PRE-DISASTER INTEGRATION OF COMMUNITY EMERGENCY RESPONSE TEAMS WITHIN LOCAL EMERGENCY MANAGEMENT SYSTEMS

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Pre-Disaster Integration of Community Emergency Response Teams within Local Emergency Management Systems

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ABSTRACT

This study explores how Community Emergency Response Teams (CERTs) were integrated within local emergency management systems pre-disaster. Semi-structured interviews were conducted following Rubin and Rubin's (2005) Responsive Interviewing Model with 21 CERT team coordinators in FEMA Region VII (Iowa, Kansas, Missouri, and Nebraska). It found that teams varied with regard to integration, and this variance could be explained by a number of related factors. Results suggest that if a team has a skilled leader, stability as an organization, and acceptance by the local emergency management system, they are more likely to be integrated than a team that is lacking some or all of the aforementioned factors. This study categorizes teams on a continuum according to their integration. Finally, this study concludes with a discussion of implications for practice, policy, and research, as well as recommendations for practice and research.

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DEDICATION

This thesis is dedicated to my beautiful wife Lauren. Thank you for everything you do for me . . . especially moving to North Dakota.

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LIST OF ABBREVIATIONS

CNCS ..... Corporation for National Community Service

DHS..... Department of Homeland Security

EFO ..... Executive Fire Officer

EOC..... Emergency Operations Center

FEMA ..... Federal Emergency Management Agency

ICS ..... Incident Command System

MRC..... Medical Reserve Corps

NIMS..... National Incident Management System

SOG..... Standard Operating Guideline

SOP ..... Standard Operating Procedures

TTT ..... Train the Trainer

UASI ..... Urban Areas Security Initiative

US ..... United States

VIPS ..... Volunteers in Police Service

CHAPTER ONE: INTRODUCTION

The national Community Emergency Response Team (CERT) program is intended to prepare citizens pre-disaster to respond safely post-disaster (Flint & Brennan, 2006; Flint & Stevenson, 2010; Federal Emergency Management Agency, 2013b). Based on the assumption that citizens in impact areas are needed to respond post-disaster, CERT trains teams of individuals to respond to the needs of their families and neighborhoods, including extinguishing small fires, shutting off utilities, administering first aid, and performing light search and rescue (National CERT Program, 2011b). These teams are developed, trained, and sustained at a local level and coordinated by a first responder organization or office of emergency management (Simpson, 2001). This study will explore how CERT teams are integrated within local emergency management systems pre-disaster. This study will explore the following specific questions related to CERT teams:

1. How are CERT teams integrated within local emergency management systems pre-disaster?
2. What explains variation in how the teams are integrated within local emergency management systems pre-disaster?

This chapter situates this study's research questions in the context of the history of the establishment of the CERT program and the existing literature on CERT. The chapter concludes by suggesting the potential significance of this study's research questions to theory and practice in light of this context.

Development of CERT

Long before the Community Emergency Response Team (CERT) program existed, government at all levels was interested in preparing citizens for response. In fact, the first formal

program designed to foster citizen preparedness can be traced to World War II (Simpson, 2001). Government at all levels in the United States considered a domestic attack likely. Government acknowledged that neither national, state, nor local government would be capable of addressing the widespread impacts that would result from an attack. It was believed the average citizen would have to respond to and solve small problems before they became larger ones, such as putting out a fire from a bomb before it burnt down the entire neighborhood. Civil defense organizations at the national, state, and local level were developed for the primary purpose of "involve[ing] civilians in the war effort" (Rubin, 2007, p. 81).

The Block Leader Service program is one example of how government sought to engage citizens. The national Office of Civilian Defense designed the program to build citizen preparedness at the local level neighborhood-by-neighborhood, block-by-block and promoted its implementation throughout the United States (U. S. Office of Civil Defense, 1943). The program was administered by local jurisdictions and trained citizens on subjects such as first aid, fire suppression, fire science, post-bombing scenarios, and radiology (Simpson, 2001). Each neighborhood group elected a leader who would coordinate "campaigns" to collect scrap metal, sell war bonds, conduct air raid and bomb shelter drills, and prepare the neighborhood for any threats they considered to be dangerous (Simpson, 2001; U. S. Office of Civilian Defense, 1943). These groups also coordinated emergency response activities acting as auxiliary police and firemen, filling the void left by individuals deployed as members of the armed forces (Simpson, 2001).

The Block Leader Service was the first program to seek to formally train citizens to respond. It was a popular program with local governments and citizens alike during WWII and even into the early years of the Cold War; yet, as the risk of domestic attack was perceived to

diminish, so too did the popularity and support of the Block Leader Service and programs like it (Simpson, 2001). A formal program seeking to train citizens to engage in response activities did not emerge again until the 1980s in California (Simpson, 2001).

Local officials in the Los Angeles area were interested in empowering citizens with earthquake-related knowledge and skills as a means of reducing post-earthquake needs in the future (Simpson, 2001). They looked to the earthquake prone city of Tokyo, Japan to see how they addressed community preparedness (Flint & Stevenson, 2010; Simpson, 2001). They found that Tokyo had a program to train citizens in some response activities and even went so far as to hold community-wide drills to test citizen response and knowledge of what to do in an earthquake (Simpson, 2001). Los Angeles officials asked the local fire department if it would create a program with a similar structure for use in the city; and, in 1985, the department did—complete with "materials and training modules" (Simpson, 2001, p. 57).

After the Loma Prieta Earthquake in 1989, residents in a number of cities recognized the need to be ready to respond in the initial hours and days after earthquakes. Using the Los Angeles program as a model, over the next few years, a number of jurisdictions in the San Francisco Bay Area developed similar programs. The programs in Los Angeles and the Bay area operated in isolation of one another (Simpson, 2001). Each jurisdiction named their program uniquely and each created their own materials and training modules to prepare individuals in their respective jurisdictions (Simpson, 2001). Each jurisdiction supported its program with staff and funding, but it was citizen "enthusiasm" that determined the program's strength (Simpson, 2001). Over time, the various jurisdictions coordinating citizen programs began to regionalize and coordinate their efforts with the help and leadership of the San Francisco Fire Department (Simpson, 2001).

In 1993, FEMA saw the potential of these programs. Simpson (2001) suggests that FEMA played an invaluable role in the development and implementation of support nationwide by helping to institutionalize, validate, standardize, facilitate, and promote the program (p. 60). The agency did so by undertaking a variety of activities including branding the program as the Community Emergency Response Team (CERT) program, developing and offering a "train-the-trainer course", providing downloadable promotional and training materials, and creating and administering a listserv (Simpson, 2001). FEMA's support and the occurrence of a number of devastating large-scale disasters in the 1990s led to the founding of multiple CERT programs in the states of Washington, Utah, Oregon, North Carolina, and 11 other states (Simpson, 2001).

CERT Today

Citizen preparedness for terrorist attacks became a focus of the newly created Department of Homeland Security and a renewed focus for FEMA within it. FEMA, at the direction of President George W. Bush, created Citizen Corps to facilitate citizen involvement in all "activities that will make our communities safer, stronger, and better prepared to respond to any emergency situation" (Ready, 2013a). Citizen Corps became an umbrella organization for a number of programs including CERT and Fire Corp, Neighborhood Watch Program (retitled USAonWatch), Medical Reserve Corps (MRC), Volunteers in Police Service (VIPS), and Corporation for National and Public Service (CNPS) (Ready, 2013a). CERT has remained a part of Citizen Corps and been promoted by FEMA. FEMA provided significant financial support to states to develop various programs within Citizen Corps following September 11, 2001. This financial support spurred the expansion of the CERT program.

While the CERT program had been steadily adopted and implemented across the United States in the 1990s, it rapidly expanded in the post-September 11, 2001 terrorist attack era (Flint

& Stevenson, 2010). Today, there are CERT teams in all fifty states, as well as the territories of Guam, the Northern Mariana Islands, and Puerto Rico (Citizen Corps, n. d.). Within every state and territory, there are many teams and those teams are coordinated by many different organizations. Businesses, universities, nonprofits, schools, youth groups, churches and county, city, and tribal jurisdictions can all form CERT teams as long as they coordinate with, and receive training from, a local supporting first responder or emergency management agency (Federal Emergency Management Agency, 2012d). Currently, there are approximately 2,420 "local" teams (Citizen Corps, 2013). While there was significant funding support for CERT program development in the immediate wake of September 11, 2001 terrorist attacks, the funding to support Citizen Corps (and CERT as a program within it) has been declining in the past few years (see for example: U.S. Department of Homeland Security, 2010 compared to U.S. Department Homeland Security, 2011 compared to U.S. Department of Homeland Security, 2012). Research has not investigated what, if any, impact the decrease in funding has had, or will have, on the number or strength of CERT programs in the country.

Currently, CERT classes are taught by certified trainers and specific modules within the class are taught by subject matter experts. The program includes six basic training modules: 1) disaster preparedness, 2) disaster fire suppression, 3) disaster medical, 4) light search and rescue, 5) disaster psychology, and 6) a disaster simulation exercise (Federal Emergency Management Agency, 2012b). Although these subjects represent the base for all CERT trainings, trainers are encouraged to supplement their instruction through the use of local photographs and hazard events to better relate the material to the community (National CERT Program, 2011b). Trainers are also encouraged to provide additional pertinent information and supplemental handouts such as pamphlets from local utility companies or first responders (National CERT Program, 2011b).

At the end of the training, students go through a graduation ceremony and receive a diploma (National CERT Program, 2011b) as well as a CERT vest, a hardhat, and other related equipment (Simpson, 2001).

After this training, the coordinating organization dictates what roles the CERT team will have pre-disaster and in disaster-response (National CERT Program, 2011b). The responsibilities of most CERT teams are to respond first as individuals, assist individuals in the immediate area, then meet the rest of their team at a predefined staging area (National CERT Program, 2011b). After discussing the needs of the neighborhood, groups of team members can "fan out within their assigned areas, extinguishing small fires, turning off natural gas at damaged homes, performing light search and rescue, and rendering basic medical treatment" (National CERT Program, 2011b, p. 5). CERT members can also be observers for first responders, sending runners to provide status updates for the affected area (National CERT Program, 2011b). CERT teams have also engaged in a number of other efforts including searching for a missing woman in Cameron, Missouri, sandbagging in Fargo, North Dakota, and clearing snow from fire hydrants in Parma, Ohio (Federal Emergency Management Agency, 2012c). The instructor manual and CERT train-the-trainer manual do not specify or recommend what role CERT teams might play day-to-day, nor do they specify how CERT teams might or ought to be integrated within pre-disaster local emergency management systems through activities such as planning, training, and exercises (National CERT Program, 2011a, 2011b).

The responsibilities and functions of each team can be tailored to the locale. All teams are charged with responding to a hazard event in keeping with their training but any further responsibilities or team goals are set by the community and sponsoring organizations (Federal Emergency Management Agency, 2012b). Thus, the specific pre- and post-disaster roles of each

CERT team within a local emergency management system and the extent to which each team is integrated within that system pre-disaster is likely to vary system-to-system.

Only three empirical studies have examined the roles of CERT teams (i.e., Flint & Stevenson, 2010; Franke & Simpson, 2004; Gonzalez, 2005) and of these only one study explored CERT teams pre-disaster (i.e., Flint & Stevenson, 2010). The lack of research on how CERT teams are integrated in local emergency management systems pre-disaster partially justifies the focus of this study. Also supporting this study's research question are the findings from the small body of existing work.

While finding that CERT teams were involved in a variety of community level activities after first checking on their family and neighborhood following Hurricane Isabel in 2003 including damage assessment, distributing resources, debris removal, and staffing a call center, Franke & Simpson (2004) noted that the teams "had yet to create a clear role for themselves in relation to the established emergency management functions" (p. 1). Their finding suggests that integration of the teams within the surrounding system may have been lacking pre-hurricane.

Gonzalez (2005) explored CERT activity during the 2004 hurricane season in Florida. He also found that CERT teams were involved in a variety of ways post-hurricane, including distribution of flyers, making sandwiches, and distributing ice and water. In addition, Gonzalez found that CERT team members experienced considerable frustration working within local emergency management systems during the completion of these tasks. There was a lack of planning for how to use the teams; they were provided conflicting information about what to do and where to go; and, they were allowed to do a given activity at a given place for several days and then told they could no longer be there. Moreover, Gonzalez found that practitioners did not think highly of the CERT teams and that the CERT team members did not feel they were valued

or appreciated. All of the issues described by Gonzalez would, like Franke & Simpson (2005), seem to suggest a lack of integration of the teams pre-disaster.

Flint & Stevenson (2010) conducted the only study of CERT teams pre-disaster and found considerable variation in the extent to which CERT teams were integrated within local emergency management systems. Some local emergency management systems extended the opportunity for CERT teams to participate in "additional training outside of the CERT curriculum, [and] participat[e] in nonemergency community events"; some involved the teams in community activities such as exercises; some had them assist in emergency situations, helping first responder organizations; and, some did none of these things (Flint & Stevenson, 2010, p. 121). They also found variation in the extent to which practitioners within the systems wanted to integrate the teams. Some coordinators were interested in "keeping their members active and engaged" (Flint & Stevenson, 2010, p. 121) while others were not due to their belief that CERT was "about educating oneself and their family in the event of a disaster…concern was expressed about the current program's ability to prepare the members to effectively aid disaster response beyond ensuring their personal and their family's safety" (p. 121).

As will be discussed in Chapter Two, the disaster literature suggests that the CERT program has incredible potential. Specifically, the CERT program trains individuals that may very well have spontaneously become engaged in response activities after a disaster and affiliates them with a group. The CERT teams that result may maximize the benefits and limit some of the negative side effects that are sometimes associated with volunteer involvement post-disaster. Yet, the literature related to the human response suggests that the teams have to be integrated within the surrounding local emergency management system pre-disaster to be most helpful. For

the purposes of this study, integration will be understood to be an entity being a recognized part of the formal local emergency management system.

Significance

The previous literature specifically related to CERT did not suggest that team integration is important or how it might be accomplished. The small body of existing research related to CERT roles suggested that integration varies, but had not a) explicitly examined this topic or b) offered explanations for why variation existed. Given the potential of these teams and the state of both the practitioner and research literature on the topic, the focus of this study was warranted. This study explored the extent to which CERT teams were integrated within local emergency management systems as well as the factors that explained the variation observed. The results of this study provide a foundation for the conduct of future research on CERT. This study's findings are also useful to educators in emergency management higher education programs seeking to inform students about community response, associated phenomena (both negative and positive), and what might be done to bring about more effective response. Practitioners interested in learning more about CERT teams, what they do, how they are integrated from locale-to-locale will find value in this study—particularly those who may be interested in exploring how to better maximize the value of these teams. For those teams and coordinators seeking to integrate their team into the local emergency management system, this study explores the factors that would need to be addressed to bring about this transition. This research also provides policy makers with insight into the factors that affect whether or not a team is integrated, thereby informing future decision-making.

Conclusion

This chapter has presented the research questions for this study and the context in which the potential significance of the study can be understood. Chapter Two discusses the literature related to the nature of disasters, community engagement after disasters, and how we might improve disaster response pre-disaster. Chapter Three describes the methodology that was used to explore the research question for this study. Chapter Four discusses the variance in integration of teams observed within this study. Chapter Five discusses the factors leading to this variance. Chapter Six discusses the significance of this study and the implications it has for practice, policy, and research. Chapter Seven concludes this thesis by summarizing the study and providing recommendations for future research.

CHAPTER TWO: LITERATURE REVIEW

Chapter Two reviews the literature that this study used as its foundation. The first section discusses the nature of disasters. The second section discusses the positive and negative aspects of emergence and convergence within the post-disaster phenomenon known as "therapeutic community". The third section discusses the potential for citizen responders to be engaged within local emergency management systems pre-disaster—particularly through programs like the Community Emergency Response Team (CERT) program. The fourth section describes the existing CERT research.

Nature of Disasters

Events commonly termed emergencies or disasters result from the interaction of a hazard with the vulnerabilities of a given people and place (see for example: Alexander, 2000; Cannon, 2008; Cutter, 2001; Hewitt, 1983; Mileti, 1999; Mitchell, 1989; National Research Council, 2006, White, 1942, 1973; White & Haas, 1975; Whyte, 1986). The number, type, and extent of impacts and needs that are produced by this interaction vary by the characteristics of the hazard and the types and extent of vulnerabilities of the impacted people and place. The amount of forewarning, speed of onset, duration, geographic scope, and severity help explain impacts and needs evidenced after a hazard event (see for example: Lindell & Prater, 2003; Weller & Kreps, 1970). Yet, as Alexander (2006) argues, "vulnerability is a greater determinant of disaster than hazards themselves (p. 2). Thus, the vulnerabilities of people and place are critical to explore. Individual vulnerability is associated with gender (see for example: Blaikie, Cannon, Davis, & Wisner, 1994; Enarson & Morrow, 1998; Enarson & Scanlon, 1999; Fordhman, 2007; Fothergill, 1996; Ikeda, 1995; Morrow & Phillips, 1999), socioeconomic status including income, occupational prestige and political power (see for example: Cutter, Mitchell, & Scott, 2000;

Kamel, & Loukaitou-Sideris, 2004; Peacock, Morrow, & Gladwin, 1997), household size (see for example: Blaike, Cannon, Davis, & Wisner, 1994; Morrow, 1999), housing and whether one lives in a congregational care setting, rents, or owns (see for example: Kamel, & Loukaitou-Sideris, 2004; Morrow, 1999), strength, geographic spread, and density of social networks (see for example: Airriess, Li, Leong, Chen, & Keith, 2008; Beggs, Haines, & Hulbert, 1996; Forgette, Dettrey, Van Boening, & Swanson, 2009; Ibanez et al., 2003), and social integration (see for example: Klinenberg, 2003), among others. The amount and types of vulnerability of a place also explain impacts and needs that manifest during disasters. Vulnerability of place depends on social features like culture, previous experience with hazards, and preparedness/mitigation undertaken to address hazards (see for example: Borden et al., 2007; Cutter, Boruff, & Shirley, 2003; McEntire & Fuller, 2002; Wisner, 2004), physical dimensions of the landscape and where humans settle given those features (see for example: Borden et al., 2007; Cutter, 2001; Cutter, Boruff, & Shirley, 2003; McEntire & Fuller, 2002; Pelling, 2003), aspects of the built environment including quality of construction and density of building (see for example: Borden et al., 2007; Cutter, Boruff, & Shirley, 2003; Cutter, Mitchell, & Scott, 2000; McEntire & Fuller, 2002; Mileti, 1999; Norton & Chantry, 1993), the stability, diversity, and strength of the economy (see for example: Alesch, Arendt, & Holly, 2009; Webb, Tierney, & Dahlhamer, 2000), and political factors such as degree of centralization, extent of pluralism, and form of governance (see for example: Oliver-Smith, 2002; Wisner, 2004). The interaction of a hazard and vulnerabilities commonly results in an emergency or a disaster. The term disaster scholars use to label the event varies by the impacts and needs associated with the event, who becomes involved in addressing them, and how addressing the impacts and needs is handled (Auf der Heide, 1989).

