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**NAVAL
POSTGRADUATE
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MONTEREY, CALIFORNIA

THESIS

**A NEW ROLE FOR EMERGENCY MANAGEMENT:
FOSTERING TRUST TO ENHANCE COLLABORATION
IN COMPLEX ADAPTIVE EMERGENCY RESPONSE
SYSTEMS**

by

Thomas J. Currao

December 2009

Thesis Co-Advisors:

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**A NEW ROLE FOR EMERGENCY MANAGEMENT: FOSTERING TRUST TO
ENHANCE COLLABORATION IN COMPLEX ADAPTIVE EMERGENCY
RESPONSE SYSTEMS**

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Submitted in partial fulfillment of the
requirements for the degree of

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

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ABSTRACT

In spite of publications such as the *9/11 Commission Report* and a revised incident command system, effective interagency collaboration at emergency incidents within New York City has not been fully achieved. This thesis explores how the development of these collaborative efforts may be dependent on social factors, such as inter-organizational trust, and whether emergency management agencies are well positioned to assume a leadership role in fostering and implementing trust-building programs in the furtherance of collaborative agency partnerships.

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I. INTRODUCTION

In spite of publications such as the *9/11 Commission Report*, which highlighted the breakdown of a unified command during operations at the World Trade Center; the *McKinsey Report* on recommendations to improve New York City Fire Department (FDNY) preparedness, and a revised incident command system, the Citywide Incident Management System, effective interagency collaboration at emergency incidents within New York City has not been achieved. This has led to a lack of coordinated rescue operations, a duplication of effort, and failure to achieve a unified command structure. This situation is perpetuated by redundant response and rescue capabilities, particularly within the New York City Police Department and the New York City Fire Department, which many times do not collaborate when seeking to resolve an emergency situation. It is not unusual to see a photo or view a news clip depicting New York City police officers and New York City firefighters operating in separate groups at the scene of a building collapse or some other rescue situation. In some instances, they are under the direction of separate command posts and without a true integration of rescue and mitigation tactics and strategy.

This lack of collaboration and failure to operate as a team is not reserved for the scene of emergency operations. It extends into the realm of multi-agency and inter-jurisdictional emergency exercises and has yet to fully demonstrate the synthesis of agency resources or the implementation of operations in support of the overall strategic objectives of the exercise. In fact, these drill scenarios become more of a competition between agencies determined to display their own capabilities, rather than an agency deploying its individual resources in support of the joint achievement of incident objectives and strategies.

Planning for large scale pre-planned events, or as a component of emergency preparedness, is still plagued by the development of separate incident management plans, a deficiency of shared agency information, and lack of a truly unified planning effort.

Emergency responders from agencies such as the New York City Police Department, the New York City Fire Department, and the Department of Environmental Protection have not developed a “task force mindset” in which they consider their individual agency’s mission as a component of an overall citywide response to terrorist incidents, natural, and man-made disasters. This has perpetuated, despite the existence of a coordinating agency, the New York City Office of Emergency Management, which is tasked with the facilitation of a collaborative effort of the various city response agencies at a multi-agency emergency incident.

Emergency operations in New York City serve as one example of how various agencies, each with homeland security responsibilities and operating at various levels of government, still view the achievement of goals in prevention, preparedness, response and recovery from the viewpoint of a single agency. It is a systemic problem that serves to undermine the current efforts of sharing information among various agencies from the federal, state, and local levels government, in areas such as fusion centers, the development of interoperable communication capabilities, and multi-agency, inter-jurisdictional disaster training, prevention, planning, response, and recovery efforts.

A. HOMELAND SECURITY AS A COMPLEX ADAPTIVE SYSTEM

In contrast to standard emergency responses, such as structural fires or routine criminal investigations, homeland security threats, whether they are terrorist, man-made, or natural disasters, are representative of complex adaptive systems in which the nation’s first responders must operate. In the article, “Complexity Leadership Theory: An Interactive Perspective in Complex Adaptive Systems,” the authors state, “In such systems, relationships are not primarily defined hierarchically, as they are in bureaucratic systems, but rather by interactions among heterogeneous agents and across network agents” (Lichtenstein, Marion, Orton, Schreiber, Seers, Uhl-Bien, 2006, p. 3). In order to accomplish strategic homeland security goals, these interactions should involve interagency collaborative efforts to solve problems and a system of interoperability based on the establishment of trust. This principle extends beyond emergency response to include other facets of homeland security, such as intelligence collection and analysis. As

author Jennifer Sims explains, “The production of intelligence in the United States is a mission to which networking is critical, because no single stove-piped bureaucracy is responsible for getting the job done” (2005, p. 51).

