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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

THE COLLABORATIVE CAPACITY OF THE NYPD, FDNY, AND EMS IN NEW YORK CITY: A FOCUS ON THE FIRST LINE OFFICER

by

Abdo Nahmod

March 2010

Thesis Advisor: Second Reader: Richard Bergin Nola Joyce

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THE COLLABORATIVE CAPACITY OF THE NYPD, FDNY, AND EMS IN NEW YORK CITY: A FOCUS ON THE FIRST LINE OFFICER

Abdo Nahmod Deputy Assistant Chief, Fire Department of New York City B.S., College of Staten Island, University of New York, 2001

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF ARTS IN SECURITY STUDIES (HOMELAND SECURITY AND DEFENSE)

from the

NAVAL POSTGRADUATE SCHOOL March 2010

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ABSTRACT

The first line officer in a public safety response agency is a demanding position. Often, these officers are the first leaders on the scene of a terrorist-related event or natural disaster. The role of the first line officer has changed, from directing people and securing their cooperation to developing collaborative, interdependent partnerships. The theories and models described in this study are intended to develop the capabilities of the first line officer of an emergency response agency to work in a collaborative environment and to meet the challenges with all the homeland security partners.

Different types of trust and influences of organizational cultures have been explored in previous studies on collaboration. An integral part ,or central idea of this thesis, is to explore how the organizational culture and institutional trust, as demonstrated in the role of the first line officer from FDNY, NYPD and EMS, can improve the collaborative capacity in the initial phases of an all-hazards event.

Building collaborative capacity is a career long process that must be reinforced at every level and supported from the top down. The management of a mass casualty incident requires a synergistic approach among the first responding agencies. The time to start collaboration is not by exchanging business cards at the scene of an incident.

TABLE OF CONTENTS

I.	INTR	ODUCTION	1
	А.	PROBLEM STATEMENT	3
	В.	RESEARCH QUESTION	5
	C.	ARGUMENT	5
		1. Building Interagency Collaborative Capacity	6
	D.	SIGNIFICANCE OF RESEARCH	
II.	LITE	RATURE REVIEW	9
	A .	COLLABORATIVE CAPACITY	
	В.	ORGANIZATIONAL CULTURE	11
		1. Cultural Integration	13
	C.	INSTITUTIONAL TRUST	
	D.	SUMMARY	19
III.	MET	HODOLOGY	21
	A.	METHOD	
	B.	SAMPLE POPULATION	
	C.	INTERVIEW PROTOCOL	
	D.	DATA COLLECTION	
	Е.	QUALITATIVE ANALYSIS	25
	F.	CODING AND ANALYSIS	
	G.	THEORETICAL SENSITIVITY	26
IV.	ANAI	LYSIS AND FINDINGS	27
	A.	FINDINGS	
		1. Leadership	29
		2. Cultural Norms	30
		3. Teamwork	31
		4. Reputation	32
		5. Social Identity	32
		6. Individual Adaptation	33
		7. Interpersonal Trust	34
		8. Reciprocal Trust	
	В.	INTERVIEW DATA SUMMARY	36
V.	CON	CLUSION AND RECOMMENDATIONS	37
	А.	CONCLUSION	
	В.	RECOMMENDATIONS	40
		1. Interagency Training	40
		2. Joint Duty Assignment	
		3. Focus on the First Line Officers	42
APPE	ENDIX	A. INTERVIEW QUESTIONS AND RESPONSES	45
APPE	ENDIX	B. INTERVIEWS BY AGENCY ORDER	55
	_	· · · · · · · · · · · · · · · · · ·	

LIST OF REFERENCES	63
INITIAL DISTRIBUTION LIST	

LIST OF FIGURES

Figure 1.	Factors Influencing First Line Officer Collaborative Capacity among Fire,
	Police, and EMS28

LIST OF ACRONYMS AND ABBREVIATIONS

AC	Analytic codes
BLEMS	Basic Leadership in Emergency Medical Services
CBRN	Chemical, biological, radiological, nuclear
CIMS	Citywide Incident Management System
CPR	Cardio-pulmonary resuscitation
DoD	Department of Defense
EMS	Emergency Medical Services
ESU	Emergency Services Unit
FDNY	Fire Department City of New York
FLO	First Line Officer
FLSTP	First Line Supervisors Training Program
FOMI	Fire Officers Management Institute
GAO	Government Accounting Office
GNA	Goldwater Nichols Act
ICC	Interagency Collaborative Capacity
ICS	Incident Command System
JDA	Joint Duty Assignment
NIMS	National Incident Management System
NYPD	New York City Police Department
OEM	Office of Emergency Management
WMD	Weapons of mass destruction

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This postgraduate education was achievable thanks to the support and contributions of many individuals that have touched my life. I would like to express my sincere gratitude to all the people in the New York City Fire Department who made my participation in this prestigious masters program a reality. I would like to extend a special thanks to Commissioner Nicholas Scopetta (ret.) and Commissioner Salvatore J. Cassano who inspired my collaborative thesis topic and afforded me the opportunity to attend the Naval Postgraduate School executive level program.

Thank you to Assistant Chief Joseph Pfeifer for your wonderful insight, intellectual feedback, and advice to lead the way by taking the road less traveled rather than follow the pack. Thank you also to Assistant Chief John Peruggia for sharing your vision, innovative thought process, mentorship, and most notably your friendship over the many years.

A special thanks to my thesis advisor Richard Bergin for believing in my ideas, supporting me throughout this journey of knowledge, and allowing me to discover that critical, analytical thinking and graduate research may lead to unexpected results. Thank you to Dr. Christopher Bellavita, for teaching me to listen actively, view others through a theoretical lens, and inquisitively ask, "Why should I believe this?" To my colleagues from NPS, thank you for comradeship, valuable insight, and making our time together a rewarding experience.

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This paper is dedicated to the memory of my father, whose spirit is always with me. He was a brave individual who taught me that the price of freedom is always worth fighting for.

I. INTRODUCTION

Different types of trust and influences of organizational culture have been explored in previous studies on collaboration. These renowned scholars and their literary works, Bardach's Craftsmanship Theory, Chris Huxham's Leadership in Collaboration and Jansen, Hocevar, and Thomas's Conceptual Model of Interagency Collaboration provide interesting vantage points that address the research question as to what influences collaborative capacity. The level of analysis for this study will be the first line officers within three New York City public safety agencies, fire, police, and emergency medical services (EMS), and the focus will be on institutional trust. The term first line officer in the context of this research designates the fundamental duties of the job at the very bottom or first level of management hierarchy. It has been said, "Supervision exists where there is immediate contact with people in the direction of work" (Wheeler, 1977, p. 723). The duties and responsibilities of the first line officer will be defined in detail throughout the literature review.

It is important to understand the meaning and context of institutional trust and organizational culture in order to discover its influence on collaborative capacity. For purposes of this research paper, institutional trust will be defined as follows: "Trust that develops when individuals must generalize their personal trust to large organizations made up of individuals with whom they have low familiarity, low interdependence and low continuity of interaction" (Lewicki & Benedict-Bunker, 1995). Edgar Schein provides a well-accepted definition of organizational culture, which will also be used for purposes of this paper:

A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel. (1988)

This definition of organizational culture has been used a basis for research in social science and leadership and is significant to the three agencies in this study. It is

important to recognize the basic pattern of shared assumptions, rites, rituals, and traditions of an organization in order to understand its culture.

According to Zolin:

Organizations can be viewed as social structures designed to facilitate collective goal achievement. As such, they both enable and constrain behavior within and between organizations. Although competition exists within organizations, effective organizations align the behavior of individuals to achieve organizational goals. (2006).

Schein and Zolin both describe behaviors of groups and individuals within an organization that define its culture.

This research will focus on the effects of organizational culture, institutional trust as they relate to collaborative capacity. The first line officer position has been selected as the level within each organization where the assumption is that collaboration begins.

Two randomly selected first line officers from each agency were interviewed and asked questions regarding organizational culture, institutional trust, and collaborative capacity. The analysis in this thesis will be of a selected group, lieutenants and sergeants, rather than at the individual level, and at the level of the first line officer (FLO) position. The focal point of study will be the position of the first line officer (supervisor) within each agency fire, police, and EMS. In the field of industrial relations, the most widely accepted definition of the term "supervisor" is probably that which is found in Section 2(11) of the Labor Management Relations Act. This definition reads:

The term "supervisor" means any individual having authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees, or responsibly to direct them, or to adjust their grievances, or effectively to recommend such action, if in connection with the foregoing the exercise of such authority is not of a merely routine or clerical nature, but requires the use of independent judgment. (Wheeler, 1977)

The following excerpt from the New York City fire Department Regulations Book discusses the role of lieutenants as supervisors: "Lieutenants are responsible for the supervision and discipline of members and the efficient operation of units under their jurisdiction during their tour of duty. They shall comply with and enforce specific instructions and orders of the company commander."

A. PROBLEM STATEMENT

The current challenge for New York City Police Department (NYPD), New York City Fire Department (FDNY), and Emergency Medical Services (EMS) is the lack of inter-organizational collaboration in preparedness, response, and mitigation of multiple or large-scale, all-hazards events. This lack of collaboration or inter-agency collaborative capacity is evidenced by ineffective coordination of resources on the scene of emergency incidents.

Inter-agency collaborative capacity is also influenced by cultural factors such as a unique language of terms, codes, and acronyms that facilitates communication within a particular agency; however, since communication is agency specific, it makes it difficult for different agencies to communicate together because they each have their own language. For example, a response to a particular event by the fire service is called a "run," by the police it is called an "on a job," and EMS as a "call." When two agencies, such as fire services and law enforcement, respond to an incident, the spoken language used by each may differ. Such as, EMS may refer to a patient in "arrest" (cardiac arrest), while the police may place someone under "arrest." These differences in languages surfaced in a recent multi-agency full-scale training exercise at Pennsylvania Station in New York City, which was held to simulate a train derailment and crash. Interoperability radios were used throughout this event to enhance radio communication. However, the radio codes used to transmit a request for assistance, to slow down responding resources as needed or to relay that the condition has been corrected are different for each agency. Police officers, firefighters, and EMS technicians utilize separate radio disposition codes with their respective dispatchers. The barrier in communication is the spoken language, not the interoperability. The agency specific radio codes are shorthand terms used to describe a particular event. One example is that NYPD uses a "10-54" code to mean a patient needing medical assistance, FDNY (fire) use a "10-45" code to mean a victim requiring medical assistance.

Another example of the influence of organizational culture on inter-agency collaborative capacity is the way first responders train and operate. The FDNY is a team that works with a first line officer at every incident. The firefighters and officer work, eat, and share living quarters in a family like setting for a 24-hour shift. On the other hand, pairs of EMS & NYPD, work as a "unit" for an average of eight hours. The nature of the work of each agency's work, law enforcement, firefighting, and providing pre-hospital care to patients, varies greatly. Another difference is that firefighters and Emergency Medical Technicians take an oath of office (Oath of Geneva) to help those in need of life saving assistance, while police officers are sworn in to uphold the law and maintain order. These differences of how each service communicates, trains, and operates can lead to barriers in the interagency collaborative process.

Management of a motor vehicle accident with multiple injuries on a highway is one setting that demonstrates how institutional trust leads to collaboration. When a 911 call is received for this type of an assignment, police, fire, and all EMS are dispatched to assist the victims involved. Each agency has a specific role to play in this life saving scenario. Access, egress, and scene safety must be established by the police in the initial phase of the assignment. Rescue, disentanglement, and extrication are preformed by the fire service. Life saving pre-hospital triage, treatment, and transportation to the hospital are provided by EMS. Each one of these agencies is dependent on another to accomplish the mission at hand. Institutional trust is demonstrated by the forming of multidisciplinary teams (police, fire, and EMS) to work in such a hazardous environment and in various roles. Over time, these multi-disciplinary teams have become familiar with one another and developed a type of trust that leads to collaboration. This paper will attempt to identify and describe this type of trust and determine its influence on collaborative capacity.

There is competition between FDNY and NYPD with regards to providing rescue services to the public, which each agency is sworn to serve. Currently, these agencies provide redundant services in hazardous material response and decontamination at chemical, biological, radiological, nuclear (CBRN) and weapons of mass destruction (WMD), and other multi-casualty incidents. The first line officer of each agency begins the critical decision-making process to collaborate and assume a role in the Incident Command System (ICS) at the scene of an incident.