Community Response

Emergencies are associated with relatively low direct and indirect impacts to people, property, and the environment (Auf der Heide, 1989; Quarantelli, 2000). The needs that result from those impacts are few. Most communities experience this type of event on a regular basis (Auf der Heide, 1989; Quarantelli, 2000). The response to them tends to be addressed by formal, often governmental, organizations—the employees of which have significant experience, expertise, and training relative to the impacts that must be addressed and the manner in which they should be addressed (Auf der Heide, 1989). These groups, commonly referred to as first responders, often include fire services, law enforcement, emergency medical services, and public works departments (Auf der Heide, 1989). The groups are able to address impacts with little need for external coordination or communication (Auf der Heide, 1989; Quarantelli, 2000). They are able to work independently with each organization, engaging in activities determined by tradition, law, or charter (Auf der Heide, 1989). Resources needed to respond to the event are few, available, all involved understand how to access them, and their cost is typically planned for in a jurisdiction's annual budget (Auf der Heide, 1989).

A disaster on the other hand is a non-routine event wherein associated needs and impacts overwhelm the capacity of impacted jurisdictions (Auf der Heide, 1989; Perry, 1991; Stallings, 2005). The priorities of the effected community sharply shift from typical day-to-day responsibilities and routines to address disaster-related impacts and needs (Auf der Heide, 1989; Drabek and McEntire 2003; Quarantelli, 1981; Quarantelli, 2000). The groups that would normally be involved in response to emergencies are no longer enough (Auf der Heide, 1989; Hoetmer, 1991), and a variety of additional government organizations that would not be involved in emergencies become involved in responding to the disaster. These organizations are assigned

new tasks that may be latent responsibilities (i.e., tasks they have planned to carry out in the event of a disaster but do not engage in them day-to-day) or emergent responsibilities unique to the particular event (Auf der Heide, 1989). Individuals within the organizations must complete activities they would not normally handle (Auf der Heide, 1989; Drabek & McEntire, 2003; Quarantelli, 1981, 2000).

Supplementing the response efforts of government organizations are other organizations from the nonprofit sector. Many of these are expanding or extending beyond tasks and activities they would undertake day-to-day to assist; operating with a different organizational structure to complete those tasks and activities; and, many are doing so with the help of people who they do not work with on a daily basis—volunteers (Dynes, 1970; Quarantelli & Dynes, 1977; Scanlon, 1999). The government and nonprofit groups responding are not just from within the community. Disaster response often involves additional organizations that come from a wide geographic range, a variety of jurisdictions, and multiple levels of government (i.e., businesses, nonprofits, and government) (Drabek & McEntire, 2002; Dynes, 1970; Smith, 2011; Warren, 1963; Weller & Kreps, 1970). The skill sets of the individuals that respond due to their affiliation with an organization are often inadequate to meet the unique needs of the situation in an effective, efficient, safe way (see for example: Auf der Heide, 1989; Quarantelli, 1981; Quarantelli, 2000). Unlike the individuals who respond to emergencies, those involved in disaster response have varying expertise, experience, and training related to the tasks and activities in which they engage (see for example: Auf der Heide, 1989; Brudney & Gazley, 2009; Drabek, 1985, 1987; Stallings, 1978). Yet, response to disasters is not limited to formal organizations that existed pre-disaster.

Emergence and Convergence

Adding to the complexity of disaster response efforts, the literature says groups will emerge (see for example: David, 2006; Green & Ireland, 1982; Kreps, 1978; Marjchrzak, Jarvenpaa, & Hollingshead, 2007; Scanlon, 1999; Taylor, Zurcher, & Key, 1970; Voorhees, 2008) and converge on disaster-impacted areas (see for example: Dynes & Quarantelli, 1980; Haas & Drabek, 1970). Stallings and Quarantelli (1985) define these groups as "private citizens who work together in pursuit of collective goals relevant to actual or potential disaster but whose organization has not yet been institutionalized" (p. 84). And, individuals acting independent of any organization also spontaneously converge hoping to assist in addressing disaster-related needs (see for example: Dynes & Quarantelli, 1980; Kendra, Wachtendorf, & Quarantelli, 2003). Activities in which community members acting as individuals or in groups often engage include collecting and distributing relief supplies (Drabek & McEntire, 2002, 2003; Wenger, 1992), carrying out search and rescue (Abrams, 1989 Drabek, 1985; Drabek & McEntire, 2002, 2003; Hershiser & Quarantelli, 1976; Scawthorne & Wenger, 1990; Wenger, 1989), tracking the dead and missing (see for example: Hershiser & Quarantelli, 1976), providing medical care (see for example: Quarantelli, 1983), and damage assessment (see for example: Quarantelli, 1983), among a variety of others (see for example: Drabek & McEntire, 2003; Wenger, 1992).

The literature on this topic indicates that a number of factors are related to the occurrence of the emergence and convergence phenomena after disasters. Individuals spontaneously engage in disaster response and form groups when they perceive that disaster impacts and needs are not being adequately met by existing organizations (see for example: Auf der Hiede, 1986; Drabek & McEntire, 2002, 2003; Hershiser & Quarantelli, 1976; Stallings & Quarantelli, 1985; Wenger, 1992); the closer they are to the impact area (see for example: Dynes & Quarantelli, 1980;

Nelson, 1973; Wenger, 1972); the more severe the impact (see for example: Perry, Gillespie, & Mileti, 1974; Wenger, 1972); and/or, when their friends, neighbors, and/or family have been impacted of the disaster (see for example: Form & Nosow, 1958; Wenger, 1972). Also influencing the engagement of individuals and the development of groups in the post-impact period are a post-disaster environment characterized by ambiguity and uncertainty about what the impacts are and the needs that exist (Drabek, 1986; Palmer & Sells, 1965; Parr, 1970; Quarantelli, 1966; Stallings, 1978). A low level of community readiness to adapt to and contend with the disaster (see for example: Dynes 1983; Dynes & Tierney, 1994; Majchrzak, Jarvenpaa, & Hollingshead, 2007; Neal & Phillips, 1995; Parr, 1970; Perry, Gillespie, & Mileti, 1974), an uncoordinated community-level response (see for example: Auf der heide, 1989; McEntire & Drabek, 2003; Parr, 1970; Stallings, 1978; Stallings & Quarantelli, 1985; Wenger, 1992); and, the community's past experience with disasters or lack thereof (see for example: Bardo, 1978; Drabek, 1986; Palmer & Sells, 1965; Perry, Gillespie, & Mileti, 1974; Quarantelli, 1966). These lists represent only a small fraction of the factors the literature suggests lead to the emergence and convergence of individuals and groups.

Therapeutic Community

The literature is clear that regardless of the reasons why individuals form groups or independently respond to disasters 1) they are doing so with the intent to help; 2) it is common for them to do so; and, 3) their involvement has a primarily positive influence on the overall response effort even while there are some challenges associated with it. Contrary to popular belief and myth, the human reaction to disasters is not one of panic or antisocial behavior (see for example: Auf der Heide, 1989; Barton, 1970; Drabek & McEntire, 2002, 2003; Dynes, 1970; Fischer, 1998; Fritz, 1996; National Research Council, 2006; Quarantelli, 1986; Tierney, Perry,

& Lindell, 2001). In fact, pro-social, helping behavior is dominant post-disasters (see for example: Drabek & McEntire, 2003; Dynes & Quarantelli, 1980; Quarantelli, 1986).

Pre-existing conflicts such as differing political views, disagreement about the allocation of community resources, and tension between social classes are temporarily suspended (see for example: Barton, 1970; Dynes, 1970; Fritz, 1996; Mileti, Drabek, & Haas, 1975; Quarantelli & Dynes, 1976; Wenger & Parr, 1969). Communities become more cohesive and unified following disasters (see for example: Drabek & McEntire, 2003; Quarantelli, 1986). The people in the community band together to meet the needs of the response (see for example: Barton, 1970; Dynes, 1970; Fritz, 1996; Mileti, Drabek, & Haas, 1975; Wenger & Parr, 1969). Community members lean on one another for support and experience some relief from the stress of the experience as a result (see for example: Fritz, 1996; Quarantelli & Dynes, 1976). A collective understanding of what has occurred and related response goals and priorities are developed quickly and backed by widespread consensus (see for example: Barton, 1970; Dynes, 1970; Fritz, 1996; Wenger & Parr, 1969). This phenomenon is often called the "therapeutic community" (originating with Fritz and Mathewson, 1958) or the "altruistic community" (originating with Barton, 1969). The therapeutic or altruistic community is temporary—once the urgency associated with saving lives, property, and/or the environment subsides, so too does the therapeutic or altruistic community (see for example: Barton, 1970; Drabek, 1989; Miller, 2007; Quarantelli & Dynes, 1976).

The Good and the Bad

It is within the "therapeutic" or "altruistic" community that the previously discussed emergence and convergence occur. This tendency of people to help others post-disaster is so common that many argue it is the norm (see for example: Barton, 1970; Destro & Holguin, 2011; Fernandez, Barbera, & van Dorp, 2006a; 2006b; Lowe & Fothergill, 2003; O'Brien & Mileti,

1992; Perry & Lindell, 2003). Moreover, the literature argues time and again that citizens undertake important tasks and that their involvement contributes to more effective and efficient response efforts (see for example: Auf der Heide, 1989; Barton, 1970; Drabek & McEntire, 2002, 2003; Dynes, 1994; Fritz, 1996; Mileti, 1989; Stallings & Quarantelli, 1985). As Wachtendorf and Kendra (2004) note, citizen responders

> …may already be close enough to damaged areas to provide immediate assistance; and they may provide for the flexibility that is needed when organizations confront rapidly changing conditions (p. 2).

Their involvement in basic tasks can free first responders to do the response tasks for which they have been trained (see for example: Fernandez, Barbera, & van Dorp, 2006a, 2006b; Lowe & Fothergill, 2003). In doing so, their efforts have also been suggested to save the taxpayers money (Fernandez, Barbera, & van Dorp, 2006a). Additionally, those who become involved tend to be "locals" and have local knowledge they can draw upon when assisting (see for example: Fernandez, Barbera, & van Dorp, 2006a; Kendra & Wachtendorf, 2002). In addition, a variety of negative aspects of their involvement have been noted in the literature.

Spontaneous volunteers and members of emergent groups are often not ready to undertake the tasks they do—they lack appropriate equipment, safety gear, education, training, and experience (see for example: Barsky, Trainor, Torres, & Aguirre, 2007; Fernandez, Barbera, & van Dorp, 2006a, 2006b; Kendra & Wachtendorf, 2001). Those who become engaged in response activity post-disaster may not have the expertise necessary to handle certain situations appropriately, e.g., being sensitive to the cultural needs of disaster victims (see for example: Drabek & McEntire, 2003; Katayama, 1992). Writing about volunteers in the aftermath of September 11, 2001, Kendra and Wachtendorf (2001) noted,

> They wanted to help…but it was their lack of identifiable, relevant capabilities, lack of legitimacy or connection to an organization from which they could borrow legitimacy,

> and probable lack of familiarity with emergency operations which rendered problematic their ties to the response milieu (p. 9).

As a result, these individuals have been found to sometimes make damages worse (Holland, 1989) or become victims themselves (see for example: Fernandez, Barbera, & van Dorp, 2006a; Holland, 1989). Their participation has been said to add to congestion at the disaster site and create logistical problems for those responsible for coordinating response efforts (see for example: Destro & Holguin-Veras, 2011; Drabek & McEntire, 2003; Dynes, 1994; Kendra & Watchtendorf, 2001; Neal, 1994; Wenger, 1991; Wenger, Quarantelli, & Dynes, 1987). Their involvement has also been found to overwhelm and frustrate professional responding organizations who believe that volunteers and emergent groups interfere with the more "formal response" being mounted by the surrounding local emergency management system (see for example: Auf der Heide, 1989; Drabek, 1985; Drabek & McEntire, 2002, 2003; Fernandez, Barbera, & van Dorp, 2006; Quarantelli, 1986; Scawthorn & Wenger, 1990; Stephens, 1997).

Local emergency management systems have historically not prepared pre-disaster to integrate emergent groups and volunteers into response systems and coordinate with them (see for example: Dynes, 1994; Fernandez, Barbera, & van Dorp, 2006a, 2006b; Holland, 1989; Wenger, 1991); and, to the extent that there is a post-disaster attempt to do so, it is typically piecemeal and ineffective (Fernandez, Barbera, & van Dorp, 2006a, 2006b; Wenger, 1991). Thus, as Fernandez, Barbera, and van Dorp (2006a) state, "individuals seek to perform services using only their own judgment and narrow view of the incident" (p. 2).

Part of the reason that local systems have not prepared to coordinate with volunteers and emergent groups is that they are often perceived by first responder and emergency management organizations as "problems that must be controlled" (Wenger, 1991, p. 12). Rampant concerns regarding "legitimacy, utility, and liability" associated with individuals and emergent groups that

volunteer post-disaster have been noted (Barsky, Trainor, & Torres, 2007, p. 505). Recent research has even found that many practitioners prefer spontaneous volunteers and emergent groups not be involved in the response at all—that the costs associated with their involvement outweigh the benefits (Barksy, Trainor, Torres, & Aguirre, 2007; Dynes, 1994; Kendra & Wachtendorf, 2001).

Despite practitioner feelings about citizen responders, the research strongly suggests that citizen involvement is normal, needed, and ultimately beneficial. A critical issue that needs to be addressed is not how to ward off citizen responders when disasters occur, but instead how to ensure that citizens are ready to respond in a way that complements the ongoing efforts of the surrounding formal local emergency management system. The literature suggests this latter issue cannot be effectively addressed post-disaster—it must be addressed pre-disaster. Specifically, the literature would suggest the way to maximize the good associated with citizen response post-disaster while limiting the bad is to engage citizens pre-disaster so that they might undertake response activity safely and as an integrated part of the overall response effort post-disaster.

Potential for Preparedness and CERT

The program that was the focus of this research—the CERT program described in Chapter One—is one possible means of identifying and training citizens for response pre-disaster. The potential exists to develop "quasi-professionals" through the CERT program (Barskey, Trainor, Torres, & Aguirre, 2007, p. 503). As Holland (1989) argued,

> the most desirable situation is to have trained people in the community who are not part of the formal response system but could take immediate action in the post-event period…who were trained in some basic light search and rescue techniques not requiring more than common household items and yard tools…These individuals could also receive training in basic first aid and means for recognizing signs of more deeply buried victims…enable[ing] them to provide not only better care for victims but also provide the professionals, when they arrive on the scene, with valuable information on where live victims might be buried (p. 328-329).

Yet, simply identifying groups of citizens and providing them a one-time training in these skills will not alone lead to more effective responses where the groups would contribute to a decrease in the negative consequences associated with emergence and convergence.

There is a recognized period before and after events where humans engage in activity to ready themselves for a disaster—the disaster literature widely refers to this as the preparedness phase. A number of activities should be undertaken within local emergency management systems to prepare for disasters including design and implementation of inter-organizational management structures and processes related to how information (see for example: Celik & Corbacioglu, 2009; Comfort, Ko, & Zaorecki, 2004; Comfort, Dunn, Johnson, Skertich, & Zagorecki, 2004; Fisher & Kingma, 2001; McEntire, 2002; Wenger, Quarantelli, & Dynes, 1989), communications (see for example: Comfort & Haase, 2006; Dynes & Quarantelli, 1976; Garnett & Kouzmin, 2007; Kapucu, 2006; McEntire, 2002; Quarantelli, 1987; Stallings, 1971), and resources will be managed (see for example: Auf der Heide, 1989; Holguín-Veras & Jaller, 2012), planning related to organizational roles and responsibilities and accomplishment of common response activities (see for example: Dynes, 1983; Gillespie & Banerjee, 1993; Kartez & Lindell, 1987; Lindell, 1994), and training and exercising community members and organizations regarding hazards and plans for addressing disasters (Daines, 1991; Drabek, 2005; Dynes, 1994; Peterson & Perry, 1999; Perry, 2004).

The literature suggests that when these activities are undertaken in local emergency management systems more effective community response efforts result (see for example: Auf der Heide, 1989; Drabek, 1986; National Research Council, 2006; Tierney, Lindell, & Perry, 2001); yet, there are three caveats that are important to note here. First, the value of these activities is directly related to whether they include *all* relevant stakeholders in the community (see for

example: Drabek, 1987; Drabek, Tamminga, Kilijanek, & Adams, 1981; Dynes, 1978; Gillespie, 1991; Gillespie, Colignon, Banerjee, Murty, & Rogge, 1993; Gillespie & Streeter, 1987; Neff, 1977; Quarantellii, 1984; Weller, 1972; Wenger, James, & Faupel, 1980). The National Research Council (2006) identified inclusion of "the diversity of organizations and community sectors" during the preparedness phase as one of the key "indicators of improved capacity" to manage emergence and convergence (p. 143). Second, stakeholders in the community either before, or by virtue of the preparedness activities, need to have relationships with one another based on trust (see for example: Cook, 2009; Dynes, 1970; Forrest, 1970; Kearney, 1972; Kiefer & Montjoy, 2006; Kueneman, 1973; McEntire, 1998, 1999, 2001; Patterson, 2003; Philips, 1984; Stallings & Schepart, 1987; Stephens, 1993; Sutton, 2002). Finally, the extent to which these activities lead to a more effective response is tied not just to whether they include relevant stakeholders and that they have trust-based relationships with one another, but also whether the activities are done on an ongoing basis (see for example: Drabek & Hoetmer, 1991; Dynes, 1983; Fisher 1978; Gillespie & Streeter, 1987; Perry, 1979; Quarantelli, 1981, 1993). Thus, according to the literature, simply training CERT teams in some basic skill areas is not enough to reduce the negative aspects of volunteers who emerge and converge post-disaster. If teams of citizen responders are to contribute positively, the literature suggests that teams must A) be involved in a range of community level preparedness activities, B) develop trust-based relationships with other emergency management relevant organizations, and C) be involved in community preparedness efforts on an ongoing basis. In short, the teams would need to be integrated within the local emergency management system.

