is the process of public and nongovernmental stakeholders working collectively to reach consensus on how to create and implement policies and procedures to administer public resources (Emerson, Nabatchi, & Balogh, 2012; Johnston, Hicks, Nan, & Auer, 2010).

For some organizations, collaboration is a requirement for traversing the complex organizational, social, and political policy and coordination labyrinth (Bryson, Crosby & Stone, 2006; Gazley, 2010). At times, collaboration is considered to be a prospect for progress only after other options have failed. Some organizations even assume that collaboration will solve problems without evidence that it could succeed. While collaboration can be a process and endeavor that some organizations decide to participate in, it is also an essential part of emergency preparedness planning (Andrew & McGehee, 2008; Teresa, 2013). Bryson, Crosby, and Stone (2006) developed a theoretical

framework to understand the cross-sector collaboration process. The framework was applied to this study to understand how the emergency management collaboration process within the National Capital Region assures a synchronized regional disaster or emergency response.

The cross-sector collaboration theoretical framework considers initial conditions, process, structure and governance, contingencies and constraints, and outcomes and accountabilities associated with collaboration to understand the collaboration process (Brooks et al., 2012). Initial conditions for collaboration include general environment elements such as, instability, competition, and institutions, previous failures within the sector, and the history of relationships, networks, and agreements (Brooks et al., 2012). The process for collaboration incorporates the following factors: (a) formal and informal agreements, (b) leaders adept at collaboration, (c) trust within the collaboration network, (d) conflict management, and (3) planning (Brooks et al., 2012; Lamothe & Lamothe, 2011). Brooks, Bodeau, and Fedorowicz (2012) further explained that formal and informal membership and configuration provide the basis of the collaboration network structure and governance. Types of collaboration, imbalances in power, and opposing organizational logic will impact how the collaboration network plans for and responds to contingencies and constraints (Brooks et al., 2012). Lastly, collaboration will yield public, ordered effect, and resilience outcomes and accountability for relationships, results, and processes (Brooks et al., 2012).

The U.S. government traditionally relied on working within partnerships to decrease risk associated with hazards (Kapucu et al., 2009). The general term, "network,"

can be applied to the system of stakeholder partnership coordination and collaboration to

achieve increased capacity by agreeing on goals or outcomes through voluntary

participation and shared trust (CITE). Partners agree to work together to meet a specific

goal within a limited scope and still maintain their independence. There are multiple

participants, various goals, and continually changing relationships within

interorganizationally dependent networks. The networks can be established for the

purposes of sharing information, developing goals, specific actions, or outreach.

Emergency management networks rely on collaboration for each of these purposes at one

time or another (Doerfel, Chih-Hui, & Chewning, 2010; Kapucu et al., 2009).

Emergency operations planning within Maryland, Virginia, and Washington, DC

requires cross-sector or interdisciplinary collaboration in planning, transportation,

housing, power, distribution, medical, legal, and other infrastructure, social, economic,

geographic, and political preparedness requirements (Comfort, Haase, & Namkyung,

2006; Kapucu et al., 2009). Emergency management agencies require intricate

intergovernmental cross-sector collaboration to plan for jurisdictional requirements, to

determine how to provide regional support, and to establish the criteria for providing

support (Comfort, Haase, & Namkyung, 2006; Kapucu et al., 2009). Despite

collaboration being imperative to emergency operations planning, it is not a simple

process (Bryson et al., 2006). Personnel and resources that would have been dedicated to

directly supporting home organizations are redirected to supporting the collaboration

network (Bryson et al., 2006). Organizations experience a cost in direct time and

resources that would have otherwise been available, with an ultimate goal of

collaboration with partners and stakeholders to achieve a goal that may not be possible working independently. Occasionally, the associated costs of collaboration, such as service efficiency, access to resources, and enhanced public accountability, can outweigh the benefits to the organizations and the network (Gazley, 2010; Hardy & Koontz, 2009). Also, collaboration will not solve all issues associated with disaster preparedness planning. Due to interconnectedness within jurisdictions, a change anywhere in the network could result in unexpected problems elsewhere (Bryson et al., 2006). As an example, health care can be described in policy, education, economic, and fiscal terms with each issue affecting network participants differently.

Hurricanes Katrina and Sandy provide examples of what can happen in the absence of disaster response and recovery collaboration and what can happen when collaboration enables synchronicity, respectively. Hurricane Katrina resulted in failures at multiple levels, from vertical, between local, state, and federal, to horizontal, between counties and parishes (Gooden et al., 2009; Kapucu, Arslan, & Collins, 2010; Koliba, Mills, & Zia, 2011). Vertical actions occur at diverse higher and lower levels of government. Horizontal action takes place within similar levels of government when jurisdictions are too small or are too overwhelmed by a required action to respond on their own or if the required actions involve other jurisdictions (Brooks et al., 2012; Feiock, 2013; Kapucu, 2009).

While similar cross jurisdictional responses occurred during and after Hurricane Sandy, intergovernmental disaster preparedness and response collaboration started before landfall and continued through recovery (U.S. Geological Survey, 2013; U.S. Senate,

2012). The value of vertical and horizontal collaboration is significant and is continuing

to develop in scope (Caruson & MacManus, 2012; McGuire & Silva, 2010). Effective

intergovernmental and cross-sector collaboration during emergency operations plan

development is a precursor to ensuring that emergency operations plans are developed to

optimize resource allocation and sharing. Emergency operations plans are strategies

created and maintained by jurisdictions to response to probable hazards (FEMA, 2010;

Miehl, 2011). The plans communicate how to protect people and property, who is

accountable for activities, explains coordination procedures, and designates resource

availability such as personnel, equipment, services, supplies, and fiscal responsibility.

With the exception of studies about emergency management in the state of

Florida, most research has been about local and federal analysis, rather than analysis of

individual states or regions (Caruson & MacManus, 2006, 2007, 2008a, 2012; Kapucu et

al., 2009). Catastrophic events, such as hurricanes, floods, fires, and winter storms, can

be unexpected, encompass a region or multiple states, and cross multiple critical support

services, requiring broad response and recovery actions (Kapucu et al., 2009).

Interconnected and interdependent support services such as security and law

enforcement, utilities, transportation, medical care, housing, food, and communications

services are critical to disaster response and recovery (Murray, 2011; Watkins, 2013). To

achieve a collaborative regional unity of purpose in a competitive federalist environment,

the emergency operations planning process should promote an emergency management

network of municipalities, state, tribal, and federal jurisdictions, nongovernmental, and

private organizations collaborating to address complex preparedness situations. The first

step in understanding the collaboration process is to identify the initial conditions that stimulate cross-sector collaboration.

Initial Conditions

Competition and other external pressures can be the motivation for forming and sustaining a collaboration network, thereby acting as incentives for organizations to work together to achieve better outcomes than they could separately. The collaboration network has to conform to legal and regulatory elements of the environment in order to be considered legitimate and to survive over time, particularly when crossing jurisdictions. Relationships and governance within the emergency management environment influence the purpose, structure, and results of the National Capital Region emergency operations planning intergovernmental collaborative network.

Emergency Management. Emergency management as a profession evolved from a bureaucratic, top-down environment in the 1940s and 1950s to a network model that operates in an environment comprised of diverse intergovernmental and intersectoral organizations (Birkland & DeYoung, 2011; Waugh & Streib, 2006). Emergency managers, thought to be authoritative, were associated with the Cold War and its anticipated air raids and civil defense of the 1950s to 1970s. The Cold War correlation changed to a more inclusive all-hazards focus for mitigation, preparedness, response, and recovery phases of emergency management, a leadership model that fostered communication and collaboration, and increased federal involvement (Birkland & DeYoung, 2011; Reddick, 2011; Waugh & Streib, 2006). The relationships among government and nongovernment stakeholders in emergency management organizations

transitioned from compartmentalized actions to an interactive approach across multiple

sectors (Chenoweth & Clarke, 2010).

The complex nature of catastrophic incident response efforts was evident after

September 11, 2001 terrorist acts, 2004 Hurricanes Frances and Ivan, and 2005

Hurricanes Katrina Rita (Comfort, Waugh, & Cigler, 2012; National Oceanic and

Atmospheric Administration, 2013; Waugh & Streib, 2006). Concerns about the need for

effective recovery efforts and the realization that disaster recovery affects social and

economic priorities led to including recovery requirements in operations planning.

Recovery efforts became a prominent concern and led to a clearer understanding of the

need to include recovery in emergency operations planning (Comfort, Waugh, & Cigler,

2012; Waugh & Streib, 2006. Disaster recovery was also linked to social and economic

concerns. Hurricane Irene in 2011 and Hurricane Sandy in 2013 directly affected the

northern east coast resulting in a proenvironmentalism and climate change aspect to

emergency management and emergency operations planning (Rudman, McLean, &

Bunzil, 2013). To operate in the diverse and complex emergency management

environment, emergency managers need collaboration skills that facilitate their work

outside their jurisdictions (Donahue, Cunnion, Balaban, & Sochats, 2010; Waugh &

Streib, 2006).

Historically, volunteers supported local level responses. However, in the

multifaceted emergency management network, there was considerable diversity,

interdependence, and uncertainty making emergency response a paradox that is

simultaneously precisely planned and spontaneous (Waugh & Streib, 2006). As local

emergency managers collaborated on concerns about urban planning, building codes, and reducing additional risks, a framework for emergency response governance became the foundation of disaster response. Therefore, consensus became the rule since catastrophic disasters cross multiple government sectors. As an example, in both the 1995 Oklahoma City bombing and the 2001 terrorist attacks on the Pentagon and World Trade Centers, hundreds of governmental and nongovernmental organizations were involved in the multiorganizational, intergovernmental, and intersectoral response and recovery actions (Myers, Myers, & Grant, 2010; Waugh & Streib, 2006).

Major disasters rarely affect one jurisdiction and catastrophic disasters can affect multiple states as experienced with Hurricanes Katrina, Rita, Irene, and Sandy. Hurricane Sandy impacted the east coast from North Carolina to Maine and inland to West Virginia, Ohio, and Indiana (U.S. Senate, 2012). A similar significant disaster or emergency concentrated in the National Capital Region would impact a strategically important portion of the United States. The National Capital Region, depicted in Figure 1, encompasses Washington, DC and portions of Maryland and Virginia, a densely populated region of 5 million people (FEMA, 2014c; MWCOG, 2010). The region is nationally and internationally significant because it is home to the nation's capital, the federal government, and it is a focal point for international politics and business. Additionally, other densely populated regions, such as Baltimore, Maryland, Richmond, Virginia, and Philadelphia, Pennsylvania are in proximity to the National Capital Region.

Figure 1. *Map of the National Capital Region. Source: National Capital Region, 2015*.

     As the hub for national and international politics and business, the National

Capital Region is supported by a robust and complex infrastructure. Workers in the

region commute between Virginia, Maryland, the District of Columbia, and as far away

as West Virginia and Pennsylvania (MWCOG, 2010). A major disaster or emergency,

special event, or manmade threat would have far reaching consequences. In such situations, cross-sector collaboration is an essential component of the emergency operations planning process. The political symbolism of the region adds another element of complexity to preparing for threats and developing all-hazards mitigation strategies.

Emergency Operations Planning. The overall emergency management profession was changed by the catastrophic nature of September 11, 2001 attacks and the 2005 hurricanes (Waugh, 2006). The environment was more complex, the network larger, and disaster recovery planning became a strategic objective. Emergency managers and planners also extended the use of emergency operations plans to identifying criteria to address social and economic conditions caused by disasters (Basher, 2008; FEMA, 2010, Miehl, 2011; Nicoll & Owens, 2013; Waugh, 2006).

Federal policy provides criteria for a community-based planning process that ensures that people and property are protected from threats and hazards (FEMA, 2010). Emergency managers ensure that the public is aware of risks and recommend actions to protect the public (Stein, Buzcu-Guven, Dueñas-Osorio, Subramanian, & Kahle, 2013). Emergency operations plans provide direction for these actions and facilitate improved response and recovery (Donahue & Joyce, 2001; FEMA, 2010; Van Wart & Kapucu, 2011). Planners prioritize how to use resources and develop courses of action to mitigate disaster risks and hazards (Chenoweth & Clarke, 2010; Eller & Gerber, 2010; Herrick, 2009; Mann 2012). Collaboration throughout the planning process should identify gaps in jurisdictional and regional capabilities and ascertain how limited resources can be merged to support requirements (Brooks et al., 2012).

Disasters are complex, multisectoral (e.g., political, services, engineering, finance) and multilevel (federal, state, local) so the responsibility for risk preparedness, mitigation, response, and recovery cannot be delegated to any one sector or level of government (Basher, 2008). It can be challenging to accurately determine the probabilities of when infrequent risks (e.g., terrorist attacks) or hazards might occur and to identify resources that would be required for the disaster response. Neither natural nor manmade disasters can be conclusively predicted though the predictable nature of some natural hazards (e.g., hurricanes, tornadoes, floods) and the nature of technological hazards (dam or power failures, hazardous materials incidents, nuclear power plant accidents) can be used to facilitate planning and mitigation (Eller & Gerber, 2010; FEMA, 2013c; Henderson, 2009; Herrick, 2009). Hazard and threat complexity and uncertainty should be addressed to develop comprehensive and integrated plans by applying analytical problem solving techniques (Bowen, 2008; FEMA, 2010). The plans should include input from the stakeholder community, a clear mission, and goals and be adaptable to the full range of disaster and catastrophic events. In order to respond to the diverse situations associated with disasters, emergency managers and operations planners need to be innovative and flexible.

Preparedness is a significant aspect of emergency management and incident response, as evidenced by the high number of profile disasters that demonstrate the need for disaster planning (Kapucu & Garayev, 2012; McConnell & Drennan, 2006). The Exxon Valdez, Challenger and Columbia space shuttle incidents, avian flu outbreaks, September 11, 2001 terrorist attacks, Hurricane Katrina, Deepwater Horizon oil spill, and

Hurricane Sandy are incidents that highlight vulnerabilities, levels of unpredictability, and the far reaching consequences of terrorist, natural, and manmade incidents. Planning for the worst case for all hazards and threats is essential to operational preparedness and of significant importance to government organizations (DHS, 2011; FEMA, 2010).

Organizations can be any place on the conservatism (resist changing the status quo) and reformism (improve planning by progressively analyzing crisis experiences) continuum with regard to planning for disasters (McConnell & Drennan, 2006). Conservative organizations try to maintain the status quo and place minimum importance on contingency planning and readiness. These organizations do not prioritize plan development or practicing incident response and are thus less prepared for emergencies. Reformist organizations are progressive and place contingency planning at the core of their readiness strategies. They proactively identify and manage threats that could affect their organizations resulting in increased preparedness. Emergency mangers and planners in conservative and reformist organizations contend with politics, bureaucracy, and fiscal and human resource constraints (Chenoweth & Clarke, 2010; Okubo, 2010). The results are various levels of predictability for contingency planning from full stakeholder network support to coordination problems, budgeting conflicts, or stakeholder defection.

Cross-sector collaboration improves the emergency operations planning process (Caruson & MacManus, 2006, 2007; Kapucu et al., 2010; Kapucu & Garayev, 2012; Schneider, 2008). A consequence of cross-sector collaboration during the planning process is a whole community perspective for addressing hazards and threats and synchronizing responses. The Comprehensive Preparedness Guide (CPG) was created by

FEMA to provide guidelines for a common understanding for developing for emergency operations plans (FEMA, 2010). Jurisdictions are encouraged to develop core operations plans and can either create annexes that augment a core plan or create individual scenario- or hazard-specific plans.