In addition, specific agencies, particularly those that have a mission of coordination of public safety resources, such as the New York City Office of Emergency Management (New York City Office of Emergency Management [OEM], 2005, p. 13), may be in the position to fulfill the role of a “meta-leader” by assisting in the development of these trusted relationships to enhance interagency collaboration and interoperability.

B. THE NEED FOR COLLABORATION

In the article “Managing Intergovernmental Responses to Terrorism and Other Extreme Events,” author Louise Comfort points out “that in crises incidents, which require an intergovernmental response, there is a need for coordinated action among many agencies that allow access to valid information, and the ability to engage in information search, exchange, absorption, and adaptation” (2002., p. 30). This is the essence of a complex adaptive system that, according to the author, evolves with the expanding situation and responds to demands from the crises environment, as well as pressure and support from other organizations. For example, at a radiological “dirty bomb” incident, there are individual agency missions that must be accomplished in order to respond to, mitigate, and recover from the incident. Search and rescue, personnel decontamination, and medical care would be preformed by the fire department and the emergency medical services (OEM, 2005, Annex A, p. 11). Force protection, as well as crime scene preservation, would be carried out by law enforcement. The Department of Health would be primarily focused on the assessment of the hazard and the larger contamination concerns for the community, while the Department of Environmental Protection would be implementing strategies for mitigation and clean-up (OEM, 2005, Annex A, p. 11). All of these missions must be accomplished simultaneously but would also require a collaborative effort among agencies. For instance, the need to rescue

victims, which is the first strategic priority, could potentially destroy a crime scene and diminish the capability to process a scene for evidence.

The dynamics of this complex adaptive system is characterized in the article “Complexity Leadership Theory: An Interactive Perspective in Complex Adaptive Systems” within the context of an expanding emergency situation as:

Agents respond to both external pressures (from the environment or from other complex adaptive systems or agents, e.g., leaders) and internal pressures that are generated as the agents struggle with interdependency and resulting constraints (e.g., when the needs of one agent conflict with those of another). (Lichtenstein et al., 2006, p. 3)

It is these tensions, however, according to these researchers, that generate system-wide emergent learning, capabilities, innovations, and adaptations. In this way, during an emerging event, such as a terrorist attack, individuals from various agencies, governments, and jurisdictions combine to form this interdependent network, generate collaborative solutions, and rely on each other to assist in the accomplishment of agency specific objectives, as well as the global strategy of life safety, stabilization, mitigation, and recovery.

C. ROLE OF TRUST IN COLLABORATION

One possible supportive element within this complex, evolving environment, is the concept of trust. The significance and meaning of trust is often linked to the context in which the term is discussed. The concept of trust and trustworthiness would appear to be a pervasive and underlying element of a collaborative, networked, interagency effort toward resolving a homeland security problem. An agency’s willingness to share intelligence, to accept the validity of information from sources, and collaborate outside its department, are examples that rely heavily on the establishment of a trusted relationship. In June 2008, a Government Accountability Report commented on the ability of first responders to model the release of hazardous materials in urban settings, and the reliance on data from the Interagency Modeling and Atmospheric Assessment Center (IMAAC). It states, “Improvements in plume modeling information and predictions are best

achieved by establishing trusted working relationships with federal, state and local agency operations centers and deployed assets” (Government Accounting Office, 2008, p. 60).

In a complex adaptive system, the acknowledgement and ability to utilize the skills and knowledge of multiple agencies to solve both organization specific, as well as global strategic problems, implies a level of trust in relinquishing control of the thought process, including the perspectives and insights of other individuals. As stated in the book *Trust in Modern Societies*, “Trust is essential for facilitating effective problem solving because it encourages the exchange of relevant information and determines whether members are willing to allow others to influence decisions and actions” (as cited in Misztal, 1996, p. 12).