Emergence and convergence, and the negative consequences associated with these phenomena will not be eliminated even if CERT teams were to be developed in every

jurisdiction across the country and integrated on an ongoing basis into preparedness activities and through their relationships with other organizations. The local emergency management system could work to actively integrate the teams but face, as Holland (1989) points out, a "problem of maintaining an ongoing group of people with a commitment to training and drilling for infrequent events with unpredictable recurrence rates" (p. 326). And, as Fernandez, Barbera, and van Dorp (2006a) put it, "[CERT] is very important; however, having a relatively small number of pre-trained citizens [relative to the total number of citizens in disaster-impacted areas] would likely not minimize the disruption to the responder community, nor provide for the safety of large numbers of untrained spontaneous volunteers" (p. 143). Therefore, in addition to developing CERT teams and ensuring they are integrated within local emergency management systems, "response networks must…be able to accommodate a process of self-organization—that is, organized action by volunteers and emergent groups (National Research Council, 2006, p. 143). Nevertheless, the potential of CERT teams seems high based on a review of the disaster literature, even while the potential is contingent on their integration within local emergency management systems pre-disaster. Yet, much about CERT teams is unknown including the extent to which CERT teams are integrated within local emergency management systems pre-disaster.

CERT Research

Despite the potential of CERT teams to help reduce the extent to which emergence and convergence occur and the negative consequences associated with the phenomena, the CERT program and CERT teams have not been the focus of much empirical research. Of the 34 articles the researcher could locate on the topic of CERT, only 7 reported the findings of empirical research. Bailey (2009) examined CERT team satisfaction and knowledge and concluded by recommending that a leadership and team building module be added to the CERT curriculum.

Getha-Taylor (2005) discussed why some states are more willing than others to mobilize volunteer forces for the purpose of homeland security. This study included discussion of the umbrella organization Citizen Corps and its subsidiary components, which would include CERT. The remaining five studies researched CERT at an individual team level. Topics included the relationship between CERT program establishment and distribution of disaster declarations (Brennan & Flint, 2007), the varied perceptions and use of CERT teams in the state of Illinois (Flint & Stevenson, 2010), the roles of CERT teams in response to a hurricane (Franke & Simpson, 2004), case studies of the how CERT teams were used and issues for consideration into the future (Gonzalez, 2005), and CERT leader perceptions of the effectiveness of CERT training (Sears, 2012). The empirical research on CERT is valuable. The studies, however, focused on a range of issues concerning CERT, and 7 total studies on the general topic are not nearly enough given the significance of the topic to the effectiveness of community response after disasters.

In addition to documents reporting empirical research on CERT, there were 3 general discussion articles on the topic that were found. These articles focused on the history of CERT (Simpson, 2001), creating a CERT team for a community college campus (Connolly, 2012), and the various ways CERT teams can be active within communities pre- and post-disaster (Flint & Brennan, 2006). While this literature is sensitizing for the person who would like to learn about these teams and cover a range of issues that are worth thinking about and even conducting research on, these articles do not report original empirical data; and, thus, they do not contribute to our knowledge or theory in an empirical way.

The vast majority of the documents on CERT (n=24) were authored by firefighters in pursuit of their executive fire officer training certification from the National Emergency Training Center. These officers are required to conduct a student paper on a “key issue or problem that has

been identified as being important to their fire service organization" (National Fire Academy, 2013, p. II-1). Twenty one fire officers to date have written on the topic of CERT. A significant number of papers (n=8) addressed the possible implementation of a CERT program in the author's jurisdiction (Jones, 2005; Kimura, 2007; Kitchens, 2002; Knight, 2005; Lange, 2002; Layman, 2004; Litzenberg, 2006; Schmidt, n. d.). Additional topics included optimizing the benefits of CERT trainings (Mitrano, 2004) and exploring the extent that fire fighters attitudes were likely to impede the effective utilization of a CERT team (Teolis, n. d.). These papers were written for the purpose of addressing a topic of relevance to their authors and their jurisdictions, rather than conducting research that follows methodological expectations associated with scientific research. These documents are also limited in their geographic scope and population, making the implications of those studies limited to the same groups. Empirical work exploring various aspects of CERT conducted in keeping with basic standards of social science research is much needed. While the existing literature provides important insight on topics relevant to CERT teams, its authors do not do so using these standards. This study will begin to address a gap in the literature. The contribution of this study will be maximized by employing an approach to data collection and analysis that is rigorous and respected by many within the social science research community.

Conclusion

The literature has pointed out that following a disaster there will be unmet needs in the affected area. To meet these needs, individuals will begin participating in "emergent" behavior to assist in any way they can. If there is a need and if it is known that individuals will attempt to meet this need, it would be a logical next step to mitigate potential negative byproducts of their post-disaster involvement by engaging individuals in local emergency management system

activities pre-disaster. CERT is one way of doing addressing this issue. Unfortunately, despite the decades long existence of the CERT program and the potential of these groups, very little empirical work has examined how the teams form, what they do pre-disaster and post-disaster, and/or how they work with and/or are perceived by other stakeholder organizations in the local emergency management systems, much less what might explain any observed variation across teams related to these issues. This study has made a significant contribution to the literature by exploring how CERT teams are integrated in local emergency management systems and factors that explain the variation of this integration. The next chapter, Chapter Three, describes the methods that were used to explore this important topic.

CHAPTER THREE: METHODS

Chapter Three is divided into five sections. The first section describes the methodological approach for this study. The second section discusses the population and sampling process for this study. The third section explains the process of data collection. The fourth section discusses the data analysis technique that was used in this study. The fifth section discusses the limitations of this study.

Methodological Approach

The goal of this study was to explore how Community Emergency Response Teams (CERTs) were integrated within local emergency management systems. Integration within this study is defined as an entity being a recognized part of the formal local emergency management system. This recognition can either be formally recognized through inclusion of the team into the jurisdictional plans, jurisdictional Standard Operating Procedures, and jurisdictional activities such as trainings and exercises, or informally through jurisdictions valuing the potential contributions of the team. There is little empirical research regarding CERT teams in general, much less regarding their relationship to local emergency management systems. Prior to this research, no studies existed that could provide a theoretical foundation on this topic. Because of this deficit, quantitative methods were not the best choice. Quantitative methodology uses existing knowledge to refine claims and test theories or hypotheses (Creswell, 2002). Quantitative methodology typically uses a rigid methodology that remains constant throughout the research process, such as experiments or surveys (Creswell, 2002). With the limited knowledge available on the subject of CERT teams, theory or hypothesis testing was inappropriate, and a rigid methodology may have restricted the researcher's ability to learn about

his topic (Creswell, 2002). Thus, it was necessary to use a qualitative methodology (Charmaz, 2006; Maxwell, 2005).

A qualitative approach to data collection considers respondents and the environment in which they exist holistically (Creswell, 2002; Taylor & Bogdan, 1998). Such an approach forces the researcher to not only understand the data the respondent is providing, but also acknowledges and is sensitive to the context and environment in which the respondent's opinion was founded (Creswell, 2002). Methods remain flexible throughout the process, changing to meet the needs of the study and the revelations of data collection and analysis (Creswell, 2002). Qualitative research is an inductive process that requires the researcher to make an interpretation of the data depending on what the entirety of the study reveals (Creswell, 2002; Taylor & Bogdan, 1998). The end goal of this process is the development of concepts, insights, and understandings taken from the views of respondents (Creswell, 2002).

This use of qualitative methods was informed by an interpretive constructionist perspective. Taylor and Bogdon (1998) outline these views saying that they are "committed to understanding social phenomena from the actor's own perspective and examining how the world is experienced" (p. 3). This view assumes that while people may have different observations, it is possible that all of them are right and that each person is simply viewing the same phenomena from a different standpoint (Taylor & Bogdon, 1998). Each person views the world through a different "lens", and understanding the experiences and opinions make up this lens is part of understanding the data (Rubin & Rubin, 2004).

The researcher believed that the depth of information required to develop an understanding of how CERT teams were integrated within local emergency management systems could not be collected through quantitative methods. A qualitative approach was far better suited

to data gathering and analysis on this topic. While the research question for this study could have certainly been explored with quantitative methods, e.g., a survey, the data collected would have likely been superficial and one dimensional. Specifically, an understanding of the environment surrounding the respondent and how the environment influences respondent positions and reasoning would have been sacrificed; and, the researcher assumes, consistent with a qualitative approach, that this understanding was critical.

Data Collection

Data were collected using qualitative semi-structured interviews. Taylor and Bogdan (1998) define interviews as "face-to-face encounters between the researcher and informants directed toward understanding informants' perspectives on their lives, experiences, or situations as expressed in their own words" (pg. 88). The Rubin and Rubin (2005) model, known as the Responsive Interviewing Model guided the interview procedure. The Model suggests that interviews be modeled after everyday conversation (Rubin & Rubin, 2004). Mimicking aspects of casual conversation ideally relieves anxiety a respondent might associate with being interviewed and encourages them to speak freely (Rubin & Rubin, 2004). Interviews also give opportunities for respondents to speak at length regarding the topic of research elaborating and explaining what they each think is important (Charmaz, 2006). The Model does not assume that the thoughts participants share regarding the topic of research are neutral or unbiased (Rubin & Rubin, 2004). It challenges researchers to go beyond a respondent's initial responses to explore from what, or where, those responses were derived (Rubin & Rubin, 2004).

The manner in which researchers "go beyond" will vary since the model allows researchers to adopt different interview styles depending on the needs and nature of the research (Rubin & Rubin, 2004). The interview focus and questions will also vary with modifications

made to reflect the views and priorities of the respondent as they emerge in discussion (Rubin & Rubin, 2004). As Rubin and Rubin (2005) state, "In this model, questioning styles reflect the personality of the researcher and conversational partner, and change as the purpose of the interview evolves." (p. 15).

An interview guide was used to facilitate the interviews. Following Rubin and Rubin's (2005) model, main questions were used to guide, but not limit, the responses of participants. The interviews explored the history, roles, and relationships of CERT teams and the respective systems they worked within. The initial main questions included the following:

- Tell me a little bit about your CERT team.
- Tell me about the history of your CERT team in [jurisdiction name].
- What explains the history of your CERT team?
- Describe your CERT team's roles and responsibilities within [jurisdiction name].
- Describe your interactions with the surrounding groups and the local emergency management system, for instance the fire department, police department, emergency medical services etc.
- May I contact you in the future if I have further questions?

These main questions were supplemented with follow-up questions. The follow-up questions were intended to address oversimplifications, new ideas, missing information, or stories present in the respondent's replies to the main questions (Rubin & Rubin, 2004). For example, potential follow-up questions to the question "tell me a little bit about your CERT team" included:

- How many people are on your CERT team?
- What recruitment strategies do you use?
- What different levels of member participation do you see on your team?

- What other leadership roles are there on your team besides “coordinator”?

In addition to main and follow-up questions, the model also makes use of probes (Rubin & Rubin, 2004). Probes can be verbal or non-verbal. They are used to manage the conversation and keep it directed towards the goals of the research (Rubin & Rubin, 2004). Examples of verbal probes that were used in this research included:

- Can you tell me more about _____?
- What did you mean when you said _____?
- Could you tell me what happened step-by-step?

Non-verbal cues may include body language such as nodding, leaning towards the respondent to show interest and taking notes to show the respondent they are providing useful information (Rubin & Rubin, 2004). Probes can also include the use of silence to encourage a greater response from the interviewee (Rubin & Rubin, 2004). Please see Appendices A and B for a full list of main questions and a list of potential follow-up questions and probes, respectively.

Interviews were digitally recorded. They were transcribed utilizing a transcription service. Transcription services are bound by confidentiality agreements to keep the data they are transcribing confidential. The digital recordings and transcriptions were only accessible by the researcher, thesis advisor, and transcription service. Following transcription, the audio files were deleted. The transcriptions will be deleted when they are no longer valuable for the purposes of analysis. The only personal information that was kept included the name and agency of the participants, in order to link the interview to the participant. Confidentiality of the participants of this research was not guaranteed by the researcher. There was no perceived risk of negative consequences should the participation of these individuals be discovered. Therefore the risk involved in their participation with this study was no greater than that of their everyday

activities. Nevertheless, there were and are currently no plans to utilize respondent names or the agency they work for in any write-up related to this study since its goal was to explore aspects of CERT teams and local emergency management systems rather than information related to the participant themselves.

Population and Sampling

Because this research looks at CERT teams and the systems they work within, the population for this study included all individuals associated with CERT teams, including volunteers, trainers, coordinators, and any person in local emergency management systems who works, or has worked, with these teams. The population, given the study research questions, would have technically included this broad range of individuals across the entire United States. To sample across this population in a meaningful way would have been difficult, but there were individuals within this population that had a unique perspective and were also engaged with all sides of this population—CERT team coordinators. CERT team coordinators coordinate all aspects of CERT teams including membership recruitment and retention, trainings, exercises, and liaising on behalf of the team with the surrounding jurisdiction. Thus, these individuals were purposefully sampled. Purposive sampling seeks to adequately capture and represent the settings, individuals, and activities studied by deliberately selecting cases (Maxwell, 2005). The sample was deliberately selected based on their potential to provide rich, detailed, nuanced information related to the research (Maxwell, 2005).

When the population was redefined for the purposes of this study utilizing purposive sampling to include only local CERT coordinators across the United States, it was still a difficult group to meaningfully sample. According to the Citizen Corps (2013) website, there were 2,424 CERT coordinators in the United States (US) and U.S. territories at the time of sampling. Thus,

the researcher used convenience sampling to further narrow this population to something more manageable and sought to interview only those CERT program coordinators who were active within FEMA Region VII. FEMA Region VII includes the states of Iowa, Kansas, Missouri, and Nebraska (Federal Emergency Management Agency, 2013c). Convenience sampling selects samples on the basis of ease of accessibility, or convenience, on the part of the researcher (Patton, 1990). Using this smaller group of states, the researcher again referred to the Citizen Corps (n. d.) website, and determined that this reduced sampling frame would then include 173 coordinators (Citizen Corps, n. d.).

A list of these coordinators and their contact information is located on the Citizen Corps website, national CERT program sub-page at [http://www.citizencorps.gov/cc/CertIndex.do?-submitByState]. Within the sampling area the total number of CERT programs at the start of this research was 173. All 173 individuals were invited to participate, with the assumption that the response rate would be relatively low, as had been found in recent theses and dissertations by emergency management faculty students in this department (see for example: Borkosheva, 2013; Bundy, 2013; Chauvet, 2013; Jensen, J., Bundy, S. J., Thomas, B., & Yakubu, M., e.d., 2013). All potential respondents were invited by email to participate in a phone interview at a date and time that was convenient for them. An information sheet for the study was attached to the invitation email. See Appendices C and D for examples of these communications.

Following the email to all 173 CERT coordinators, a total of 24 replies were received by the researcher. Of these, 21 resulted in full interviews with CERT coordinators. One reply was to inform the researcher that the email had been passed to the appropriate person, but did not lead to that coordinator replying. One reply indicated that the coordinator preferred to answer a survey via email, and did not want to participate in a phone interview. Finally, one email led to an

interview being scheduled, but was cancelled due to a heavy winter storm impacting the coordinator's jurisdiction. Three weeks later a follow-up email was sent to the remaining 149 coordinators that had not replied to the initial email. See Appendix E for an example of this communication. No emails were received from this follow-up email, leaving the total number of coordinators that did not reply to this study at 149.

In total, twenty one CERT coordinators were interviewed for this study. Within the sample there were 6 female and 15 male respondents. Average age for coordinators was between 35 to 45 years of age, ranging between 23 years old and retired individuals. Geographically, this study included 4 respondents from Iowa, 6 from Kansas, 10 from Missouri, and 1 from Nebraska. 11 teams were coordinated through the local or county emergency management office, 3 through the fire department, 6 through the police department, and one was coordinated through a local health care group. 14 out of the 21 coordinators had been with the team since the inception of their respective programs. This amount of time ranged from 3 to 10 years, with most having between 6 to 10 years of experience. Those individuals that had not been with the program since its inception ranged in experience from 2 months to six years, with most having one year of experience or less. This process was outlined and submitted to the Institutional Review Board of North Dakota State University, and subsequently approved with formal documentation as can be seen in Appendix F.

Data Analysis

Data analysis was conducted in three steps: coding, grouping concepts and themes, and modification or creation of theories in keeping with the Rubin and Rubin (2005) Responsive Interviewing Model. The first step of this process, coding, began early in the research process to assist the researcher with developing a working idea of important concepts, themes, and events in

the interview data (Rubin & Rubin, 2004). Coding consists of assigning a label to designate concepts, themes, and events, then marking in the transcript where these occurrences are found (Rubin & Rubin, 2004). Each distinct label is referred to as a code, and the configuration process is called a coding structure (Rubin & Rubin, 2004). The researcher used two types of codes: initial codes and focused codes. Initial codes are used to summarize the content of the data (Rubin & Rubin, 2004). As more interviews are done and analyzed, focused codes can be used to recognize, clarify, and elaborate on themes and concepts seen across the various interviews (Rubin & Rubin, 2004). Each interview adds to the sum of knowledge, creating a holistic view of the research topic and environment within which it exists (Rubin & Rubin, 2004).