B. RESEARCH QUESTION

What is the influence of institutional trust and organizational culture on interagency collaborative capacity during the initial stages of an incident as perceived by the first line officer?

C. ARGUMENT

An integral part or central idea of this thesis is to explore how the organizational culture and institutional trust, as demonstrated in the role of the first line officers from FDNY, NYPD, and EMS, can improve the collaborative capacity in the initial phases of an all-hazards event.

The research will focus on collaborative capacity, the organizational components of culture for the entry-level supervisors (first line officer) within their assigned organization as well as specific types of trust within an institution. The senior management of the three respective disciplines must (assumption) support an environment where collaboration is part of a strategic vision. The superiors of the first line officers must allow and promote interagency collaboration in a consistent manner.

Collaboration is a necessary foundation for dealing with all-hazards disasters and the consequences of terrorism. According to Waugh and Streib, better understanding of the nature of collaboration can yield benefits (2006). Disasters will inevitably produce calls for responsiveness, but an effective response is unlikely to happen without collaboration (Waugh & Streib, 2006, p. 137). Waugh and Streib further explain:

Collaborative capacity is a fundamental component of any emergency response. It is a mistake to assume that a response can be completely scripted or that the types of resources that are available can be fully catalogued. It is also a mistake to assume that any individual or organization can manage all the relief and recovery efforts during a catastrophic disaster. (1991, p. 7)

The constructs of trust and trustworthiness have come to be a major organizing focus in organizational research and serve as an umbrella for a range of related concepts. Most employers verbally support the principle that "people are our most important asset," but this claim does not always translate into management practices (Osterman, 1999).

As noted by Turniansky and Hare (1998), organizations only learn through the individuals employed within them, "it is actually the individuals in the organizations who learn about the structure and processes in their organization and how their organization relates to other organizations, to the larger society and the environment" (p. 112). The authors clarify this point by saying, "organizations themselves do not learn, but the individuals in the organizations learn as they communicate, learn and change, and this in turn influences organizational learning and change" (Turniansky & Hare, p. 113).

The difficulties of designing an effective and efficient operating system for the collaborative effort likely will not be solved if interpersonal culture of trust and pragmatism are not established, along with a system for building and maintaining consensus at the executive, or policy, level. However, trust, a problem-solving ethos, and consensus-building processes do not just appear. It takes time, effort, skill, a mix of constructive personalities who are around long enough to build effective relationships. Furthermore, whatever they do has to be done over a long period of time because effective collaboration is a state that emerges relatively slowly. Hence, one must also ask whether such individuals can energize and guide a complex developmental process that will take place over a long time period—a period in which disruptive political and fiscal shifts might possibly occur. Possibly, they could if they were to stay in their agency, positions, and roles. Unfortunately, turnover happens, and it tears at the fabric of personal relationships that is essential for collaboration to work.

1. Building Interagency Collaborative Capacity

According to Bardach (2005), although there are plenty of opportunities for public sector agencies to create value by working cooperatively with one another, not all of them are taken. Probably only a few opportunities are perceived, and far fewer are acted on. Some of these opportunities have to do with achieving cost savings by eliminating

redundancies and effecting economies of scale, but the more numerous, and certainly the more interesting, ones have to do with improving agency performance. In particular, they have to do with being able to conceptualize problems more holistically than each specialized agency is capable of doing alone and the capacity mass resources necessary to solve them. One reason that more value-creating collaborations do not occur is that the task of collaboration is very difficult. Working cooperatively is often much more complicated than it sounds. It involves reconciling worldviews and professional ideologies that cluster within agency boundaries but differ across them. Moreover, it is often difficult to align agencies' work efforts in the face of governmental administrative systems that presuppose deliberate nonalignment. Indeed, these systems favor specialization and separateness down to the smallest line item.

D. SIGNIFICANCE OF RESEARCH

This research will contribute to the study of how organizational culture and institutional trust influence collaborative capacity, specifically at the level of the first line officer in police, fire, and EMS agencies within the initial phase of a large mass casualty incident. The conclusions and recommendations of this thesis will serve as another source of information for broader research into the development of collaborative relationships.

The development of a culture of collaboration would have significant impact on the efficiency and effectiveness of homeland security preparedness activities, as well as emergency response operations for the researcher's home agency (the New York City Fire Department), and, in addition, to many local, state, and federal entities with public safety responsibilities. This research is intended to add to the body of knowledge on how first line officers in emergency response agencies collaborate. Future research efforts should include exercise development to gather information and produce policies for a unified response to public safety events. The efficacy of a multi-disciplinary approach to problem solving requires metrics to validate the benefits of collaboration.

The immediate consumers of this research are the three New York City 911 primary response agencies: NYPD, FDNY, and EMS. The theories and models described in this thesis are intended to develop the capabilities of the first line officer of an emergency response agency to work in a collaborative environment and to meet the challenges with all the homeland security partners.

II. LITERATURE REVIEW

The literature review on collaborative capacity reveals a number of sub-literatures from the fields of business management, networking, leadership education, public administration, and psychology that are relevant to the research question. This literature review explores a set of constructs in the organizational and social sciences literature that influence collaborative capacity at the level of the organization. The constructs include organizational culture and institutional trust. There is limited data on interagency collaborative capacity at a specific level within an organization. Public service agencies such as police and fire departments have been competing for notoriety, resources, and the right to claim who is in charge for many year, this can make collaboration hard to establish.

A. COLLABORATIVE CAPACITY

Several authors define collaborative capacity simply as an outcome of collaboration across organizational boundaries: a) Arsenault (1996), b) Bardach (2001), c) Jansen, Hocevar, & Thomas (2005), d) Huxham (2006). Jansen, Hocevar, and Thomas discuss culture within collaboration and provide the following assumption: Cultures within organizations can oppose collaboration. An organization must see collaboration as a feasible and even desirable route for formulating problem domains and solving problems. Organizations may dispute the management of the interagency (2004). In addition, Jansen, Hocevar, and Thomas define collaborative capacity as the ability of organizations to enter into, develop, and sustain inter-organizational systems in pursuit of collective outcomes (2004). The capacity for collaboration enhances the probability of mission completion by leveraging dispersed resources (Jansen, Hocevar, & Thomas, 2006). Derks and Ferrin maintain that collaboration is most beneficial when organizations are interdependent and rely on each other to achieve a common goal or task (2001). This reliance provides an opportunity for organizations to collaborate and find ways to work

well with one another. Nevertheless, collaboration can be hard to achieve. A report from the Government Accountability Office (GAO) discusses some of the reasons for the ineffectiveness of collaboration efforts:

While collaboration appears on the surface to be an obvious solution, experience shows that organizations commonly fail when they attempt to build collaborative relationships. Among the reasons for ineffective collaboration are: diverse missions, goals and incentives that conflict with one another; histories of distrust that are hard to alter; leaders who do not actively support collaborative efforts; and the lack of coordination systems and structures needed to support collaborative efforts. (2002).

In his book, *Getting Agencies to Work Together*, Eugene Bardach presents his theory of "interagency collaborative capacity or ICC" and discusses the problems of inefficient collaboration (2005, p. 20). His hypothesis is that "substantial public value is being lost to insufficient collaboration in the public sector" (Bardach, p. 11). He addresses barriers to collaboration and the importance of developing concepts and tools that will allow more collaborative capacity to be built into agency relationships (Bardach). In addition, he uses a craftsmanship metaphor for capacity building and compares it to constructing a house with all the myriad challenges that it implies. According to Bardach, one important design challenge for the operating system of the ICC is increasing mutual intelligibility and trust across agency- professional roles and boundaries.

Pfeifer offers a possible reason to why agencies have difficulty collaborating, He raises the issue of agency reluctance to defer to another organization. Pfeifer explained:

Agencies implicitly think of themselves as being the most important, and as a group, their natural tendency is to resist deferring to another organization. This is especially true for the police and fire departments whose organizational development reinforces a sense of belonging to an important group. (2007, p. 26)

The first line officers of an agency or company are often influenced by social identity and organizational bias. These inherent deficiencies lead to prejudicial "stovepipe" attitudes and beliefs inhibiting a collaborative and well thought-out "first" decision.

In spite of the difficulties with collaborative capacity, there are ways to improve it. For example, 2005 GAO report offers eight key practices improve collaborative outcomes, including individual and organizational accountability for results. If this ability is lacking, it negatively affects overall collaborative capacity.

According to Edgar Schein, culture is taught to new members of an organization through story telling, traditions, rituals and memories.

Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and beliefs over time, organizations develop worldviews and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain behaviors, mental maps, norms, and values over time. (Hedberg, 1981, p. 6)

Collaborative smart practices such as "free lunches" or getting something for nothing have existed long before homeland security became a discipline. These smart practices can serve as the impetus to initiate collaboration (Bardach, 2005). These norms and values, which can be preserved through organizational memory, are described by Edgar Schein as the essential components of organizational culture.

B. ORGANIZATIONAL CULTURE

Organizational culture is associated with an organization's sense of identity, its goals, its core values, its primary ways of working, and a set of shared assumptions (Schein, 1996). However, the static metaphorical view of culture as a glue that binds the organization together overstates the integrating forces and understates the disintegrating forces (Nord, 1985). The forces include differentiation, inconsistencies between espoused values and actual behavior, fragmentation, and pervasive ambiguity (Martin, 1995). Furthermore, adaptability, a cultural trait, reflects the importance of external orientation and flexibility in addition to consistency, the more traditional cultural trait, which is associated with internal integration and stability (Denison & Mishra, 1995).

An organization's culture can be cultivated, as in the case of police culture. There are few settings that match the richness of police bureaucracy as an arena for studying the symbolic properties of organizations. The official culture of police organizations is

designed to appear militaristic. It is characterized by uniformed dress, a rigid rank hierarchy of authority, unbending rules, and an authoritarian command system. Strict and unquestioning discipline ensures the rapid mobilization of resources and personnel in emergency and crisis situations. The public face of police bureaucracy appears granite-like. It is posed to reflect a relentless pursuit of its singular, dramatic mission—waging war on crime. The primary purpose of the official culture is to gain and maintain control over the symbolic meaning communities attach to policing (Fry & Berkes 1983; Jermier & Berkes, 1979; Manning, 1977). Cleavages in police organizations are usually underplayed to the public by focusing attention on solidarity and uniformity. However, the crime-fighting command bureaucracy model may be a deception; it enhances organizational legitimacy without having much in common with actual subcultures.

Police departments are composed of various bureaus or sections that have unique sub-cultures of their own. The counter intelligence, gang violence, vice, narcotics, and emergency services, just to name a few bureaus, all of these have distinct sub-cultures within the police organization. In fact, police work is more varied than is popularly recognized (Jermier, 1982; Rubinstein, 1973), limiting the acceptability of a uniform culture to employees. There are other missions other than the "war-on-crime" mission, such as keeping the peace (Bittner, 1967), maintaining order (Wilson, 1968), providing social work and service (Manning, 1971), "covering your ass" (Van Maanen, 1974), playing the underworld (Punch, 1982), and street professionalism (Lanni & Lanni, 1983).