In business partnerships, trust provides a more efficient vehicle for the utilization of knowledge, as well as skills, and allows the granting of autonomy to others, which reduces the need for monitoring and frees up resources that can be utilized more effectively (McEvily, Perrone, Zakeer, 2003, p. 98). When viewing the complex problem-solving environment of homeland security as a business partnership, with the deliverable being local, state, or national preparedness, then the concept of trust can act as a catalyst for the free flow of ideas, information to develop solutions, and collaboration.

This concept is supported by the work of Kurt T. Dirks and Donald L. Ferrin highlighted in their article, “The Role of Trust in Organizational Settings,” which examined the moderating effect of trust and its role in producing the conditions under which cooperation, higher performance, and positive attitudes are likely to occur (2001, p. 455). In this study, a statistical analysis of various theses, which relates trust to other organizational processes such as communication and conflict, was undertaken to show the statistical significance between trust and related organizational concepts. This was completed using theses that positioned the concept of trust as either providing a main effect or a moderating effect. By conducting this comparison, the authors concluded that when viewed as a main effect, the evidence does not seem to provide strong support for the conventional wisdom that is represented by the main effect model—that trust, on

average, resulted in desirable behaviors and outcomes. However, the researchers provided data that exhibited statistical significance when examining trust as a moderator of the group's motivation, processes, and outcome. As a result, the authors postulate *that trust may facilitate the occurrence of cooperative behavior because in a high trust environment, an individual believes that a partner is willing to cooperate* (Dirks & Ferrin, 2001, p. 455).

Trust as a basis for collaborative efforts between agencies, especially in rapidly formed teams (termed “swift trust”), provides a framework for decision making during “disaster situations that are non-linear in nature, requiring a process that is more inferential, and able to rapidly react to signs or symbols, rather than relying on rule based reasoning (Comfort, 2002, p. 30). Swift trust is explored by Dr. Roxanne Zolin who studied the problems with communication, coordination, and collaboration between first responders from different organizations, and how differences in organizational missions, structures, and processes make communication, coordination, and cooperation less effective (2006, p. 3). This researcher stated that the key to achieving collaboration is through the development of swift trust, so that all participants perceive that they belong to a temporary team and have a shared goal (Comfort, 2006).

D. HOW DO WE DEVELOP TRUST AND A COLLABORATIVE CULTURE?

Conversely, the deficiency in collaboration or lack of understanding that the mission of homeland security preparedness requires an integrated team effort may expose the need to continue to build and foster trusted relationships between agencies and jurisdictions. It would seem incumbent upon all agencies with homeland security responsibilities, especially those such as the New York City Office of Emergency Management (OEM), which embraces coordination as its core mission (OEM, 2005, p. 13), to foster these trusted, collaborative relationships that are essential to operating in complex adaptive environments. This predisposes a possibly enhanced leadership role for the New York City Office of Emergency Management that goes beyond the coordination of resources, including a role as a facilitator of trust and collaboration. Fulfillment of this

position may indeed be based on the establishment of a trusted relationship between the various agencies and OEM, as well as an acknowledgement of a commitment and ability to develop an integrated response network.

Highlighting the role of trust may provide answers to opposing points of view on how to achieve a collaborative integrated effort. An alternate perspective may state that interoperability and coordination is simply mandated through the implementation of incident command systems, such as the National Incident Management System or the Citywide Incident Management System (the guiding document in New York City), and agency adherence to these procedures. If this was an accurate assessment, then a fully integrated, seamless approach to intelligence sharing, investigation, and response, would exist. Clearly, this does not appear to be the case. As stated in the *Final Report of the National Commission on Terrorist Attacks Upon the United States* (9/11 Commission), “The command posts were in different locations, and OEM headquarters, which could have served as the focal point for information sharing, did not play an integrating role in ensuring that information was shared among agencies on 9/11, prior to evacuation” (2004, p. 321).

In the several years beyond the events of September 11, it appears, as portrayed in the November 20, 2008 *New York Times* article, “New York Police Fight with U.S. on Surveillance,” that there is a continual need to build trusted relationships among various law enforcement entities. In this article, the New York City Police Department accuses the Justice Department and the Federal Bureau of Investigation of putting the safety of New York City at risk by delaying the police department’s requests for electronic surveillance of potential terror suspects and holding these requests up to a unreasonable high standard of probable cause (Johnston & Rashbaum, 2008, pp. A1 & A 22). What is particularly disturbing is a quote from the article that states, “Indeed the police department and the C.I.A. are two agencies that often seem to have contempt for the FBI, even as investigators work together on many cases” (Johnston & Rashbaum, 2008, pp. A1 & A22). This lack of mutual cooperation between these local and federal law enforcement agencies still exists, despite the development of national strategies for information sharing and a restructuring of the intelligence community.