The CPG definition of planning is "a logical and analytical problem-solving process to…address the complexity and uncertainty inherent in potential hazards and threats" (FEMA, 2010, pp. 12). The principles for creating a plan involve information gathering and analysis that result in identifying objectives and courses of action for achieving desired outcomes. Throughout the process planners analyze requirements and identify resources required to meet plan objectives. Conversely, Brattberg (2012) concluded that the U.S. planning and exercise system is not capable of adequately preparing the nation for catastrophes due to continuing requirements to improve coordination. In the Caruson and MacManus's (2012) study of Florida's vertical and horizontal emergency management collaboration process, it was determined that barriers to collaboration and planning still exist even though Florida has more experience with catastrophic events and interlocal coordination than many states.

Process

Agreements. Agreements among members of the collaboration network define the issues and governance that the collaboration addresses and how the network will function (Bryson et. al., 2006). The collaboration structure and decision making process are key attributes of how the collaboration will function and should be agreed to by all participants. Though agreements can be formal or informal, it is a formal agreement that

provides the basis for accountability. Agreements should be created to identify the

purpose of the collaboration network, its leadership, how resources will be committed,

designate members, and include a measure of flexibility. They can influence the

outcomes of collaboration efforts and define specific actions within the network. At the

local level, agreements have long been used as collaborative mechanisms to facilitate

public service delivery and production and can include public (Andrew & Hawkins,

2013; Chen & Thurmaier, 2009).

Federal organizations are required to seek approval before gaining membership in

partner relationships or networks. However, state government organizations do not have

the same criteria and are free to enter local, county, or regional partnerships (Kapucu et

al., 2009). Agreements for collaboration governance and interlocal agreements are

integral to the network and can be entered into at any level of government based on

jurisdictional authority and requirements. Increasing numbers of horizontal relationships

within jurisdictions grew from the complex nature of emergency management with an

increasing need for resources to sustain the public due to increasing population growth.

Additionally, collaboration between state and local governments was required when

support requirements extended beyond jurisdictional lines. Voluntary bilateral and

multilateral support arrangements became more popular as environments and fiscal

conditions changed. The agreements allowed participants to reduce risk and function

beyond their jurisdictions (Andrew & Hawkins, 2013; Kwon & Feiock, 2010). When

local jurisdictions lacked the ability to source their requirements, agreements became a

self-organizing solution to share costs, particularly in metropolitan areas and in cities

with vast requirements. A regional strategy can be used to overcome competition and distrust among jurisdictions by collaborating to share resources and deploy personnel and equipment (Lee et al., 2012; MWCOG, 2010).

Councils of governments and regional organizations are a method of resolving problems that require institutional collective action (Feiock, 2013; Henry, 2011). Regional councils of governments, common in the United States, are designed to address various group and policy relationships. The MWCOG is a cross-sector collaborative network of 300 elected local governments, Maryland and Virginia state legislature, and Congressional officials (MWCOG, 2013). The vision, mission, structure, and governance for this network are outlined in primary documents such as a strategic plan, work program and budget, bylaws, rules of procedure, policy platform and audited financial statements. The MWCOG National Capital Region Emergency Preparedness Council advises the COG Board of Directors on emergency preparedness policy recommendations through the Public Safety Policy Committee and provides emergency preparedness recommendations to regional agencies with procedural and operational authorities through the Board of Directors.

Leadership. The collaboration network includes formal and informal leaders. Formal leaders hold positions as chairs of committees, coordinators of specific collaboration efforts, program or project directors and need to be dedicated to the collaboration process and have the authority and skills commensurate with their positions in order to be effective (Bryson, 2011; Bryson et al., 2006; Chenoweth & Clarke, 2010; Getha-Taylor & Morse, 2013; James, 2011). Leaders can also be sponsors or champions,

roles that are critical to effective collaboration because they promote strategies and give legitimacy to the collaboration effort. Sponsors make it known that the key members are expected to give the project their best effort. Champions believe in and are committed to making the effort successful and ensure that the collaboration process functions properly. Informal leaders can emerge when direction is unclear and can provide leadership and guidance during a change in leadership.

Emergency management in the 21st century requires leaders whose leadership skills correspond with the concept of crisis leadership and are adept at working across functional boundaries to resolve complex issues (Bennett, 2011; Getha-Taylor & Morse, 2013; Linden, 2013; Thach, 2012; Turregano & Gaffney, 2012). Crisis leadership refers to strategic leadership which is focused on process and relations and differs from crisis management that is more tactical. Leaders responding to emergency or disaster incidents operate in dynamic and changing environments (Hu & Mendonca, 2009; Van Wart & Kapucu, 2011). Among the various types of leadership skills required within the emergency management network, are those in conflict resolution, networking and coordination, team building, interfacing with the public, and contending with ethical issues (Demiroz & Kapucu, 2012; Getha-Taylor & Morse, 2013; Waugh & Streib, 2006). Leaders must continually scan their environments internally and externally be proactive, objective, decisive, and flexible enough to adapt to circumstances associated with disaster planning, preparedness, mitigation, response, and recovery (Bennett, 2011; Getha-Taylor & Morse, 2013; Thach, 2012). Emergency management requires complex administrative interaction and can be politically complex, making collaboration and

effective leadership a necessity for collaboration and effective leadership to ensure that

responses are strategic, well planned, not ad hoc, responses. Each of the aspects of

leadership mentioned above impact the emergency operations planning process.

The response to Hurricane Katrina indicates how important leadership is to the

emergency management network. A Congressional House Select Committee found that

the less than stellar response to Hurricane Katrina was due to insufficient leadership.

Leadership deficits also challenged first responder, public sector, and volunteer efforts

(Waugh & Streib, 2006). Initiative, resourcefulness, and a coordinated process for

sharing information were lacking. In some cases, leadership did not implement approved

plans, did not implement plans in a timely manner, or did not ensure that the plans that

were developed were adequate (Waugh & Streib, 2006). The shocking response to

Hurricane Katrina indicated a need for organizational transformation guided by leaders

who could intervene and ensure that strategies to identify and meet specific goals were

developed collaboratively (Lester & Krejci, 2007). To transform organizations in a

collaborative environment leaders should be confident, decisive, empathetic, and skilled

in communication (Reynolds & Earley, 2010; Van Wart & Kapucu, 2011). These

interventional leaders are focused on end goals while adapting to changing and chaotic

situations and environments. Leaders can acquire the skills needed to lead collaboratively

in an environment based on networks and partnerships through training, study, and

experience (Getha-Taylor, 2012; Teresa, 2013; Van Wart & Kapucu, 2011).

Collaboration and leadership are crucial elements of the emergency management

network. The National Incident Management System (NIMS) is a DHS strategy that

provides a framework for managing incidents within government networks and
partnerships (FEMA, 2008). NIMS uses a proactive approach that, when applied to
intergovernmental collaboration, provides doctrine and concepts that planners use to
create various courses of action when developing plans. It is a planning process that
assesses assumptions, risks, planning factors, and models (FEMA, 2014d; Stever, 2005).
Developing emergency operations plans require leadership that can facilitate federal,
state, and local government collaboration within the context of NIMS. Though NIMS
provided a means for supporting collaboration, it did not address leadership and decision
making competencies that make collaboration possible, thereby, implying a "false sense
of cooperation" (Lester & Krejci, 2007, p. 86). However, NIMS is a doctrinal document
that was not intended to provide the structure for collaborative leadership.

The limitations of providing resources in the twenty first century dictates that
local governments use multiple level networks, such as jurisdiction, government, and
sector networks, to provide services and support (Abels, 2012; Stewart, 2011).
Emergency operations plan feasibility and synchronicity are influenced by the emergency
management network understanding the collaboration process, the planning process, and
how each affect disaster response. Research by Weissert, Steinberg, and Cole (2009)
indicated that collaboration among government officials is perceived to be directly
related to leadership, government policy development, innovation, intergovernmental
management, and public opinion. Leadership at the federal, state, and local levels of
governments has a significant bearing on disaster response and effective collaboration

and disasters can expose weaknesses in leadership and fragmented strategic capacity (McGuire & Schneck, 2010; Palguta, 2013).

Koliba, Mills, and Zia (2011) determined that the lack of sound professional leadership guidance was a factor in the failures of Hurricane Katrina. The studies conducted after Hurricane Katrina exposed substantial areas where governance malfunctioned. Leadership accountability, one of the malfunctioning areas of governance, is required across the emergency management network in multiple sectors, jurisdictions, and collaboration. Collaboration network leadership, as noted previously, should find a balance between bureaucracy and collaboration by developing and expanding collaborative capacities of emergency management network leadership. Leaders, skilled in leading collaboratively, build a foundation with a goal in mind and by thinking strategically, listening, and making adjustments find win-win solutions (Linden, 2013; Poister, 2010).

Legitimacy. Another aspect of the process component of collaboration is the necessity to build network legitimacy. Bryson, Crosby, and Stone (2006) stated that the collaboration network, a system of individual organizations, acquires legitimacy by applying appropriate institutional structure, process, and strategy, a contention of institutional theory. Simply being identified as a collaboration network does not mean that internal or external actors consider the network to be a legitimate entity. Becoming and remaining a legitimate entity requires internal collaboration network activities, such as promoting a structure that induces memberships that have characteristics similar to those of its environment. Stakeholders must be able to recognize and find value in the

network, a position that applies to the National Capital Region. The emergency

operations planning process within the National Capital Region should comply with

external governance such as NIMS and the national planning frameworks (FEMA,

2013d; Gulbrandsen, 2011). Additionally, actors or other stakeholder entities that are

considered to be substantially legitimate should recognize the regional network as

legitimate.

Congress provided external legitimacy to the National Capital Region

collaboration network by directing DHS to establish the Office of National Capital

Region Coordination (ONCRC) to coordinate homeland security related activities in the

National Capital Region (DHS, 2002; FEMA, 2014d, 2014e). The ONCRC, an office

currently within FEMA, is responsible for monitoring and coordinating with state, local,

regional, and private sector organizations in the National Capital Region to improve

preparedness. The collaboration network facilitates whole community efforts related to

preventing, protecting against, mitigating, responding to, and recovering from threats and

hazards within the region. The director of the ONCRC is a member of the MWCOG and,

as a member of the MWCOG Senior Policy Group, is a signatory to the National Capital

Region Homeland Security Strategic Plan (FEMA, 2014d; MWCOG, 2010).

Trust. Trust, the fourth component of process within collaboration, is built upon

shared goals and is the crux of effective collaboration. Trustors and trustees build

relationships through communication (Babiak & Thibault, 2008; Bryson et al., 2006; Lee,

Robertson, Lewis, Sloane, Galloway-Gilliam, & Nomachi, 2012). Therefore, activities

that build trust, such as strategic praise to shape network perceptions, should be used,

especially when new members join the network (Lee et al., 2012). Network leadership

should constantly scan the network environment to maintain awareness of the quality of

relationships. Research shows that trust is relevant to the social capital that network

participants use to reach their objectives (Bryson et al., 2006; Lee et al., 2012). It affects

each characteristic of collaboration, from how actors relate to each other to the

capabilities that organizations and individuals bring to the collaboration. Trust is fragile

and must be developed over time through competency, information sharing, and

reliability (Lamothe & Lamothe, 2011). Building and maintaining trust is a continuous

activity and the quality of interaction is more of a determinant than how often participants

interact (Lee et al., 2012). Cross-sector collaboration networks that cultivate trust are

more likely to be successful.

   Conflict management. When partners in collaboration have different

expectations, goals, and views conflict can occur (Bryson et al., 2006). Managing conflict

is the fifth component of process that leads to understanding cross-sector collaboration.

Divergence between collaboration partners can be related to overall and specific

strategies, issues of power and control, the purpose of the collaboration, or vary based on

phases of collaboration. For example, after agreeing to a particular strategy of a goal,

conflict could arise during the implementation phase of the strategy. The status of an

organization can also be a source of conflict. However, individuals, not organizations,

cause conflict (Gazley, 2010). By balancing power within cross-sector collaboration

networks avoid conflict.

The National Capital Region is home to more than 270 federal organizations, to include the executive, judicial, and legislative branches of government. The director of the ONCRC provides federal representation on the National Capital Region Senior Policy Group Homeland Security, the region's highest homeland security committee (MWCOG, 2014b). Each state provides two senior individuals to complete the membership of the Senior Policy Group (MWCOG, 2014b). Maintaining a collaborative environment within the Senior Policy Group and the other regional bodies requires a commitment on the part of all members to ensure regional safety and security (MWCOG, 2014b).

Strategic planning. The final process component of collaboration is planning. Governance, management, and organizational independence and standards are important aspects of the collaboration process, to include all members having a thorough understanding of the decision making process (Bryson et al., 2006; Thomson, Perry, & Miller, 2009). Decisions in these areas set the baseline for addressing conflict resolution and accountability issues as they occur. The collaboration process should be sustained by management and hierarchal structures. Each member of the network has dual identities with responsibilities to their internal organizations that externally to the collaboration network. To be effective in each capacity, network participants must balance organization and network competencies and possess communication and decision making skills to operate interdependently and participate in achieving common goals (Bonner, 2013). Collaboration research supports the theory that reciprocity and trust among the members are elements of collaboration (Bonner, 2013; Bryson et al., 2006; McGuire & Schneck, 2010; Myers, 2013; Teresa, 2013).

Strategic planning, with its ability to impact how organizations operate, was advocated for use throughout all levels of U.S. government (Aguilar, 2003; Hendrick, 2010). When leadership initiates and supports strategic planning it is more likely to be effective (Bryson, 2011; Hendrick, 2010). Because strategic planning is a complex process, both organizations and the environment in which they operate should be thoroughly assessed. Through strategic planning, the collaboration network identifies and understands its objectives and the rules under which it will run. This same construct applies to emergency management strategic planning. Disaster operations and interoperability are shaped by applying a comprehensive approach to planning and managing overlapping roles and responsibilities during crisis incidents (Brattberg, 2012; Wise, 2006). A specific mission or goal should be the cornerstone for planning and the framework should be built on operational plans and budgets, resulting in actionable strategies.

Strategic planning is an important aspect of collaboration and collaboration is an important aspect of strategic planning. Regional collaboration among emergency operations planners would ensure that emergency preparedness network stakeholders develop operations plans that meet both state and regional requirements (FEMA, 2010; Miehl, 2011). Plans provide guidance to any stakeholders that are responsible for operational activities and identify how responders are expected to support operational activities. The result is a network that understands how the region is expected to respond and is better prepared to provide effective support with less duplication of effort.

The MWCOG created a homeland security strategy plan to connect state and region goals. This was a crucial strategic decision because a catastrophic incident in the National Capital Region could have national economic and political implications (MWCOG, 2010; Page, 2013). More than 50 years of collaboration experience was useful in creating 2006 and 2010 National Homeland Security Strategic Plans that guided regional planning and response efforts. MWCOG collaborated with emergency operations planners from Maryland, Virginia, and Washington, DC to create a regional plan that used state and local capabilities as the basis for regional collaboration (MWCOG, 2010). The plan's vision, mission, and goals codified functional and state responsibilities by identifying four goals with associated objectives and initiatives to cultivate regional capabilities prioritized to attain identifiable outcomes within a 35 year period (Bryson, 2011; MWCOG, 2010). The goals addressed communications interoperability, information sharing and situational awareness, critical infrastructure protection, and regional core capabilities (McGuire & Silvia, 2010). The plan also defined an unambiguous intergovernmental collaboration organizational structure that was a MWCOG condition for effective collaboration.