As with collaborative capacity, there can be barriers with cohesive interaction between organizations Dysfunctional interactions contribute to a lack of alignment between cultures (Schein, 1996). For example, different languages and different assumptions are barriers to mutual understanding (Schein, 1996; Trice & Beyer 1993). Similarly, "difficulties in communication may arise from failing to recognize and accommodate differences in values" (Bennett, 1996). On the other hand, a cross-cultural study reports evidence of the insignificance of national cultural differences but the significance of organizational and industry similarity (Kanter & Corn, 1994). Badaracco suggests that partnerships should avoid the futile attempt to change either culture, which should be kept separate and intact. Edgar Schein in his book (2009, p. 276) argues that building trust is itself a very complex communication process in which parties gradually test how much the "other" is willing to accept the organization for what it is and not take advantage for personal gain. In addition, the motive to want to collaborate has to be there for this process to work. From this perspective, collaboration can be viewed as a mutual helping process. Bardach (2005) recommends challenging traditional paradigms by adopting "smart practices" of resource sharing. He goes on to cite a variety of examples in which members of interagency collaboratives succeeded in adding public value by breaking down rigid barriers of administrative control (Bardach). Bardach further elaborates:

In cases of successful collaboration even the most traditionalist individuals and bureaucratically aligned agencies can be encouraged to join the effort, by helping to understand that the strategic alliances open doors for career advancement and broaden existing pools of resources. (p. 185)

1. Cultural Integration

The literature also reveals that there are some cultural underlying issues that effect interagency collaborative capacity. For example, Arsenault (2000) says it may be necessary to integrate the norms and values of organizations participating in strategic alliances. Grubbs concurs with the importance of establishing relationships "While relationships between diverse groups certainly are not new phenomena, we have come to recognize that an agency's capacity to achieve public outcomes depends upon its ability to establish meaningful, effective relationships with other institutions of governance" (Grubbs 2000). Moreover, she warns against an organization imposing its beliefs upon other groups, "The degree, to which culture becomes an issue, depends upon the level of interaction required in the alliance." Bardach views culture as a force that "can either enhance or degrade an organization's effectiveness" (2005, p. 232). To ensure the former, he describes "smart practices" for establishing an environment of trust, which he believes offers a way of building "a culture of joint problem solving," and he stresses the important elements of culture formation observed within collaborative capacity. Both Arsenault (2000) and Bardach (2000 & 2005) view culture as a "variable" rather than as a "root metaphor."

These two respected authors see culture as a matter for negotiation, something to be aligned with other attributes as part of the change process, not a complex pattern of communication, ritual and beliefs. A common theme seen by these two authors, Arsenault, Forging Nonprofit Alliances (1998), and Eugene Bardach, Getting Agencies to Work Together: The Practice and Theory of Managerial Craftsmanship, on culture and collaborative capacity are that individuals will bring the issue of collaboration distinct interpretations, based on their life experience, cultural heritage, and other influences. After all, according to Sarason and Lorentz, "Diversity is an important building block for joining human actors in a shared purpose." (1998 p 62)

The literature review addresses areas of consensus regarding the influence of organizational culture on interagency collaborative capacity among first line officers. The logic and theoretical perspective regarding the influence of organizational culture as moderated by the merger of NYC EMS into the FDNY. The subject of interagency collaborative capacity requires additional research to be of value and contribution to the body of knowledge in this field of study. Additional research is required to understand the influence of organizational culture on interagency collaborative capacity as perceived by the first line officer and describe the relationship between institutional trust and collaborative capacity.

C. INSTITUTIONAL TRUST

Donahue & Tuhoy claim that emergency response experts cited the lack of commitment for the process of coordination, a lack of trust and competition over resources as main culprit for command and control problems as a failure to collaborate. They explain:

Agencies lack the commitment to coordinate with each other. At best, they are unaware of what other agencies are doing and do not try to find out. At worst, they are unwilling to cooperate. This stems from a lack of trust between agencies and a lack of understanding across disciplines. Moreover, agencies often find themselves in competition. Day-to-day they fight with each other for scarce budget resources. This battle worsens during a major disaster when resources become even scarcer. (Donahue & Tuhoy, 2006)

According to Robert Bruce Shaw, developing "a culture of trust refers to those informal aspects of organizational life that have an impact on performance of a group" (1997, p. 139). Shaw further elaborates that individuals do not need to have identical interests—only that they have enough in common to see a benefit in working together. "Understanding what is important to others, and how they view the world, is critical in meeting their expectations" (1997). Trust is more likely to occur when people share a common set of general principals and norms. In many professions, norms of various types guide the behavior of members. Furthermore, Shaw explains, "Trust is enhanced because we assume that these members have internalized and an established set norms and thus can be relied on to behave in a manner consistent with our expectations" (1997). The paradox of trust is that as technology increasingly allows people to work with others sight unseen, it becomes more important to meet face-to-face, which facilitates trust. Bill Raduchel of Sun Microsystems notes, "You can't have a virtual conversation unless you also have real conversations" (Stewart, 1994).

Norms within culture play a part in the development of trust. One way that organizational context affects individual behavior is through roles (Shapiro, 1987). Since roles constrain behavior, there is reason to believe that roles may influence the degree of trust placed in agents performing roles. Even so, the precise effect of roles on trust remains unclear. From one perspective, organizationally defined role constraints may make the behavior of agents more consistent and consequently more trustworthy (Barber, 1983). From another perspective, role constraints make it more difficult to ascertain the trustworthiness of organizational agents because role constraints limit the ability to make attributions about the motives and intentions of agents outside of their role (Ring & Van de Ven, 1994).

Trust is the glue that holds organizations together and the key to productivity (Fairholm, 1994), it facilitates organizational processes (Tyler & Kramer, 1996). Several trust theorists have stated that trust develops gradually over time (e.g., Blau, 1964; Rempel, Holmes, & Zanna, 1985; Zand, 1972), but when contrasted with some recent empirical findings, their theories present an interesting paradox. By positing that trust grows over time, these trust theorists implicitly assume that trust levels start small and

gradually increase. Some researchers, then, expecting this, have been surprised at how high their subjects' early trust levels were both in survey and experimental studies (e.g., Berg, Dickhaut, & McCabe, 1995; Kramer, 1994).

With regards to the lack of trust within an organization, Canevale and Wechsler (1992) reasoned:

...many public employees do not trust their organization. This lack of trust can lead to dysfunctional attitudes, producing a cynical and disaffected work force with little confidence in the organization and its processes. Such employees are likely to be poorly motivated and lack commitment to the organization and its purpose. Thus, the lack of trust can have negative consequences for the performance of individual employees, the organization, and public service as a whole. (p. 490)

In contrast to a lack of trust, Madhavan and Grover (1998) found that companies that developed shared competence by co-locating and exchanging personnel on inter-firm projects increased mutual trust. In addition, joint problem-solving activities are central to many organizational phenomena and theories (e.g., participative leadership, negotiation, decision making). Individuals engaged in joint problem solving are interdependent because they must share and integrate information. However, they are also at risk because as one contributes information and effort to the problem-solving task, one's partner may not reciprocate. Because interdependence and risk are recognized as the two necessary preconditions of trust (Rousseau et al., 1998), this is a context in which trust is likely to be relevant.

Because trust facilitates informal cooperation and reduces negotiation costs, it is invaluable to organizations that depend on cross-functional teams, inter-organizational partnerships, temporary work-groups, and other cooperative structures to coordinate work (e.g., Creed & Miles, 1996; Powell, 1990; Ring & Van de Ven, 1994). However, it is often difficult to develop trust and cooperation across group boundaries, because people frequently perceive individuals from other groups as potential adversaries with conflicting goals, beliefs, or styles of interacting (e.g., Fiske & Ruscher, 1993; Kramer, 1991; Kramer & Messick, 1998; Sitkin & Roth, 1993). Moreover, it has been observed that the emergence of self-directed teams and a reliance on empowered workers greatly increases the importance of the concept of trust (Golembiewski & McConkie, 1975; Larson & LaFasto, 1989).

It was supported by the literature that trust development is portrayed most often as an individual's experiential process of learning about the trustworthiness of others by interacting with them over time (e.g., Lewicki & Bunker, 1996; Mayer et al., 1995; Ring & Van de Ven, 1994; Shapiro, Sheppard, & Cheraskin, 1992). Socially, people learn to reciprocate by mutual respect and cordial gestures: "Trust enables people to be optimistic that others will reciprocate by responding favorably and competently and to act according to the existing norms of interaction." When others are perceived as competent and committed, our reliance on them becomes more reasonable, in light of an uncertain future" (Das & Teng, 2001; Jones, 1996).

Facilitative behaviors, such as listening and engaging others in dialogue, make the mechanics of collaboration evident and help people trust both the process of collaboration and each other. A collaborative attitude requires trust in the intentions of stakeholders and opens the door for them to trust by influencing the outcomes. Finally, the shared responsibility for success that lies at the heart of collaboration is itself a great working definition of "trust."

Researchers have long pointed out the importance of trust in relationships in society, in business, and across all manner of individual and organizational networks. But trust in the aftermath of a disaster takes on special importance and is of a different nature.

First, trust reduces complexity in the midst of uncertainty by giving a sense of assurance that "some things will remain as they are or ought to be" (Hodson 2004, p. 433). The uncertainty-reducing component of trust is most challenged—and most needed—during times of severe crisis when little predictability remains. Second, trust carries with it a sense of expectation of competency. One can only trust those who demonstrate an ability to do what they claim they can do. Third, beyond the scope of ability, trust carries a moral expectancy, anticipating that those who act will place the interest of others before their own interests, rather than acting opportunistically. Fourth,

and perhaps most significant, trust in these crisis environments must take place quickly without the opportunity for the usual evaluation of network partners over time.

The rapid development of trust is most often seen in temporary groups, especially those that are involved in complex tasks in environments of uncertainty without the hierarchical structures that typically define teams and guide networks. Often those involved in these networks have a great deal of knowledge or experience, but "little time to sort out who knows precisely what" (Zolin, 2005, p. 8). In the United States, the Incident Command System alleviates this issue to a degree because various public agencies are pre-assigned to specific roles in the network. Meyerson and his co-authors (2003) point out that "role based interactions," rather than "person-based interactions," are more likely to lead to quick bonds of trust.

The character of collaboration is also important to consider. The presumption in much of the literature is that collaboration is purposeful and that the relevant organizations are willing to cooperate in achieving those ends. But like any partnership, the relationships can be conflict ridden, competitive, cooperative, or neutral (Dirks, 2001). Agranoff and McGuire (2003, p. 4) suggest collaboration should not be confused with cooperation in that partners are not necessarily helpful to each other. Milward and Provan (2000) suggest that a challenge for network management is overcoming social dilemmas in which one or more partners' short-term interests undermine the broader policy objectives. As such, it is useful to remember that each partner in a collaborative undertaking has something at stake and brings in a host of preconceived notions to the partnership. The stakes may be as ethereal as reputation, but often entail more substantive considerations as resources (people and funds), turf, autonomy, or control (Bardach, 1998).

The basic argument is that organizations, just as individuals, are more willing to cooperate with those they trust to follow through on their commitments. That sense is, in turn, based at least in part on experience with a given organization for which trust is built or destroyed over time (Bardach, 1998). Professor Robert Bach (2009) describes collaboration within the strategic planning course as "Simply put, not all collaboration is the same and collaboration itself is not a panacea."

D. SUMMARY

The literature review is an account of what has been written on organizational culture, institutional trust, and collaborative capacity. The scope of this research will be to study the influence of inter-organizational culture and institutional trust on the capability to collaborate. The researcher will define these three constructs, organizational culture, institutional trust and collaborative capacity based on accredited scholars and researchers in the field of social science.

Current research that explores the influence of institutional trust on collaborative capacity is limited. Some evidence in the literature supports the idea that institutional trust as moderated by joint training influences interagency collaborative capacity. The influence of institutional trust on the first line officer's decision to collaborate; can be critical in the first few moments of an emergency incident.

Another thread of literature suggests that institutional trust as moderated by leadership influences interagency collaborative capacity. However, this literature does not explore institutional trust from the perspective of the first line officer. Therefore, further research is required to understand the influence of institutional trust on interagency collaborative capacity within the context of an emergency incident. THIS PAGE INTENTIONALLY LEFT BLANK

III. METHODOLOGY

A. METHOD

Qualitative analysis of interview data obtained from first line officers from the New York City Police Department, Fire Department of New York, and Emergency Medical Services was used to explore the influence of institutional trust and organizational culture on interagency collaborative capacity. Taking an interpretive perspective provided the author an opportunity to gain an insider viewpoint and to mitigate the insertion of "alien meanings upon their actions and understandings" (Gioia, Clark, & Chittipedi, 1994; Vidich, 1970). As Gioia et al. suggest "an interpretative approach to research is the most appropriate when attempting to represent the experience and interpretations of informants, without giving precedence to prior theoretical views that might not be appropriate for their context." (Rabinow & Sullivan 1979)

B. SAMPLE POPULATION

Purposeful sampling of first line officers from NYPD, FDNY, and EMS who participated in a **joint tabletop exercise** was used to better understand a range discipline centric perspectives on interagency collaborative capacity. The interviews were conducted at the FDNY Center for Terrorism and Disaster Preparedness facility and the NYPD Counter Terrorism Unit in Brooklyn just after the completion of the a joint tabletop exercise.