Once this step is complete, the next step of analysis is grouping concepts and themes (Rubin & Rubin, 2004). Concepts will be sorted by background characteristics, frequency of mention and suggested importance and then compared with one another (Rubin & Rubin, 2004). The purpose of this step is to discover patterns and connections between concepts and themes (Rubin & Rubin, 2004).

The final step in the Responsive Interviewing Model is the modification or creation of theories (Rubin & Rubin, 2004). The researcher did not reach this stage of data analysis, rather this research stopped at the second step of grouping concepts and themes. The researcher felt that stopping at this stage of research in CERT has made a great contribution to the literature and has set the stage for future research.

Limitations and Checks for Rigor

This research has three primary limitations. First, the use of purposive and convenience sampling limited the generalizability of this study's findings. Further, given the low response rate, and consequently low sample size, for this study there is potential for bias in the sample.

There is a potential that those who chose to respond may have differed in thoughts and opinions from those who did not. Second, the experience of the researcher may have been a limitation to this study. In the past the researcher has participated in numerous CERT team programs, trainings, and exercises, and in the process had developed ideas related to his research questions that may have biased the data collection and/or analysis (Maxwell, 2005). The researcher has provided this information up front to maintain the integrity of this research (Maxwell, 2005). It was impossible to remove the influence these experiences had on the researcher. At the same time, the researcher's experience often proved to be a strength, as it led to a greater and a deeper understanding of concepts (Maxwell, 2005). And, in an effort to reduce any negative influence the researcher's experience may have on data collection and/or analysis, several tests for rigor were employed to maximize the quality of the research and the likelihood that the results it generated were meaningful. Specifically, the researcher employed four tests of rigor including depth of data, triangulation, presentation of discrepant cases, and member checks.

The researcher relied on checking the depth of data gathered to ensure rigor. Deep data are "detailed and varied enough that they provide a full and revealing picture of what is going on" (Taylor & Bogdan, 1998, p. 126). By adhering to the Rubin and Rubin (2005) Response Interviewing Model—a well-regarded approach to data collection and analysis in the social sciences—data collection was more likely to generate deep data. Additionally, the researcher constantly questioned the data asking whether opportunities to follow-up or probe for further information were missed; and, if so, the researcher was more sensitive to these opportunities in the following interviews.

Triangulation also supported rigor in this study. Triangulation is "the combination of methods or sources of data in a single study…as a way of checking out insights gleaned from

different informants or different sources of data" (Taylor & Bogdan, 1998, p. 80). These sources can be data from individuals, publications, field notes, etc. (Taylor & Bogdan, 1998). While triangulation can refer to a variety of sources and a variety of methods (Taylor & Bogdan, 1998), this study only utilized triangulation of sources. Sources were compared against one another throughout the research process in the hopes of finding patterns, which in turn led to more specific coding as was discussed earlier.

A third test of rigor was to present any negative or discrepant cases (Creswell, 2002; Maxwell, 2005). As Maxwell (2013) stated, "the basic principle here is that you need to rigorously examine both the supporting and the discrepant data to assess whether it is more plausible to retain or modify the conclusion, being aware of all the pressures to ignore data that do not fit your conclusions" (p. 127). If negative or discrepant cases are highlighted, it provides another chance for the researcher to recognize their bias, as well as presenting the information in a way that others can draw conclusions for themselves (Maxwell, 2005). While this study did not have any negative or discrepant cases, there was a small group of studies that did not fit within the categorization of integration as was used from the start of the study. This group was part of a unique phenomenon observed and is discussed in Chapter 4.

Finally, while the validity of quantitative research can be tested through various statistical tests, proof of validity in qualitative research is more difficult to assess (Creswell, 2002; Taylor & Bogdan, 1998). Because of this complexity, qualitative researchers use a variety of questions to ensure rigor. These strategies differ between researchers and research contexts within which they can be used. One way rigor can be tested is through member checks (Creswell, 2002; Maxwell, 2005; Taylor & Bogdan, 1998). Participants are asked to review the findings of the researcher and to comment on their accuracy (Creswell, 2002; Maxwell, 2005; Taylor & Bogdan,

1998). Taylor and Bogdan (1998) speak to this strategy saying, “Even if people reject the interpretation, this can enhance your understanding of their perspectives” (p. 159). This test not only rules out the possibility of misinterpretation, but can also make the researcher aware of a bias they had not previously considered (Maxwell, 2005). Participants were asked to verify trends observed throughout the course of this research in order to ensure their consistency.

Conclusion

This chapter has outlined the methodological approach that was taken to explore how CERT teams were integrated within local emergency management systems. Procedures related to data collection, sampling, and data analysis were discussed. Concerns related to the limitations of this study were reviewed as well as steps that were taken to maximize the quality of this study.

CHAPTER FOUR: VARIED INTEGRATION OF CERT TEAMS

This research found that teams may have higher or lower integration along a continuum. Team integration may change throughout their lifespan, depending on a number of factors that will be discussed in Chapter Five. This chapter discusses what this continuum of integration looks like and discuss how common different places within the continuum are. This continuum is a product of the researcher's analysis, and is original to this study.

The chapter is organized in four sections. The first section revisits the hallmarks used to identify when higher levels of integration exist. The next three sections discuss three different points on the continuum of organization in terms of the general traits of teams at this point and the extent to which these evidence the hallmarks of integration. These three sections are titled Least Integrated Teams, Somewhat Integrated Teams, and Highly Integrated Teams, respectively.

Hallmarks of Integration

Integration within this study is defined as an entity being a recognized part of the formal local emergency management system. As discussed in Chapter One, there are hallmarks that can be used to identify when integration exists. The integration of a team can be recognized both formally and informally within the local system. Formally, the roles of the most integrated teams are documented in Emergency Operations Plans, established through Memorandums of Understanding, and other agreements that cite what the organizations responsibilities will be following a disaster. Informally, teams that are the most integrated have a reputation in the system for the resources and skills they can offer to a response, and maintain a positive relationship with emergency management stakeholders. Integrated entities in the local emergency management system are involved in the pre-disaster activities within a system.

Examples of such activities include having the opportunity to participate in jurisdictional planning, exercises, and trainings.

Least Integrated Teams

About one quarter of the teams represented in this study (n=5) hover on or around the least integrated point on the continuum. These groups are not involved in any local exercises, nor do they typically have any documented roles in the local jurisdiction's emergency plans. Occasionally these groups will be listed in a plan, but only as a pool of volunteers that can be called up to support other groups in need of additional manpower for tasks requiring little to no training. These teams are coordinated by a paid first responder as part of their position, or by a civilian volunteering their time. The local emergency management system is rarely accepting of these groups, and does not consider them an important part in the system.

Moving from integration to other associated factors, these teams are teams in name only—its members receiving basic CERT training and nothing more. The formal organization of the team consists of the coordinator and the volunteers. These teams have little to no requirements for membership. When requirements do exist they are often linked to the completion of the basic CERT training. The resources these teams have available to them are typically scarce. Just enough money and supplies to complete the basic training for one to two groups of people is provided each year.

These teams range in size from dozens to over a thousand members. The two defining features of these groups are that 1) the primary goal of those who coordinate them is to get the CERT training to as many people as possible rather than support the development or maintenance of an organization or team, and 2) they maintain a roster of people who are available for menial tasks when the need arises. The Least Integrated Teams train citizens so they

are ready as individuals and can help themselves and neighbors when their communities need them. For example, a community may have a program that has trained hundreds of citizens but only calls them up to request volunteers for more manpower (as was mentioned earlier) in the case of a large scale incident, such as flooding, when large numbers of people are needed to disperse information and/or fill sandbags.

Least Integrated Teams represent the most basic level of integration. And, while 5 of the 21 teams represented in this study would fall close to this end of the integration continuum, most would not. There were some highly integrated teams; most, however, fall somewhere in the middle.

Somewhat Integrated Teams

Somewhat Integrated Teams represent the middle point of integration. These teams made up roughly half of the teams within this study's sample (n=10). Somewhat Integrated Teams are often present within emergency management activities, either as observers or participants. In local exercises, members of these groups are regularly included as scenario victims, and sometimes the team is involved as a participating entity. Because of this heightened involvement, these teams offer additional training to their members to ready them for any specific response roles for which their CERT team is responsible. While this additional training is not always a requirement, a small portion of the CERT team regularly participates. Most jurisdictions recognize this potential and include these teams in the local emergency management plans, either as a pool of volunteers, or as a responding entity with a specific role. This is in contrast to the Least Integrated Teams that do not receive this recognition, and are not charged with any specific roles. These roles might include doing door-to-door wellness checks following a disaster, managing sign-in and sign-out processes for an incident scene or geographic area, or post-event

damage assessment teams. Typically, because CERTs occupy these roles, first responders do not have to leave their primary duties for another task. These tasks are referred to broadly as "force multiplication". This term is used by many in the field of emergency management to refer to the practice of using volunteers to expand the reach of first responders. Tasks like sandbagging can be completed by nearly any individual with minimal training. However, tasks such as wellness checks and sign-ins require some training specific to the task before they are involved in the response. A first responder organization can only be as many places as they have professionals capable of doing them. To expand their reach, first responders coordinate volunteers and task them with responsibilities that require limited training and experience. This tactic greatly expands the number of people working under the coordination of an entity. These teams have medium to high acceptance within the local emergency management system.

These teams can come from any community, rural or urban. They range in the type of funding they access, including such sources as grants, jurisdiction budgets, donations, and fundraising. Many have filed for and received the status of a 501(c)(3) non-profit organization. The coordinators of these teams have a primary mission of educating citizens through CERT curriculum, with a secondary goal of seeing the teams contribute to the local emergency management system as an entity. Additionally, they stay active day-to-day as a team even when there are not CERT events, by participating in local fairs, parades, seminars, and visits to community organizations.

Somewhat Integrated Teams typically have guiding documents such as Standard Operating Guidelines and handbooks that team members must agree to abide by before they can participate. These teams vary in terms of their requirements of team members. Many require a small amount of service hours and meeting attendance every year. These teams are typically very

large in number, ranging from dozens to hundreds of people. Within this population of members, there is a significant turnover rate. In any given year a team may lose 15% of its membership for various reasons including members moving away or becoming disinterested. At the same time, this gap is filled by the next round of recruitment that results in backfilling the team with a similar number of people. With these larger numbers comes a greater need for structure and organization within the team. Many Somewhat Integrated Teams will have boards of directors or steering committees to assist in the guidance of the organizations. Additionally, the teams regularly create ad hoc committees to address needs or coordinate events. Coordinators for these teams are typically first responders with a full-time, or more often part-time, role as a civilian training coordinator.

Somewhat Integrated Teams represent the intermediate level of integration. Although most teams represented in this study could be considered Somewhat Integrated Teams, six teams achieved what they, and the Least Integrated Teams, could not—a high level of integration. These Highly Integrated Teams are described next.

Highly Integrated Teams

Highly Integrated Teams represent the highest level of integration observed within this study. They are a significant presence within and part of the local emergency management system. These teams have a documented specialized role within the local jurisdiction's response plans. Because of this responsibility, these teams also are regularly involved in jurisdictional exercises, carrying out that specific role. These teams also train with other organizations within the local emergency management system in order to ensure a seamless response, should the need arise. Some training provided to these CERTs is designed to get team members ready to do basic tasks so that first responders do not have to leave their primary duties, such as training on how to

establish perimeter control or set up roadway checkpoints. Other training is to help the team to develop a specialized skill set not available within the jurisdiction or a nearby jurisdiction, such as how to carry out advanced tracking for search and rescue or rough terrain retrieval of injured individuals. Highly Integrated Teams are highly accepted by other organizations within the local emergency management system, so much so that some even consider them a formal first responder organization on par with their own. These teams typically come from rural communities that rely on volunteer groups to make up for the lack of first responders and resources that may be available to an urban community.

These teams typically have a medium to high level of internal organization including Standard Operating Procedures, boards, committees, and other groups. In the Least and Somewhat Integrated Teams, these subgroups were made up of the most involved members, a relatively small number of people when compared to the total number of members. Highly Integrated Teams have a much smaller number of total members, but the same number of people is needed to work within the subgroups. This requires a higher percentage of members to serve in these positions.

Along with this high level of organization come high internal expectations. Team members are expected to continue to pursue new training from a variety of sources, stay up-to-date on refresher trainings, and remain active in jurisdictional exercises and responses. This high level of obligation often reduces the team's size to a small group of highly dedicated individuals, but also keeps the turnover of group membership at a relatively low level.

These teams are often primarily self-funded either through fundraising (as many have achieved a 501(c)(3) non-profit status) or team members paying for their own materials and costs. Some Highly Integrated Teams were observed to have a similar amount of resources to

some Somewhat Integrated Teams, but this amount is spread over fewer people, making the resources per person greater within the organization. These teams often have resources related to their specific tasks such as all-terrain vehicles for rough terrain search and rescue, specialized response trailers that would house rolling carts of first aid supplies, and extensive communications technologies to establish an amateur radio setup. The combination of all of these factors creates a highly functioning and stable organization that tends to be depended on by the local jurisdiction's emergency management system.

Highly Integrated Teams represent the right-most point on the integration continuum. Out of the 21 teams that participated in this study, 3 fall into this category. They are an accepted and valued piece in the emergency management system, often contributing at the level of other organizations within the local emergency management system. They work as a cog within the system, are recognized in plans or in practice for their contribution, and provide a skill set for needs that otherwise may have been left unmet.

Table 1 is a summary table that outlines the hallmarks of Least, Somewhat, and Highly Integrated Teams as outlined in this chapter.

The reader may have noticed that the researcher said interviews conducted with the coordinators of 21 teams, but the total number of teams presented so far is 18. The other teams were not evaluated on the integration continuum due to the discovery of a phenomenon the researcher is labeling Piggy Backing.

Table 1

Varied Integration of CERT Teams

Hallmark	Least Integrated (n=5)	Somewhat Integrated (n=10)	Highly Integrated (n=3)
Documented Roles for Team	Usually none, but occasionally listed as a resource for volunteers	Listed as a volunteer organization in the local plans, occasionally responsible for a specific role in response	Documented in local plans for a specific role in response, possibly multiple roles
Jurisdictional Exercise Involvement	None	Varied, usually participating as scenario victims	Often involved and participating as a CERT team
Jurisdictional Training Involvement	Basic CERT course required and occasionally refresher courses	Basic CERT course required, special offerings courses optional, and occasionally trainings offered by other organizations	Basic CERT course and additional training required, special offerings courses optional, often train with local emergency management system groups
Acceptance	Low	Medium to High	High
Internal Organization	Low, typically only the coordinator and the team	Medium to High, typically have guiding documents, boards, committees, and other groups as needed	Medium to High, typically have boards, committees, and other groups as needed
Requirements of Members	Low, typically only taking the basic training	Low to medium, usually require additional service hours on top of basic training	High, typically requires a high level of training, high frequency of responses, and a large time commitment of the members
Resources Available or Provided to the Team	Low, members typically provide their own resources, occasionally receive a backpack from the jurisdiction	Medium, typically provide basic CERT packs to members, as well as have a cache of resources for training and response	High, typically has an extensive cache of response and training supplies

The Phenomenon of Piggy Backing

During data analysis, the researcher realized that he had been operating under the assumption that CERTs were autonomous individual entities. The finding that most teams varied in their integration within the local emergency management system as an independent entity was not entirely surprising. Yet, during analysis, it became clear that 3 of the teams involved in this study did not belong on the continuum at all and were not, in fact, entities in and of themselves. These teams were subsumed into another larger organization, taking on their identity, leadership structure, and resources. Within this organization teams were able to access new resources, as well as have organizational support and leadership that may not have been available through the original CERT program. This access allowed for teams to receive CERT training, and then carry out roles associated with the basic CERT training (i. e. light search and rescue) as an extension of the larger organization. One respondent referred to this phenomenon as Piggy Backing.

Piggy Backing occurs for a variety of reasons. In the first instance, the training was provided through the CERT program, which then forwarded the trained volunteers to two other organizations. These teams would then respond through their respective host organizations. In another case, the CERT coordinator had made a conscious move in the planning process to create a CERT program that would operate primarily as a training organization. During the planning of the program, the coordinator observed that adding an additional entity into the local emergency management system would not be as effective as training individuals and connecting them as a group with response organizations that were already operating. The CERT program was then limited to providing trainings to new individuals on a periodic basis and maintaining a roster of volunteers. Lastly, a team had only enough resources to offer trainings, but not to sustain a team throughout the year. The coordinator made an arrangement with the local American Red Cross

(ARC) stipulating that upon a completion of training, CERT volunteers would affiliate and respond through the ARC. The variety of groups that were used as partnering organizations for these three cases included the American Red Cross, Civil Air Patrol, Marine Corps League, and the Salvation Army.

These teams cannot be placed on the integration spectrum, as they are not independent entities. If their integration were to be assessed, it would be the integration of the team within the host organization that has subsumed the team or the host organization's integration within the local emergency management system, rather than integration of the team itself. In the future, both issues could be examined by research, but that is not the focus of this study. These cases were not analyzed as part of the previously mentioned categories of integration, but represent a unique subset of the participating teams in this study.

Conclusion

The first research question for this study asked the extent to which CERT teams are equally integrated within local emergency management systems. Data analysis revealed that CERT teams are integrated at a variety of levels within local emergency management systems pre-disaster. At one extreme CERTs are teams in name only, while at the other teams function as formal organizations and are accepted and treated as such. Most CERTs, however, fall somewhere in the middle of these two extremes. The factors explaining the varied location of teams on the integration continuum will be discussed in Chapter Five.

CHAPTER FIVE: FACTORS RELATED TO INTEGRATION

Chapter Five is comprised of five sections. Each of these sections represents a category of factors that data analysis revealed to be related to the integration of CERT teams into local emergency management systems. The five sections, in the order of presentation in this chapter, include 1) resources, 2) opportunity, 3) leadership, 4) formalization, and 5) acceptance. Factors within each category are discussed.

Resources

A CERT team that is highly integrated into the local emergency management system needs resources of all types in order to achieve their goals and sustain their program. A resource is any source of supply, support, or aid, especially one that can be readily drawn upon when needed. For CERT teams, resources are a broad category and a range of individual resource factors was found to influence integration. A team that is highly integrated is both accepted and valued by the local system, but in order to have value they must have something to bring to the table. If teams did not have the funding they needed, were unable to acquire the expertise to fulfill a unique role, and/or did not have the materials, equipment, and supplies to fulfill any role they could have, they were less integrated than those that did have those resources.