Structure and Governance

The collaboration network environment and the cognitive biases of stakeholders influence collaboration structure and governance (Bryson et al., 2006; Henry, 2011). Structure is defined through the context of goals, tasks, roles, responsibilities, authorities, and operating procedures and governance is the set of actions that determine how to coordinate and monitor collaboration network activities. Building the collaboration

structure and governance requires negotiation among participants to find common ground and agreement within the network (Brooks et al., 2012; Page, 2013).

Organizational Structure. The elements of structure relate differently to the vertical and horizontal components of a collaborative network. Goals, tasks, responsibilities, and other structural elements for vertical interactions with parent organizations will differ from horizontal communication among collaboration partners. Integrating and assuaging structural obligations in a cross-sector collaboration network adds complexity to the network. If the network is fragmented belief systems can polarize the network causing conflict. Networks are comprised of participants with shared beliefs similar to advocacy coalitions where there is a mutual ideology resulting in cohesive networks (Henry, 2011; Weible et al., 2011).

Research by Caruson and MacManus (2006, 2007, 2008a) studied different levels of intergovernmental coordination in the state of Florida and research by McGuire and Silva (2010) concentrated on the effect of external intergovernmental coordination on internal organizational operations. Their research provides additional insight into understanding cross-sector collaborations. How organizations are structured before an incident influences how the organizations respond to disasters and emergencies. Conversely, the methods of responding to disasters and emergencies is highly dependent on how the organization was structured prior to the incident. Organizational and regional abilities to diagnosis their own strengths, engage with partners, plan for different scenarios, organize, and learn from past incidents and activities directly influence disaster response preparedness (Rouse, Boff, Sanderson, & Haslett, 2011). To accomplish these

actions, the network and its member organizations should be auto-adaptive (Comfort, 2002; Pelfrey, 2005).

Auto-adaptation is the action of continually assessing the environment to acquire an understanding of goals, capabilities, and vulnerabilities and adjusting performance to respond to requirements by reallocating resources to respond to the risk. In an auto-adaptive network each member interacts with other members synergistically sharing information and adjusting its response performance. In auto-adaptive organization, information is shared and strategies selected, implemented, and modified based on outcomes. Auto-adaptive responses to the September 11, 2001 attacks were more spontaneous than systematic (Comfort, 2002). Integrating response actions with course of action strategy would promote an auto-adaptive approach for the collaboration network.

Response to large scale incidents was not thoroughly understood, but Comfort (2002) determined that in diverse cross functional and jurisdictional networks, responders are required to analyze and share information quickly. Collaborative management, the process of solving problems in a multiorganization environment, is an effective strategy for self-organizing networks. Disaster resilience is improved by collaborating to predict actions and gain knowledge (Andrew & McGehee, 2008). A systematic methodology, more than a theoretical perspective, is needed to further understand and assess collaboration (Thomson, Perry, & Miller, 2009).

Identified roles and responsibilities and coordination enable the accomplishment of difficult tasks (Kettl, 2003). Leaders commonly arrange organizationally by task, function, or location, while governments are usually functionally organized. Functional

organizations often experience variances and inefficiencies caused by leaders with tunnel vision and who emphasize the functional mission and independence, neglecting the larger mission. Emergency operations maintain a focus on a specific task with activities crossing functions. The objective, contingency or disaster, and organization composition are further criteria for emergency preparedness and response.

The response to the events of September 11, 2001 offered a contrasting view of two emergency management structures (Kettl, 2003). The New York City emergency management network was organized functionally with fire and police departments responding independent of the other, though the departments did readjust and adapt to the challenges that they faced (Birkland, 2009). Over time rivalries grew between functions in the New York City police and fire departments and with management becoming centralized. The fire services communications grid was damaged when the World Trade Center towers fell and since the fire department did not have a communications interface with the police department warnings from police helicopters could not be conveyed to the fire department before the towers collapsed. On the other hand, a shared understanding of the Arlington County, Virginia emergency management structure and the regional cross-sector process drove the efficient Pentagon response (Kettl, 2003). In contrast with the New York City response, Arlington County emergency managers, members of a functionally organized network and a collaborative network, collaborated with to address potential problems that could arise. The plans implemented as a result of the attack on the Pentagon were coordinated and practiced before the incident. The scale of the situations in New York City and Arlington, Virginia were significantly different and though

fundamental organizational structures were similar at the core, they varied considerably in execution.

Governance. A collaboration network needs a method of governance in order to survive (Bryson et al., 2006). Through governance the network agrees on how activities will be coordinated and monitored and clarifies ambiguities (Brooks et al., 2012). There is disagreement about whether or not governance is limiting in a horizontal network or if governance emerges from collaboration as does trust. However, governance does impact effectiveness of the collaboration network. Governance varies based on network structure. Depending on the nature of the collaboration, the network can be self-governing, it can have a lead organization that acts as a decision-making body, or an administrative organization can be designated to oversee activities.

Governors of Maryland and Virginia, the mayor of Washington, DC, local governments, and the DHS ONCRC support the structure of the National Capital Region network. The network also includes the private sector and nonprofit organizations, yet specific organizations are not identified in MWCOG governance (MWCOG, 2013).

Washington, DC was designated as the State Administrative Agent for the region and in this position manages grant funds with the MWCOG coordinating the related activities. The MWCOG established the National Capital Region network governance body which is comprised of representatives from Maryland, Virginia, and Washington, DC stakeholder organizations. Major committees, such as the Senior Policy Group, Emergency Preparedness Council, Chief Administrative Officers Committee, Regional

Emergency Support Function committees and working groups, were designated as

decision-making bodies (FEMA, 2013b; MWCOG, 2014a).

Contingencies and Constraints

The survivability and effectiveness of a collaboration network can be attributed to

the factors that were previously discussed. However, collaboration type, power

imbalances, and institutional judgments that affect group performance all influence

collaboration process, structure, and governance (Bryson et al., 2006). The opportunity

costs associated with collaboration requires stakeholders allocate resources that include

time, personnel, and money (Andrew & Carr, 2013; Marbury & Mayer, 2013).

Collaboration type. Collaboration networks organize for system-level planning,

administrative activities, or service delivery (Bryson et al., 2006). System-level planning

requires negotiation to identify, define, and solve system problems, such as developing a

regional homeland security strategic plan. Negotiation can be challenging, requiring

collaboration partners to ask difficult questions and identify creative solutions.

Administrative activity collaboration involves issues related to resources such as sharing

personnel to work in operations centers, requiring less negotiation than system-level

collaboration. Service delivery collaboration can address providing disaster response

services such as transportation, debris removal, logistics support, or emergency housing.

System-level, administrative activity, and service delivery collaboration are all present in

the National Capital Region collaboration network. The Senior Policy Group, Emergency

Preparedness Council, and Chief Administrative Officers Committee conduct system-

level and administrative collaboration, while the Regional Emergency Support Function

committees and working groups conduct more service delivery collaboration (MWCOG, 2014a).

Power imbalances. Power can generate or obstruct network imbalances (McGuire & Agranoff, 2011). An imbalance in power within the network can threaten partner trust and collaboration effectiveness (Bryson et al., 2006; Lamothe & Lamothe, 2011). Disagreeing on the purpose or goals of the collaboration network and unforeseen internal and external surprises can also tip the balance of power. Power dependence can evolve when some partners become dependent upon other members for resources (McGuire & Agranoff, 2011). Cross-sector collaboration networks that prepare for and anticipate changes in funding, partner organizational demographics, and network demographics through strategic planning are more likely to endure collaboration imbalances.

The MWCOG homeland security group, council, committees, and working group include members from National Capital Region cross-sector emergency preparedness network stakeholder organizations. Through collaboration with federal, state, and local governments, the private sector, and nonprofit organizations the network created a regional homeland security strategic plan (MWCOG, 2010, 2014a). The collaboration process was transparent and inclusive. Partner baseline capabilities were the cornerstone for regional collaboration (MWCOG, 2010).

Competing institutional logics. Each partner in a regional collaboration network comes to the collaboration with organizational histories that impact how formal and informal collaboration governance is interpreted (Bryson et al., 2006). Politics,

bureaucracy, and the economic market can impact organizational performance, and in turn, how the organization participates in a collaborative process. Sound leadership, trust among network partners, and tactics for managing conflict are skills that minimize the chances that competing interpretations will negatively impact the network (Bryson et al., 2006; Demiroz & Kapucu, 2012).

Caruson and MacManus (2006, 2007, 2008a) studied different aspects of emergency management in the state of Florida and concluded that response is a shared intergovernmental responsibility that crosses jurisdictions and sectors of government. Their findings showed when there was federal and state direction to coordinate and collaborate across jurisdictions emergency preparedness improved. As a result of an aggressive approach and sense of urgency related to emergency management, the Florida intergovernmental network confronted the state's hazard vulnerabilities (Caruson & MacManus, 2006).

Twenty-first century intergovernmental management should be flexible enough to incorporate an array of services, support, and equipment necessary for emergency operations planning for rapid regional response (Stever, 2005). The full range of emergency operations activities should be adapted to the preparedness, mitigation, response, and recovery phases of emergency management. Approaching emergency planning from a regional perspective further facilitates flexibility in plan development (Birkland & DeYoung, 2011; Eller & Gerber, 2010; Stever, 2005). Regionalization in Florida enabled information and resource sharing improvements for state and local

jurisdictions. It also resulted in improvements within preparedness and response networks (Caruson & MacManus, 2007).

Outcomes and Accountabilities

The results of cross-sector collaboration have public value, effect the public and other stakeholders, or increase the resilience of the network (Bryson et al., 2006). To be of value, a cross-sector collaboration network must meet the needs of the public, the organizations represented in the network, and to some extent, the self-interests of the individuals involved in the network. Working together to achieve a purpose or goal collaboratively that players cannot achieve individually produces positive higher order effects that bring value and resilience to the network.

Collaboration networks are responsible for their existence, for meeting the needs of stakeholder organizations, and for being the best alternative for realizing the purpose or goal of the network (Bryson et al., 2006; McGuire & Agranoff, 2011). Data were collected and linked to desired results to determine performance effectiveness. The collaboration will be more successful if the network uses a system for measuring processes and outcomes (Robinson & Gaddis, 2012).

Emergency and crisis response depend upon a flexible network structure that enables logistics, jurisdiction, and governance domains to coordinate to create emergency preparedness and mitigation plans and to execute situation dependent actions (Brooks et al., 2012; Doerfel, Chih-Hui, & Chewning, 2010). Planning for and responding to disasters requires collaborating a broad array of responsibilities across governments,

private entities, and nongovernmental organizations with the goal of protecting life and property (Brooks et al., 2012).

Two methods of accountability used in the National Capital Region are the Emergency Management Accreditation Program (EMAP) and Emergency Management Association Compact (EMAC). EMAP findings and standards steaming from studies associated with the National Commission on Terrorist Attacks Upon the United States, most commonly called the 9/11 Commission, provided guidance for holding public officials accountable for adequately planning for disasters (National Emergency Management Association, 2013). The goals of EMAP, an independent organization, are to ensure that there are measurable standards for emergency management accountability through a peer reviewed accreditation process. Maryland, Virginia and Washington, DC are EMAP certified (EMAP, 2014).

Virginia, Maryland, and Washington, DC, participate in the EMAC program, as do all other states, the Commonwealth of Puerto Rico, and U.S. territories (EMAC, 2013). Compacts are policy tools that permit states to collaborate across jurisdictions to confront shared problems and goals (Woods & Bowman, 2011). EMAC is the legal structure that enables state and local governments to be reimbursed for contractual agreements and sets guidelines for liability and credentialing matters (EMAC, 2013). Through EMAC, signatories agreed to support each other after a requesting governor declares an emergency. Signatories also provide mutual support for emergency related exercises, tests, and training. In the aftermath of Hurricane Sandy, New Jersey requested

assistance through EMAC and received law enforcement, medical, and other types of support from 20 states and Washington, DC (DHS, 2013).

The inadequacy of partnerships between governments and organizations attributed to the response failures for Hurricanes Katrina and Rita (Kapucu, Arslan, & Collins, 2010). Rather than well thought out response actions, cliques developed within an inefficient organizational structure to respond to support requirements as they arose. Information sharing was constrained when some network partners were excluded. As an example, New York City and Arlington County, Virginia responses on September 11, 2001 provide contrasting examples of the impact of collaboration and information sharing despite the circumstantial differences. A codified mutual aid process did not exist when the New York City Fire Department responded to the World Trade Center Tower attacks. Conversely, the Arlington County, Virginia Fire Department's response to the Pentagon attack was based on formal collaboration agreements jurisdictions that had had been practiced before the incident (Kettl, 2003). The regional emergency planning model used in the National Capital Region is a method of using collaboration to develop emergency operations plans that address communication, infrastructure, and other planning components from local and regional perspectives (FEMA, 2010; Myers et al., 2010)

Collaboration Network Limitations

Collaboration networks, prevalent in government, have recognizable limitations. Members work together to reach a common goal and through policy development and resource sharing, members of the network can accomplish actions that individually they

could not achieve. Sometimes networks are limited in scope and outcomes are not always positive (Grazley, 2010). From this perspective, networks recommend actions rather than make policy and can be limited by inertia (Lee et al., 2012; McGuire & Agranoff, 2011). The formal and informal process of network collaboration can be challenging, internal and external performance complications can result and disconnects between governance and organizational relationships can change over time. The financial costs to participate in the network and loss of control of participants can also be problematic (Gazley, 2010). Though contracts, grants, loans, and stakeholder interaction are options, interdisciplinary, cross-sector collaboration networks are pervasive and fundamental to the emergency management domain (Briggs, 2010; Gazley, 2010; Woods & Bowman, 2011). Henry (2011) synthesized the advocacy coalition framework (common philosophy motivates collaboration) and resource dependency theory (collaboration bonds are tied to perceived influence) in the context of regional planning to determine that shared system policy is the core determinant for the collaboration network. Network governance is not legally enforceable, yet network participants voluntarily work through entities such as Councils of Governments to accomplish regional goals and to avoid the adverse consequences of not accomplishing the goals

Regional Planning Collaboration Network

Regional planning is central to emergency preparedness and response, particularly in the National Capital Region (Andrew & Carr, 2013; Andrew & Hawkins, 2013; Comfort, 2002; McGuire & Silva, 2010). Preparedness and response require both planning and the ability to articulate contingencies in real time (Brooks et al., 2012).

Brooks, Bodeau, and Fedorowicz (2012) described articulation work as realigning organizational actions disrupted by unexpected contingencies. Planning is a flexible, collaborative process to assess and manage risk associated with hazards and vulnerabilities (Briggs, 2012; Brooks et al., 2012; FEMA, 2010; Gooden et al., 2009). Planners apply logic and analysis to address hazards and threats, and identify goals, desired outcomes, and requirements (processes, equipment, personnel, and supplies). The planning process occurs in an environment of divergent lines of authority, political obstacles, and the need for continuous commitment.