The first line officer position within a first responder organization was selected as the unit of analysis for this study because an organization's culture and trust among organizations appears to influence collaboration during the early phases of an incident, and collaboration between first line officers is critical to emergency incident response decision making and effectiveness. The interview subjects were randomly selected from a series of five Joint FDNY/NYPD Table Top Exercises conducted from April 29, 2008 through December 18, 2009. The author did not have knowledge of who from the respective agencies would be attending the tabletop exercise. There were a total of six subjects interviewed. Two New York City Police Department sergeants were interviewed—the first from the Emergency Services Unit (ESU) and the second from a Brooklyn precinct. In addition, two FDNY fire operations lieutenants participated in the interviews: the first from the Hazmat Unit in Queens and the second from a fire company in Manhattan. Finally, two FDNY Emergency Medical Service lieutenants participated; the first from a station in the Bronx and the second from a station in Staten Island. Among the participants, the years of experience serving in the first line officer position ranged from one to 20 years. For example, one participant had experience as an NYPD patrol officer and then perused a career as a firefighter and is currently a lieutenant in the FDNY. Another participant worked as an emergency medical technician for EMS and is currently an NYPD sergeant.

C. INTERVIEW PROTOCOL

The six interviews were conducted during two sessions on November 18, 2009 and December 15, 2009 at the NYPD Counter Terrorism Unit in Brooklyn and the FDNY Center for Terrorism and Disaster Preparedness facility in Bayside Queens. Two interviews were conducted on November 18, 2009 at the NYPD Counter Terrorism Unit. The two venues are on first appearance are as dissimilar as the organizations who occupy them. The NYPD Counter Terrorism Unit is located on a dead end street across the street from a cement company. The FDNY Center for Terrorism and Disaster Preparedness facility is located on the grounds of a former military fort in Bayside Queens. These two settings were chosen in part because a sense of familiarity for the subjects, adequate facility space to conduct the interviews. Each member was assigned (compensated) to participate in a scheduled tabletop exercise for the day. The two NYPD sergeants were interviewed on the first day and the two fire and EMS lieutenants were interviewed on a later date.

The subjects for the first interviews were both NYPD sergeants assigned to separate commands in New York City. The author and the first subject entered a small conference room with a rectangular table, some chairs, and photographs on the wall. The pictures were aligned in a hierarchal order; the Police Commissioner photo was on top with various police chiefs under him. The author's back was to the pictures, which faced the subject. The author was dressed in business casual clothing, wore a fire department identification card, and carried a notebook with the Naval Postgraduate School insignia. The subject wore the patrol uniform of the day, with a badge, nametag, citation bars, and a gun. The subject was introduced to the author by the exercise director and facilitators in a very cordial manner.

At first, the author and subject shook hands and commented on how it was both their first time in this building and how difficult it was to find. Additional casual conversation continued for a few minutes and both parties agreed to address each other by first name. The author explained the purpose of the interview was research for the Naval Postgraduate School program in homeland security.

Each subject was assured that all the information would remain confidential and that, at any time, the subject was free to stop the session. The IRB process was explained and the consent forms were signed by the subject. The author explained that there were no correct or incorrect responses to the questions that would be asked. The interview started out with a brief overview and description of the terms that would be discussed and index cards (with terms and definitions) were on hand for the subject to refer to if necessary.

The interview sessions started out slowly with short answers and later developed into longer stories that described the concepts of trust, culture, and collaboration. Each of the two interviews was approximately 20 minutes in duration and all four questions were answered. The researcher and subjects exchanged personal contact information with the mutual understanding that any of the parties can contact one another regarding the material discussed that day.

The other four interviews were conducted on December 15, 2009 at FDNY Center for Terrorism and Disaster Preparedness facility. The subjects were two FDNY Fire suppression lieutenants and two FDNY EMS lieutenants. All subjects were dressed in their respective duty uniforms, name tags, and had a cup of coffee. The author was dressed in casual business attire and displayed a FDNY identification card. The exercise director and facilitators introduced the researcher and the subjects independently in the kitchen prior to each interview. The small office used for the interview was located on the second floor of the building. The room was decorated with paintings symbolic of the fire service culture and periods in American history. A small round table with four chairs located by the window was used to conduct these interview sessions.

Similar to the previous NYPD interviews, the author explained the purpose of the interview was research for the Naval Postgraduate School master's program in homeland security. As with the previous interviews, each subject was assured that all the information would remain confidential and, at any time, the subject was free to stop the session. The IRB process was explained and the consent forms were signed by the subject. The author explained that there are no correct or incorrect responses to these questions that would be asked. The interview started out with a brief overview and description of the terms that would be discussed. Index cards, with terms and definitions, were on hand for the subject to refer to if necessary.

The interview sessions started out slowly with short answers; this later developed into longer stories that described trust, culture, and collaboration. Like the previous two interviews, each of the four interviews was approximately 20 minutes in duration and all four questions were answered. The author and subjects exchanged personal contact information with the mutual understanding that any of the parties can contact one another regarding the material discussed that day

D. DATA COLLECTION

Interview strategies tended toward what Rubin and Rubin refer to as "openingthe-locks," interviews that are structured around one or two main questions, designed to encourage the conversational partner to talk at length and depth on the matter at hand" (Rubin & Rubin, 1995, p. 144). Rubin and Rubin suggest using the "opening-the-locks" pattern of interviewing early in a study, when the researcher is new the research area and the interviewees maintain expert knowledge. Main, probing, and follow-up questions were used by the interviewer to better understand the influence of organizational culture and institutional trust on inter-agency collaborative capacity at the level of the first line officer.

All interviews were recorded and transcribed and open coding was used to examine the interviews. In addition to open coding, the author utilized quotations and perspectives from first line officers to better understand the influence of organizational culture and institutional trust on inter-agency collaborative capacity.

E. QUALITATIVE ANALYSIS

Qualitative analysis of the interview data focused on the use of open coding, the generation of theoretical memos, and the use of the constant comparative method to integrate categories, discover themes, and generate theory (Glaser & Strauss, 1967). Theoretical Sensitivity was considered during the coding process and memo generation processes. During the coding and analysis phase of this research project, the author attempted to maintain awareness of his own theoretical sensitivity by continually initiating an introspective thought process, by asking himself the questions, "What are you not seeing, and what theoretical lens might be shaping the coding process?" Through this introspective cycle, the author was able to detect, in part, the familiar and push toward the unfamiliar. According to Poggenpoel and Myburgh, it is the researcher who is instrumental in translating and interpreting data generated from the respondents into meaningful information (Poggenpoel & Myburgh, 2003, p. 418).

F. CODING AND ANALYSIS

Open coding was used to examine the interviews. As Strauss and Corbin recommend, "Data [was] broken down into discrete parts, closely examined, compared for similarities and differences, and questions were asked about the phenomena as reflected in the data" (Strauss & Corbin, 1990, p. 62). After reading all six interviews, coding was conducted line-by-line, by sentence, and in some instances, by groups of sentences for the six interviews. Line-by-line coding is identified by Strauss and Corbin as highly generative and useful during the early stages of a study (1990). Significant

passages were identified and first order Informant Codes (IC) and were assigned. Once phenomena were identified in the data, concepts were grounded around them (Strauss & Corbin, 1990, p. 65). This resulted in ICs being assimilated into a set of "Analytic Codes (AC) that was still meaningful to the informants" (Gioia et al., 1994).

G. THEORETICAL SENSITIVITY

The researcher's background as a pre-hospital care provider for greater than 20 years has exposed him to a variety of incidents that demonstrate the constructs of trust, culture, and collaboration in the role of the first line officer. The researcher has observed the growth and development of personnel within EMS and a dramatic increase in interagency collaboration within the last 10 years. Relationships formed as part of joint groups, such as in the Counter Terrorism and Disaster Preparedness Center Exercise Design, the New York City Mayor's Office of Emergency Management, the FDNY Incident Management Team, have reinforced the concepts of trust, networking and collaboration towards unified public safety goals. The researcher's first officer level assignments in the past have exposed him to planned special events and unforeseen mass casualty incidents in which key elements of trust and collaboration were lacking with untoward outcomes.

While theoretical sensitivity provides certain benefits in terms of theoretical density and integration, Strauss and Corbin suggest "maintaining an attitude of skepticism" and recommend that "whether theoretical explanations come from the making of comparisons, the literature or from experience, they should be regarded and provisional [and] always need to be checked out, played against the data" (1990). During the coding and analysis phase of this research project, the author attempted to maintain awareness of his own theoretical sensitivity by continually initiating an introspective thought process, by asking himself the question, "What are you not seeing, and what theoretical lens might be shaping the coding process?" Central to conducting research, and more specifically qualitative research, is the researcher as a research instrument (Denzin & Lincoln, 2000, p. 368; Marshall & Rossman, 1995, pp. 59–65). It is also the researcher who was instrumental in translating and interpreting data generated from the respondents into meaningful information (Poggenpoel & Myburgh, 2003, p. 418).

IV. ANALYSIS AND FINDINGS

After the interview process, the researcher conducted an analysis to identify themes related to collaborative capacity and the influences of institutional trust, organizational culture; the data gathered from the interview questioning was grouped together for analysis. Each subject interviewed provided a unique perspective relative to the four scripted questions as well as some enriching discussion throughout the 20-minute session. This researcher has discovered that additional constructs, such as leadership, inter-personal trust, mutual respect, and familiarity, all play a role in answering the research question: what influences interagency collaborative capacity of a first line officer during the initial stages of an incident.

The format of the interview session permitted the researcher to ask questions based on responses and discussion within a given conversation. Subjects were asked to elaborate on a comment, and they often provided examples, analogies, and even described similar incidents from different points of view. The researcher was careful as to not bias the subjects when asking them to present their opinion of which agency or issue was right or wrong. In addition to spoken communication, non-verbal communication of the subjects was evident in these face-to-face interviews. These gestures and expressions were noted by the researcher and will be discussed in the latter part of this chapter.

Coding the data gathered from the interviews made it easier to search the data, to make comparisons and identify any patterns that require further investigation. To interpret the data, the researcher used analytical coding, which is an interpretive technique that organizes the information and provides a means to introduce the interpretations into a layer on top of the data. In qualitative research, codes are typically words or devices for identifying themes. A table in Appendix A is provided for reference.

Figure 1 illustrates the second order codes identified through the interview process that are related to the research question of what influences interagency collaborative capacity of a first line officer during the initial stages of an incident.

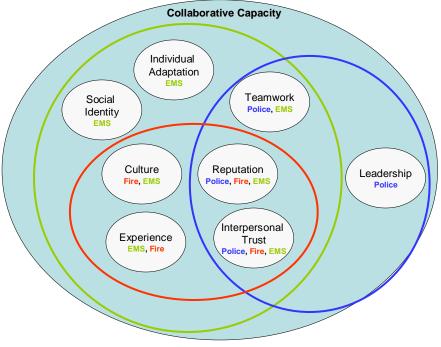


Figure 1: Factors influencing first line offer Collaborative Capacity among Fire, Police, and EMS

Figure 1. Factors Influencing First Line Officer Collaborative Capacity among Fire, Police, and EMS

A. FINDINGS

The research question examines the influences of organizational culture and institutional trust on inter-agency collaborative capacity. Some common themes such as, mutual respect, dependability, hastily formed networks, teamwork, social identity, and a "culture within a culture," were revealed through the interview process. The researcher discovered that the subjects described the need for inter-personal trust, familiarity, and individual reputation as prerequisites for organizational trust.

An examination of the first line officer position has revealed that this position is a difficult, demanding, and challenging job in any organization. The first line officers from police, fire, and EMS had some surprising similarities, as well as significant differences in responding to what affects collaboration. A summary of the second-order codes used in the analysis of the interview data reveal important concepts related to the influences of organizational culture and institutional trust on collaborative capacity. The seven main

and recurrent themes within the second-order codes are: leadership, cultural norms, reciprocal trust, decision making, social identity, individual adaptation, and. interpersonal trust. The following sections in this chapter will confirm these concepts (second order codes) by supporting the definition with direct quotes from the interview sessions.