Funding

Many coordinators mentioned that funding sources were important to the functioning of their team. These sources of funding included grants (from government entities and businesses), funding from coalitions or regional bodies (such as healthcare coalitions or community development groups), budget line items from their coordinating jurisdiction, fundraising by the CERT team as a group, and team members paying for their own expenses.

Of these, the most commonly used source was grants. As was discussed in Chapter One, large amounts of grants were available to fund volunteer organizations such as CERT following

the September 11th terrorist attacks. Citizen Corps was one of the major channels for this funding. Grants were available to regional Citizen Corps Councils and dispersed through them to individual CERT teams. At this time, few teams were up and running; but once these grants became available, local emergency management officials quickly became interested in forming them. With this available funding acting as a major catalyst, the number of CERT teams grew rapidly across the nation. Seven of the teams sampled for this study were created in 2003, when these grants were becoming popular. For most teams Citizen Corps provided the initial funding for their program, but the funding from this source has decreased or become unavailable since.

> We had a [state] fund system through Citizens Corps that we are presently at about $5,000 left that we're splitting between [neighboring city] and us to spend those dollars down by the end of July. Then we're going to be looking out there for more resources to help us do some continual education of CERT.

> Okay, we had citizen programs for quite a few years since I think 2003 when this first started and which is what got us interested in it. The FY-11 year is the last and since some Citizen Corps grants are coming out and actually those are meant to be spent by the end of this month, so in four days, those are due to be spent, I think it is the end of this month.

Citizen Corps was not the only program created following 9/11 that provided funds. The Urban Areas Security Initiative (UASI) was created to provide funding to "high-threat, high density urban areas" to supplement them with the extra funding needed to address their unique vulnerabilities (Federal Emergency Management Agency, 2013a). At the height of this grant program 64 urban areas received significant UASI funding (National Urban Area Security Initiative Association, 2011). While not available to rural teams, UASI grants provided a large amount of money to qualifying areas. Often, these grants are given to an office positioned at regional, county, or city level to support inter-organizational exercises, trainings, equipment purchases across that entire metro area according to the specifications of the grant to various

jurisdictional offices and programs. The overall cut received by CERT programs is relatively small.

> Well we have two major grants that we usually got. One was the UASI grant that we got through FEMA, that went to regional areas then CERT got a small piece of the pie. Now that goes to the regional areas and that makes its way down to the county and the county funds us, through the UASI grant.

Despite being small, UASI was a significant source of financial support for CERT teams post-9-11. Over time, however, all forms of grant funding to support CERTs have significantly decreased:

> Now a lot of those [funding sources] have dried up so there are CERTs falling all over the United States, failing now because they have no money. . .
>
> I have already told the chief and assistant chief I know the money is going to run out. Citizen Corps grants are no longer being funded in the [state] so I am working through Homeland Security, through the grant, our region is backing CERT for a while, and I am one of the few in the [state] that has actually ... kept CERT alive...
>
> There are no future grants that we know of right now, that are going to help us sustain [our team].

As grant funding has dried up, CERT teams have been forced to look elsewhere for funding. Some have been able to access funds from city or county budgets, while others simply moved to funding the teams on their own. To make this process of fundraising more financially efficient, many filed as a 501(c)(3) nonprofit organization:

> [The team] filed for their 501(c)(3). They started applying for grants. They've taken over a concession stand in one of the towns for spring and summer baseball and soccer leagues. They've held bake sales, whatever they need. And, in the last two years, they've raised close to $5,000. They've gotten grant money to purchase equipment and communications equipment. I'm really pretty proud of what they've done.
>
> This group became a 501(c)(3) entity. So we, work with our local [non-profit foundation] to where if we want to go and get a donation, if we called you up and you sent a $1,000 donation you could go through this group and you will get the proper tax documentation so you can get credit for making the donation to a group.

There was a common progression of funding sources that were accessed by most teams. Teams initially used Citizen Corps grants that provided enough money to establish a team. The next step of funding included UASI grants, but only for teams that were in areas that qualified for that funding stream. When both of these grants began to decrease, teams looked to their cities and counties to provide funding through the jurisdictional budgets even though the availability of funds was limited. Finally, teams looked to whatever sources were available, including such sources as grants from local tobacco companies, casinos, community development organizations, and other non-profits. While many teams were able to piece-meal together a minimal amount of funding from multiple sources, most have not been able to match the levels of funding they had previously through federally sponsored grant programs.

It is important to note that not only is the availability and consistency of funding important, but also the way previous dollars have been spent. Some teams that were in existence during the post 9/11 boom saw this large amount of funding as a chance to buy durable resources that they would not regularly be able to purchase. As the funding decreased, teams that had invested in these types of resources were better able to sustain their program because these types of supplies did not diminish or have to be replaced on a regular basis. Common resources purchased included a utility trailer for response, equipment such as search and rescue tools, life-size training mannequins, and radio systems.

> Sustain is a work that we started talking about three years ago. How can we sustain our organization?...As far as the equipment we are able to acquire quite a bit of equipment...sustainability when you lose the funds is difficult.

> But we're pretty good, when the grant money was good, we have a trailer, I have what I call the cage, which is a large supply area and I have roll out carts specifically set up for winter storms, tornado, one's for floods, and one is for, just a medical cache. And so, and those are wrapped in cellophane, giant carts, roll out, go in the back of our trailer and so were going to that particular type of deployment, and that's besides all of our training

> equipment. We're pretty good with our supplies right now, but there are a lot of supplies you need when you start up a cert.

Funding allows for teams to acquire the tools they need, pay for staff and trainers, as well as pay for the supplies needed to respond after an event. In the past, there have been rich sources of funding, but more recently these funds have decreased or become unavailable. As funds are lost, programs continue to look elsewhere to sustain their program. These funds are not only fundamental to starting and sustaining a CERT team, but also key to the integrated functioning of a team within the local emergency management system. Without funding teams can no longer pay for trainers and other resources, leaving the team undersupplied and undertrained. Should the moment arise when these teams actually are needed, they will lack these basic things needed to contribute to the response. Seeing that the team will not be able to contribute due to their lack of resources, these teams will likely be discounted by the organizations within the local emergency management system.

Unique Skills and Expertise of Members

The unique skills or expertise of team members themselves can prove to be an important resource to the organization. Often these skills are recognized by team coordinators and used should the need arise. Additionally, team members with special training can educate others and develop that skill set within the team, ultimately building up the roles a team is capable of fulfilling. For example, a team member experienced in working with radio technologies can train others thereby enabling the team to supplement the jurisdiction's communications plans. Skill sets such as first responder experience, leadership, engineering, medical, and many others, have often proved beneficial to teams.

> We have a new CERT member. He is a business manager for a radio station so he understands the towers and the generators and all that stuff. So we have got him involved

> with are CERT communications groups. We just did this month create a communication position within our CERT team as well as an exercise and training position. So we are going to experiment with that but part of that communications portion is to interact and to get them more interactive with the ham operators.
>
> Multiple people on our search unit are actively involved in our other volunteer groups such as the storm spotter team, the amateur ham radio operator team, and then there are a few others that are in their day-to-day lives and their normal jobs that they have, they're involved in the medical field. That kind of brings something else to the table for us.

These unique skill sets can add greatly to the utility of a team, giving them a chance to fill in the gaps left by other groups in the local emergency management system. As this potential is recognized by entities within the system, teams can further develop these roles and in so doing become better integrated into the system.

Materials, Supplies, and Equipment

While expertise allows CERT teams to potentially fulfill a role, without the proper resources, the team still may not be integrated to the fullest extent. A team that is trained to work with communications technologies will not be valued as much within a local emergency management system if they do not have the equipment to go with them. A team that is trained in light search and rescue will not be valued as much if they do not have the safety gear and tools required for that responsibility.

> We now have an equipment trailer, and incident command trailer. Now we have a mountain goat trailer that is used for rough terrain rescues, that hooks on to the ATV, and we had a local bank here, [bank name], donated the $3,500 and bought the trailer for us. [business name] donated the ATV to go with the trailer, so you know, when we need something we just go out into the community and we have yet to get denied anything that we have ever asked for from the community.
>
> We have 10 CERT training trailers in the 13 counties. I mean they are 7x16 foot trailers, specially built because they are heavy duty axels and they, that whole thing, they are really well designed and then about, they are $12,000 trailers and they fit about $15,000 worth of training supplies... Yes they were [purchased when funding was better], and again, the regional homeland security grant still pays for the resupply when we teach classes. So that's how we are able to keep funding and keep going as long as we have.

If a team has the proper materials, supplies, equipment, and facilities, they are more likely to be integrated.

Support Staff

CERT team coordination at the local or county level is often managed by a single person, and it is rare they have any support staff. Most of the team coordinators (n=20) that participated in this study worked within emergency management offices (n=10, both county and local), law enforcement departments (n=6, police, sheriff, highway patrol), or fire departments (n=4). One coordinator was affiliated with a local health care coalition. The CERT coordinator title is typically a responsibility added to their position, not their primary responsibility or focus and certainly not the focus of any support staff associated with the office. Yet, when support staff (e.g., volunteer manager, administrative assistant) were available, it facilitated the development of a more integrated program.

> I have a secretary...and then I have two coordinators, and basically they run the Academy program, our basic academy program.
>
> I'm also fortunate enough to have hired a part time person and her title is just volunteer coordinator where her job is to assist all four of my volunteer groups.

With the opportunity to delegate responsibilities to support staff, the coordinator can focus on developing teams. This focus may include coordinating with other CERT teams on a regional level, developing special optional trainings for the team, and developing relationships within the local emergency management system.

Opportunity

In order for a CERT team to be integrated into the local emergency management system, there must be conditions favorable to the development of a CERT team as an entity. Much of this environment is out of the team's control and existed long before the CERT program is developed in a jurisdiction. If an area is rich with resources and formal emergency management related

organizations and has a well-developed emergency management system, it is more difficult to carve out a niche for a CERT compared to a jurisdiction where the context is different. If the conditions within the jurisdiction facilitate the development of a program in scenarios, they are more likely to achieve higher levels of integration.

Rural/Urban

One factor related to this opportunity is a team being located in a rural environment. Rural emergency management systems are typified by a small number of paid, full-time law enforcement staff, and, possibly, a small number of paid fire department and emergency medical staff (although the vast majority are volunteers). These areas have a small amount of funding for emergency management and a small amount of personnel, both of which are often spread thin across a jurisdiction. There are many unmet needs within these areas that are addressed by the ad hoc improvisations of volunteers. The existence of these needs creates opportunities for organizations of trained volunteers like CERTs. Unlike rural areas, urban environments are often typified by large populations of people, larger budgets, more personnel, and a greater amount of organizations supporting the emergency management functions. With this depth of resources, there is very rarely a need for any assistance.

> We have very strong, both police and fire, mutual aid. So, we're going to be able to handle an awful lot of things before we run out of resources as compared to if we were in the middle of [the state], somewhere in…or our next closest resources are 30 or 45 minutes away. I mean, I can see where it's going to make a…Your whole way you would structure your team would be different.

In addition to unmet needs, the presence of other organizations can leave the jurisdiction with little need for an additional group. As was discussed in Chapter Two, the most common hazard events to occur within a community are emergencies (Auf der Heide, 1989; Quarantelli, 2000). These events are typified by low direct and indirect impacts to small groups of people and

happen on a regular basis (Auf der Heide, 1989; Quarantelli, 2000). Because of this regular need emergency management processes are trained on, drilled, and used in actual responses to the point that they are habitual to the first responders. Each entity within the local emergency management system knows the roles that are expected of them prior to arriving on scene, and are familiar with how the other pieces in the system fit together during response. Volunteer groups that frequently respond to emergencies, such as the American Red Cross or CERT, also have regular tasks for which they are responsible. One organization may be responsible for helping victims on scene, another works to find temporary housing for victims, and another is responsible for managing a phone center that forwards victims to other services they need. After years of service with dozens of responses, the entities within the local emergency management system have established their roles. It is worth mentioning that the expectations that these organizations develop of other responding groups based on their day-to-day experience with emergencies are not often met during disaster responses because disasters are so different from emergencies (Auf der Heide, 1989; Quarantelli, 2000). Nevertheless, the groups do form these expectations of one another, and it is difficult for another group to come into these systems.

> With living in [state], and we're smack dab right in the middle of [state] between two major interstate highways, we have a larger population than a lot of our surrounding counties, so our surrounding counties that would train their CERT teams, they would train their members as to how to set up shelters, how to do evacuations, that kind of stuff. And here in my county, we wouldn't teach our people that, because we have those resources right here at our fingertips. The Red Cross is right here to set up shelters. We have the regional search and rescue team.

One team noted that their program had a goal of training citizens with the CERT training, then connecting them to organizations such as the Red Cross and the Salvation Army. Not only did this strategy meet the typical goals of CERT by educating citizens, but it put volunteers into the system without creating a redundant entity:

> That was one of the reasons that we did make a conscious effort because we actually did discuss, at one point, using certain members to come and prepare food and beverages and such for large fires. Kind of a canteen team. It just kind of struck me one morning when we were talking about it, that's what the Red Cross and Salvation Army does. Why are we trying to recreate another response process that someone has to manage?

This is a powerful example of a team that is not integrated simply because the opportunity for an integrated team was not there. Because of this, they chose to Piggy Back (as was discussed in Chapter Four) on another organization and the integration of the team into the local emergency management system became a non-issue. In this case, as well as many other cases, teams attempting to develop and integrate must work with the conditions that exist within the local emergency management system. If those conditions are not favorable to the development of a CERT team, higher levels of integration are less likely to be achieved.

Leadership

Leadership may come in the form of advocacy, in the background of the coordinator, and/or the continuity of leadership. Yet, in whatever form it manifests, leadership is key to integration. While a team may have all the resources needed to be positioned for integration into the surrounding system, without leadership these teams can be disruptive to the system and even put themselves in harm's way. Leaders, both the coordinators and volunteers, act as liaisons within the local emergency management system, as well as build relationships and a rapport within the community. These leaders work with various entities in the local emergency management system, such as local government officials and prominent figures and groups (e. g. Rotary Clubs or other service organizations). These leaders must also manage the expectations associated with and momentum of the team. More often than not, other organizations in the local emergency management system are initially cautious and want to learn more about CERT before welcoming the program into their jurisdiction. Politicians want to know what it will add to their community; other volunteer groups want to know how it will fit into the system; and, the

sponsoring agency out of which the coordinator will work wants to know what its responsibilities are. It is the coordinator's job, and, sometimes individuals within the teams, to keep all these people informed, engaged, and supportive as the team is created, completes training, and begins to work within the system. This collective leadership is related to a more integrated team. As these leaders assist with relationships and building partnerships with other organizations, the team becomes more integrated.

Advocacy (From All Levels)

After the idea of a CERT team has circulated within a jurisdiction, it is often placed in the hands of the coordinating agency for further development. At this stage, the coordinator has a choice with regards to how much they will support development. Coordinating an entire platoon of volunteers is a large undertaking and can sometimes be daunting. For those that choose to make this a priority and advocate on behalf of the team, it seems to lead to integration. Not only can the coordinator help to push along the program, but so too can individuals at all levels throughout the system.

Many times this act of advocacy is the catalyst that a program needs to begin. There are many programs similar to CERT that can add value to a community, but are a lower priority compared to topics that are a more pressing issue within the community. Advocates lay the groundwork of the organization, coordinate plans, discuss these plans with government officials, and spread awareness of what the organization can offer the community.

> CERT was out there on the radar for a lot of things and I researched it and decided that would probably be a good fit for the county... That was in 2003 and so we went out and solicited folks for classes. We advertised for it and we were doing a solid training for the first three years we were doing three to four classes a year putting folks through and training them...

Without this groundwork the idea might not be taken seriously and will quickly lose momentum. Typically, if the advocate continues to work and develop the program, a team will take form and begin to operate.

Following inception, the motivation of the advocate often changes from proposing an idea, to managing the reputation and relationships of the team within the community. The support coming from community and officials is very important, as they can potentially call up CERT when their services are needed.

> We've got our police chief in a couple of cities are very helpful to make sure that if they have something up they call and say can you give me some CERT folks and can they help me out and we'll get that out for them and get them some help out there.

This support is not always easy to get. Roughly half of the coordinators said that they had experienced opposition from another local individuals or officials within the local emergency management system. When faced with this opposition, coordinators advocated work to build, and maintain, support for their team as best they can.

> I think most of our city officials, well they don't quite admit it, they don't want to throw out. They certainly know the group is here and I don't think they do any negative work toward it. We actually have a schedule this year I mentioned that. We are going to have this appreciation dinner. Actually that is something that my boss, my administrator chose to do. He chose to budget for us to do a full blown catered dinner for our volunteers to show our appreciation to them. So when I go to county administrator that believes that, that means my county commissioners are behind it.

When no one is actively advocating for CERT and maintaining the functioning of the team, the program can fall apart and eventually become dormant.

> In all honesty, our CERT program has really kind of fallen on the back burner, and the reason for it is that there's just other priorities that had to take precedence over trying to start from scratch.

The level of advocacy can greatly affect the extent to which a team is integrated within the local emergency management system. If leaders actively advocate for the integration of a program, it is more integration is likely to be achieved than if leaders take a passive approach.

Background of Coordinator

CERT teams must be coordinated out of a local government office, but the coordinator can be any person approved by that office, volunteer or employee, experienced first responder or active volunteer. Three of the coordinators were volunteers and two of the three had a background as a first responder. In fact, volunteer or not, all but one of the teams included in this survey were coordinated by an individual with a first responder background of some sort. The team coordinated by the by civilian volunteer, rather than a first responder, was placed in Chapter Four as being a Least Integrated team. This team had very few established roles in the community, but would provide volunteers upon request, and had a low level of activity within the local emergency management system. While this is one single case, it is significant that all others were coordinators with a first responder background. Adding to the significance of this finding, all of the Somewhat Integrated Teams and Highly Integrated Teams were coordinated by an active or retired first responder.