The regional emergency operations planning node of the National Capital Region cross-sector collaboration network is a policy network subsystem. Like the macrolevel regional collaboration network, the planning policy network includes cross-sector participants addressing an assorted set of processes to prepare for, mitigate, respond to, and recover from disasters (Henry, 2011; Mann, 2012). States cannot be directed to develop emergency operations plans, but federal grant funding is a formal mechanism for encouraging plan development and collaboration (Chenoweth & Clarke, 2010; FEMA, 2013a; McGuire & Agranoff, 2011). Thus, states are required to have emergency operations plans to receive DHS Nonprofit Security Grant Program grant funding (FEMA, 2013a). According to FEMA (2013a), the National Capital Region, as an urban area entity, received over $712 thousand in fiscal year 2013. Of 21 urban areas, the National Capital Region was awarded the fourth largest allocation after the New York City, Los Angeles/Long Beach, and Jersey City/Newark Areas, respectively. The region also has the added incentive of the 2002 Homeland Security Act to collaborate to develop

emergency operations plans with a regional focus. The regional planning process uses collaboration as a context for preparing for and responding to disasters within a competitive federalism environment where coordinated actions and resource management are fiscally restrictive and scrutinized by the government and public.

Conclusion

Proactive regional intergovernmental collaboration during the emergency operations planning process leads to synchronized disaster response. Within the diverse and interdependent emergency management network comprehensive operations plans are the core of deliberate, spontaneous response and recovery actions and activities (Getha-Taylor & Morse, 2013; Myers et al., 2010; Reddick, 2011; Waugh & Streib, 2006). A regional approach to planning within this environment requires stakeholders that agree to network collaboration structure, leadership, governance, and decision making criteria. Dual accountability to internal and external organizations and strategic tenets of the competitive federalism theory influence prospective policies and operations (Page, 2004). Guiding principles for regional emergency operations planning include cooperation among stakeholders, decentralized power, fiscal equity, defined roles and responsibilities, and mutual support (Clovis, 2006; Lee et al., 2012, McGinnis, 2012).

Natural disasters of consequential proportions are occurring more frequently, particularly along the east coast of the United States. In 2011, Hurricane Irene resulted in the loss of 56 people and $15.6 billion and in 2013 Hurricane Sandy caused 131 deaths and $63 billion in damages (Briggs, 2012; Rudman et al., 2013). The impact of environmental hazards in urban areas is amplified by dense populations and even the time

of the day that the incident happens. A tornado or earthquake during business hours has the potential to impact a greater number of people than would be affected at other times. However, emergency preparedness planning can mitigate the effect of environmental hazards, particularly in urban areas. Through collaborative planning and preparedness, local governments and communities should identify risks and develop emergency response plans.

Walzer (2013) concluded that even in the aftermath of an effectual response to Hurricane Sandy, the United States still does not have a government that plans for natural disasters and cannot deploy adequate resources to respond to and recover from those disasters. In response to a survey on public and private sector collaboration, first responders in Florida considered collaboration between the public and private sectors to be high, particularly with utility, media and communications, commercial companies, and medical services such as nursing homes and assisted living facilities (MacManus & Caruson, 2011). With nearly as many public sector organizations as there are private sector organizations in Florida, relationships are important. Therefore, Florida instituted a regional approach toward emergency management (MacManus & Caruson, 2011). Nonetheless, MacManus and Caruson (2011) found that intergovernmental collaboration did not necessarily ensure a successful response. Some communities require assistance due to insufficient resources or capabilities (Kapucu et al., 2009).

The collaborative planning process in the National Capital Region endeavors to attain a goal of being regionally prepared for disaster response and recovery, contrary to Walzer's (2013) supposition that U.S. government does not adequately plan for disasters.

The regional emergency planning model proposed by Myers, Myers, and Grant (2010) encourages regional partnerships and planning to respond to disasters that affect more than one jurisdiction, ensuring that sufficient resources and personnel are available for disaster response. Applying the Bryson, Crosby, and Stone (2006) framework for understanding cross-sector collaborations illustrated how the National Capital Region collaboration process enables regional disaster response to ensure that processes and resources are accessible. Research related to emergency management collaboration, mostly focused on impromptu disaster networks is growing. In this study I described how the planning collaboration process used by the National Capital Region increases regional capacity to resolve planning dilemmas and synchronize disaster responses.

Chapter 3 describes the research design and rationale, role of the researcher, methodology, and ethical procedures that were the basis of this research. The methodology addressed participants, instrumentation, data collection and the data analysis plan. The data analysis plan included collection procedures, analysis, and interpretation.

Chapter 3: Research Method

Introduction

Previous research has not investigated the process for collaboration during emergency operations plan development and how a regional planning collaboration process enables regionally synchronized disaster responses. However, cross-sector collaboration theory provides a framework for understanding the collaboration process (Bryson, Crosby, & Stone, 2006). Competitive federalism theory provides context for collaboration in the emergency management network to develop emergency operations plans that represent individual jurisdictions, a regional disaster response strategy, and shared goals that improve regional preparedness (Clovis, 2006; Lee et al., 2012; McGinnis, 2012).

Existing research about the process of collaboration in regional plans development that addresses a regional perspective for responses to emergency events is limited. Therefore, I used the qualitative case study method to provide a thick description of the process for collaboratively conducting emergency operations planning for a regional emergency management network (Merriam, 2009). Cases can be one or more individuals, an organization, a partnership, a relationship, a process, or project and can be bounded by time, place, or the context of a case study (Creswell, 2013). The National Capital Region cross-sector collaboration process was the subject of this case study.

In this chapter, I identify the research question and justify the rationale for conducting a single-case study approach. I also discuss the criteria used for selecting a case study and the data collection and analysis plan that was used to conduct research.

Lastly, I present an in-depth discussion of the way in which the data were trustworthy and how I applied ethical procedures throughout the study.

Research Design and Rationale

Research Question

The research question for this study was: How do emergency operations planners in the National Capital Region collaborate across sectors to plan for regionally synchronized responses to disasters? The following subquestions were investigated to further explain the overarching question:

1. How do planners and policy makers perceive regional response synchronization?

2. How do state and regional organizational structures support collaboration within the emergency operations planning network?

3. How do state and regional institutional processes and practices support collaboration within the emergency operations planning network?

4. How do relationships within the emergency operations planning network support collaboration?

Central Concept

Qualitative inquiry provides an in-depth understanding of how individuals or groups recognize human or social issues (Creswell, 2009; Gibbert & Ruigrok, 2010; Patton, 2002). This method of research uses questions that evolve during inquiry, involves collecting data in natural settings, and results in inductively analyzing thematic data (Creswell, 2009; Gibbert & Ruigrok, 2010; Patton, 2002). The researcher presents a

flexible report structure that respects the desire to describe individual meaning and the complexity that accompanies the situation (Creswell, 2009; Patton, 2002). Qualitative research also includes associated philosophical assumptions and inquiry strategy. Conducting repeated measurements and comparisons helps to understand how research design components are interrelated and interconnected (Maxwell, 2013). Through qualitative case study inquiry I sought to understand how research participants perceive the National Capital Region cross-sector collaboration process and to describe process's complexity. The case study method of qualitative inquiry is appropriate when studying issues within a specific context. Therefore, a case study is appropriate for this study (Creswell, 2007). A case study of cross-sector emergency operations planning and collaboration within the National Capital Region provided insight into the level of synchronized regional disaster response that could be feasibly expected to occur (Leech & Onwuegbuzie, 2007).

Case studies can be based on people, major events, or settings as units of analysis or distinguished by size (Creswell, 2007; Patton, 2002). This research was a study of the planning collaboration process presented in sequences of occurrence rather than order of importance. As an intrinsic study, the premise was based on the situation of the case rather than the individuals involved in the study or developing a theory.

Research Tradition

I presented this study from a pragmatic worldview of social constructivism. Worldviews are the philosophical assumptions that implicitly influence research methodology (Creswell, 2013; O'Shaughnessy & O'Shaughnessy, 2002; Searle, 2006).

The term, *worldview*, describes a set of basic beliefs that provide an orientation for how to view the world and how the researcher approaches inquiry (Creswell, 2013). When compatible, more than one worldview can be used. The social constructivist worldview is applicable to qualitative research and assumes that individuals draw meaning from their experiences within the context of the world in which they live and work (Creswell, 2013). Because the interpretations of these experiences varied, the researcher alternatively looks for the complexity in inquiry rather than attempting to narrowly categorize meanings (Ceglowski, Bacigalupa, & Peck, 2011; Creswell, 2013; O'Shaughnessy & O'Shaughnessy, 2002; Searle, 2006). How well emergency operations planners understand and participate in the cross-sector collaboration process impacts how effectively plans are written to facilitate disaster responses. The pragmatic worldview, also related to qualitative research, extends the social constructivist worldview as a paradigm that does not adhere to any one philosophy, reality, or principle (Creswell, 2013). Truth is what it is at the time in question. Cross-sector collaboration within the planning network occurs in multiple contexts that can be historical, political, or social. Therefore, different data collection methods, such as interviews and document reviews that are compatible with participant availability and the environment were used to understand the collaboration process.

Rationale

I conducted an intrinsic, single-case, qualitative study designed to provide in-depth exploration of National Capital Region emergency operations planning cross-sector collaboration network planners, processes, activities, and events. The intrinsic case study,

unlike instrumental or collective case studies, is focused on studying a particular program in a unique situation (Creswell, 2007). Creswell (2013) and Yin (2014) explain that an instrumental (single) case study would be appropriate if the researcher identified a specific interest and then bound a case to illustrate the interest. In a collective (multiple) case study, a specific interest is illustrated in more than one case study (Creswell, 2013; Yin, 2014). A single-case study was appropriate for this study because the collaboration network was identifiable and had boundaries, and the study led to a comprehensive understanding of a complex process. I considered alternative qualitative research methodologies prior to selecting the case study method. The principles of narrative research, phenomenological research, grounded theory, and case study were examined to determine which method would most appropriately lead to a rich understanding of emergency operations planning collaboration in the National Capital Region (Creswell, 2013; Maxwell, 2013; Merriam, 2009; Miles & Huberman, 1994; Patton, 2002; Yin, 2014).

Narrative research is that describes the life experiences of one or a small number of individuals (Creswell, 2007, 2009; Patton, 2002). The researcher chronicles and interprets the information received from the participant/s in a narrative and then retells the story by combining experiences of the participant and the researcher. Narrative research would have been an appropriate approach had the focus of my study been on understanding the lived experiences of one or a small number of emergency operations planners as they collaborate within the emergency planning network. A planner could provide personal insight into and historical experiences of the collaboration process and

personal perception of how the process facilitates regional disaster responses. However, this study sought to understand the collaboration process and its components and how the collaboration process facilitated a regional response that is as precoordinated as possible.

Phenomenological research explains the lived experiences of several individuals within the context of a phenomenon or concept (Creswell, 2007, 2009; Patton, 2002). The commonality among participants as they experience the phenomenon or concept is reduced to a description that provides a collective understanding of what the individuals experienced (Creswell, 2007, 2009; Patton, 2002). Individual experiences, perceptions, feelings, and judgments about the phenomenon or concept are described with a preference for experience over the factual state of how something occurred (Creswell, 2007, 2009; Patton, 2002). Individual experience and the situations and perspectives of that experience are the source of phenomenological study. The research topic for this study was influenced by the individual experiences and sensory perceptions of the collaboration process, rather than on personal lived experiences. Therefore, the phenomenological method did not apply to this study.

Grounded theory research, another qualitative inquiry method, is a strategy for deriving a new theory related to a process or action that is grounded or substantiated in individual experience (Creswell, 2007, 2009; Maxwell, 2013; Patton, 2002). In this research method, inductive theory development results from data analysis (Creswell, 2007, 2009; Maxwell, 2013; Patton, 2002). The researcher proceeds beyond individual experience to develop a theoretical representation to explain a phenomenon or concept or to create a framework on which to base further research (Creswell, 2007, 2009; Maxwell,

2013; Patton, 2002). Theory is based on analysis of data collected from a large number of individuals who experienced the phenomenon or concept, not abstracts. Grounded theory research is used if there are no theories that explain the process of interest to the researcher, if existing theories are incomplete and do not explain the process, or theories do not address the individual aspect of the process (Creswell, 2007, 2009; Maxwell, 2013; Patton, 2002). Understanding the collaboration process was the focus of this study with a collaboration framework guiding the discovery process. Grounded theory design would have been appropriate for developing a theory to explain the intergovernmental collaboration process (Creswell, 2007).

A case in quantitative research is usually an individual or data point, but in qualitative research a case can be an individual, group, organization, program, or process (Miles & Huberman, 1994). The case for this study was the National Capital Region emergency operations planning collaboration process. Qualitative case study inquiry is an in-depth exploration of a specific bounded issue or process using several sources of information (Creswell, 2007, 2009; Maxwell, 2013). A bounded case can be one or more individuals or a program, process, or activity (Creswell, 2007, 2009; Maxwell, 2013). Often, the research questions are derived in terms of the case after selecting the case (Maxwell, 2013). The goal of an intrinsic case study is to explore a core interest, not to understand abstract concepts, phenomena, or to develop a theory (Merriam, 2009). The core interest for this study was the National Capital Region emergency operations planning collaboration process.

Role of the Researcher

Qualitative inquiry is study that entails involvement with participants as interpreted by the researcher (Creswell, 2009). The role of a researcher can either be as a full participant in an activity, an observer, or a partial participant and partial observer (Patton, 2002). The researcher determines which role is more effective for answering the research question (Patton, 2002). My role was as an observer. The cross-sector collaboration process was the focus of this study and since I was not part of the process and actual collaboration was conducted by the participants, the role of participant was not appropriate.

A challenge to observation was that it was not be possible to observe every action or activity related to the inquiry (Patton, 2002). Some components of the collaboration process would have been initiated prior to my observation. Therefore, I was not able to observe participant emotions. As a result, I conducted interviews to understand how the network established the process, what the collaboration process was, and participant perceptions of the collaboration process.

Personal participation on the part of the researcher necessitates that the researcher address personal biases, values, history, culture, experiences, personal relationships, and ethical issues (Creswell, 2009). A cross-functional collaborative network was critical to disaster planning. Therefore, I used research methods that ensured that I portrayed National Capital Region collaboration processes, procedures, and perceptions accurately.

I do not have personal or professional relationships with anyone involved in the National Capital Region operations planning collaboration network. Consequently, ethical issues related to relationship management, work environment, conflict of interest, and power differentials were not a point of concern, though I was cautious of situations or opportunities that could lead to research bias. Researchers should assume that the data gathered during interviews are important and determine what is applicable in order to clearly present their perspectives (Patton, 2002).

Methodology

Participants

In qualitative research participants are individuals who willingly agree to be part of the study. I met with a representative from the ONCRC in the FEMA to gain insight into how the National Capital Region collaborates to develop emergency operations plans. Twenty two jurisdictions in Washington, DC, Maryland, and Virginia make up the National Capital Region with each jurisdiction having a representative in the MWCOG (DHS, 2011b; FEMA, 2012). Through coordination with the ONCRC I requested introductions to the MWCOG, and the Washington, DC Maryland, and Virginia offices responsible for emergency management in order to get approval to meet with MWCOG personnel and state operations planners. I sought to include personnel and activities in federal (ONCRC), regional (MWCOG), and state settings (FEMA, 2014d; MWCOG, 2014a, 2014b). During this period 10 other offices that were contacted either declined or did not respond to requests to participate in the research. As a result, the research did not include data from the FEMA or Maryland and Washington, DC emergency operations

planning organizations. However, by including regional planning, local, and military perspectives rich details and a broad understanding of the National Capital Region cross-sector collaboration process was obtained. Direct observations did not take place because neither collaboration meetings nor exercises were accessible during the data collection timeframe.