1. Leadership

This researcher believes it is important to focus on the first line officer because this where formal leadership begins—by setting directions, aligning people, and motivating them to achieve success. Leadership was the only factor that was identified by all the respondents as facilitating collaboration. One NYPD sergeant stated during the interview, "I must try to maintain order in a young force [workforce] and keep my [police] officers safe and in line." One FDNY fire lieutenant commented that leadership requires obedience from the group that is led. He stated, "We are trained in the academy to hold hands in the smoke house and not move until the officer says so." This quote illustrates a fire department culture of trust in leadership, which is taught to firefighters at the start of their career One EMS, lieutenant comments that leadership is about teamwork and every member has a role to play. He [EMS lieutenant] said, "We use the Incident Command System, at mass casualty incidents, in ICS your position or role may change throughout the expanding and collapsing event." First line officers from police, fire, and EMS suggest that leadership is situational, and collaborative capacity is influenced by individual personalities, accepted organizational behaviors.

According to Boin et al. (2003), Canton (2007), and Reardon (2005), leadership style may vary due to individual preference, agency preference, or cultural paradigms, and because of the situation itself. A leader's influencing skills are critical during a crisis. Klann (2003) stated, "leaders should concentrate on three influencing skills during a crisis: communication, clarity of vision, and values, and caring for others." Leadership can affect team confidence, and Murgalis (2005) argues that "team confidence begins with those who lead the team."

The researcher has discovered a notable theme among some first line officers who discussed "high productivity in an elite unit" and talked about their people; in contrast,

the other officers tended to talk about their jobs. A few officers describe their role as "the man in the middle" (between management and the workforce) within their respective organizations. They report no more control over the things they consider important than over the things they consider unimportant. These first line officers are held responsible for producing organizational results through their subordinates, but they lack the control over the means to motivate these employees. It is likely that this lack of control generates some level of frustration for the first line officers.

According to Oldham (2003), the first line supervisor sets the tone for his or her unit. Traditional policing has relied on an authoritarian and bureaucratic model, which has been reactionary in nature (Densten, 2003). Similarly, according to Meese and Ortmeier (2004), the typical police response has often been reactive and bureaucratic and focused on methods and procedures with little ingenuity or strategic thinking to affect results. Efficiency and management has received more attention than effectiveness and leadership. This mindset stymies creativity (Bigley & Roberts, 2001; Torpman, 2004). Moreover, Kappeler (1995) argued that bureaucracies tend to be closed institutions that try to protect their members. This mindset has potential to create a recipe for conflict when collaborating with agencies from other disciplines during incident response. Tucker and Russell (2004) stated that leaders influence the internal mindset of their followers, the culture of the organization, and the external culture.

2. Cultural Norms

Cultural norms are behavior patterns that are typical of specific groups. These norms are shared, sanctioned beliefs and practices that characterize a cultural group. With regards to culture, one FDNY lieutenant stated, "There are many firefighters and officers who are second and third generation firemen. It is more than an occupation; it is a way of life." Another fire lieutenant explained how the fire service was steeped in culture, "We have a long standing culture that is filled with traditions, rites of passage, even at the level of each firehouse." Another comment from a fire officer described teamwork as an aspect of culture; he said, "Teamwork is part of the fire culture, from cooking the meal to putting out the fire." The EMS lieutenants both commented that EMS is a young culture that is about 40 years old and has yet to attain a large number of traditions, notoriety and established as a pre-hospital caring profession.

For example, one NYPD sergeant said, "Police officers are taught to be suspicious of people they encounter and a culture of us against them is reinforced throughout the job." The research data suggests that police leadership is bureaucratic in nature and does not lend itself to a unified command as called for by NIMS and ICS. Traditional policing has relied on an authoritarian and bureaucratic model, which has been reactionary in nature (Densten, 2003; Hansen, 1991). According to Meese and Ortmeier (2004), the typical police response has often been reactive and bureaucratic that focused on methods and procedures with little ingenuity or strategic thinking to affect results. One NYPD sergeant described how statistics influence a reactive change in police tactics:

Comp-Stat within NYPD is a statistical performance review process in which the Commanding Officers of a precinct or unit are asked to review data on crimes or complaints in their respective areas and provide recommendations for improvement in a group setting of peers and superiors. This type of accountability has influenced more collaboration throughout the department.

3. Teamwork

Teamwork can be defined as a cooperative or collaborative effort by the members of a group or team to achieve a common goal. The concept of teamwork was more prevalent in EMS and fire than in police in this research. One EMS lieutenant described an incident in which teamwork was evident as hastily formed networks formed in the initial moments of the emergency:

A few years ago [2005] a sightseeing helicopter missed the landing at the Wall Street heliport and went into the water. Ironically, the firehouse is across the street from the heliport, an ambulance sits on that corner under the highway and a NYPD boat was in the area. Police, fire, and EMS all worked well together to rescue, treat and transport all the patients.

Another EMS lieutenant stated, "The units [ambulances] where I work are a close knit group. They back up each other even when they are not requested by the dispatcher."

One fire lieutenant exclaimed, "Teamwork is part of the fire culture—from cooking the meal to putting out the fire.

4. **Reputation**

Reputation was noted by one police sergeant to describe the NYPD ESU, "ESU [NYPD Emergency Services Unit] is called when the precinct cops need help. There is a very close-knit culture within the elite NYPD ESU."

The context of reputation in this discussion is about the agency and not the individual. This type of reputation has been referred to as corporate reputation or image in the literature. The author Nathan Ind defines reputation synonymously with image as "the picture that an audience has of an organization [sic] through the accumulation of all received messages" (1997, p. 21). Gotisi and Wilson further describe this picture or reputation:

A corporate reputation is a stakeholder's overall evaluation of a company over time. This evaluation is based on the stakeholder's direct experiences with the company, any other form of communication and symbolism that provides information about the firm's actions and/or a comparison with the actions of other leading rivals. (2001)

Reputation is a factor that affects risk, trust, and collaborative capacity. One senior police official noted, "a good reputation takes years to develop and can drastically change with one event."

5. Social Identity

Social identity is how people perceive and make sense of each other. When people belong to a group, they are likely to derive a sense of identity, at least in part, from that group. Indeed, the growing literature on trust across academic fields focuses on identity's centrality to every area of life. Sociologists and psychologists maintain that trust plays a prominent role in the emergence of cooperation in social dilemmas (Coleman 1990; Dawes 1980; Messick & Brewer 1983) and serves to increase the potential of a system for complexity, allowing agency relationships, for example, to emerge (Shapiro 1987). Political scientists have shown that the level of trust in a society influences governmental efficiency (Putnam 1993).

As described earlier by one EMS lieutenant, the merger of New York City EMS into the FDNY resulted in significant changes to the Emergency Medical Service workforce. Some changes were quite obvious, such as uniforms and signage on each ambulance. However, the incremental transformation that followed would change the social identity of both EMS and FDNY. Despite their popularity, more than half of mergers and acquisitions are mishandled. Studies have shown that employees' loss of identity is one of these problems, especially for employees of the acquired company. According to Cho, "The death of the pre-merger organization may reduce employees' pride, commitment, and sense of worth. Yet employees are often reluctant to give up their pre-merger identity" (2003). The merger of EMS into FDNY is perceived by EMS personnel as a change in identity. One EMS lieutenant interviewed stated, "We [in EMS] have a culture within a culture. Since March 17, 1996, the New York City Emergency Medical Service became a part of the fire department (FDNY). This merger has changed our uniforms and social identity." Police and fire have established social identities in NYC; however, EMS is perceived as a part of the FDNY. The second order code of social identity is influenced by organizational culture, which is assumed to have an effect on collaborative capacity.

6. Individual Adaptation

Employees adapting to change display a wide variety of responses. According to Jane D. Parent, "Coping with change can be difficult for some individuals, whereas, some employees may not be bothered by change, instead they look at it as a chance to grow and learn" (Parent, 2006, p. 12). One EMS lieutenant interviewed stated:

The EMS lieutenant's role has changed over the years, from someone who 'turned out the units from a station and did clerical work to an officer who is expected to respond to 911 assignments and insure that proper patient care is delivered to the public.' One example of this is that we (EMS lieutenants) now respond to all cardiac arrest calls as a team leader to coordinate and assist in cardio-pulmonary resuscitation [CPR].

Adaptation influences collaborative capacity in individuals who realize that in order to accomplish the tasks at hand, it may be easier to work collectively and form relationships. One FDNY fire lieutenant describes a form of collaboration or networking as, "The connections or networks are what help us get things done. It's almost like a barter system for services from people within our own agency as well as those outside." Another fire lieutenant commented on his role as a mentor, "As a lieutenant, I am responsible for training the new probationary firefighter during an emergency. We [the probationary firefighter and lieutenant] form a special bond." One police sergeant noted, "I think more intra-organizational cooperation within the NYPD as we see in the monthly community board meetings is needed." Police, fire, and EMS first line officers describe different ways of adaptation in the workplace; however, all the first line officers have described a need to work innovatively and adaptively towards increasing collaborative capacity.

7. Interpersonal Trust

Interpersonal trust can be defined as a type of trust between one person to another or as situations between people. The authors Zaheer, McEvily, and Perrone use the term "interpersonal trust" to refer to "the extent of a boundary-spanning agent's trust in her counterpart in the partner organization" (1998, p. 142). In other words, interpersonal trust is the trust placed by the individual of an organization in his or her counterpart. The three groups of first line officers interviewed all described a need for interpersonal trust prior to any organizational types of trust. Fisher and Ury believe that when interpersonal trust between individuals is high, "the parties are likely to develop solutions that are focused on the problem at hand rather than on the personalities involved" (1991).

While previous research has examined the antecedents and consequences of trust, fewer studies have explored whether existing trust has a role in the establishment of another party's trust over time. P. Blau has noted, "reciprocity may be critical in understanding trust in relation ships" (1964). The authors Mark A. Serva, Mark A. Fuller

and Roger C. Mayer, argue "trust forms in the mind of the trustor, it cannot be observed by others, and therefore cannot directly affect either perceptions held by or behaviors of other individuals or groups" (2005).

8. Reciprocal Trust

Reciprocal trust implies an active process of exchange of trust between parties, particularly when it results from a trustee's previous demonstration of trust. Equivalence is not a requirement of reciprocal trust. Serva et al., define reciprocal trust as:

The trust that results when a party observes the actions of another and reconsiders one's attitudes and subsequent behaviors based on those observations. Our concept of reciprocal trust is not a distinct type of trust, but rather it is a dynamic process through which trust grows or diminishes. (2005)

One EMS lieutenant noted, "PD and EMS have always worked well together. Perhaps it is the similarities in two-person (staffed) units or simply a sense of mutual respect." This type of statement fits the definition of reciprocal trust described in the literature. One NYPD sergeant stated, "We must first have respect for one another before trust can begin." A second EMS lieutenant stated, "The more I am familiar with a person, the more I can trust them." Along similar lines, a FDNY fire lieutenant said, "Within the fire service there is a lot of trust in our daily work and every member has a role." The analysis of these statements lead the researcher to believe that there is a greater amount of reciprocal trust between NYPD and EMS than with the FDNY fire service. Familial work units that exist within the fire service may lead to organizational biases that exclude "non-members." Collaborative capacity needs to be built into agency relationships such as fire and police. These two agencies have had a history of implicitly thinking of themselves as being the most important group and resist deferring to each other. Police and EMS work in a more interdependent fashion and, therefore, display a higher level of collaborative capacity.

Although individual styles and attributes of leadership were described by each officer, it was evident in this study that inter-personal trust was the common denominator. The following quotes reflect interpersonal trust:

One NYPD sergeant stated, "I think there are special relationships among the neighborhood units [local area responders] because they are familiar with each other." While an EMS lieutenant said, "The more familiar I am with a person, the more I can trust (or not) them." One FDNY fire lieutenant explained, "We depend on one another to work as a team to accomplish the life saving missions at hand."

Collaborative capacity is facilitated when interpersonal trust is high among the first line officers at the scene of an emergency. Hastily formed networks are quickly set up, and a unified command is more readily accepted. Information sharing is enhanced when interpersonal trust is evident. Organizational biases are reduced through trust, while work gets done in a synergistic fashion. Interpersonal trust improves the overall first line officer's collaborative capacity.