The coordinator's status as a "seasoned professional" has a great deal of influence as the team seeks to build their reputation and be accepted within the local system even while their background is not alone enough to bring about CERT integration. First responder groups are often viewed as a brotherhood--reputations and relationships determining the extent to which people are welcomed into their circles. If a coordinator is in the fire department, for example, the rest of the department follows suit and supports the idea.

> Well, with the fire department, because I'm also a fireman. I'm a fire investigator, so the relationship was just built there due to that fact, I believe.

The same seems to apply to emergency medical services.

> My background is in emergency medicine, law enforcement, corrections, and emergency management so that the people that we were meeting resistance from the past I've been able to communicate with a little easier and explain to them what we're doing.

For the team that was coordinated by the civilian volunteer, this study suggests that the team may be less involved or linked to the local emergency management system, in part, because of the background of the coordinator. For those Somewhat and Highly Integrated Teams, this study would suggest that they may be better linked and involved because of the status of their coordinator as a current or former first responder.

Continuity of Leadership

Beyond the background of the coordinator, it seems that just keeping coordinators in their position over time is important as well. While years of experience in a community does not always mean a team will be integrated, it does serve as a proxy for more important attributes. Coordinators with continued service with the program have the chance to develop a depth of experience and human capital in associated teams that might be underestimated at first glance. Coordinators have time to become familiar with the culture of the system, culture of the community, history of what has worked and what has not, and to attain a depth of knowledge about CERT from their experience in the program. Additionally, experienced coordinators have more of a chance to cultivate relationships and partnerships that are advantageous to the program. These individuals tend to nurture the team over time, grow membership, develop the educational programming for the team, and work with individuals to develop valuable and dedicated teams. When a coordinator is new to the position and the jurisdiction, many of these processes must start from scratch. Roughly half of the coordinators interviewed for this study indicated they had served in their position since the creation of the team.

> We started just over ten years ago. It's through my office, the County Emergency Management Office... We started pretty small. First class was about thirty, of which we picked up about ten people, and became a team for us. We're now up to just over a hundred and twenty-five members, and we are branched off into various specialty areas that the team can help during a disaster; fill gaps, supplement the responders that are working.
>
> We roughly have a little over 370 folks that we have been CERT training with since 2003. We have done folks from cities, individual groups to businesses. We've done the county government folks from our administrative to our courts to our juvenile system. We have done churches, two churches actually [church name] and [church name]. We are currently working on another CERT training this year for some other members of another group for the civil air patrol.

This rapport with the community and local emergency management system that has been developed over time is an important resource that can be taken for granted. It is difficult to pass on these relationships when there is a change of staff. It is especially difficulty when the change happens without notice or time to prepare.

> Unfortunately, the Deputy Director passed away unexpectedly, and so all of his knowledge, expertise, relationships that he had built, programs that he had built, kind of really had to taper off just a little bit, because really it was information that he had in his head, or programs that he had developed in his head, or processes that he had developed that he didn't share with other people. Unfortunately, it was just one of those things. When I was hired, that's one thing that really came to the forefront was trying to rebuild our CERT teams, and unfortunate as it is, just because of the chain of events that have occurred with a brand new director, a brand new deputy director, and not having the knowledge and expertise of the previous gentlemen, it became kind of a challenge.....Because of the newness of our director and the newness of myself, we were still trying to even build relationships, let alone trying to get them to get the buy in into a CERT team program.

The loss of a seasoned coordinator leaves a large gap in the program that is difficult to restore. For many coordinators, their memory is a significant resource. Even when the coordinator has documented what they have learned or done, those documents may be of little use to the next person without the contextual knowledge of how best to use them.

With a prolonged tenure spent coordinating a program come many important factors leading to the integration of a team. These include such things as knowledge of the community

politics, relationships within the local emergency management system, and experience working with the CERT team itself. While the continued leadership is not the best measure of human capital and experience, it is a proxy for these more important variables.

Formalization

As a CERT team is developed a decision is made as to how formal the overall structure will be. First the coordinator must consider whether there is a need for the team to have any other structures than the coordinator and a group of volunteers. Some teams prefer to have multiple layers of structure including boards, committees, and subcommittees and follow Robert's Rules of Order like high-level professional organizations often do. To achieve and maintain the highest form of formalization it seems to require that there be formal internal organization, a core group of volunteers, regular activity of those volunteers, and regional support. The coordinator's choice of how to organize a team is different for each team, and seems to be interdependent of the other factors already discussed. The responses from coordinators support the idea that further formalization is related to higher integration.

Formal Internal Organization

One of the key dimensions of formalization, as mentioned above, is the structural components of the team. The most common model of a team observed in this study included a coordinator, a steering committee of some sort, and volunteers. These steering committees can be made up of local emergency management and first responder leadership or volunteer members depending on the strategy of the team. Beyond this design, the variance of formal organization mostly includes adaptations made to suit the needs of the organization, adding committees, boards, officers, and other entities as needed.

> Basically, I'm in charge of the CERT team. We have a chairman, a vice chairman, and such. It's structured that way. However, those roles kind of melt away during times of need or disaster when we respond where we go back to using ICS structure.

> Our group has created a [region] CERT Board and that covers [county name] and [county name]. We have a president, vice president and secretary, usually about anywhere between six to 15 people attend that every other month meeting. We discuss current topics, events, exercise and things that are coming up and what we want to do to promote that out to the rest of group.
>
> Yeah, I have a team commander and a team vice-commander, and then they have a president, a vice president, and a secretary/treasurer of their organization and I am the sponsoring body so I have final say on the things they're doing, because they have to be sponsored by some type of professional organization...They run their own meetings. I'm there to ask questions, if they have questions they need answered, to provide some guidance on equipment and things like that...

For Highly and Somewhat Integrated Teams, the structuring of boards and committees turns what used to be a screw driver into a Swiss Army knife. A team with no further organization beyond a coordinator and volunteers has little capacity to coordinate more than one thing at a time. Potentially, if volunteers are divided into subunits and tasked with different objectives, they are able to accomplish more. Within the local emergency management system, their ability to be productive and make progress toward multiple goals results in doors being opened for the team to participate and facilitates the development of a positive reputation.

Not only does this structuring have external implications for the team, but the team is also better able to manage and develop internally. Boards and committees allow for the delegation of tasks that can make the operations of the team more efficient. Activities such as trainings, community outreach programs, and fundraising are now a shared responsibility, rather than something the coordinator organizes with the support of the most eager of team volunteers. Those teams that are more formally organized seem to be able to delegate responsibilities and manage tasks effectively.

Core Group

In the original stages of a team, there will often be a small subset of individuals that can be depended on to show up and perform. This foundational circle typically does the essential labor that makes the team operate as planned. Having regular dependable membership leads to more stability, a factor that is expected within the emergency management system.

> We probably have 20 of those folks that put in a minimum of the 20 hours a year and typically that's the ones we call on first because we know that they have had the higher level of training. We know that they show more of an interest and then of course with them the ability to take the IS 300 and 400 courses and we probably had 8 or 10 of them take the 300 or 400 level.

> Well, I'm usually asked how many people are on your team? Well, it's a volunteer group. I have about 120 some odd on the team and that's in quotes. Now when I need somebody or the monthly training type things, I'm probably lucky to get 10 and for whatever reason and that's the volunteer organization that you live with, they deal with that too on the fire side of things with volunteers.

Keeping Active

In order for the team to maintain the interest of this core group, as well as all the volunteers outside of it, the team must stay engaged with the system through regular activity. This activity could be through actual responses, although most coordinators said that response is probably the least common activity in which their team participates. From most common to least, these include service hours or community outreach, social events, advanced or refresher trainings, exercises, and responses. Many coordinators believed that this heightened level of participation was important within their programs.

> You got to deploy them. You got to let them do what they do. You know, they wind up sitting on the coach when there's some kind of emergency because nobody calls them. It's not going to take one or two of those things to happen and you lost a CERT team. You got to keep them out. You got to get them in the field occasionally no matter what your job is.

> I don't want to say that we've been fortunate that there's been call-outs for them, but it's helped keep the team members engaged in what we do, but I think they've taken it upon

> themselves in their monthly meetings to provide the training and, with the meetings and everything, that they've helped keep themselves engaged in it.
>
> There has to be activity and there has to be different opportunities. We have the different presentations, the different booths, the … whatever you call them, public outreach opportunities and there are … I do see that there are certain people who like that versus the hands on, go out and get dirty kind of stuff but that's okay. We're all different but there has to be activity for them to stay involved and interested.

Regular activity supports organizational stability and increases their potential to be accepted by entities within the local emergency management system.

While activity is important, it is a proxy for something deeper. When these groups are able to stay active, they build a team where members are not only dedicated as individuals helping to meet the team's goals, but also as team members working to accomplish a common goal. With this emotional investment comes a more stable team, as individuals are more dedicated and can be counted on to show up. Interviews within Least Integrated Teams shed light on this topic, as the coordinator associated with these teams said they never knew who was going to show up. For the Highly Integrated Teams this was not the case. These teams had participated as a team in multiple trainings and sometimes multiple responses. These teams, and the local emergency management system entities with which they worked, knew they could be depended on. The ultimate product of this activity was stability. This stability not only allows the team to depend on each other, but also allows the local emergency management to feel that they can depend on the CERT team. When this rapport is developed, teams are more likely to be valued and accepted as part of the local emergency management system.

Expectations and Requirements

In addition to the formal organization of the team are the expectations and requirements of each team member. Some teams require nothing but completion of the basic CERT curriculum, but others require participation in a host of activities and adherence to a set of rules

These documents, commonly called Standard Operating Procedures (SOPs) or Standard Operating Guidelines (SOGs) outline behavior vis-à-vis other members and external organizations, as well as the expectations for participation with regard to activities of the team and training. The most common requirements of members are the completion of the basic CERT curriculum, a background check of the volunteer for the coordinating jurisdiction's records, and a signed agreement of the team's standard operating guidelines.

> So that's how we build our program. Very strict guidelines, you know coming into it how strict it is, and that's how it is... To start off for them to remain at that highest level they have to have to meet the minimum standards of training which is for our group the IS 700, 100 and 200... Those folks at a second level maintain at least 10 hours per calendar year of training. That training can be either, not 10 hours of training, 10 hours of participation which could be training attending our monthly meetings, do an online course, taking other trainings. Our level 3 folks that are more active they are required to do 20 hours per calendar year.
>
> I'm pretty easy going, I don't require that much, but I require 8 hours of training and 2 hours of community service a year, just so, you know, once they go through their 24 hour academy. Some people are easy to do it and some people aren't. Everybody lives a busy life, you know. And every once in a while people need reminding.

Once again, these measures are proxies for the stability of the team. When a team has clearly outlined and communicated requirements and expectations of the team, it sets itself apart as a more demanding and dedicated group. Those interested in volunteering with the group already assume that they will have to put more energy into this group because of the heightened expectations. These volunteers are not only dedicated, but they must go through the rites of passage of completing the trainings and service hours required by the team. The local emergency management system is able to look at these demanding teams and see that they have the sufficient training and dedication to be accepted into the system. The inverse is also true, as teams with low requirements and expectations are viewed as a liability within the local emergency management system, rather than a respected entity.

Regional Support

Like many organizations, CERT teams have recognized the need for partnerships within their area. Coordinators and teams regionalize at various levels including city, county, and metropolitan areas to support and strengthen the various participating teams. These regional groups were supporting the majority of the CERTs involved in this study. They allow for programs to share experiences, training, resources, and staff that would otherwise not be available to them.

> We are part of a cooperative or a coalition…Basically, it's about 25 organizations that teach CERT. We basically get together and meet every other month and it's just, "Who's got classes going on?" and, "Who needs help?"…If you're teaching a class and you all of a sudden get called away to, I don't know, for training or something else, you're unavailable, you can put out a request and say, "Hey. I need somebody to teach Search and Rescue next Tuesday night," and somebody steps up and does it for you.

Many teams have used these coalitions to lobby as a group and seek funding that would have been difficult for a smaller town to access on its own. For example, many grants are available to organizations like CERT that seek to develop capacity and resilience within a community, but because teams can be so small, the grants may go to a larger organization with similar goals. When grants stand to reach 400 team members or more in one team versus a collection through a regional structure, funding is more easily acquired and then dispersed among participating teams.

> The money comes in from the federal government through an organization…Then, there are a series of committees in [coalition name], and CERT...is under the Citizens Preparedness Subcommittee. That committee deals with CERT, and preparedness issues, and disabilities, and those kind of things.

> BS- Really one of the best things we have been able to do, all four of those groups that we had I mentioned just a few minutes ago, we got together and we formed another group... We made a nine-member board off of two from each of those groups and then one community member. This group became a 501(c)(3) entity. So we work with our local legacies foundation to where if we want to go and get a donation, if we called you up and you sent a $1000 donation you could go through this Legacy group and you will get the proper tax documentation so you can get credit for making the donation to a group.

These regional support structures enable the involved teams to be more integrated within their jurisdictions. Teams that at one point only had limited resources currently have access to trainings, resources, and streams of funding facilitated through the regional group. As previously discussed, resources lead to a more stable organization that is more likely to be accepted and valued by entities within the local emergency management system.

Acceptance

In order for a team to be integrated they must be recognized by entities within the local emergency management system. Yet, before being valued, a team must be accepted. Acceptance as defined in this study is the act of recognizing a group as being adequate or suitable. A team can be trained, have a unique skill set, and exhibit a host of the other factors previously discussed, but without being valued they will not be wholly integrated into the system. Thus, acceptance is key. Acceptance has two components, including familiarity and track record. When either or both are present, teams seem more likely to be accepted, setting the stage for being valued.

Familiarity

In order for the team to be accepted, the emergency management system needs to first become familiar with the organization. As previously stated, groups such as fire departments, law enforcement, and emergency medical services normally have high expectations of themselves and each other. The groups need to learn of CERT and determine how it fits with their norms. From the first time an individual hears of, or interacts with the team, they begin to develop their opinion as to whether this group should be included in the local emergency management system.

> It's not as widely known as, you know, what the heck's a CERT? You know? But it is becoming more known…I have had some CERT members show up to certain things and

> flash their CERT card at a Police Department roadblock and they've gone through, so PD is starting to know what's going on as they are seeing it. I've had, shown up to disaster scenes, and there are people with their CERT uniform on and then people go "oh that's the CERT!". So I think it is starting to get more well-known than it was a dozen years ago when nobody knew what that green helmet or vest was.
>
> We have many fire departments and we have a county fire department. All of those have been involved in helping with the teaching of this course so that helps too with that relationship, so they know who we are. We're not just some yay-who who shows up with some really cool vest and badge. We're real, wants to help, so they know what we can do.

As familiarity increases (in the positive sense) entities in the local emergency management system are more and more trusting and allow a greater amount of responsibility to be placed in the team's hand

> Initially, they're pretty standoffish because they really don't ... you know, in an emergency they're used to being in charge and I understand their reluctance to outsiders messing around, but after they had worked with us on several rather tough emergencies, they're very accepting.
>
> When we first started this it was kind of like who are they, what are they doing and we don't need you here. Since we have worked them into some of our action plans like DWI checkpoints and event markings and things of that nature now our folks know what the green hats and the vests mean when it says CERT or Northland CERT on it. They like the idea that there's folks out here and they will come to help them out to make sure that they're ready to go.

Familiarity on its own, however, is not enough to lead to acceptance of the team. The team will ideally not only allow others to become familiar with CERT, but also prove themselves capable.

Track Record

Entities in the local emergency management system take notice of CERT and evaluate the team from the team's inception. Every training, exercise, day-to-day activity and response is a chance for the team to make a positive or negative impression on the first responders. Those that have and continue to have successes, build a positive reputation within the local emergency management system are those that, once sustained for a period of time, may be able to weather a few bumps. On the other hand, one mantra shared by a number of coordinators was "one aww

shit ruins ten atta-boys." A single botched response could make *the* critical difference in leading to entities within the local emergency management system ostracizing previously accepted teams.

> The Police Department in the past, it's been a huge struggle. The reason being is that we have a tornado that hit [neighboring town]...when is that? 2006, I think that's right. Anyways, a couple of our CERT team members from our county responded down there to assist with the recovery, and clean up, and everything. There was a lot of bad blood that came back from that. A lot of our same responders from our county were there with them, and it was just ... our group was not well organized. They just went off and did their own things. They created a little more of a hindrance than a help, and so when they came back to our county it was just like, "Well, we saw what you did in [neighboring town]. We don't want you helping out with our stuff here."... Getting the buy in from those first responders from the law enforcement side has proven to be very difficult because of that incident. It's hard for them to get over that when they've had such a bad experience.

These failures are difficult to atone for and can be associated with the team for years to come. Referring to the reputation of their team, one coordinator said,

> It's not as bad as it was but CERT was portrayed, I guess, I'm going to say, wrong in the past and we just have to fix the wrongs that were done.

The first responders in the local emergency management system continue to have interactions with the team, not only in the developmental stages of the group, but also throughout the lifespan of the team. With every success of the team, their acceptance grows, increasing the likelihood that they will be called upon to help out in the future.

> They're still there, they're still in charge but they pretty much let us run with it because of the fact they have seen how we work, we've invited them to come to our training to see how we are training and what we are training on, and that's how we got them to buy into it, by showing them what we can do and how we can help them out.

> The relationship [with first responders] is solid—very solid—and has solidified even more over the years with the police department, because we have found when they've called us out for things—for people or evidence—we found it.

As the old adage goes "actions speak louder than words" and the adage holds true in the realm of the local emergency management system. For those teams that are just beginning to

develop it is a slippery slope, as one botched exercise and response could make the entire team look like a risk to the first responders. Yet, with careful training and guidance from the coordinator, some of these problems may be mitigated or properly addressed to the satisfaction of the local emergency management system.

The researcher is not sure whether or not all of these factors are necessary for CERTs to be wholly integrated into the local emergency management system. It would seem that the most integrated would demonstrate all of the factors discussed in this chapter. Certainly, the Highly Integrated Teams (n=3) discussed in this study have all of the above factors, but there were so few Highly Integrated Teams that it is impossible to be certain that all of the factors are necessary to be highly integrated. Somewhat Integrated Teams were observed to have some, but not all, of the factors identified and the Least Integrated Teams demonstrated few if any of the factors. These observations suggest that more is better where these factors are concerned if integration of the team within the local emergency management system is intended.