Sites. Access to participants took place in the regional MWCOG facility located in Washington, DC. I also visited state, local, and military participants in Virginia emergency management offices. I worked with ONCRC, FEMA, and the MWCOG to acquire introductions. A neutral location would be selected for research responses of a sensitive nature.

Sampling Strategy. Qualitative research sampling tends to be small and is determined based on how the study will be impacted (Patton, 2002; Seawright & Gerring, 2008). Collecting data to answer research questions necessitate a representative population (Maxwell, 2013). Sampling should result in high yield of relevant research data, a process called purposeful sampling. This strategy differs from quantitative research that uses large random samples derived through statistical probability (Maxwell, 2013). Multiple qualitative sampling strategies, such as snowball or chain, opportunistic, typical cases, stratified purposeful, maximum variation, and politically important sampling, provided the optimum opportunities to understand the cross-sector collaboration process and how it factors in with regional disaster responses (Creswell, 2007, 2013; Gibbert & Ruigrok, 2010; Miles & Huberman, 1994; Patton, 2002). Purposeful sampling used in qualitative research focuses on a small sample, and in this

study, a small sample within a single-case. This method of sampling assumes that the researcher is conducting a study to attain understanding and must choose a sample that will provide the information being sought (Merriam, 2009). The participants recruited to participate provided "information-rich" data that is essential to understanding the collaboration process (Patton, 2002). I gained information about the overall strategy for cross-sector collaboration by applying a funneling sampling sequence. I contacted personnel within ONCRC and MWCOG and worked toward the core of the process through informants in regional, state, local, and military emergency management offices to individual operational planning offices (Miles & Huberman, 1994). The ONCRC worked with regional partners to coordinate emergency response within the National Capital Region (DHS, 2011a). The regional partners, informants for this study, were associated with the regional emergency management operations planning collaboration network.

Sampling strategies were preplanned and allowed to evolve during data collection. I used snowball or chain, opportunistic, typical cases, stratified purposeful, and maximum variation sampling (Creswell, 2007, 2013; Miles & Huberman, 1994; Patton, 2002). Snowball or chain sampling began by starting inquiry with the ONCRC and MWCOG. The key point of contact in the ONCRC identified key points of contact in the MWCOG. In turn, MWCOG informants identified additional individuals in emergency management offices who participated in the network, each leading to additional individuals that could provide rich information (Miles & Huberman, 1994). Snowball or chain sampling led to opportunistic sampling as I followed up and contacted

additional leads that surfaced. As I interviewed informants, I gathered data that determined typical cases and common collaboration activities for the overall National Capital Region collaboration network process and how network stakeholder processes interacted with the network. Exploring and comparing network stakeholder process interaction was stratified purposeful sampling. Regional strategy development and state plan development were two other aspects of stratified sampling that were also used. Maryland, Virginia, and Washington, DC each have individual emergency operations plans that were referenced in the National Capital Region Homeland Security Strategic plan (MWCOG, 2010). The process for individual and regional planning interdependence provided insight into regional collaboration. Any outlier aspects of the collaboration process would have been identified using maximum variation by confirming any cases that deviated from the critical process (Miles & Huberman, 1994). Due to the political environment of the National Capital Region, I was cognizant of politically important sampling that could emerge during the inquiry.

Criterion. Integrating regional activities collaboratively was a National Capital Region priority that required integrating and coordinating planning efforts in order to conduct catastrophic planning, develop regional governance, and share regional resource capability (DHS, 2011a). A chain of individuals identified as informants resulted from those names repeatedly referenced during discussions (Patton, 2002). The names that were repeated most were those individuals who were highly connected in the region and who would be rich sources of information. This inquiry addressed how the MWCOG facilitated collaboration, the planning collaboration process used by MWCOG, Virginia

state and county organizations, and a military organization, and how the region

determined that the collaboration process contributed to a feasible synchronized regional

disaster response. The multiple perspectives listed above were the basis of the study

sampling strategy.

The purpose of the study, what the researcher wants to learn, and information

availability and credibility determined sample size (Patton, 2002). A purposeful approach

to qualitative inquiry prepares the researcher to contend with ambiguity (Patton, 2002).

My goal was in-depth understanding of the National Capital Region planning

collaboration process. Therefore, a small sample size of five informants was appropriate

for this study, not a large sample size that would be appropriate for broad exploration

(Creswell, 2013; Patton, 2002). The sample represented the MWCOG and state, county

and military emergency operations planning offices, starting with the director of the

MWCOP program management office, and building a list of who were the remaining

informants (FEMA, 2014a).

Instrumentation

Case study inquiry allows the researcher to explore and understand a specific

situation. Researching a single unit case is conducted in a bounded system with the

boundary, or protocol, linking the research topic and research question (Chima, 2005;

Miles & Huberman, 1994; Yin, 2014). Selecting research instruments is as important as

purposefully selecting the sample population and ensures that there is evidence to address

the research topic and question (Chima, 2005; Miles & Huberman, 1994; Yin, 2014).

Without a clear definition of the amount of data to be collected, the researcher should

collect enough data to confirm the evidence being presented and investigate contradictory explanations (Yin, 2014). An array of instruments, such as interviews, documents, records, observations, and physical artifacts, can be used to collect data for qualitative case study (Creswell, 2007, 2009; Maxwell, 2013; Yin, 2014).

Interviews are important data collection sources for qualitative case studies because they inform about human actions (Yin, 2014). The interview is similar to a guided conversation in which the researcher uses a smooth flow of questions designed to remain consistent with the purpose of the study. I conducted in-depth interviews that closely supported the case study protocol in an unbiased manner and ensured that all discussions remain confidential. I conducted shorter case study interviews of an hour or more rather than two-hour or longer interviews. Longer interviews would be time prohibitive for senior level informants. Open-ended interview questions were created to gain information on the collaboration process used during creation of emergency operations plans. In addition to collaboration governance, I gathered data on interviewee perceptions and attitudes about the process while remaining cognizant of the possibility of informant bias, insufficient and partial recall, and impulsive responses. Additionally, I avoided reflexivity by ensuring that I did not allow my perspective to influence the interviewee's responses, nor allow the interviewee's responses to influence my method of inquiry.

Documents are stable sources of evidence that can be specific or broad depending upon the type of document (Yin, 2014). This source of information can substantiate data gathered from other sources. If document reviews yielded evidence that contradicted

information from another source, additional inquiry would be required. I reviewed the National Capital Region strategic plan and Reginal Emergency Coordination Plan to provide insight into the collaboration process. (FEMA, 2010; Yin, 2014).

Case studies should occur in the actual venue of the case, thereby providing justification for conducting direct observation (Yin, 2014). Direct observations would have provided real time context of how to implement the collaboration process and additional information that could have been used to corroborate evidence from other sources. I did not observe regional and state collaboration meetings, individual or group document reviews, or simulated implementation of a portion of the collaboration process during a regional table top or national level exercise due to timing conflicts during my research. Both exercise options would have been feasible since the DHS advises jurisdictions to review emergency operations plans each year and the department facilitates an annual national level exercise in which many federal, state, and local jurisdictions participate (FEMA, 2010; Nicoll & Owens; 2013). Physical artifacts, such as a technological output, are not typically as relevant to case study as the aforementioned instruments. However, output from WebEOC®, a world wide web enabled tool that provides electronic emergency operations center (EOC) capabilities to present a common operating picture for planning, communication, command, and control could be useful (FEMA, 2015d; Intermedix, 2014). Maryland, Virginia, and Washington, DC use WebEOC®. Users can collaboratively provide event reporting, situational awareness, resource management, duty logs, and after action reports (FEMA, 2015d; Intermedix, 2014). Review of WebEOC® artifacts could have produced a broad perspective of how

to execute the planning collaboration process, but I could not observe the system or its artifacts due to scheduling conflicts..

Data Collection

Qualitative research should be transparent and well organized (Meyrick, 2006). Data collection, a method of acquiring evidence from data sources that are relevant to the case study, requires that the researcher establish preparatory steps for each phase of the collection strategy (Creswell, 2007; Yin, 2014). Creswell (2007) identified interrelated data collection activities that lead gathering information pertinent to addressing the research question. The activities are site selection, gaining access, purposeful sampling, collecting data, recording information, resolving issues, and storing data. An in-depth understanding of how emergency operations planners in the National Capital Region collaborate to develop plans that feasibly result in regionally synchronized disaster responses entails collecting data from collaboration network stakeholders in their normal settings.

Data Collection Procedures. Data collection sources included transcripts of interview notes, interview field notes, and analysis of documents. I met with officials from the DHS Headquarters, Intergovernmental Affairs, State Affairs on January 11, 2013 and acquired verbal approval to contact and collect data from the ONCRC within FEMA. Through the ONCRC, I gained access to individuals within the MWCOG and state emergency management offices. I reviewed the interview questions with personnel from the ONCRC to determine if the questions would yield appropriate data and to refine the questions (Creswell, 2013; Merriam, 2009). Interviews were conducted with a key

stakeholder from the regional offices in Washington, DC and Richmond, Virginia, from state and local emergency management offices, and from a military liaison organization. If key stakeholders had not been available, I would have contacted the next in line of succession for the process. Documents that provided collaboration governance and that were evidence of how collaboration was conducted were reviewed of publicly accessible data. Interviews were scheduled for one hour, with an option for an additional interview as required.

A substantial amount of information came from interviews that were integral to this study. I based the interview strategy on productivity, flexibility, and preparation and was prepared for evolving changes in my research question, interview sites, and for unexpected situations, such as cancellations, sensitive issues, and unexpected comments (Creswell, 2009). Interviews began with introductions and the interview exit strategy was to debrief each interviewee by requesting that the interviewee review a transcript of the interview. The preference was to conduct interviews in person, but I was prepared to conduct interviews by videotelephony, video conferencing, telephone, or e-mail if that was the only way an interviewee could participate (Trier-Bieniek, 2012). The internet provides an expanded perspective to interviewing, though there is a disadvantage of not being able to observe interviewee body language and the setting (Janesick, 2001). E-mail was my last option due to this disadvantage (Creswell, 2013). The sensory perception that is possible during interviews adds another layer of information that would otherwise not be available, though some interviewees may be more comfortable with the anonymity associated with teleconferencing or e-mail (Patton, 2002). E-mail also affords the option

to thoroughly think about and correct responses. Videophony and video conferencing provides a degree of the sensory perception available during onsite interviews, and with the approval of the interviewee, can be preserved digitally.

Observations are the final form of data collection that I consider using during this study if a collaboration meeting or an exercise was scheduled during the data collection period. Through observation I planned to personally witness the collaboration process, how stakeholders interact, and I could compare process execution as it related to collaboration governance. The evidence gathered through observation would enable me to portray to the research reader a real world depiction of the setting in which collaboration takes place. However, observations were not possible during the data collection period.

Data Analysis Plan

Data analysis is the process of making sense of data that is later prepared and organized for study. Exploration of the data then progresses to more profound levels of understanding (Creswell, 2009). I conducted data collection and analysis concurrently through transcription, interpretation, and by writing memos as I progressed through interviews and document reviews. Data analysis techniques included describing the chronology of the planning and collaboration processes, directly interpreting, generalizing, and discovering patterns (Creswell, 2007; Patton, 2002). In a case study the researcher finds meaning by interpreting a single occurrence or by analyzing generalizations that could be applied to more than one case (Creswell, 2007). I applied these techniques and looked for patterns in regional and state internal organization and

collaboration network interactions. The resulting data were used to create data files, notes, and categorical aggregation to develop a thorough narrative that depicted the collaboration process in the National Capital Region. Throughout the data analysis process I maintained the link between the research question and the data using evolving analytic procedures. The Creswell (2013) data analysis spiral describes this interrelated process of acquiring, interpreting, and describing data.

The next step of data analysis was to code field notes and transcripts. The codes were based on interview responses to the research questions. Coding is a method of labeling data so that it can be retrieved to analysis (Miles & Huberman, 1994). A descriptive and thematic precoding structure for condition, actor, and strategy categories was created to accommodate unexpected descriptions, interpretations, or patterns. This strategy ensured that precoding did not become a data analysis restriction.

I created a coding map that correlated the interview responses to research questions. The map stimulated knowledge, opinion, value, feeling, demographics, and sensory responses (Patton, 2002). The laptop and external hard drive used for research was secured in a locked file cabinet in my home office when not in use and cloud storage was password protected.

Data were stored and managed within the software tool NVivo using a coding method to interpret interview field notes and transcripts (Carter & Littse, 2007; Creswell, 2013; Hutchison, Johnston & Breckon, 2010; QSR, 2010). NVivo is a qualitative research software package designed to be a workspace to organize and analyze data for qualitative research (QSR, 2010; NVivo, 2014a). The data management process includes

importing, exploring, and coding data, conducting queries, reflecting on query results, visualizing coded data, and documenting insights through memos. NVivo does not have the capability to import datasets; therefore, datasets were created independently. NVivo was used to import and transcribe transcripts.

Models were used to explore ideas visually and see how to connect data (NVivo, 2014b). For instance, interview transcripts could be the source of queries to determine word frequency for identifying dominant themes. Cluster analysis would identify data similarities and differences (QSR, 2010). Interview data input into NVivo was accessible for word frequency queries and cluster analysis.

Data protection is important because the data represents field notes from interviews and observations (Creswell, 2007; Patton, 2002). Data collection agreements also protect confidentiality. The external hard drive was stored in a locked file cabinet in my office and cloud storage was used to backup all data and NVivo project files and access was restricted to myself and participants who have access to only their input for triangulation and review.

Issues of Trustworthiness

Multiple instruments can be used to triangulate the data for a more thorough validation and presentation of the evidence and to gain different perspectives of the collaboration process (Maxwell, 2013). Principles of data collection devised by Yin (2014) were relevant to each of the instruments that were used in this study and assured trustworthiness throughout data collection and data analysis. The principles of using multiple sources, creating a case study database, maintaining chain of evidence, and

using caution with electronically sourced data supported the evidence validity, studying what the research says was studied, and reliability, lack of error (Gibbert & Ruigrok, 2010). Trustworthiness is ensured by applying rigor to data validity and reliability and balancing showing the data and explaining the evidence.

The first principle, using multiple sources, provides a converging range of perspectives through triangulation. Conclusions would be more accurate if different sources of information were used to compare data. Next, the researcher should create a database to maintain evidentiary data and the researcher's report. A secure database protects retrievable data and is evidence to support the narrative report. There should be a formal chain of evidence to ensure that the data is dependable, allowing the readers to follow the evidence-based research from the research question to the conclusion of the study. Lastly, sources make a wide array of information available, so the researcher should exercise caution. Information was cross checked for accuracy and biases. Credibility was established by conducting a pretest with a member of the ONCRC and by comparing information from data sources, requesting that participants review transcripts and notes for accuracy and analysis (Creswell, 2009). Transcripts and notes of all data sources were cross checked and data were coded to provide the basis for a thick description of the evidence. Negative information was included in the analysis to present an unbiased presentation of the evidence.