B. INTERVIEW DATA SUMMARY

In summary, the research questions posed to the six participants regarding culture, trust and collaborative capacity reveal that the concept of reputation was described as unique to the NYPD as was the concept of social identity to EMS. The concept of teamwork was primarily unique to the fire service but was commented on by EMS. All three organizations described the concepts of leadership, individual adaptation, cultural norms and interpersonal trust as significant factors in collaborative capacity.

V. CONCLUSION AND RECOMMENDATIONS

A. CONCLUSION

The first line officer in a public safety response agency is a challenging position. The focus groups in this research included New York City Police Department sergeants, New York City Fire Department fire lieutenants, and FDNY Emergency Medical Service lieutenants. These officers are often the initial first responders responsible to begin managing an emergency mass casualty incident. The proper use of the Incident Management System (ICS) is crucial to allow all agencies to begin working together early in an incident's development to trust, share information and form networks at complex operations as the emergency escalates.

The intention of this thesis was to study the influence of institutional trust and organizational culture on inter-agency collaborative capacity during the initial stages of an incident as perceived by the first line officer. A literature review was completed to understand how these two constructs (culture and trust) in the organizational and social sciences literature influence collaborative capacity at the level of the organization. Qualitative analysis, using unstructured interviews of randomly selected first line officers, was conducted by this researcher. The data discovered in this iterative process has been analyzed and the following conclusions derived.

Today, first line officers are part of the management within their respective agencies. First line officers are leaders in their organizations; leadership begins with setting direction and aligning people, as well as motivating them for success. As leaders, the first line officers seek to do this within their respective units. In addition, the first officer, upon arriving on the scene at an emergency incident, needs to recognize that early establishment of command and control is imperative for the safety of operating personnel. The qualities of a leader, identified by Heifetz and Linsky as most useful, included valuing collaboration, being a visionary, caring for others, and influencing skills during a crisis (2005). An adaptive leadership style was noted in the literature as a solution to complex problems and affirmed by the first line officers interview statements.

The role of the first line officers has changed from directing people and securing their cooperation to developing collaborative, interdependent partnerships. Unified command within the ICS construct is a strategic high-level example of collaborative capacity during an emergency situation. First line officers in the three organizations discussed often participate in command and control situations where teamwork is critical for successful outcomes. Leadership, teamwork, and trust, which were revealed to be important qualities by first line officers, are captured well by this quote from Peter Drucker:

The leaders who work most effectively, it seems to me, never say "I." And that's not because they have trained themselves not to say "I." They don't think "I." They think "we"; they think "team." They understand their job to be to make the team function. They accept responsibility and don't sidestep it, but "we" gets the credit.... This is what creates trust, what enables you to get the task done. (2005)

Overall, the research data suggests that the fire service has a greater sense of teamwork than police and EMS. Firefighting responsibilities require a coordinated team approach to meet the tasks at hand. Teamwork influences collaborative capacity in that members of a team are expected to rehearse and demonstrate communication skills, trust and obedience on all assignments. The first line officer utilizes direct supervision via face-to-face communication, and functional supervision, which uses pre-established positions, tactics, and radio transmissions to guide the team in a coordinated attack. The first line officer is a key part of the team who leads the company in the attack into the fire and his firefighters back out to safety.

The EMS first line officer sets the stage for the pre-hospital care providers at the scene of an emergency incident. The Emergency Medical Service team works collaboratively to triage, treat, and transport patients to area hospitals from a mass casualty incident. The influence of teamwork in EMS effects collaborative capacity to successfully coordinate the resources on the scene through scripted protocols, ICS, and trained skills. The EMS lieutenant is an integral team member who leads interdependent cooperation and increases the collaborative capacity within his organization in the initial phase of an emergency incident.

The police sergeant is often tasked with maintaining order at chaotic scenes. The initial moments of an all-hazards public safety incident require a law enforcement first line officer to consider a collaborative strategy to mitigate the present danger. Police, fire, and EMS are often dispatched to large-scale incidents such as Flight 1549 in the Hudson River, a building, collapse, or an improvised incendiary device explosion with mass casualties. The first line officers of these response agencies must work in a synergistic fashion by increasing collaborative capacity of the limited resources available in the early phase of a protracted operation. The formation of hastily formed networks is often dependant on interpersonal trust, which directly influences collaborative capacity of the first line officer.

Interpersonal trust was present in the situations that were described by the research subjects in this study. A review of the literature and responses from first line officers from the three organizations examined challenged the researcher's assumption that organizational trust influences collaborative capacity of the first line officer. One EMS lieutenant commented, "Just because someone wears a uniform doesn't mean there is an established trust." A police sergeant noted, "that I have to feel comfortable with the person before [I can trust] the agency."

The researcher has discovered that it is interpersonal trust that is essential to increase collaborative capacity in the initial moments of an all-hazards incident. A number of renowned scholars have postulated that trust is essential to collaboration. Psychological, social, and business leadership theories describe interpersonal trust as the "glue" that holds all relationships together. Over time, as the parties gain confidence in each other, they gradually increase the scope of their relationship to incorporate interactions involving more substantial investments in the association. This collaborative capacity of a relationship is built on trust

Collaborative capacity is directly influenced by interpersonal trust of interdependent parties to achieve a common goal or task. Organizations such as the NYPD and FDNY, that have a history of distrust must overcome this barrier to collaboration and work towards a common mission. Competitive rivalries should be replaced by the benefits of collaboration. Organizational culture in the context of this paper has been discovered to be a theme that indirectly may influence interagency collaborative capacity. The broad definition of organizational culture is associated with an organization's sense of identity, its goals, its core values, its primary ways of working, and a set of shared assumptions. Each respective agency has rituals and celebrations that reinforce traditions within an individualistic culture. The research (interviews) has described a "culture within a culture" as well as varying cultures within the police, fire, and EMS agencies. First line officers have described cultures that exist within local firehouses, police precincts and EMS stations. Collaborative capacity has been noted in greater presence in similar cultures in geographical areas, where first line officers were more familiar with their respective counterparts than on a broader (citywide) basis.

B. RECOMMENDATIONS

Developing a capacity for interagency collaboration is critical, both for efficiently conducting routine tasks and for innovatively responding and improvising in the face of terrorist threats or natural disasters. While collaboration may not be equally desirable in all cases or in all stages of interagency work, it is likely to be more critical as collaborative capacity and task interdependencies increase. The following recommendations are designed to increase the collaborative capacity of the first line officer for police, fire, and EMS

1. Interagency Training

The five FDNY and NYPD joint tabletop exercises in the past year have benefited the stakeholders in developing interagency relations, forming organizational networks, building interpersonal trust. The objectives of these exercises were designed to teach the participants to manage a scenario in which a soft target, such as a hotel, was on fire and secondary explosive devices were detonated while first responders were engaged in their respective discipline. The overarching goal was for the police, fire, and EMS to work collaboratively in a unified command structure within ICS, share information and solve the problems at a terrorist attack. Innovative ideas arose from the first line officers that participated in these designed exercises. Some officers suggested a strategy to create a task force of police and fire personnel to search for victims and terrorists on the fire floors. Others addressed a need to communicate on an interoperable radio channel and use "plain language," rather than radio codes when working together. Asymmetric threats require an unconventional response that can be enhanced by increased collaborative capacity of the first responders.

An interagency educational process should include the introduction of the respective agencies such as fire and EMS to the police academy. This indoctrination of cross-disciplinary orientation is recommended at the employee entry level. Cadets at each of the three academies (police, fire, EMS) should be oriented to the other agency's mission statement, core values, CIMS, and ways to collaborate. This type of collaborative orientation is recommended to continue through the first line officer programs and continue through the various managerial levels within the three organizations. The FDNY and NYPD should consider allocating a percentage of seats in the Fire Officer Management Institute (FOMI) program for NYPD senior officers. This six week program over six months is taught at a corporate facility in which the students dorm and learn together. This type of atmosphere along with a postgraduate level curriculum provides the students with the tools to increase collaborative capacity on an interagency basis.

2. Joint Duty Assignment

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 commonly referred to as the Goldwater-Nichols Act (GNA). This act made a number of significant changes to the structure of the Department of Defense (DoD) and mandated a number of other changes, perhaps most significantly the requirement that officers who wish to ascend to the staff level must first complete a tour in a "joint billet." This had the immediate effect of making these positions coveted ones. The result was a dramatic change in the culture of the military from one of parochialism to one of "jointness."

The political climate in New York City is strongly influence by the mayor. A joint duty assignment within the *Mayor's* Office of Emergency Management (OEM) was a career enhancing opportunity under then Mayor Giuliani. Upon his election and

appointment, Mayor Michael Bloomberg has been strongly influenced by police commissioner Ray Kelly. Mayor Bloomberg changed the focus of OEM from a coordinating response agency to that of a "planning paper tiger." It is the dependence that NYC mayors have on their police force, not only for their own personal protection, but also for their ability to make the citizens of New York feel safe and ultimately generate votes, that has created a situation in which they often defer to the wishes of their police commissioners in matters of jurisdictional turf wars.

The author recommends the NYC Mayor's Office consider a "Blue Ocean Strategy," such as the Goldwater-Nichols Act adopted by the military in 1986, and utilize OEM in its former capacity as a response agency comprised of a multi-disciplinary cadre of officers from NYPD, FDNY, and EMS. This communal environment will produce the leaders of tomorrow and replace competition with collaboration.

3. Focus on the First Line Officers

According to John Zenger, the evolution of the supervisor's role will most certainly occur. The transformation of today's supervisor will be largely a matter of learning and applying new skills. The first line supervisor must become more adept in motivating employees and clearing the way for implementing their most practical collaborative ideas.

The FDNY First Line Supervisors Training Program (FLSTP) is for the rank of fire lieutenant. The lesson plans in this six-week course outline basic leadership skills, organizational culture, and trust. The FLSTP is designed to use scenario based learning supported by lecture material. The instruction is conducted on a peer-to-peer level, in which respected senior lieutenants are teaching new lieutenants. The bureau of training staff and the students have commented that this type of interactive instruction with peers has been very well received.

One fire officer at the bureau of training explained, "Culture and leadership are two sides of the same coin, and neither can really be understood by itself." This statement seems to reaffirm the concept that first line officers must understand that culture and leadership are interdependent for the development of the FDNY first line officer. The FDNY FLSTP dedicates a section to organizational culture in the early portion of the curriculum. The fire service has many traditions within its culture that have been accepted practice for years. Some of these traditions have actually made it easier for the company officers to do their jobs. Organizations may want to consider ways of enhancing members' sense of shared values. Developing a more collectivistic culture, one that emphasizes the value of common goals, will lead an organization to increased collaborative capacity.

The researcher would recommend that interpersonal trust and collaborative scenario-based exercises with NYPD and EMS first line officers in the FLSTP at the fire academy be added to the organizational culture module. Similarly, NYPD should consider adding a module for interagency collaboration in the same format as FDNY, with EMS first line officers included. EMS should consider the addition of a collaborative scenario-based module as part of the basic leadership in EMS course.

Building collaborative capacity is a career long process that must be reinforced at every level and supported from the top down. The fundamental construct of interpersonal trust is essential for any relationship to flourish. It often starts with an introduction, a handshake, and a smile. THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A. INTERVIEW QUESTIONS AND RESPONSES

1. Describe an incident where multiple agencies were collaborating, and what you understand to be the collaborative capacity of each agency?