In contrast, in the article “Managing Intergovernmental Responses to Terrorism and Other Extreme Events,” author Comfort commented on the Federal Emergency Management Agency response on September 11, 2001 by stating, “It reflected a high degree of mutual respect, shared goals, and trust among responsible personnel gained from working together in previous operations (2002, p. 42).

By identifying and recognizing the role of trust as the support structure for coordinating efforts during investigation, planning, response, or recovery, agencies can implement strategies to build trusted relationships. This may be achieved through a philosophy and commitment to the inclusion of all pertinent agencies in preparedness efforts, such as the development of a biological hazard response plan, or a site specific security plan for a target hazard. In addition, multi-agency exercises, whether full scale or table top, may present “teaching moments” where the synthesis of ideas and resources from a cross-section of agencies is utilized to solve an emergency management problem.

E. CONCLUSION

Trust, a concept that assumes different meanings in various contexts and perhaps only one of the supportive elements for interagency cooperation, may play a significant role and act as a catalyst for interagency/multi-jurisdictional collaboration that cannot be achieved by procedures and policy alone. Consequently, the implementation of strategies and programs that improve homeland security preparedness through the establishment and maintenance of trusted relationships will serve as a vital component of local, state, regional, and national security. It is with this perspective that this research study was constructed to answer the following research question:

How does trust influence the development and implementation of inter-organizational collaboration involving those agencies that have a participatory role in homeland security preparedness, response, and recovery operations within New York City?

F. SIGNIFICANCE OF RESEARCH

This research will contribute to the study of trust, both as a concept and in the context of inter-organizational collaboration. Specifically, 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 has 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 the many city, state, regional, and federal entities with public safety responsibilities. This increased efficiency, effectiveness, and synthesis of agency talents can lead to comprehensive disaster preparedness efforts, meaningful interagency training and exercise development, and a coordinated response during emergencies to achieve the goals of homeland security and ensuring public safety.

Since many emergency incidents (i.e., acts of terrorism or large scale natural disasters) rapidly evolve into both multi-agency, as well as multi-jurisdictional responses, research and insight into trust and the fostering of collaborative relationships has local, regional, and national implications. The conclusions and recommendations can assist in the execution of the many functions implemented across many agencies which serve as the basis for homeland security.

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II. LITERATURE REVIEW

A. TRUST, COLLABORATION AND THE EFFECT ON ORGANIZATIONAL PERFORMANCE AND SUCCESS

The concept of trust has been heavily researched on the personal, organizational, and societal levels, and studied as a component of solutions to deal with present day challenges, or explain the underlying reasons for a current societal condition. The significance and meaning of the term trust is often linked to the context in which the term is discussed. For example, Misztal (1996) views trust as a concept that is re-energizing as a basis for social cooperation, solidarity, and consensus in world that can be characterized as uncertain and complex. Although the author does not provide research data as support for her statements, this publication, *Trust in Modern Societies*, references the numerous conclusions of researchers who have studied trust in various settings and provided a good overview of the role of trust in various interactions. For example, according to Carnevale and Wechsler (as cited in Misztal, 1996, p. 12), “trust is essential for facilitating effective problem solving because it encourages the exchange of relevant information, and determines whether team members are willing to allow others to influence decisions and actions.” In addition, Nichmias (as cited in Misztal, 1996, p. 14) stated, “Trust is seen as a social resource that can be drawn upon in order to achieve certain organizational goals.” The study and application of trust in organizational settings, emphasizes the development of trusted relationships as a pragmatic method or philosophy to promote organizational learning, and to utilize knowledge to arrive at solutions that have not previously been considered. In a way, enhancing organizational performance by being able to devise solutions, generate ideas, and successfully manage the challenges presented by a fast-paced, interconnected, complex social environment-within the context of a trust-enriched organizational setting.