Ethical Procedures

Ethics was considered in each phase of research and played a prominent role in acquiring access to field sites, requesting participant involvement, honoring participant

time, and analyzing personal data and input (Creswell, 2009; Maxwell, 2013; Merriam, 2009; Miles & Huberman, 1994). I requested letters of cooperation from community partners MWCOG, Virginia, and military emergency management offices. Reciprocity was observed by restricting my time spent with participants to what I requested and ensuring that participants understood the premise of my research. Misunderstandings were avoided by thoroughly explaining the purpose of the study, participant involvement, and how the data were to be analyzed. I did not access or reference classified and sensitive material, was sensitive to the disruptions caused by my presence, respected each participant, and used respectful language (American Psychological Association, 2010). Finally, I maintained participant anonymity by masking the name of each participant. A designator was assigned to correlate the data to the participant and for locating and identifying data during analysis (Creswell, 2013).

Summary

In Chapter 4, I provide an introduction to the results of my research. I also describe the research setting, demographics, data collection, data analysis, and evidence of trustworthiness associated with the study. Finally, I provide the research results and a summary of the chapter.

Chapter 4: Results

Introduction

The purpose of this study was to understand the emergency operations planning network collaboration process and how it was used to synchronize regional disaster responses. Another purpose was to examine competitive federalism and collaborative governance theoretical frameworks from the perspectives of emergency operations planners who used cross-sector collaboration to conduct emergency preparedness planning within their environments. The Walden University Institutional Review Board approved my application for this study (approval# 05-04-15-0280701 expiring on May 3, 2016).

As a result of the data collected, I describe how collaboration influenced local and regional emergency operations planning for synchronizing disaster responses. The central research question was how do emergency operations planners in the National Capital Region emergency planning network collaborate to prepare for regional disaster response? Subquestions that further explained how emergency operations planners collaborate to prepare for regional disaster responses were: (a) How do planners and policy makers perceive regional response synchronization? (b) How do state and regional organizational structures support collaboration within the emergency operations planning network? (c) How do state and regional institutional processes and practices support collaboration within the emergency operations planning network? and (d) How do relationships within the emergency operations planning network support collaboration?

This chapter begins with the data collection setting for emergency operations planning network participants in this study followed by participant demographics. Next, I describe data collection and data analysis processes. Data analysis includes an analysis of the research questions. After this, I provide a discussion of the evidence of trustworthiness. Finally, I present the results of the research, followed by a summary of how results answer the research questions.

Setting

Collaboration is often used in government to solve problems in a network of multiple organizations that have shared goals (Chen & Thurmaier, 2009; Kapucu et al., 2009; O'Leary et al., 2012). One organization alone could not solve a problem, and it would be difficult to do so. The network collaborates to reach agreement on how to create and implement policies and procedures and to resolve problems and disputes related to accomplishing shared goals (Emmerson et al., 2012; Johnston et al., 2010). Members of the network operate within the limited scope of the network and have shared network goals but can still have various organizational goals. Interorganizational network dependence existed, yet member organizations still maintain organizational independence (Kapucu et al., 2009). The Bryson et al. (2006) cross-sector collaboration theoretical framework aided in understanding collaboration by correlating the conditions, process, structure and governance, contingencies and constraints, and outcomes and accountabilities of the collaboration network.

The case for this study was the collaboration process within the National Capital Region emergency operations planning network and how collaboration affected

synchronized planning for regional responses to disasters. In Chapter 1, I described the

regional network comprised of 22 jurisdictions in Washington, DC and portions of

Maryland and Virginia (MWCOG, 2013b). Network membership included each

jurisdiction and military, private, nonprofit, and volunteer organization representatives.

Emergency operations planning requires collaboration across sectors such as

federal, state, and local governments, military, and private and disciplines such as

transportation, medical, housing, and infrastructure (Comfort et al., 2006; Kapucu et al.,

2009). Responses to incidents like adverse weather conditions and the September 11,

2001 Pentagon attack are examples of regional collaboration for interconnected and

interdependent planning and support and how the safety of people who live, work, and

visit the region could be impacted. Collaboration takes place in a competitive federalist

environment, where jurisdictions compete for funding, goods, and services (Clovis, 2006;

Lee et al., 2012; McGinnis, 2012). By working together to assist each other when needed,

shared accountability associated with emergency preparedness and planning can meet

jurisdiction needs (Caruson & MacManus, 2012; Chenoweth & Clarke, 2010; Dye, 1990;

Kapucu & Garayev, 2012; Roberts, 2008; Stewart, 2011).

Initial Conditions

Emergency operations planning process collaboration addresses a whole

community perspective with planners analyzing requirements and identifying resources

to support plan objectives. Disasters often affect more than one jurisdiction and a

catastrophic disaster can impact one or more states (U.S. Senate, 2006). If such an

incident occurred in the National Capital Region it could impact Maryland, Virginia, and

Washington, DC, extend to neighboring states, and also influence national and

international pursuits (FEMA, 2014c; MWCOG, 2010). The MWCOG National Capital

Region Emergency Preparedness Council and subsequent committees, one of which is the

Emergency Operations Planning committee, provide leadership and legitimacy to the

regional network.

Process

Network members use agreements to determine how the network will function

(Bryson et al., 2006). Agreements should include the purpose of the network, identify

membership and leadership, and explain resource expenditure. Collaboration agreements

are key to determining how regional networks function (Kapucu et al., 2009). The

complexities of emergency management and increasing populations and occurrences of

disasters have increased the need for collaboration within the emergency operations

planning network. These circumstances highlight a prerequisite for agreements that allow

network members to operate beyond jurisdictional boundaries to reduce risk (Andrew &

Hawkins, 2013; Kwon & Feiock, 2010).

Trust, conflict management, and strategic planning are the crux of effective

collaboration (Babiak & Thibault, 2008; Bryson et al., 2006; Lee et al., 2012; Thomson et

al., 2009). Trust is built over time through reciprocal competency, information sharing,

and reliability (Lamothe & Lamothe, 2011). Even with shared network goals, conflict can

arise because of disagreements about strategies, control, or other points of interest.

However, conflict can be managed by balancing influence within the network (Gazley,

2010). Strategic decisions on governance, management, and standards set the baseline for

resolving conflict and for accountability. Additionally, members of the network must find a balance between internal organization responsibilities and external collaboration network responsibilities.

Structure and Governance

Roles, responsibilities, authorities, and operating procedures are codified in network structure and governance created through collaboration within the network (Brooks et al., 2012; Bryson et al., 2006; Henry, 2011; Page, 2013). Network integrity is maintained by mitigating ambiguities. Structure can impact how the network responds to a disaster (Caruson & MacManus, 2008a). Collaboration effectiveness is influenced by organization and individual participation proficiency in working collaboratively to plan for various scenarios, interacting with partners, organizing, identifying strengths and limiting factors, and learning from previous incidents and exercises (Rouse et al., 2011). Members of the National Capital Region network achieved planning goals by using systematic collaboration to continually assess and adjust planning process activities (Comfort, 2002).

Contingencies and Constraints

Imbalances within a collaboration network affect the network's longevity and effectiveness (Bryson et al., 2006). The National Capital Region network uses system-level planning, administrative activity, and service delivery collaboration to solve problems, share resources, and plan for disaster response service delivery (MWCOG, 2014a). Power imbalances are avoided by establishing procedures and policies in the regional homeland security strategic plan and the Regional Emergency Coordination Plan

(RECP). The effect of politics on the collaboration process can be resolved through effective leadership, trust among network members, and strategies for managing conflict and competing goals (Bryson et al., 2006; Demiroz & Kapucu, 2012).

Outcomes and Accountabilities

The effectiveness of the cross-sector collaboration network is linked to meeting public needs and resiliency of the network (Bryson et al., 2006). Emergency management operates within a flexible network structure to create plans that can be executed to respond to emergencies and disasters (Doerfel et al., 2010). Planning requires an array of responsibilities that cross sectors, but the ultimate goal is "to protect life, property, or the environment" (FEMA, 2010, p. B-7). To maintain EMAP certification Maryland, Virginia, and Washington, DC must achieve measurable emergency management accountability standards (EMAP, 2014). Each state also participated in the EMAC program and agreed to provide mutual aid to other states or jurisdictions when requested to do so (EMAC, 2013).

<div align="center">

Demographics

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The participants in this study were regional, state, county, and military stakeholders that participated in the network and will be referred to as Participant (P)1, P2, P3, P4, and P5. The ONCRC, FEMA provided insight into how emergency operations planning collaboration is conducted in the region and made recommendations for organizations that might participate in the process. Using the snowball technique, recommendations led to organizations that agreed to provide access for research interviews. The organizations included in the research were MWCOG, Virginia

Department of Emergency Management, North American Aerospace Defense Command

(NORAD)-US Northern Command Washington Office, and Arlington County Office of

Emergency Management. Table 1 provides participant demographics.

Table 1

Participant Roles

	Program Managers (2)	Coordinator (1)	Liaison (1)	Liaison (1)
Level of Government	Regional (2)	State (1)	Military (1)	Local (1)
Organization	MWCOG Program Management Office and Regional Emergency Planning Coordination Office	Virginia Department of Emergency Management	NORAD-US Northern Command Washington Office	Arlington County, Virginia, Office of Emergency Management

The two regional program managers had different roles, one from a broad

emergency management perspective and one specifically for emergency operations

planning. The state participant coordinated planning activities in Virginia and chaired the

regional emergency operations planning committee. The military participant's role at the

time of the study was as a liaison for homeland defense related activities in the

continental United States and had previously served as a Military District of Washington

liaison for the National Capital Region. The planner was from a county in Virginia.

Data Collection

Governance provided the network with agreed upon methods of conducting

activities and of clarifying ambiguity (Bryson et al., 2006). Two documents, the National

Capital Region Homeland Security Strategic Plan and the RECP, were complimentary

and provided structure and guidance to the network for fulfilling emergency management

and emergency planning responsibilities. A comparison of the scope, purpose, goals, and

stakeholders for each document is provided in Table 2. The National Capital Region

Homeland Security Strategic Plan, created through the collaboration of its members and

stakeholders, identified regional priorities for 2 years in the future (MWCOG, 2013b).

Planning collaboration is operationalized "before, during, and after a regional incident or

regional emergency" (MWOCG, 2011, p 2). The RECP was designed to support the

National Response Framework, Comprehensive Preparedness Guide 101, and National

Incident Management System guidance (MWOCG, 2011). The MWCOG (2011) ensured

that a consensus for creating the strategic plan and the RECP was reached through a

transparent and inclusive collaboration process. Participants in this study collaborated

within the framework of these documents in addition to individual organization or

jurisdiction guidelines and requirements.

Table 2

Document Comparison

	Scope	Purpose	Goals	Stakeholders
National Capital Region (NCR) Homeland Security Strategic Plan Update	Regional approach to homeland security planning	Guide NCR in achieving priority capabilities during two out years	Identify key regional capabilities for: interoperability, communications, information sharing and situational awareness, critical infrastructure protection and resiliency, and regional core capability development and maintenance	NCR public, civic, private, and nongovernmental stakeholders
MWCOG Regional Emergency Coordination Plan	Scalable for appropriate level of coordination and information exchange to contend with regional emergencies	Structure for NCR collaboration planning, communication, information sharing and coordinating activities before, during, and after a regional emergency	Assist local, state, federal, and private sector partners in coordinating their response to regional incidents and planned events	All organizations, government, and business with a role in anticipating or responding to major threats or hazards in the NCR

Five individuals agreed to be interviewed. Each of the research participants

represented organizations that were stakeholders in the network and collaboration process

and each individual interviewed was experienced in emergency operations planning and

working collaboratively in a variety of situations. The interviews were conducted on May

29, 2015; July 19, 2015; September 18, 2015; October 13, 2015; and October 26, 2015.

Interviews were conducted in Washington, DC and Virginia. Three of the interviews

were conducted in-person and two were conducted by telephone. Interview questions

were provided to each participant before the interviews. Each participant was cooperative and provided thoughtful responses. The average length of the interviews was 54 minutes, with the longest interview lasting 76 minutes and the shortest interview lasting 26 minutes. Two of the in-person interviews were conducted in quiet office conference rooms, one in Washington, DC and one in Virginia. The third in-person interview took place in Virginia in a secluded section of a government office building meeting area. The two telephone interviews were conducted with participants in two different cities in Virginia. Four of the interviews were digitally recorded. The interview held in a government office building was not recorded, but detailed field notes were taken. The meeting was scheduled to discuss recommendations for how to proceed in acquiring additional participants. However, the person that I met with was prepared to respond to the interview questions. Therefore, to take advantage of the opportunity to conduct the interview at that moment, field notes of responses were taken rather than a digital recording.

Evidentiary data and analysis results are maintained in a secure database. Digital recordings and field notes are stored in secured computer hard drive, external hard drive, and cloud storage only accessible by me. All hard copy documents were scanned and saved digitally. The hard copies were then shredded by crosscutting.

Data Analysis

The theoretical proposition that emergency operations planning network effectiveness is a function of operating within a framework of collaboration conditions was applied to data analysis. Theoretical propositions are a combination of the objectives

and design for the case study and are reflected in the research questions and literature review (Yin, 2014). Yin (2014) recommended five different analytic strategies that could be applied to data analysis: (a) pattern matching, (b) explanation building, (c) time-series analysis, (d) logic modes, and (e) cross-case synthesis. Pattern matching, the technique used for this study, is often used with case study analysis because it links data to concepts on which the research is based (Yin, 2014). In this study, the observed findings were compared to the predicted impact of competitive federalism and collaboration on the emergency operations planning network in meeting jurisdictional goals and shared regional goals.

Explanation building, also called process tracing, is used to explain how or why a phenomenon happened, but this study was about understanding the collaboration process (Yin, 2014). Time-series analysis is used with experiment and quasi-experiments, neither of which applied to this study. Logic models are used to operationalize occurrences during a specific phase of time; time did not impact this study. The final technique, cross-case synthesis, is used with multiple cases. This study used a single case study design.

Five interviews were transcribed, formatted, and imported into NVivo 10 qualitative software. The coding process was derived by manually reading and coding each line of the interview transcripts and field notes and resulted in the 5 parent and 10 subcategory nodes that reflected the interview protocol. The five parent questions correspond to the each research question (RQ) and are: (a) National Capital Region emergency planning operations network support synchronized response; (b) planner and policy maker perceptions; (c) state and regional organization structures support

collaboration; (s) state and regional processes practices support collaboration; and (e) relationships within the network.

I studied the content within each parent node and this led to emerging themes for each question as identified in Table 3. Coding was refined with the strategy to code for context to provide meaningful qualitative analysis. Coding reports included references that related to the number of times text was selected and coded and percentages of frequency that provided a sense of proportionality as to how often the selection was considered. Transcribed reports were read and evaluated qualitatively rather than strictly relying on frequency counts. The frequency counts provided direction but were used with discretion within the context of the responses. Finally, documents were not coded to every node if the text did not pertain to the node.

Table 3

Emerging Themes

	RQ-1 Synchronization	RQ-2 Perception	RQ-3 Structure	RQ-4 Processes	RQ-5 Relationships
Consensus	Through organization and group collaboration	Effective with actionable plans/guides	Emergency manager and planner groups	Enhanced through meetings	Enriched collaboration
P-1	Facilitate with network	Collaboration very successful	Keep network informed	Information sharing and communication	Relationships across the region
P-2	Work alongside partners	Agreements key to responses	Work with various committees	Guides and templates locally driven; regional perspective	Ingrained in all planning
P-3	Holistic approach	Include local and regional levels	Collaboration and lessons learned	Coordinating organization	Approach events as true regional planning efforts

| P-4 | Regional effort | Hard to say…in job for 3 months | Matrixed management | Regional programmatic working groups | Best way…face to face |
| P-5 | Constant communication | Mutual aid normal | Regional outreach | Work and connect to reduce duplication | Like doing regional work…pushing the envelope |

The results of the coding process were evaluated to determine if meaningful patterns emerged. Yin (2014) stated that the concept of qualitative coding for research seeking to answer how and why questions can be unrefined and requires researcher analysis. Precise data from interviews is only part of understanding complex behavior in the context of complex real-world activities.