Subject	Interviewer Quotes	Analytic Codes	2 nd Order Analytic Codes
Police Sergeant #1	I recall flight # 1549 in the Hudson River as a recent example in which a lot of agencies were seen collaborating. There were PD and EMS on fire boats and fire and EMS on PD boats all working together to help the people in the water. This was a very high profile assignment with a great outcome. The mayor honored all three agencies, and they even got to ring the Wall Street closing bell.	Hastily Formed networks	Teamwork
Police Sergeant #2	EMS and police show mutual respect for one another on a regular basis. An ambulance is always requested to respond to crime scenes with victims involved. Often as the sergeant, I ask EMS to maintain the integrity of the crime scene, such as a victim of a homicide or suicide. There has been a recent update to EMS policies regarding the care rendered for a victim of rape. The emergency medical technicians are guided to provide pre-hospital care and assist the police officers with maintaining crucial forensic evidence while transporting the victim to the hospital. This attention to detail has improved the capabilities of the police to secure evidence, investigate the crime, apprehend the criminal, and present a solid case to the district attorney. This type of collaboration is beneficial to each agency as well as the citizens we serve.	Beneficial to all parties	Mutual respect. Dependability

Subject	Interviewer Quotes	Analytic	2 nd Order
Fire	-	Codes	Analytic Codes Lack of
Lieutenant #1	A few years ago, there was a building collapse on Broadway and 100th Street in Manhattan. There were renovations to the second floor above a supermarket collapsed into the first floor. People were trapped in the rumble, the search for victims was intense and no one was sure how many victims were inside. I recall it was difficult to get an accurate count of how may victims were treated and transported because some (people) were removed by EMS other means before we [fire] got there and began to work. Collaboration was not evident in that the blue helmets [NYPD] were searching one half of the structure and we were searching the other half. EMS was waiting at the curb for the victims. Separate command posts were set up for fire, PD, and EMS. The only unified meeting was the press conference where the mayor and the chiefs from each agency were in the background.	Separate command posts at the scene of the same disaster	Lack of collaboration and unified command
Fire Lieutenant #2	My men and I were assigned to a working fire in the Bronx as the "fast truck." This is a unit that is assigned to standby at the command post with the necessary equipment to rescue a fire fighter who needs help. The EMS officer on the scene assigned an ambulance to standby with the fast truck unit for the duration of the event. Every fireman knows the fast truck is there if you need us, but now the guys also know EMS is there too. Last year at a multiple alarm fire a firefighter yelled, "Mayday" [a call for immediate assistance] on the radio. The "fast truck" company gained entry and brought the member out of the building to EMS by the command post. The brother firefighter had fallen through a	Trusting that someone will be there when you need them	Dependability

Subject	Interviewer Quotes	Analytic Codes	2 nd Order Analytic Codes
	floor, sustained burns and injuries and looked really hurt. EMS began immediate life saving treatments on the scene and in route to the hospital. We all depend on each other everyday, but even more when times are tough and every second counts.		
EMS Lieutenant #1	A few years ago (2005) a sightseeing helicopter missed the landing at the Wall Street heliport and went into the water. Ironically, the firehouse is across the street from the heliport, an ambulance sits on that corner under the highway and a NYPD boat was in the area. Police, fire, and EMS all worked well together to rescue, treat and transport all the patients.	Hastily formed networks	Teamwork, collaboration
EMS Lieutenant #2	I was a paramedic who responded to the scene of the first World Trade Center bombing in February 1993. My role was as a Medical Unit Triage leader at the incident. I can remember that police, fire and EMS all worked together to help the sick and injured patients exiting the smoking doors of the building on to the West Side highway. Transit buses were used for temporary shelters, and the ambulances kept rolling in from across the city. Police officers from the Emergency Services Unit [ESU] and firefighters were seen carrying patients [side by side] out of the lower part of the building to the street level. There were over 1,000 patients treated throughout this incident and no one agency could have handled this disaster alone.	Hastily formed networks.	Collaboration

2. What do you perceive as the role of organizational culture in shaping an agency's collaborative capacity?

Subject	Interviewer Quotes	Analytic Codes	2 nd Order Analytic Codes
Police Sergeant #1	Police officers are taught to be suspicious of people they encounter and a culture of "us against them" is reinforced throughout the job	Competitive	Lack of trust
Police Sergeant #2	The police culture has changed over the years. It has become more about productivity [stats], competitive, and a larger force [referring to the New York City Police fore]. Rather than a bunch of guys you knew from the academy.	A small familiar unit Vs. a large bureaucratic organization	Familiarity and trust
Fire Lieutenant #1	We have a long standing culture that is filled with traditions, rites of passage even at the level of each firehouse.	Belonging to a group	Acceptance
Fire Lieutenant #2	Teamwork is part of the fire culture from cooking the meal to putting out the fire	Family setting	Cultural norms
EMS Lieutenant #1	We [in EMS] have a culture within a culture. Since March 17, 1996, the New York City Emergency Medical Service became a part of the fire department [FDNY]. This merger has changed our uniforms and social identity	Part of a larger culture. A "room within a house."	To identify with a new social group.
EMS Lieutenant #2	The culture of EMS has been around since 1972 while NYPD & FDNY have existed for more than 200 years. It has been only the last 10 years that a National EMS Week has been celebrated. It will probably take some time before this EMS profession develops a notable culture.	EMS as a new organization with fewer traditions	Established cultural organizations [PD & fire] with many rituals, and lengthy history
Police Sergeant #1	ESU [NYPD Emergency Services Unit] is called when the precinct cops need help. There is a very close-knit culture within the elite NYPD ESU.	Camaraderie	Reputation of dependability

Subject	Interviewer Quotes	Analytic Codes	2 nd Order Analytic Codes
Police Sergeant #2	I must try to maintain order in a young force and keep my officers safe and in line.	Responsibility or duty	Leadership
Fire Lieutenant #1	The fire family is our second family, not just a job with people you work with.	Belonging to a group	Familial bond
Fire Lieutenant #2	There are many firefighters and officers who are second and third generation fireman. It is more than an occupation; it is a way of life.	Tradition	Culture
EMS Lieutenant #1	PD and EMS have always worked well together. Perhaps it is the similarities in two-person [staffed] units or simply a sense of mutual respect.	Similarity in approach to work	Mutual respect
EMS Lieutenant #2	The EMS lieutenant's role has changed over the years, from someone who "turned out the units from a station and did clerical work to an officer who is expected to respond to 911 assignments and insure that proper patient care is delivered to the public." One example of this is that we [EMS lieutenants] now respond to all cardiac arrest calls as a team leader to coordinate and assist in Cardio- Pulmonary Resuscitation [CPR]	Change in work	Adaptation

3. What do you perceive as the role of institutional trust in shaping an agency's collaborative capacity?

Subject	Interviewer Quotes	Analytic	2 nd Order
		Codes	Analytic Codes
Police	Trust is a strong word.	Descriptive of	Commitment
Sergeant #1		trust	and acceptance
Police	We must first have respectful for one	Prerequisite to	Mutual respect
Sergeant #2	another before trust can begin.	trust	

Subject	Interviewer Quotes	Analytic	2 nd Order
-		Codes	Analytic Codes
Fire Lieutenant #1	We depend on one another to work as a team to accomplish the life saving missions at hand.	Dependability	Trust in others
Fire Lieutenant #2	The police respond to many highway accidents that my fire company runs on and we [fire & PD] have two different goals while operating at the scene. My crew can't always trust that traffic will be stopped in order for us to do our job of extricating the victims safely.	Organizational bias	Lack of trust
EMS Lieutenant #1	The more familiar I am with a person, the more I can trust (or not) them.	Familiarity	Trust in those you know
EMS Lieutenant #2	The units [ambulances] where I work are a close knit group. They back up each other even when they are not requested by the dispatcher.	Camaraderie	Teamwork
Police Sergeant #1	I have to feel comfortable with the person before the agency.	Comfort	Inter-personal trust
Police Sergeant #2	I think there are special relationships among the neighborhood units (local area responders) because they are familiar with each other.	Familiarity	Inter-personal trust
Fire Lieutenant #1	Within the fire service there is a lot of trust in our daily work and every member has a role.	Expected behavior	Trust in individual team members
Fire Lieutenant #2	We are trained in the academy to "hold hands in the smoke house and not move until the officer says so."	Loyalty	Obedience
EMS Lieutenant #1	In EMS, we have to trust that police and fire will not put us in harms way. When we are told it is safe to enter a scene, the assumption is that there is no danger.	Faith	Blind trust
EMS Lieutenant #2	Just because someone wears a uniform doesn't mean there is an established trust.	Omnipotent	Lack of organizational trust

Subject	Interviewer Quotes	Analytic	2 nd Order
Police Sergeant #1	NYPD and Fire on routine calls work well together, but sometimes the Fire Officer and firefighters decide to make forcible entry into a premise where someone is suspected of requiring medical assistance and can't come to the door. Often it is a third party caller that thinks their family member or friend may be inside requiring assistance and it may be a life- threatening emergency. When these cases are unfounded, the NYPD is stuck at the scene until the door can be repaired and properly secured.	Codes Reliance on one another. Use of judgment	Analytic Codes Decisional capacity. Leadership
Police Sergeant #2	We have built some working relationships with other agencies at Special Events Planning meetings. It is usually the same sponsors and the same PD, fire, and EMS officers that attend. You get to know everyone on a first name basis. Some examples are; these large events such as New Year's Eve in Time Square., the Five Borough Bike Tour the Macy's Fourth of July Spectacular, the ING NYC Marathon, and various parades.	Familiarity	Inter-personal Trust
Fire Lieutenant #1	The connections or networks are what help us get things done. It's almost like a barter system for services from people within our own agency as well as those outside.	Networking	Relationships. Collaboration
Fire Lieutenant #2	Culture can be a barrier to collaboration, in that we have a command and reporting structure that prohibits the sharing of information on my level at the scene of many incidents.	Limitation to sharing information	Negative cultural influences on collaboration
EMS Lieutenant #1	Fire and EMS have increased joint training and radio communication in the past 5 years. EMS officers were	Joint training	Familiarity

4. Are there any other significant factors that would influence collaborative capacity?

Subject	Interviewer Quotes	Analytic Codes	2 nd Order Analytic Codes
	provided with fire-ground radios that help improve situational awareness and enable the EMS officer to allocate the proper ambulance resources at the scene of the incident.		
EMS Lieutenant #2	Law enforcement and the fire service compete for the spotlight on some occasions. EMS usually plays the supporting role at these types of emergencies (motor vehicle accidents, large scale mass casualty incidents). The EMS officer must be very adaptive to the lead agency he is asked to support. Collaboration is crucial for a successful outcome.	Competition Supportive role	Adaptive role of a collaborator
Police Sergeant #1	I think more intra- organizational cooperation within the NYPD as we see in the monthly community board meetings is needed.	Lack of internal cooperation	Organizational behavior
Police Sergeant #2	PD & EMS often work well together in helping sick and injured "aided cases" (patients or victims) getting treatment and going to the hospital. There are times when a sergeant and EMS lieutenant are required to work together at a scene of a routine assignment.	Mutual respect	Collaboration
Fire Lieutenant #1	Interoperability is a difficult concept for me, in that there are technical and cultural challenges which need to be addressed before this type of communication can be effective.	Conceptual barrier	Technical knowledge deficit. Cultural influence towards communication.

Subject	Interviewer Quotes	Analytic Codes	2 nd Order Analytic Codes
Fire Lieutenant #2	We have developed a good working relationship with Con Edison [local electric company] that responds to many of our assignments and helps shut power, move electrical lines at the scene, or work underground to contain a manhole fire.	Networking	Familiarity
EMS Lieutenant #1	We see the police out on the road like us more than the firefighters who spend more of their time in the firehouse. This is the nature of our work and not which is somewhat more similar to police than fire.	Similar staffing and work unit	Similar organizational structures
EMS Lieutenant #2	It has been interesting to watch the firefighters who used to work for EMS now on the scene of 9-1-1 calls. Some of them are extremely helpful while others simply forgot where they came from. Perhaps when these firefighters become fire officers, the collaborative culture within the FDNY will change for the better.	Influence of past training	Experience facilitates collaboration.

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APPENDIX B. INTERVIEWS BY AGENCY ORDER

A. NEW YORK CITY POLICE DEPARTMENT SERGEANTS

Two NYPD sergeants were asked the following question and responded accordingly.

1. Describe an incident where multiple agencies were collaborating and

what you understand to be the collaborative capacity of each agency?

- The first sergeant stated, I recall flight number 1549 in the Hudson River as a recent example in which a lot of agencies were seen collaborating. There were PD and EMS on fire boats and fire and EMS on PD boats all working together to help the people in the water. This was a very high profile assignment with a great outcome. The mayor honored all three agencies, and they even got to ring the Wall Street closing bell.
- The second sergeant said EMS and police show mutual respect for one another on a regular basis. An ambulance is always requested to respond to crime scenes with victims involved. Often as the sergeant, I ask EMS to maintain the integrity of the crime scene, such as a victim of a homicide or suicide. There has been a recent update to EMS policies regarding the care rendered for a victim of rape. The emergency medical technicians are guided to provide pre-hospital care, and assist the police officers with maintaining crucial forensic evidence while transporting the victim to the hospital. This attention to detail has improved the capabilities of the police to secure evidence, investigate the crime, apprehend the criminal, and present a solid case to the district attorney. This type of collaboration is beneficial to each agency as well as the citizens we serve.