Conclusion

The factors related to the extent to which CERT teams are integrated into local emergency management systems were discussed in this chapter. For the most part, higher integration of CERTs is more likely to be observed when more of these factors are present and less likely when they are not. Very few of the CERTs represented in this study were found to be highly integrated within their local emergency management system. The extent to which this is due to the nature of the factors or something else is discussed in Chapter Six as is the broader significance of this study's findings.

CHAPTER SIX: DISCUSSION

Chapter Six discusses the implications of this study in three sections. The first section revisits the context in which this study's research questions are significant. The second section discusses the continuum of integration along which it was discovered that teams could be placed as well as the factors related to the point at which the teams are situated. The third section discusses the implications of this research for practice, education, and research.

Context of This Study

Since the World War II era, government at all levels in the United States has recognized that it would be beneficial if citizens were prepared to respond to disasters effectively. Different programs have been initiated at different times to support citizen preparedness to help themselves, their families, and people in their neighborhoods address common issues that arise post-disaster such as suppressing fire, administering first aid, conducting light search and rescue, and providing psychological support to those impacted. At times, there has also been interest in seeing citizens capable of responding in a variety of other capacities that benefit the communities overall response (e.g., debris removal, damage assessment). Government interest in citizen preparedness was again renewed in the period following the September 11th terrorist attacks in the United States and a push was made by the Department of Homeland Security to see a citizen preparedness program known as the Community Emergency Response Team (CERT) spread nationwide (in addition to other citizen preparedness programs). CERT has indeed spread—there are now approximately 2,420 local CERTs (Citizen Corps, 2013).

Disaster research would suggest that citizen preparedness programs such as CERT are a good idea (see for example: Auf der Heide, 1989; Barton, 1970; Drabek & McEntire, 2002, 2003; Dynes, 1994; Fritz, 1996; Mileti, 1989; Stallings & Quarantelli, 1985). For a short time

after a disaster, individuals help one another and work to ensure the survival of as many people as possible (see for example: Auf der Heide, 1989; Barton, 1970; Drabek & McEntire, 2002, 2003; Dynes, 1970; Fischer, 1998; Fritz, 1996; National Research Council, 2006; Quarantelli, 1986; Tierney, Perry, & Lindell, 2001). In fact, research has found that following a disaster uninjured survivors from within and outside the impacted area are the first to help (see for example: Dynes & Quarantelli, 1980; Fernandez, Barbera, & van Dorp, 2006a; Kendra & Wachtendorf, 2002; Kendra, Wachtendorf, & Quarantelli, 2003). Not only does this helping happen, but research suggests first responders *need* this to happen, as they are overwhelmed following a major event and need the assistance of others in the initial stages of response (Auf der Heide, 1989; Perry, 1991; Stallings, 2005). If people help, and first responders need them to help, it would be a logical next step to say that a training program should be in place to ensure that these individuals have had the proper training they need in order to make a positive difference, rather than a negative impact that can be seen when individuals lack this training (see for example: Auf der Heide, 1989; Barton, 1970; Drabek & McEntire, 2002, 2003; Dynes, 1994; Fritz, 1996; Mileti, 1989; Stallings & Quarantelli, 1985). Responding individuals that lack training can disrupt the activities being carried out by entities in the formal emergency management system, injure themselves, or exacerbate disaster-related problems (see for example: Barsky, Trainor, Torres, & Aguirre, 2007; Fernandez, Barbera, & van Dorp, 2006a, 2006b; Kendra & Wachtendorf, 2001).

Based on the disaster research, the development of citizen's preparedness programs—including CERT—seems to be a good idea. Yet, for communities to be truly prepared, research suggests that simply creating programs and training citizens to work in teams like CERT is not enough. Community preparedness efforts need to be integrated. Ideally, the entities within

communities would know and trust each other, know what each intends to in response, and have a joint framework of how they will each respond in ways that complement one another. This integration is fostered through a variety of community level activities including, for example, planning (see for example: Dynes, 1983; Gillespie & Banerjee, 1993; Kartez & Lindell, 1987; Lindell, 1994) and training and exercises (see for example: Daines, 1991; Drabek, 2005; Dynes, 1994; Peterson & Perry, 1999; Perry, 2004). Without being integrated, people are likely to "seek to perform services using only their own judgment and narrow view of the incident" (p. 2) regardless of how trained they are. Thus, CERT, and programs like it, stand to benefit the overall preparedness of communities if the programs are integrated within the local emergency management system of which they are a part.

Despite the spread of the CERT program in the post-September 11th period, there is reason to question whether the programs are producing integrated teams. Research has found that practitioners associated with entities in local emergency management systems still think that the problems associated with working with citizen responders outweigh the potential benefits (Barsky, Trainor, Torres, & Aguirre, 2007). And, with respect to CERT specifically, there is evidence that practitioner perceptions of CERT vary (Flint & Stevenson, 2010); that CERTs are relied upon within local emergency management systems for a variety of roles associated with various levels of responsibility (see for example: Flint & Stevenson, 2010; Franke & Simpson, 2004; Gonzalez, 2005); and, that they are not equally integrated pre-disaster (Flint & Stevenson, 2010; Frank & Simpson, 2004; Gonzalez, 2005).

Within this context, this study sought to explore whether CERTs are equally integrated within local emergency management systems; and, should this not be the case, explore the factors that might be related to their integration into these systems pre-disaster. It was found that

CERTs are not equally integrated within their respective local emergency management systems. CERTs were found to be located at various points on an integration continuum, with one end of this continuum being the Least Integrated Teams and the other Highly Integrated Teams. Only 3 of the 21 teams represented in this study were found to be Highly Integrated; 10 were found to be Somewhat Integrated Teams, 5 were found to be Least Integrated Teams; and, 3 were "piggy backed" with another existing organization.

One of the key findings of this study is that to be highly integrated CERTs must be perceived by other entities in the local emergency management system as stable organizations—consistently functioning and consistently resourced. The realm of emergency management is a high-performance and high-stakes environment. Entities within the local emergency management system are expected to show up in a short amount of time, respond, and meet the needs associated with the incident as quickly as possible; and, there little margin for error. They operate under the assumption that any error they make may potentially result in the further injury or death of an individual, property damage or loss, and/or harm to the environment.

Because of this small margin for error, they have high expectations of themselves as well as the other men and women in their organization and other responding organizations. Each person in the organization expects that their fellow first responders have the necessary capacity and knowledge to effectively carry out tasks and that each person is equally dependable. This culture of teamwork and reliability results in a high level of camaraderie within each of these first responder groups.

The organizations tend to treat one another with much reverence and respect. Between the different branches of first responders, professionals recognize that each has their role and responsibility within the on-scene response. While there are occasional inter-organizational

issues due to mistakes made, confusion, or tensions regarding roles, these individuals and organizations take their jobs seriously, and expect that anyone else involved with response efforts is just as serious.

Entities within the local emergency management system are expected to be stable, having enough appropriately trained and capable staff and sufficient resources to address any problem that falls under the responsibility of the organization. If CERT is to be wholly integrated, then it seems that, like these other organizations, CERT must be consistently functioning and consistently resourced. This functioning and supply of resources signals that the team is stable and predictable enough that they will perform well and not be a liability during response. While on the surface this level of organizational stability (i. e. consistent functioning and resources) may seem like a simple feat to achieve, it requires, as demonstrated in Chapter Five, that a number of factors are present and in alignment at any given time.

There needs to be an opportunity for a team to contribute within the local emergency management system in some unique way. A team must have a skilled, dependable, and active group of volunteers as well as a strong internal organizational structure to enable a higher level of organizational functioning. In addition, the team needs the resources to support this activity including funding, training, and materials, not once, but consistently, to support any role they are supposed to fulfill. They need to also prove themselves capable of executing their responsibility effectively. At this point, CERTs may be perceived to be stable enough to be accepted into the local emergency management system as an entity on par with others in the system.

Teams do not achieve this easily. Should there be a desire to facilitate the development of stable and integrated teams, a number of things can be done. The leadership behind a program facilitates many of the bureaucratic processes that must occur for a team to become stable. A

coordinator is able to help the team find sources of funding, as well as lobby for the team on its behalf. A coordinator is also able to facilitate the creation of a formal organizational structure, enabling an even higher level of operation within the team. A coordinator can act as an advocate, working to build relationships and alliances within the local emergency management system that allow for the team to carve out a role and integrate into the system.

The volunteers themselves are also responsible for the integration of the team. Where integrated teams are desired, the team members must be willing to dedicate substantial time to CERT—staying active within the group, sharing work associated with the team, developing and maintaining their skills through training, exercises, and response activity (where possible). Morevoer, each time a team member interacts with entities in the local emergency management system they have the chance to contribute positively or negatively to the team's integration as a whole. Thus, they must operate within the bounds of the teams operating procedures and carry out their tasks well. These expectations of team members—who are volunteers and for whom participation in CERT is not a paid, or full-time job—are extraordinarily high.

Some of the things that would facilitate CERT integration are outside of the direct influence of the team and its coordinator. For instance, this research suggests that the opportunity for a CERT to have a response role is largely pre-determined. And, the decisions to provide and maintain the provision of resources needed to sustain a team are ultimately controlled by individuals outside of the team/coordinator. Additionally, the other entities within the local emergency management have a large impact on the integration of these teams. Each individual within these entities can choose to accept or reject the value of CERT volunteers and their opinions can be a deciding factor in how much a team is allowed to participate in planning, training, and exercises as well as whether the team ever is given a response responsibility that

warrants identification in formal jurisdictional documents (e.g., Emergency Operations Plans, Memorandums of Understanding). Inclusion or exclusion in these areas can make the difference as far as where the team ends up on the integration continuum.

Bringing about all of these factors at any given time, not to mention sustaining them over time, will be challenging for many CERTs and the jurisdictions in which they are located. Certainly, all of the factors were not present for all of the teams represented in this study. This study found that stability, and the factors making up this stability, varied widely.

This situation is likely to continue. There will not always be an opportunity for CERTs to take on significant roles in the localities where they exist. Funding associated with CERT has been a challenge. Their internal organizational structures vary. There are issues with continuity of leadership on the teams. Not all volunteers are willing to stay active or dedicate the amount of time that would be required for their team to be a Highly Integrated Team. It would appear likely that the presence and absence of these, and the other factors identified in this study, will continue to vary across time and jurisdiction-to-jurisdiction.

Furthermore, it was clear from the data that there was variation in the extent to which coordinators, and the local emergency management systems within which they worked, even had a desire to see CERT develop as a response entity and be highly integrated. Some coordinators believed Highly Integrated Teams were needed and were dedicated to bringing about integration while others believed the opposite. The existence of Somewhat Integrated Teams and Least Integrated Teams was not determined by default, i.e., certain factors were not in place and as a result the team was less than highly integrated. The existence of these other types of less integrated teams was at times chosen and then purposefully pursued in light of missing factors (i.e., no opportunity exists) or their belief that a less than highly integrated team was all that their

jurisdiction needed. It would seem that the desire to see integration occur will also continue to vary across time and jurisdiction-to-jurisdiction. For these reasons, Highly Integrated Teams are likely to continue to make up a small proportion of the total number of CERTs.

Chapter Two made clear that CERT could not be anticipated to solve the issues with citizen involvement in response in the form of spontaneous volunteerism, emergence, and convergence or any negative consequences associated with their involvement by itself. Nevertheless, there was strong support in the literature for the potential of citizen preparedness programs like CERT to build overall community preparedness, but this potential was contingent on the integration of the entities within the community. Thus, while CERT was not suggested to be *the* solution to citizen response issues, the lack of Highly Integrated Teams seems problematic both because they are not present in significant numbers and bringing about significant numbers of Highly Integrated Teams is unlikely.

Highly Integrated Teams are not always the ideal option for a jurisdiction, and in fact may not always meet the original purpose of CERT. As stated on the Ready.gov website, the purpose of the CERT program is to "train people to be better prepared to respond to emergency situations in their communities" (Ready, 2012). Highly Integrated Teams are high-efficiency, highly effective teams, and more money is spent per person on specialized tools and training. On the other hand Somewhat Integrated Teams have their money allocated to more people, providing more general training and supplies to all those who are interested. The choice of how to allocate funds and design a team must be based on the situational context within the community. In a rural area there is a greater need for a volunteer group that can support the limited resources of first responders with specialized training, supplies, and equipment. In an urban area however, there are typically multiple entities within the local emergency management

system with ample resources to address any one response, leading to a lower need for another highly specialized response entity. In urban areas it may be a better use of resources to establish the CERT team with the goal of training as many individuals as possible. Overall, coordinators initiating or restructuring a CERT team must decide which course of action will best benefit the community.

It is worth exploring the extent to which the lack of Highly Integrated Teams and the prospect of continued variation in integration is a problem. Specifically, it is worth considering whether the observed, and expected, continued, lack of integration is a problem or whether the problem might lie in this study's conceptualization of integration. The researcher revisited what integration means during data analysis reflecting on its meaning, consulting a variety of online dictionaries, and reading and rereading disaster literature suggesting integration is important. The researcher became aware that this study's conceptualization of integration was grounded in the assumption that CERTs were groups or organizations, i.e., individual entities, and that they would integrate as such.

This assumption seemed natural, because while the CERT program always had the intention of training citizens to respond to their own needs and that of their families, it has also always trained them with being a team in mind—the name of the program emphasizes this fact. Yet, most of the CERTs represented in this research were not individual organizations positioned to bring factors related to stability about so they might be integrated—CERTs were not organizations at all (i.e., they just offered a onetime training to citizens and sent them on their way); instead, CERTs were loosely networked collections of people who had experienced a training and might be asked to do something as a group in the future; or CERTs functioned to varying extents as an organization—or team. As discussed, it seems unlikely that this situation

will change. Therefore, widespread integration of CERTs is unlikely to be achieved using this study's conceptualization of integration.

Further, there does not appear to be intrinsic value in CERTs being an organization particularly when the other manifestations of CERT may still have the potential to be a vehicle for both citizen and overall community preparedness. The value of CERT may lie in creating a frame in which integration can occur at a jurisdictional level rather than creating teams that may or may not become integrated.

The researcher came to realize that this potential can only be explored if integration is more broadly conceptualized. It became clear that the essence of what dictionaries suggest integration means and what the literature suggests is important is that a thing becomes a part of a larger thing—part of a whole. The larger thing, or whole, in this case, is the local emergency management system. And, the thing that becomes a part of it, while initially thought of as CERTs as organizations, might just as well be CERTs that just train individuals and CERTs that produce loosely networked people. The issue remaining is what becoming a part of the system means and how it might be recognized if not using this study's original conceptualization.

There are many organizations involved in emergency management at the local level including, but not limited to, law enforcement, fire departments, public works departments, elected officials, assessor's offices, finance offices, parks and recreation, utilities companies, schools, hospitals, and nonprofits. The many organizations come together to form a thing, a whole, a local emergency management system by virtue of each agreeing to coordinate and collaborate through the adoption and implementation of common structures, processes, and procedures that they will use in common to manage any incident that might occur. Formation of a system also requires that each organization has a role that it, its members, and the other

organizations know, accept, and are capable of carrying out and each organizational role complements that of other organizations that might be involved in the aftermath of an incident. Systemization through structures, processes, and procedures and the various roles of entities in the system is commonly supported through jurisdictional planning, training, and exercises in which each organization participates. But, it seems, that in the case of CERT, there may be a more simple, basic way that those who become engaged in any type of CERT program might become integrated by virtue of their engagement without being part of a team that participates in planning, training, and exercises.

CERT training currently has six modules, none of which communicate how CERT is meant to operate within a local disaster, how the local emergency management system is structured (e.g., what organizations are in it and who does what), what systems, processes, or procedures are commonly used and in what context, how effective response is recognized, or, generally, how things are intended to work when a disaster occurs. Simply adding a module that requires these aspects of the local system to be communicated to those who receive CERT training would help to integrate them whatever form of CERT program exists in their area. Familiarity with what goes on after disasters in the broadest sense, how responses are structured, what happens in the early hours, what is helpful and unhelpful, and why they are being trained through CERT may empower individuals to contribute more positively to response efforts and minimize the possibility that their involvement will lead to negative consequences particularly when such a module would be combined with the rest of the existing modules. Were the training modified to include a module designed to integrate citizens into the local emergency management system, then CERT would offer a way for both citizen preparedness and overall

community preparedness to be advanced even while most who are exposed to CERT will not become part of a Highly Integrated Team.

The absence of such an addition to the training coupled with the lack of Highly Integrated Teams (and the potential to bring them about widely) may lead to CERT contributing to citizen response issues. If individuals completing the CERT curriculum are left with the assumption that they will help during a disaster as needed and have no exposure to the intended operation of the local emergency management system or its various parts, they can potentially become the disorganized liability that CERT seeks to reduce, the same liability that is presented in the literature. If, on the other hand, those who take CERT training are integrated, even just through the expanded training itself, they seem more likely to become an extension of the emergency management system and, importantly, less likely to hinder the formal response. They can take the knowledge gained from the integration training module forward into their participation in CERT class whatever form their particular CERT takes and whatever its role within the wider local emergency management systems.

Applying this Study's Findings

This study offers insight with regard to what pieces need to be in place in order for a CERT team to be fully integrated into the local emergency management system. While it was clear that there is not always a desire to have a Highly Integrated CERT Team, there will likely be jurisdictions that need Highly Integrated CERT Teams to supplement their lower level of capacity and resources. Not only do these areas need these teams, but they also need the resources to bring these teams to a higher level of integration and capability within the jurisdiction. Taking into consideration this difference in need, policy makers at a national level should consider a way to prioritize the allocation of resources to those teams with greater need in

addition to ensuring that a base level of funding is available to support the development and maintenance of CERT teams where jurisdictions desire and need them.

Currently, there is a notable lack of resources to support the development of CERT coordinators. Training materials could be developed to help coordinators learn of the different formats of CERT organization this study discovered, potential benefits to a local emergency management system of each, and the factors that need to be in place for the different team formats to be successful. Training could also address what a coordinator might do to help bring those factors about.