Evidence of Trustworthiness

Data trustworthiness is assured by maintaining a chain of evidence (Yin, 2014). Rigorous application of data validity and reliability during the collection and analysis processes are also important to trustworthiness (Yin, 2014). Triangulation, member checking, and rich, thick descriptions were strategies used to validate data for this study (Creswell, 2013; Maxwell, 2013; Merriam, 2009; Miles & Huberman, 1994; Yin, 2014).

The ONCRC reviewed the research questions prior to data collection. Research participant credibility was based on the positions held in their organizations. Participants represented multiple levels (program manager, coordinator, liaison, and planner) and multiple organizations (regional, state, and local) within the regional network. Data were proven to be credible by ensuring that original evidence was presented and not affected by carelessness or bias. By triangulating data through member checking participant perspectives converged to provide a rich understanding of the how the network operates

(Creswell, 2013). Each participant cross checked the transcript or field notes of their interview for accuracy and biases. One participant provided clarification of some responses made during the interview by deleting extraneous and repetitious language to more effectively respond to the research questions. All other participants approved their transcripts or field notes as they were presented. Finally, data analysis results were debriefed with each participant.

Results

The data analysis suggested that emergency operations planners collaborated regionally to develop plans that are synchronized to support regional disaster responses. The synchronization was facilitated by frequent collaboration during plan development. This result was corroborated by participants P1, P2, P3, P4, and P5, who all commented that they participated in numerous meetings to ensure that plans met both regional and local priorities and requirements.

RQ1 – How does the National Capital Region emergency operations planning network collaborate to create plans that support a synchronized regional disaster response?

As stated in Chapter 1, to address this question participants were asked: (a) how does your organization collaborate within the network? and (b) what impact does collaboration have on state emergency operations planning? Four other subquestions, RQ2, RQ3, RQ4, and RQ5, were asked to further explain how the network operates. All participants stated that collaboration started with local jurisdictions. As liaisons for their prospective organizations they employed various methods such as MWCOG emergency

manager committee, regional planner committee, public safety committee, and emergency support function meetings.

A governance structure of regional working group and Regional Emergency Support Function committees meet to collaborate and support the RECP (MWCOG, 2014b). Local level issues, local and state preparedness, completed activities, lessons learned from incidents, training, and exercises, studies conducted in other parts of the country, and what should be considered in local operations plans based on Threat and Hazard Identification and Risk Assessment (THIRA) process gap analyses were discussed in the meetings. THIRA is a risk assessment that assists organizations in determining what their risks are, developing desired outcomes, estimating capabilities, and identifying the resources needed to reach capability targets (FEMA, 2015c).

State planners were funded through the Urban Areas Security Initiative (UASI), one of the three programs funded by the Homeland Security Grant Program. UASI funding is provided to 28 of 100 highly populated metropolitan areas determined to be high risk and high threat (FEMA, 2015a). These 28 areas represent 85% of the nation's most significant risk funds designated to improve regional preparedness and capabilities (DHS, 2015). Of the $587 million in fiscal year 2015 funds provided to each state, $54 million was allocated to the National Capital Region for local governments to address risk-driven, capabilities-based planning to address threats identified during the THIRA process (DHS, 2015; FEMA, 2015a, 2015b).

Plan framework and template development and plan prioritization were additional outcomes. Participants P2, P4, and P5 stated that 50% of planner responsibilities were

regional and 50% were for local jurisdictions. Collaboration had a substantial impact on the ability of the network to conduct direct member contact on a minimum monthly basis, in some cases weekly, to address concerns and seek guidance from the appropriate policy committees. At the state and local levels, collaboration also extended technologically to local emergency operations centers. WebEOC®, a world wide web enabled method of situation awareness, provided the technical capability to collaborate virtually during the planning, response, and recovery phases of an incident (FEMA, 2015d; Intermedix, 2014).

Participant 3 conveyed participation in planning and organizing meetings with partners such as the Secret Service and Department of Defense helped to build relationships over time so that planning for State of the Union Addresses, papal visit (2015), and incidents like the Navy Yard shooting (2015) helped to ensure that partners knew who to call in advance of disasters or emergencies.

RQ2 – How do planners and policy makers perceive regional response synchronization?

Each participant responded to two questions to highlight how planners and policy makers regarded regional response synchronization: (a) What impact does collaboration have on regional preparedness policy development? and (b) How effective do you perceive collaboration to be in synchronizing regional responses? Collaboration ensured that the network was aware of significant problems, trends, intelligence, gaps, risks and threats. Participant P1 stated:

...to be able to have a good regional policy…you have to incorporate the biggest

concerns of…[the] localities…interests are going to be different…but in order to

have an impactful document, it's got to be one in which everybody agrees.

Participants P1, P2, and P3 explained that every jurisdiction has its own policies and that

the complexities of the National Capital Region and even terminology differences can

make collaboration difficult. However, the region does reach consensus on issues to

develop actionable plans and guides. Participant P3 noted "it's about expectation

management with our regional partners…without collaboration you'd have fratricide."

Four of the five participants commented that collaboration was effective in

synchronizing regional responses. Participant 1 noted that:

a huge component is synchronicity…you know going into an event that this is

how they do things...how we do things…what I should expect…if I need to call

on to help out…only happens by coming to the same table and talking.

In Participant P5's opinion collaboration was "working with each other whether it's

Virginia, Maryland, or DC." Mutual aid agreements were referenced by all participants

except Participant P4. Participant P4 had only been in the position 3 months and felt that

that was not enough time to adequately respond to the question.

RQ3 – How do state and regional organizational structures support collaboration

within the emergency operations planning network?

The two subquestions that explain organizational structures that support

collaboration were: (a) What role does your organization play in the emergency

operations planning collaboration process? and (b) What structures are in place within

your organization to support regional collaboration? A planner or representative from

each of the 22 jurisdictions in the National Capital Region participated in MWCOG

emergency managers or other public safety committees. The Regional Emergency

Support Function 5 committee, comprised of emergency managers from each jurisdiction

in the region, worked with each of the other 15 emergency support functions during

various meetings. The MWCOG program management office facilitated meetings to

ensure that priorities were addressed, documented meeting outcomes, and ensured

members were engaged and informed. Planners from all jurisdictions were members of a

planning committee facilitated by a program manager responsible for synchronizing

planning efforts in the region. Planners collaborated to support regional efforts in

addition to their responsibilities for local planning. Additionally, other regional ESF

groups and the northern Virginia emergency managers committee met monthly to

coordinate, collaborate, and communicate to address gaps, after action reports, evaluate

processes, and prioritize training, supplies, equipment, and UASI funding.

Through organizations such as the MWCOG program management office, Senior

Policy Group, Emergency Managers Committee, and Regional Emergency Support

Function committees members worked together to understand how catastrophic disaster

could affect the region as a whole and the local jurisdictions. Participant 1 shared that

Washington, DC deployed resources to Maryland to assist with the 2015 Baltimore riots

in support of an EMAC agreement. Participant P2 explained that there "are a lot of

different meetings…park police…FBI…ONCRC, FEMA…we're all working together.

And you know, if anything happens big in DC that's going to affect us all." Participant

P4 mentioned "we meet monthly and we go through what everyone's working on."

Participant P3 shared:

It's about finding the right person to connect with for dealing with issues like

critical infrastructure and cyber. Having the right players facilitates discussions…

Otherwise, something could be taken for granted. There is collaboration for whole

of government events like inaugurations, the Super Bowl, RNC [Republican

National Committee], DNC [Democratic National Committee] and the UN

[United Nations] General Assembly in New York…

RQ4 – How do state and regional institutional processes and practices support

collaboration within the emergency operations planning network?

To describe the processes and practices for network collaboration participants

responded to subquestions: (a) What practices and processes does your organization have

in place to support planning network collaboration? How do they support network

collaboration? and (b) How do these factors enhance or impede collaboration practices

and processes? Four of the five participants shared that regional processes and practices

enhanced network collaboration. From a regional perspective, information sharing,

communication, and situation awareness were required to conduct strategic planning

which entailed engagement and input from all principals in the network. Developing a

strategic plan was one of the goals of the Emergency Preparedness Council (MWCOG,

2013b).

The plan outlined a realistic strategy for achieving regional priorities over a two

year period. As the management agency for UASI funds, the District of Columbia

Homeland Security and Emergency Management Agency, implemented project management principles and infrastructure to identify and establish milestones to administer the funds process. Collaborating to create regional frameworks and templates for plans reduced duplication of effort. At the state and local levels collaboration was a part of the day-to-day process for planning efforts. According to Participant 2, with 27 planners in the northern Virginia region, planners were careful to maintain local and regional perspectives by adjusting plan frameworks and templates to support local requirements and to be congruent with regional priorities. Participant P5 noted that local and regional responsibilities were written into the planning job description and found it interesting that planning could be "a very high turnover position." The regional planning project manager was helpful in ensuring that their planners collaborated on all planning efforts and that unresolved issues were communicated to the emergency managers

All participants conveyed that state and regional processes and practices were enhanced through collaboration. The same stakeholders and committee members were required to vet numerous initiatives. For example, participant P1 said:

> …it's a huge, huge effort for these folks to come to the table and really be excited on a regional basis when there's so many different initiatives for which they're doing the same thing. And you've got to think these are people that have a fulltime job in their localities."

Participant P2 shared "for a plan guideline template to be approved to hit the streets, we have to have their [emergency managers] approval." From Participant P3's point of view:

partners are more efficient and better ways are found for doing better, not so

much impeding efforts. I don't believe that conflict is purposeful. If at all, it is

from an aspect of not knowing and not being aware of partner practices.

Participant P4 said "enhance for sure" and Participant P5 shared that "for us, it

enhances."

RQ5 – How do relationships within the emergency operations planning network

support collaboration?

Finally, to explain the effect of network relationships each participant responded

to the following two subquestions: (a) What is your organization's relationship with the

regional planning network and how does it support collaboration? and (b) How do

personal relationships affect or impede collaboration? The organizations represented in

this research were involved in vertical network collaboration to and from federal,

regional, state, and local organizations and horizontal network collaboration between

cities, counties, and states. Relationships were viewed to be a significant aspect of

collaboration.

Participant P2 explained that "we're ingrained in it. I mean we – we're in the

middle of just about every planning piece there is. If I can't be there, I have staff that

goes and we're making sure we're involved…we're there to assist." Participant P1

explained:

they [relationships] are absolutely critical…The first thing you need I think for

successful collaboration is trust, familiarity with the person with whom you're

dealing. To have jurisdictions come together, entities, agencies, states come

together and share what they're doing especially when a lot of what they're doing

is kind of sensitive information, you know, you certainly need to be able to

respect and trust your colleagues and be able to work with one another. And being

able to really maintain focus on that regionalism…it is critical to the safety of

people.

Participant P3 conveyed "We work with area jurisdictions for tiered expected response by

partnering…"

Program managers attended the Regional Emergency Support Function committee

meetings. Participant P4 mentioned:

I think that's the best way to collaborate, is face-to-face and connecting in that

manner. I do a lot of phone calls with people. E-mailing is something that I do

after I've built a relationship. But when I'm first meeting with people, I want to

try to meet them face-to-face or at least on the telephone if I can't d-o face-to-

face, just to build that relationship.

According to Participant P5, "We like doing work regionally anyway…And we like

pushing the envelope on some of this cutting edge technology…having a structure in

place to help encourage us to do it makes the job that much easier."

Personal relationships were understood to have a positive effect on collaboration

as related to being aware of partner capabilities, business relationships, and making it

easier to reach agreement. However, personal relationships could impede collaboration if

new members of the network perceived that they were not treated equitably and if there

were occasions when professional and elected officials in the network could not reach

consensus. Participant P1 noted "So, I get you always have to worry about that kind of, I guess, political suspicion in a way. Really there's very little that can be done to mitigate that I think, other than trying to remain unbiased as possible." Participant P5 added:

> [it] can go a lot of ways depending on relationships…just by nature of elected officials. Disagreements they have policy-wise. At the professional emergency manager level, it is a little more civil. There's more stability there. I think this is also a tough time when there's a lot of turnover due to retirement and a lot of loss of people, but you also see a lot of people more from jurisdiction to jurisdiction.

Summary

In this study I examined how the National Capital Region emergency operations planning network collaborated to create plans that support regional responses from the perspective that cooperation and sharing resources are fundamental to effective emergency operations planning at local and regional levels. The framework for regional collaboration governance provided the conditions, structure, processes, accountability, and expectations for addressing contingencies, constraints, and outcomes. Subquestions provided greater visibility into how the network collaborated. I assessed how response synchronization was perceived, how organizational structures supported collaboration, how processes and practices supported collaboration, and the effect of relationships on collaboration.

The National Capital Region Homeland Security Strategic Plan and the RECP provided a basis for understanding how the network operated. Comparing these two data sources with coded transcripts and field notes substantiated the evidence described. As a

result of the data collected and analyzed for this study, the following inference can be drawn. Participants in the operations planning network collaborate horizontally among cities and counties and vertically from and to counties, state, and regional levels of government. Through various methods of communication and meetings, specific job guidance, and regional strategic planning collaboration is conducted before, during, and after plan development, exercises, training, and real world events and incidents. Thereby, network members were aware of local and regional threats, plans, capabilities, and limitations and plans were developed to attend to these matters.

The general perception was that collaboration made regional responses possible and as a result jurisdictions created actionable plans through a process of collaboration and shared decision making. A defined structure of regional, state, and local functional committees were facilitated by program managers, coordinators, liaisons, and planners. Collaboration was enhanced through engagement, trust, respect, and consensus building, and in instances of conflict or disagreement these same attributes led to dispute resolution and eventual consensus.

In Chapter 5, I provide an introduction and interpretation of the findings of this study. A review of the limitations of the study is also provided. Finally, I provide recommendations for future research, implications for positive social change, and a conclusion of this study.

Chapter 5

Introduction

This study was conducted to understand how emergency operations planners collaborated to create plans that support regional disaster responses. Emergency management is an inherently collaborative effort. Planning for disaster response, a component of emergency management, entails engaging partners across sectors and at different levels of government (Hu & Kapucu, 2014).

In Chapter 4, I provided a summary of the data analyzed for this study. In this chapter, I provide an interpretation of the findings. The problem of this study was that the collaboration process was not codified in network governance. As a result of this study, inference can be made that network guidance provided a framework for planning and response processes and that network participants collaborate to facilitate regional operations planning and responses. Activities were conducted in the absence of a document that provides specific guidance on how collaboration should be conducted. However, collaboration occurred as network participants complied with regional guidance that included state and local emergency operation plans, the National Capital Region Homeland Security Strategic Plan, and the RECP.