2. What do you perceive as the role of organizational culture in shaping

an agency's collaborative capacity?

- Police officers are taught to be suspicious of people they encounter and a culture of "us against them" is reinforced throughout the job
- Police sergeants learn to network with other bureaus, units within the NYPD to get the job done.
- I must try to maintain order in a young force and keep my officers safe and in line.
- ESU [Emergency Services Unit] is called when the precinct cops need help. There is a very close-knit culture within the elite NYPD ESU.
- The police culture has changed over the years. It has become more about productivity (stats), competitive, and a larger force [referring to the New York City police force]. Rather than a bunch of guys you knew from the academy.

3. What do you perceive as the role of institutional trust in shaping an agency's collaborative capacity?

- Trust is a strong word.
- Trust builds within a sector to a squad and then a precinct.
- I have to feel comfortable with the person before the agency.
- We must first have respect for one another before trust can begin.
- As a cop, I trust EMS because they are helping the "aided."
- I think there are special workplace relationships among the neighborhood units (local area responders) because they are familiar with each other.
- As a sergeant I have an obligation to maintain a "sense of trust within my squad of officers."

4. Are there any other significant factors that would influence collaborative capacity?

- Comp-Stat within NYPD is a statistical performance review process in which the Commanding Officers of a precinct or unit are asked to review data on crimes or complaints in their respective areas and provide recommendations for improvement in a group setting of peers and superiors. This type of accountability has influenced more collaboration throughout the department.
- I think more intra-organizational cooperation within the NYPD, as we see in the monthly community board meetings, is needed.
- We have built some working relationships with other agencies at Special Events Planning meetings. It is usually the same sponsors and the same PD, fire, and EMS officers that attend. You get to know everyone on a first name basis. Some examples are; these large events such as New Year's Eve in Time Square, the Five Borough Bike Tour the Macy's Fourth of July Spectacular, the International Netherlands Group (ING) NYC Marathon, and various parades.
- PD and EMS often work well together in helping sick and injured "aided cases" (patients or victims) getting treatment and going to the hospital. There are times when a sergeant and EMS lieutenant are required to work together at a scene of a routine assignment. Two types of these assignments come to mind. The first case is when dealing with an "EDP" [emotionally disturbed patient], in that NYPD has a responsibility to make sure that person is not a threat to himself or others. All EDP calls require an NYPD sergeant to respond to determine that protocols are followed. If there is a disagreement between the ambulance crew and the PD officers, an EMS lieutenant and NYPD sergeant discuss the matter on the scene and attempt to come to a collaborative decision regarding the danger level of this patient and the mode of transport to a particular hospital.

- The second case is at a crime scene where there is an aided case (victim or patient) and there is an immediate need to canvas the neighborhood, conduct and interrogation, look at mug shots as soon as possible. Sometimes EMS workers think that the patient needs immediate transportation when the PD officer only sees minor injuries. These cases often require an EMS lieutenant and NYPD sergeant to collectively decide what the next steps should be.
- NYPD and fire on routine calls work well together, but sometimes the fire officer and firefighters decide to make forcible entry into a premise where someone is suspected of requiring medical assistance and can't come to the door. Often, it is a third party caller that thinks their family member or friend may be inside requiring assistance, and it may be a life-threatening emergency. When these cases are unfounded, the NYPD is stuck at the scene until the door can be repaired and properly secured.

B. NEW YORK CITY FIRE DEPARTMENT LIEUTENANT

1. Describe an incident where multiple agencies were collaborating and

what you understand to be the collaborative capacity of each agency?

- A few years ago there was a building collapse on Broadway and 100th Street in Manhattan. There were renovations to the second floor above a supermarket collapsed into the first floor. People were trapped in the rumble, the search for victims was intense, and no one was sure how many victims were inside. I recall it was difficult to get an accurate count of how may victims were treated and transported because some (people) were removed by EMS other means before we [fire] got there and began to work. Collaboration was not evident in that the blue helmets [NYPD] were searching one half of the structure, and we were searching the other half. EMS was waiting at the curb for the victims. Separate command posts were set up for fire, PD, and EMS. The only unified meeting was the press conference where the mayor and the chiefs from each agency were in the background.
- My men and I were assigned to a working fire in the Bronx as the "fast truck." This is a unit that is assigned to standby at the command post with the necessary equipment to rescue a fire fighter who needs help. The EMS officer on the scene assigned an ambulance to standby with the fast truck unit for the duration of the event. Every fireman knows the fast truck is there if you need us, but now the guys also know EMS is there too.
- Last year at a multiple alarm fire a firefighter yelled "Mayday" [a call for immediate assistance] on the radio. The fast truck company gained entry and brought the member out of the building to EMS by the command post. The brother firefighter had fallen through a floor, sustained burns and injuries and looked really hurt. EMS began immediate life saving treatments on the scene and in route to the hospital. We all depend on each other everyday but even more when times are tough and every second counts.

2. What do you perceive as the role of organizational culture in shaping

an agency's collaborative capacity?

- We have a long standing culture that is filled with traditions, rites of passage, even at the level of each firehouse.
- Each fire company has a distinct slogan that is often displayed on our apparatus (vehicle) and on signage used in and out of quarters [firehouse].
- The fire family is our second family, not just a job with people you work with.
- We have one key that fits every firehouse door. Each firefighter has this (#1457) key and is welcomed throughout the department.
- Teamwork is part of the fire culture, from cooking the meal to putting out the fire.
- There are many firefighters and officers who are second and third generation fireman. It is more than an occupation; it's a way of life.

3. What do you perceive as the role of institutional trust in shaping an

agency's collaborative capacity?

- Within the fire service there is a lot of trust in our daily work, and every member has a role.
- We depend on one another to work as a team to accomplish the life saving missions at hand.
- We are trained in the academy to "hold hands in the smoke house and not move until the officer says so."
- As a lieutenant, I am responsible for training the new probationary firefighter during an emergency. We [the probationary firefighter and lieutenant] form a special bond. "It's like teaching your teenage kid how to drive, you're both in the car moving down the road. The better the student gets at it the safer you will both be."
- The police respond to many highway accidents that my fire company runs on and we [fire and PD] have two different goals while operating at the scene. My crew can't always trust that traffic will be stopped in order for us to do our job of extricating the victims safely.
- I work better with cops I know and see on a regular basis. This perceived PD/FD rivalry is not really seen at our local level. We have a number of firefighters in our battalion that were former police officers and are good people.
- Just because you wear the white hat does not mean that everyone from the outside [other agencies] will trust you.

3. Are there any other significant factors that would influence collaborative capacity?

- The connections or networks are what help us get things done. It's almost like a barter system for services from people within our own agency as well as those outside.
- We have developed a good working relationship with Con Edison [local electric company] that responds to many of our assignments and helps shut power, move electrical lines at the scene, or work underground to contain a manhole fire.
- As the lieutenant of a busy fire company, my goal is to keep harmony and trust between the men, one to another, and myself.
- The police department has a different mission than us. We respond to similar jobs with different objectives in mind. I can't see how we can collaborate when our tactics, strategy, and core competencies are so far apart.
- Culture can be a barrier to collaboration, in that we have a command and reporting structure that prohibits the sharing of information on my level at the scene of many incidents.
- Interoperability is a difficult concept for me, in that there are technical and cultural challenges which need to be addressed before this type of communication can be effective.

C. NEW YORK CITY EMERGENCY MEDICAL SERVICE LIEUTENANT (FDNY)

1. Describe an incident where multiple agencies were collaborating and

what you understand to be the collaborative capacity of each agency?

- A few years ago [2005], a sightseeing helicopter missed the landing at the Wall Street heliport and went into the water. Ironically, the firehouse is across the street from the heliport, an ambulance sits on that corner under the highway, and a NYPD boat was in the area. Police, fire, and EMS all worked well together to rescue, treat, and transport all the patients. All the players were at the right place at the right time.
- I was a paramedic who responded to the scene of the first World Trade Center bombing in February 1993. My role was as a Medical Unit Triage leader at the incident. I can remember that police, fire, and EMS all worked together to help the sick and injured patients exiting the smoking doors of the building on to the West Side highway. Transit buses were used for temporary shelters, and the ambulances kept rolling in from across the city. Police officers from the Emergency Services Unit [ESU] and firefighters were seen carrying patients [side by side] out of the lower part of the building to the street level. There were over 1,000 patients treated throughout this incident and no one agency could have handled this disaster alone.

a. What do you perceive as the role of organizational

culture in shaping an agency's collaborative capacity?

- We [in EMS] have a culture within a culture. Since March 17, 1996 the New York City Emergency Medical Service became a part of the fire department [FDNY]. This merger has changed our uniforms and social identity. EMS is the "red-headed stepchild" within the FDNY.
- PD and EMS have always worked well together. Perhaps it is the similarities in twoperson [staffed] units or simply a sense of mutual respect.
- The culture of EMS has been around since 1972 while NYPD and FDNY have existed for more than 200 years. It has been only the last 10 years that a National EMS Week has been celebrated. It will probably take some time before this EMS profession develops a notable culture.
- The EMS lieutenant's role has changed over the years, from someone who "turned out the units from a station and did clerical work to an officer who is expected to respond to 911 assignments and insure that proper patient care is delivered to the public". One example of this is that we [EMS lieutenants] now respond to all cardiac arrest calls as a team leader to coordinate and assist in cardio-pulmonary resuscitation [CPR].

b. What do you perceive as the role of institutional trust in

shaping an agency's collaborative capacity?

- Just because someone wears a uniform doesn't mean there is an established trust.
- The more familiar I am with a person, the more I can trust (or not) them.
- It is not about trusting the organization, it is about the individual.
- In EMS, we have to trust that police and fire will not put us in harms way. When we are told it is safe to enter a scene, the assumption is that there is no danger.
- The units [ambulances] where I work are a close knit group. They back up each other even when they are not requested by the dispatcher.
- New lieutenants need learn and earn trust from their peers. One important lesson to learn is not to undermine your fellow supervisor to the subordinates. Everyone loses credibility.

c. Are there any other significant factors that would

influence collaborative capacity?

• Fire and EMS have increased joint training and radio communication in the past five years. EMS officers were provided with fire-ground radios that help improve situational awareness and enable the EMS officer to allocate the proper ambulance resources at the scene of the incident.

- There are two combination EMS stations-fire houses in the FDNY. The Staten Island house has parties, picnics, and ceremonies together, while the Queens house built a wall to separate the fire and EMS officers.
- Finally, the FDNY Medal Day and FDNY Memorial Day include both EMS and fire personnel together on one stage. This is an indication that our leaders are collaborating.
- It has been interesting to watch the firefighters who used to work for EMS now on the scene of 9-1-1 calls. Some of them are extremely helpful while others simply forgot where they came from. Perhaps when these firefighters become fire officers, the collaborative culture within the FDNY will change for the better.
- The NYPD has always permitted EMS technicians to "sign out police portables from the local precinct." Now we [EMS] have all the NYPD radio frequencies on our radios and can reach out for help with the turn of a switch.
- In the past 10 years, EMS has collaborated with NYPD on a variety of assignments. Some examples are, "warrant jobs," where PD gains forcible entry to a particular resident and EMS is requested to stand by in the event an officer from the team is injured. EMS responds at the request of NYPD to a safe location on the scene of a suspected explosive device to assist and support the police officers in the bomb squad. EMS works with PD more often than the fire service.
- We see the police out on the road like us more than the firefighters, who spend more of their time in the firehouse. This is the nature of our work and not which is somewhat more similar to police than fire.
- Law enforcement and the fire service compete for the spotlight on some occasions. EMS usually plays the supporting role at these types of emergencies [motor vehicle accidents, large scale mass casualty incidents]. The EMS officer must be very adaptive to the lead agency he is asked to support. Collaboration is crucial for a successful outcome.

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