One major finding of this research was the importance of continued leadership of a coordinator. While losing a coordinator is important, continued leadership and experience is a proxy for the best practices many coordinators yielded from that experience. New coordinators are expected to complete the Train-the-Trainer course and are thrown into the position. This initial course covers the CERT curriculum and instructor techniques. What the course does not cover is what happens after the training when teams are attempting to structure themselves and operate as an organization. Coordinating this effort is not always easy to manage. In fact it is evident that these individuals are reaching out for guidance in their first few years in their position. A quick internet search reveals resources created by teams including handbooks, guiding document pamphlets, blogs and discussion boards. While it is beneficial to coordinators that these resources are available, they are of varying quality, and many are specifically designed for a particular community. CERT coordinators would benefit greatly from resources created at a national level, ensuring quality and congruence with current CERT practices. This could be as simple a task as asking each Citizen Corps Council to select exemplary teams within the council, interviewing those teams about their best practices, and publish a final report of the findings.

Given that achievement of Highly Integrated Teams is not always desired or likely, there is still an opportunity to address both citizen preparedness and overall community preparedness by integrating those who participate in CERT (whatever its form) within the local emergency management system by helping them learn about the system itself and how it is supposed to function. Those individuals who receive this CERT training and are then left on their own during response would be better positioned to contribute positively to community response efforts than those without such training.

Training could also be further developed for CERT teams. Currently, there are few training resources available beyond the original CERT training with its six modules. This study has pointed out that while the training and capacity of a team are important, other factors, including stability and acceptance must be present in order for a team to be integrated. Where CERT team integration is desired, training team members on how to contribute positively to team integration would be useful.

While many of the recommendations within this chapter are associated with change at the national level, such change may take years to accomplish. Until that occurs, there are ways to facilitate many of these changes at a local or regional level. For coordinators and practitioners, many of the trainings and skills suggested in this study can often be facilitated through a local government office. In fact, in many larger jurisdictions free courses or reimbursement for additional training sought by a government worker are available. Even if this is not possible, there are individuals at the local and state level that may be able to provide resources or information that can inform the work of a team coordinator. For volunteer management, a coordinator may talk to a person in human resources, a local volunteer organization leader, or state level volunteer liaison. For grant writing, there is often a local or state individual that can

assist with the application process. The same goes for many other efforts that otherwise would be learned through trial and error, or in fact, may not happen at all.

The findings of this research can inform policy and practice. They also can inform education and research. The emerging academic discipline of emergency management is "the scientific study of how humans and their institutions interact and cope with hazards, vulnerabilities, and resulting consequences" (Jensen, 2013, p. 3). Given this disciplinary purview, emergency management has an inherent interest in CERTs as a means of coping with hazards, reducing vulnerability within communities, and dealing with the consequences of hazard events. Coursework in emergency management higher education programs would ideally incorporate the findings from this study and others like it so that those individuals who go on to practice in emergency management or elsewhere in the distributed function of emergency management better understand how CERT relates to disaster phenomena. Future research by emergency management scholars might also build upon the findings of this study. This study began to explore important issues with respect to CERT but more remains to be done. Specific ideas for future research are suggested in the chapter to follow.

CHAPTER SEVEN: CONCLUSION

Since World War II local governments have been interested in creating organizations to better prepare citizens, their families, and their neighborhoods for potential threats. In more recent history, this effort has manifested itself in the form of Community Emergency Response Teams (CERTs). The purpose of the CERT program is to "train people to be better prepared to respond to emergency situations in their communities" (Ready, 2012). These teams are tasked with various roles and responsibilities within their community, ranging from no responsibilities at all, to fully developed roles that mirror that of a first responder entity. Prior to this study, little research had documented this variance and none had explored what factors help explain why this variation occurs.

This research studied CERT teams and how they were integrated into the local emergency management system, as well as the factors that were related to this varied integration. It was found that not all teams are fully integrated, with a majority of teams only being somewhat integrated into the local emergency management system. To categorize teams with regard to integration, they were mapped on a continuum in Chapter Four. At the left side of this continuum were Least Integrated Team, typified by a program focused on providing one time training to individuals rather development of a team or stand-alone response organization. These CERT programs, while being recognized for the training they offer citizens, were marginally accepted or valued within the local emergency system. In the middle of the continuum were Somewhat Integrated Teams. These teams had established internal organizational structures, recognized roles within the emergency management system, and were recognized by the first responders for their potential contributions, although the teams varied one to the next on these dimensions. On the right-most side of the continuum were the Highly Integrated Teams that had

well defined and significant roles that were formally documented. These were teams that were valued and accepted by the emergency management system in a similar fashion to other emergency management entities in the system.

While most of the teams included in this study fit along this continuum, there were three teams that did not fit within these categories because they were piggy backed with another organization. The phenomenon of piggy backing involves individuals taking CERT training and being labeled as a CERT team upon completion but then being "given to" another organization and subsumed within it as opposed to within the local emergency management system

For teams that fell along the continuum of integration, it was found that to be fully integrated, teams must have leadership, organizational stability, and must be accepted into the local emergency management system. Within each of these areas were multiple factors found to drive achievement of higher CERT integration. In general, it seems that those teams that have all of these factors will be more integrated than those that have less. Since it seems unlikely that all of the factors will be present everywhere there are teams all of the time, it seems unlikely that all teams will be highly integrated within local emergency management systems.

The extent to which a lack of integration using this study's conceptualization of the concept is problematic was explored. And, it was suggested, that if integration were more broadly conceived there may be one or more ways to bring integration about through CERT without all teams needing to a) operate as organizations and b) all factors needing to be present. Specifically, it was suggested that expanding the basic CERT curriculum to inform individuals taking the class about how the local emergency management system is structure and what it expects to do and how post-disaster might be useful.

Recommendations for Research

This research has outlined key factors that were found to be related to the integration of CERT teams, with the general understanding that the presence of more of these factors leads to higher levels of integration and the presence of less factors leads to lower levels of integration. Future research should seek to reaffirm and clarify these initial factors, as well as discuss other potential factors that may not have surfaced within this study. The need for future research is particularly critical given the relatively small sample size of this study. Not only could the number of respondents be expanded, but also the geographic scope. The factors discussed within this study seem as though they would be applicable to all CERT teams within the U.S. regardless of the locale, but future research must explore this issue.

One of the key findings of this study is the idea that a stable organization is critical to becoming an integrated entity within the local emergency management system. Part of this stability involves teams having the capacity and skill to fulfill their assigned roles. Presently, the common practice of CERT programs is to offer initial trainings and, perhaps, in some instances, a refresher training, but rarely offer any knowledge testing to ensure that team members are retaining this knowledge. Research should examine the extent to which initial CERT training results in the knowledge it is designed to instill as well as the extent to which any knowledge gained is retained over time.

Within Chapter Six of this study, changes to the CERT curriculum were made. Specifically, it was recommended that a module on the local emergency management system's basic functions and processes for the purposes of facilitating the integration of the individuals who take the training within the surrounding local emergency management system regardless of the type of CERT in their area. Should these changes occur, future research should evaluate what if any benefits are derived as a result.

This research has looked at CERT within jurisdictions, but this is not the only place these teams can exist. While the training must be coordinated through a first responder agency/emergency management office, the program is designed to allow organizations, business, and other entities to train internal CERT teams. Research should explore the extent to which these sorts of teams are integrated within their organizations and whether the factors identified through this research are applicable in those settings.

These additional groups could also potentially include those teams that exhibited the phenomenon the researcher previously titled "Piggy Backing". While these teams were not previously placed on the integration continuum, this was due to the assumptions the researcher had prior to the start of the research regarding the way that CERT teams operated within jurisdictions. With this new conceptualization of the way CERT teams are structured and operate, further research can be done to explore the integration of the host organization within the local emergency management continuum and the motivation behind the decision for certain teams to "Piggy Back".

Finally, this study lays the foundation for future study on the topic of CERT teams. The researcher believes that while the findings of this qualitative study provide the foundation for future quantitative research using the factors identified in this study. The researcher believes the prevalent and consistent involvement of the factors identified in shaping the extent to which teams were integrated makes it likely that future quantitative research using these factors to explain integration of teams will yield substantive and significant results. Ideally, statistical techniques, such as regression analysis, will be used to tease out the combined influence of all of the factors identified as well as the relative influence of each on integration.

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APPENDIX A: INTERVIEW GUIDE

North Dakota State University

Center for Disaster Studies and Emergency Management
P.O. Box 6050
Fargo, ND 58108-6050
http://www.ndsu.edu/emgt/
John Carr

"Community Emergency Response Teams and Local Emergency Management Systems"

Interview Guide

Introduction Script: *Before we begin, I wanted to make sure that you are comfortable with a few things related to this project. Are you comfortable with the fact that you have been selected for participation in this research due to your role as a CERT team coordinator in FEMA Region VII; that your participation in this project is voluntary; that you can let me know if you want to stop participating at any time; that while your confidentiality is not guaranteed, we will not use your name or jurisdiction's name in the final write-up of the data collected for this research; and, that our conversation is going to be digitally recorded? Do you have any questions before we begin?*

- Tell me a little bit about your CERT team.
- Tell me about the history of your CERT team in [jurisdiction name].
- What explains the history of your team?
- Describe your CERT team's roles and responsibilities within [jurisdiction name].
- Describe the team's interactions with the surrounding groups and the local emergency management system, for instance the fire department, police department, emergency medical services etc.
- May I contact you in the future if I have further questions?

APPENDIX B: INTERVIEW FOLLOW UP QUESTIONS AND PROBES

Potential Interview and Follow-Up Questions and Probes

1. Tell me a little bit about your CERT team.
    a. Number of people
    b. Recruitment strategy
    c. Different levels of member participation
    d. Other leadership roles besides "coordinator
    e. Member characteristics, ex- education, income
    f. Program member motivation
    g. Average age of team member
    h. Professions of team members
    i. Average level of education
    j. Regular team activities (weekly, monthly, yearly)
    k. Day to day vs. disaster activities
    l. Deployment/activation triggers
    m. Policies for liability
    n. Community engagement
    o. Skills and subjects of training and exercises
    p. Advance skill sets of team members
2. Tell me about the history of your CERT team in [jurisdiction name].
    a. How did it get its start?
    b. Unique features
    c. How long have you worked with the team?
    d. How long have you served in this position?
    e. What is your personal history with the team?
    f. How old is the team?
    g. Roles and responsibilities over the years
3. What explains the history of your CERT team?
    a. What events led up to [larger event]?
    b. Major motivators behind event
    c. Is this the case for similar local groups or just yours?
    d. How were these events connected?
    e. Perceptions among responder organizations
    f. Resources
    g. Lack of training of the teams
4. Describe your CERT team's roles and responsibilities within [jurisdiction name].
    a. Can team members fund themselves?
    b. Funding sources not pursued?
    c. Resources from local first responders, groups

    d. other groups offering similar services
    e. potential services not pursued
5. Describe the team's interactions with the surrounding groups and the local emergency management system, for instance the fire department, police department, emergency medical services etc.
    a. Relationship with local agencies
    b. Degree to which relationships are based on trust
    c. Local government ownership/support
    d. Community ownership/support
    e. Connections with other local orgs
    f. Circumstances leading to relationship/reputation
    g. Factors leading to success
    h. Things that worked elsewhere, but not there
    i. Factors leading to failure
    j. Local exercise involvement
    k. Local training involvement
    l. Local planning involvement related to information, communications, resource management
6. May I contact you in the future if I have further questions?

APPENDIX C: INTERVIEW INVITATION LETTER

NDSU

North Dakota State University
Department of Emergency Management
Center for Disaster Studies and Emergency Management
Department 2351
P.O. Box 6050
Fargo, ND 58108-6050
(701) 231-5595

Dear [Potential Participant Name],

I am writing to request your participation in an exploratory study regarding Community Emergency Response Teams (CERT) and how they are integrated within local emergency management systems.

While the potential value of CERT teams is often suggested, very little research on how CERT teams develop, what they are like, and what they do exists. Due to your experience as a CERT team coordinator, you can provide invaluable insight regarding these teams. The results of this research will be used to inform both emergency management education and practice.

I am eager to learn more details about your team and the jurisdiction within which it works. While I would love to come and talk to you in person, because of the distance between us I cannot. Instead, I would like to talk to you over the phone. My hope is that you will take some time out of your schedule to discuss this topic in detail. The interview will take approximately one hour depending on your availability and the detail you provide.

Assuming you are willing to participate in this study, I would like to schedule a time that works best with your schedule for this phone call. Please take a look at the attached document with additional information about this study. Afterwards, should you have any questions, feel free to contact myself at john.carr@my.ndsu.edu or (816) 632-8984. You can also Jessica Jensen, who is also assisting with this project, at ja.jensen@ndsu.edu or (701) 231-5886.

Thank you in advance for participating in this research.

Best Regards,

John Carr

APPENDIX D: INFORMATION SHEET

NDSU

North Dakota State University
Department of Emergency Management
Center for Disaster Studies and Emergency Management
Department 2351
P.O. Box 6050
Fargo, ND 58108-6050
(701) 231-5595

"Community Emergency Response Teams and Local Emergency Management Systems"

INFORMATION SHEET

Research Study
You are being invited to participate in a research project entitled "Community Emergency Response Teams and Local Emergency Management Systems." This study is being conducted by John Carr, with the Center for Disaster Studies and Emergency Management, North Dakota State University.

Purpose of Study
There has been very little research regarding CERT teams. This study intends to partially address this gap by exploring how teams are integrated within local emergency management systems and why.

Basis for Participation Selection
You have been invited to participate in this research project because of you have been identified as a CERT team program coordinator within FEMA Region VII at http://www.citizencorps.gov/cc/CertIndex.do?submitByState.

Use of Recording Device
Interviews will be recorded through the use of a digital audio recorder. Audio files of the interviews will be uploaded to John Carr's personal computer and the transcriber's computer for transcription. Once the transcription is complete, the audio recording will be deleted from both locations.

Potential Risks and Discomforts
There should be no potential discomfort or physical, social, psychological, legal, or economic risk to you due to your participation in this study.

Potential Benefits
By participating in these interviews you would provide us important insight into how CERT teams are integrated within local emergency management systems. The information gathered through these interviews will be used to educate students, academics, practitioners, and policy makers.

NDSU

North Dakota State University
Department of Emergency Management
Center for Disaster Studies and Emergency Management
Department 2351
P.O. Box 6050
Fargo, ND 58108-6050
(701) 231-5595

Assurance of Confidentiality
There is no assurance of confidentiality if you chose to participate in this study. That being said, we will take steps to protect your privacy. Your name and your organization's name will not appear in published findings nor will your information be shared with other interviewees.

Voluntary Participation and Withdrawal from the Study
Your participation is voluntary and you may quit at any time. Your decision whether or not to participate will not affect your present or future relationship with The Center for Disaster Studies and Emergency Management, North Dakota State University or any other benefits to which you are otherwise entitled. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time.

Offer to Answer Questions
You should feel free to ask questions now or at any time. If you have any questions, you can contact the lead researcher, John Carr, at (816) 632-8984 or john.carr@my.ndsu.edu. You can also contact John Carr's advisor, Dr. Jessica Jensen, at (701) 231-5886 or ja.jensen@ndsu.edu. If you have any questions about the right of human research participants, or wish to report a research-related problem, contact the NDSU Institutional Review Board (IRB) Office at (855) 800-6717, or by email at ndsu.irb@ndsu.edu.

APPENDIX E: FOLLOW UP EMAIL

NDSU

North Dakota State University
Department of Emergency Management
Center for Disaster Studies and Emergency Management
Department 2351
P.O. Box 6050
Fargo, ND 58108-6050
(701) 231-5595

Dear [Potential Participant Name],

I am writing to remind you of a request your input for an exploratory study regarding Community Emergency Response Teams (CERT) and how they are integrated within the local emergency management systems. Three weeks ago I sent you an initial invitation to this study, and since then have been able to interview a number of individuals.

These interviews have provided an interesting insight, but in order to confirm these findings more interviews are needed. Your thoughts and experience are crucial in this process, and my hope is that you will take some time out of your schedule to discuss this topic in detail. If you are willing, I would like to schedule a time that works best with your schedule for this phone call.

I have attached the materials relating to this study, as well as the text from my previous email. Should you have any questions, feel free to contact myself at john.carr@my.ndsu.edu or (816) 632-8984. You can also Jessica Jensen, who is also assisting with this project, at ja.jensen@ndsu.edu or (701) 231-5886.

Thank you in advance for participating in this research.

Best Regards,

John Carr

APPENDIX F: INSTITUTIONAL REVIEW BOARD APPROVAL

NDSU NORTH DAKOTA STATE UNIVERSITY

November 29, 2013

FederalWide Assurance FWA00002439

Jessica Jensen
Emergency Management
428B14 Minard Hall

Re: IRB Certification of Exempt Human Subjects Research:
Protocol **#HS14113 , "Community Emergency Reponse Teams and Local Emergency Management Systems"**

Co-investigator(s) and research team: **John Carr**

Certification Date: 11/29/2013 Expiration Date: 11/28/2016
Study site(s): **varied**
Funding: **n/a**

The above referenced human subjects research project has been certified as exempt (category # 2) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, *Protection of Human Subjects*). This determination is based on protocol materials (received 11/27/2013).

Please also note the following:

- If you wish to continue the research after the expiration, submit a request for recertification several weeks prior to the expiration.
- Conduct the study as described in the approved protocol. If you wish to make changes, obtain approval from the IRB prior to initiating, unless the changes are necessary to eliminate an immediate hazard to subjects.
- Notify the IRB promptly of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Report any significant new findings that may affect the risks and benefits to the participants and the IRB.
- Research records may be subject to a random or directed audit at any time to verify compliance with IRB standard operating procedures.

Thank you for your cooperation with NDSU IRB procedures. Best wishes for a successful study.
Sincerely,

Kristy Shirley

Kristy Shirley, CIP, Research Compliance Administrator

INSTITUTIONAL REVIEW BOARD
NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | ndsu.edu/irb
Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo, ND 58102