Interpretation of the Findings

The consensus of the literature reviewed for this study was that emergency preparedness is a shared responsibility and that through collaboration challenges associated with emergency operations planning in a multiorganizational environment can

be resolved (Caruson & MacManus, 2012; Chen & Thurmaier, 2009; Chenoweth & Clarke, 2010; O'Leary et al., 2012; Roberts, 2008; Stewart, 2011). Disasters occur at the local level where jurisdictions compete for limited resources to protect the populations from vulnerabilities in dynamic environments (Foyou & Worsham, 2012; Lindell, 2013). Interdependent local jurisdictions work together collaboratively across boundaries to plan for the security of individuals in the region by optimizing finite resources (Foyou & Worsham, 2012; Lindell, 2013). The National Capital Region planning network balanced regional and local jurisdiction responsibilities by including regional and local responsibilities in established procedures, processes, and job descriptions.

The National Capital Region Homeland Security Strategic Plan and the RECP provided a broad framework for emergency management collaboration that was "scalable, allowing for an appropriate level of coordination and information exchange to deal with a regional emergency" (MWCOG, 2010, 2011). Network governance did not outline specific processes for how to collaborate. However, inherent application of cross-sector collaboration process components (agreements, leadership, legitimacy, trust, conflict management, and strategic planning) resulted in effective collaboration in the network (Bryson et. al, 2006). Research participants cited program management, facilitation, trust, conflict management, consensus, and training as being key to planning and network collaboration.

Participants provided examples of collaboration before, during, and after incidents such as the September 11, 2001 Pentagon attack described in Chapters 1 and 2, the September 16, 2013 Navy Yard shooting, presidential inaugurations, State of the Union

Addresses, the September 22, 2015 papal visit, adverse weather conditions (hurricane, earthquake, derecho, and snow), and events that occurred outside the region that required regional situational awareness (e.g., Republican and Democratic national conventions, United Nation General Assembly, and Super Bowl games). In addition to network members, there was collaboration among network stakeholders that included Military District of Washington, Park Police, U.S. Coast Guard, Metropolitan Police Department, Pentagon Force Protection Agency, U.S. Secret Service, National Weather Service, National Stadium officials, and other nongovernment, private, nonprofit, and volunteer organizations.

Participants in this study perceived that through collaboration planning efforts occurred at both local and regional levels and met requirements for disaster responses. Established organizations, processes, and practices provided the structure to support multiple sectors, functions, and levels of government. The structures were broad enough to provide a baseline for activities and to allow for flexibility in a complex planning and response environment. Another conclusion that emerged from the research was that there is a synergy between network governance, collaboration, and relationship building.

Network resilience was also evident in participant responses. In the context of emergency management, Gerber (2015) defined resilience as a "discipline-specific" term that denotes "the ability of a community to resist, absorb, and bounce back from an external shock (i.e., an emergency or disaster)" (p. 49). Network participants exhibited resilience through plan development and adaptation to issues that arose during planning and collaboration. When the network could anticipate, respond, and adapt to activities,

operational integration existed between local, state, and federal governments (Gerber, 2015).

There were aspects of network collaboration that could be considered to be weaknesses. Purdy (2012) identified incongruent objectives, limited fiscal resources, and inflexible incomplete governance as limitations of collaboration. These characteristics influence the collaboration process and were discussed by study participants (Bryson, Crosby, & Stone, 2006). The National Capital Region network collaborated to counter these potential weaknesses. For example, consensus was reached to develop regional strategic and operational plans as well as local plans that supported local and regional plan requirements. The MWCOG collaborated with states to regionally adhere to Homeland Security Grant Program UASI funding guidelines. The National Capital Region planning network collaborated to resolve limitations in order to reach local and regional objectives. Each of the participants felt that collaboration what critical to accomplishing their goals.

Limitations of the Study

As noted in Chapter 1, the research subject and the setting can impact the causal relationship associated with the outcome of qualitative research (Patton, 2002). Two limitations affected the trustworthiness of this study. First, the study was generalized to one region, the National Capital Region. The second limitation was the five participant sampling size.

Generalization to One Region

The study was limited to the National Capital Region. Regional councils of

governments such as the MWCOG were created to assist local governments within

defined boundaries in working together to resolve challenges associated with federal,

state, and local programs such as public safety (LeRoux, Brandenburg, & Pandey, 2010;

National Association of Regional Councils, 2015). There are over 500 regional councils

of government in the United States (National Association of Regional Councils, 2015).

Of the 39,000 local governments in the country, more than 90% are served by regional

councils of government that can collaborate to develop plans to ensure communities

prepare for emergencies (National Association of Regional Councils, 2015). The analysis

suggests that the National Capital Region is one of the most complex U.S. regions within

which to collaborate and was thus suitable for this study. In addition to over 5 million

people living in the area, the region is also home to 4,000 diplomats associated with 175

embassies and foreign cultural centers, over 8,000 people who work for international

organizations such as the World Bank, and on average, over 20 million tourists annually

(Department of State, 2015; MWCOG, 2010; Washington, DC, 2015). The MWCOG

(2014a) founded in 1960, includes 22 local governments, the state legislatures of

Maryland and Virginia, and the federal government, including the U.S. Congress.

Sampling

A case study is an opportunity to provide analytic generalization about a

theoretical framework and not to build a theory (Yin, 2014). Rather than statistical

generalizations about "sampling units" that are meant to represent a larger population,

case study sampling results in high level conceptual generalization (Yin, 2014, p. 40). A

sample size of five led to identifying themes that assisted in describing how the

emergency operations planning network collaborates. Creswell (2013) stated that four to

five participants for single case study research are appropriate to discover themes for

analysis.

I planned to interview participants from the federal, regional, and state (Maryland,

Virginia, and Washington, DC) levels. Each participant would have been a current

member of the emergency operations planning network. Including FEMA, Maryland, and

Washington, DC would have added the perspectives of other network members for

analysis. However, 10 organizations that I contacted did not respond to requests for

inclusion in the study or declined to participate. Therefore, the study did not include

federal representation and two of the three states mentioned above, though MWCOG

guidance did describe the role of these organizations in the collaboration process. I

consequently expanded the sampling strategy to include regional, state, local, and

military network members. The result was a richer understanding of collaboration

because each participant represented a different level of network membership. Each of

the participants interviewed during the 6 month data collection period of this study

actively participated in network collaboration.

Recommendations

Shifts in how emergencies affect the nation were noted after the September 11,

2001 attacks on the U.S. and after Hurricane Katrina in 2005 (Comfort et al., 2012). Two

significant changes included creation of the DHS and substantial changes in emergency

preparedness (Comfort et al., 2012). Planners are responsible for understanding risks, evaluating hazards, and developing comprehensive plans to mitigate hazards, the first steps in emergency preparedness (FEMA, 2015c; Klaiman, Ibrhim, & Hausman, 2009; Lindell, 2013). Along with risk analysis, organization, resource management, and strategy are additional factors addressed in the planning process. The plan provides a strategy for contending with vulnerabilities in the mitigation, preparedness, response, and recovery phases of emergency management (Berke, Cooper, Salvesen, Spurlock, & Rausch, 2010).

Public administration scholars who were initial fellows in a National Association of Schools of Public Affairs and Administration and FEMA program to develop scholars with background in emergency management research, studied categories of emergency management that included risk, information technology, decision making, policy, intergovernmental relations, and collaborative leadership (Comfort et al., 2012). There is an expectation in the field that within the next 10 years research will expand to include multiple disciplines, organizations, jurisdictions, and structures as scholars and public managers continue to recognize the interrelated impact of these components on society (Comfort et al., 2012). Collaboration and emergency planning research, individually or collectively, can be overlaid on each of the factors functions above.

Comfort et al. (2012) stated that there is significant study of disaster and emergency management research topics such as collaborative leadership, communication, coordination, intergovernmental relations, and urban planning. However, current research does not show that there has been much investigation of emergency operations planning

(Lindell, 2013). Lindell (2013) stated some disaster-related topics may not appeal to social or behavioral scientists. Yet, they are important to the emergency management field because emergencies are as much national and international concerns as they are local (Comfort et al., 2012). Studies related to disasters should be balanced between theoretical behavioral science studies and the real-world problems that occur.

Future research that includes data from the DHS, FEMA, Washington, DC, and Maryland would provide additional insight into the effectiveness of planning collaboration in the National Capital Region. How collaboration influences organizational structure, the structure of public policy collaboration, how collaboration differs between emergency management, collaboration between other government functions, and the impact of previous threats on collaboration also merit research. The study of collaboration in the emergency operations planning network should also be extended to include plan execution. In a series of articles, Birdsall (2009a, 2009b, 2010) described his experience in the aftermath of Hurricane Katrina and responded to scholarly reviews of his articles. There was agreement that comprehensive emergency preparedness planning by multiorganizational networks impact disaster responses (Birdsall, 2009a, 2009b, 2010). Although the planning process is challenging, plan execution can be even more difficult.

Implications for Social Change

The world is complex and globally interdependent, and the need to collaborate across sectors and regions is a reality (Crosby, 2010). Comfort et al. (2012) noted that responsivity for emergency management, while still mainly a local responsibility, also

has national and international implications. Local governments are responsible for providing services to their citizens and for providing safety from hazards and threats (Gerber, 2015). Addressing vulnerabilities in advance of a disaster helps to ensure that jurisdictions are better prepared to respond when an incident does happen (Mishra, Fuloria, & Bisht, 2012). Planning for disasters is critical to the response and the safety of people, property, and the environment affected. Positive social change would occur by expanding the emergency management network understanding of a regional cross-sector collaboration planning model that would further enable regions, states, and local jurisdictions to provide for the safety of the people, property, and environment for which they are responsible.

Numerous major incidents have occurred in the National Capital Region and the United States that showed how interrelated and interdependent disaster responses are in the region because major incidents usually traverse jurisdictions and sectors (Boin & Hart, 2010). On September 11, 2001 flights throughout the country were affected by the attacks in Arlington, Virginia; New York City, New York; and Shanksville, Pennsylvania. Incidents like the 2011 earthquake in Mineral, Virginia, 2012 Hurricane Sandy, and 2013 Navy Yard shooting in Washington, DC impacted each state in the National Capital Region. The earthquake originated outside of Mineral, Virginia and was felt from Georgia to Canada and category 1 Hurricane Sandy touched the east coast from North Carolina to Maine and inland to West Virginia, Ohio, and Indiana (U.S. Geological Survey, 2014; U.S. Senate, 2012). The shooting occurred in Washington, DC, but employees working at the Navy Yard lived in Washington, DC, Maryland, and Virginia

(NBC Washington, 2014). Each incident that affected the National Capital Region was impacted by the effectiveness of regional planning and collaboration.

All study participants described how they used established processes and procedures to facilitate preparedness improvements. The processes and procedures included after action reports, future planning assessments, training, and exercises to learn what did and did not work in the aftermath of incidents. They identified the value of collaboration in learning the capabilities and expectations of other collaboration members, knowing what to expect during an emergency, and knowing who to call for help or request help.

Emergency operations plans are guidelines for preparedness, mitigation, response, and recovery and express the synchronized goals, objectives, and actions that would be required in an actual situation. The unity of purpose for effective planning requires collaboration across multiple levels of government and nongovernment, private, nonprofit and volunteer organizations. Their actions affect the protective measure of the whole community and are the impetus for a resilient community.

Based on evidence of the literature review and data analysis, the National Capital Region cross-sector emergency operations planning network collaboration model facilitated planning for synchronized regional disaster responses. Due to the complexity of the National Capital Region and the thoroughness required to plan for the region, applying the collaboration model in part or whole to other regions, states, or local jurisdictions could extend to national implications for positive social change. Additionally, any of the 500 regional councils of government that plan for emergency

responses could apply appropriate portions of the National Capital Region planning network collaboration model to their own planning processes or extend application to other emergency management responsibilities to improve regional activities.

Conclusion

The emergency operations planning process is challenging because it crosses sectors and levels of governments and should include all probable hazards, be broad enough to include the whole community, and yet detailed enough to provide a required level of guidance (Sievers, 2015). Moreover, planning activities can be constrained by numerous factors such as funding, leadership, governance, time, and resources. Planners collaborate to contend with problems associated with the complex and uncertain emergency management environment (Bowman & Parsons, 2012). They work within a network of members and stakeholders that are responsible for responding to extreme incidents. Collaboration is strengthened by leveraging network member and stakeholder capabilities and resources (Davis & Eisenhardt, 2011). Bowen (2008) suggested that collaboration was central to ensuring that appropriate state and local public managers understood emergency operations plans and to adequately staffing, training, and equipping to implement the plans.

Established planning and collaboration result in more successful disaster responses (Sievers, 2015). Bowman and Parsons's (2012) research that found that counties in close proximity were more likely to work together to develop complimentary solutions to shared challenges reinforces the results of this study. Collaboration was

initiated, implemented, and sustained at each level included in this study to address challenges.

The National Capital Region emergency operations planning network collaborated across levels of government and sectors. Collaboration facilitated creating operations plans that support local disaster challenges. The plans are also synchronized for regional responses where partners and stakeholders work together to plan for, mitigate, respond to, and recover from disasters. This capability required decentralized planning within a network that understands needs and is empowered to collaborate to leverage capabilities, strengths, and resources.

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Appendix A: Interview Questions

RQ 1: How does the National Capital Region emergency operations planning network collaborate to create plans that support a synchronized regional response to disasters?

   a. How does your organization collaborate within the network?
   b. What impact does collaboration have on state emergency operations planning?

RQ 2: How do planners and policy makers perceive regional response synchronization?

   a. What impact does collaboration have on regional preparedness policy development?
   b. How effective do you perceive collaboration to be in synchronizing regional responses?

RQ 3: How do state and regional organizational structures support collaboration within the emergency operations planning network?

   a. What role does your organization play in the emergency operations planning collaboration process?
   b. What structures are in place within your organization to support regional collaboration?

RQ 4: How do state and regional institutional processes and practices support collaboration within the emergency operations planning network?

   a. What practices and processes does your organization have in place to support planning network collaboration? How do they support network collaboration?
   b. How do these factors enhance or impede collaboration practices and processes?

RQ 5: How do relationships within the emergency operations planning network support collaboration?

   a. What is your organization's relationship with the regional planning network and how does it support collaboration?
   b. How do personal relationships affect or impede collaboration?

Appendix B: Exit Interview

Interviewer Address

Mr.

Thank you for participating in my study. A transcript of our interview is attached. Please review it for accuracy and let me know immediately if you find errors or would like to edit any of your responses.

If I do not hear from you I will call you in about two weeks to confirm that the transcript is an accurate account of our meeting.

After I transcribe all of my interviews I will provide you with a copy of the interview results.

Thanks again for the valuable information you provided during the interview process.

Sincerely,

Marilyn Peppers-Citizen
Doctoral Candidate
Walden University

Appendix C: Letter of Cooperation

Address of Community Partner

Date

Dear Marilyn Peppers-Citizen,

      Based on my review of your research proposal, I give permission for you to conduct the study entitled Emergency Operations Plan Collaboration for Synchronizing Disaster Responses in the National Capital Region within the (title of office). As part of this study, I authorize you to recruit and interview staff members who are involved in the emergency operations planning or collaboration efforts associated with the National Capital Region emergency preparedness network. Individuals' participation will be voluntary and at their own discretion.

      We understand that our organization's responsibilities include: providing normal access upon request to personnel, a secluded location to conduct interviews, access to approved meetings, and public data that might be pertinent to the study. Personnel will be allowed to participate in interviews during normal working hours on (community partner) property, if available. The researcher can observe approved meetings. We reserve the right to withdraw from the study at any time if our circumstances change.

      I confirm that I am authorized to approve research in this setting.

      I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University Institution Review Board.

Sincerely,

Community Partner