In the article, “Trust as an Organizing Principle,” the authors Bill McEvily, Vincenzo Perrone, and Akbar Zaheer highlight the point that research into trust has developed, “The dominant approach emphasizing the direct effects that trust has on

important organizational phenomena such as: communication, conflict management, negotiation processes, satisfaction, and performance (both individual and unit)” (2003, p. 91). The authors tie trust and trustworthiness together “because we define trust as an expectation, the distinction between trustworthiness and trust is based on actual versus perceived intentions, motives, and competences of the trustee-the former being trustworthiness and the latter being trust” (McEvily et al., 2003).

Trust can serve as the basis for increased efficiency in utilizing knowledge to achieve business objectives. Also, with a trusted relationship in place, business partnerships will be more effective. It allows the granting of autonomy to others, reduces the need for monitoring and oversight, and frees up resources that can be utilized more effectively (McEnvily et al., 2003, p. 98). These authors, however, presented a balanced view in that they identified the disadvantages of relying excessively on trust and by detailing the areas that require further research such as:

- Rebuilding trust as opposed to creating and maintaining it.
- Identifications of biases and conditions conducive to formulating faulty assessments of trustworthiness.
- The costs of creating, upholding and maintaining trust. (McEnvily et al., 2003)

The underlying themes of trust as a factor in determining organizational success, promoting a degree of uncertainty based on the expected actions of another person, and the concept of trustworthiness as the basis for a trusted relationship (Albrecht, 2002, pp. 320–322) were reiterated in the article, “Perceptions of Integrity, Competence and Trust in Senior Management as Determinants of Cynicism Toward Change.” This study relied on data derived from an employee opinion survey, provided to the employees of two public sector organizations, which included 425 useable samples from Organization 1, and 325 useable samples from Organization 2 (Albrecht, 2002, pp. 325–326). The survey was designed to rate an employee’s level of cynicism toward change by answering questions according to a rating scale, where one equaled strong disagreement and seven signified strong agreement with the statement. An example of a survey item would be: “suggestions on how to solve problems will not produce real change” (Albrecht, 2002, p.

326). An analysis was conducted of the data and various conclusions, such as the correlations between integrity and trust, yielded results that were statistically significant.

One example of a conclusion that was drawn was that employees who perceive senior management as having integrity, and those who trust senior management, are more likely to view organizational change from a positive perspective (Albrecht, 2002, p. 324). Additionally, the results of the survey suggest that competence is not a critical component of trust or trustworthiness (Albrecht, 2002, p. 324). These conclusions appear to support the position that the dynamic nature of organizations, reflective of a mindset that is more comfortable and adaptable to innovation, may be strongly tied to a foundation of trust within the organization, which paves the way for collaborative, integrated efforts amongst management and the employees.

A more subtle effect of trust, providing a moderating effect, and producing the conditions under which cooperation, higher performance, and more positive attitudes are likely to occur, is explored in *The Role of Trust in Organizational Settings* (Dirks & Ferrin, 2001, p. 455). In this study, a statistical analysis of various theses, which relate trust to other organizational processes such as communication, conflict, and collaboration, was undertaken to show the statistical significance between trust and related organizational processes. This was completed using various theses that positioned the concept of trust as either providing a main effect, or a moderating effect. By conducting this comparison, the authors concluded that when viewed as a main effect, “the evidence does not seem to provide strong support for the conventional wisdom that is represented by the main effect model—that trust, on average, results in desirable behaviors and outcomes” (Dirks & Ferrin, 2001, p. 455). However, the authors provided data that exhibited statistical significance when they examined trust as a moderator of the group’s motivation, processes, and outcomes (Dirks & Ferrin, 2001, p. 455). As a result, trust may facilitate the occurrence of cooperative behavior because in a high trust environment, an individual believes that a partner is willing to cooperate (Dirks & Ferrin, 2001, p. 456). These study conclusions appear to support the position that trust, operating as a supportive and underlying element within an organization, provides the catalyst for

collaborative relations to accomplish objectives, solve problems, and formulate strategies, thereby promoting a level of higher, more effective performance within the organization.

An interesting aspect of trust, and one seemingly related to emergency management, is the principal of “swift trust.” Swift trust is defined as “the willingness to rely on team members to perform their formal and informal roles in a hastily formed temporary team involved in some aspect of SSTR [stability, security, transition, and reconstruction operations]” (Zolin, 2006, p. 4). The author, Dr. Roxanne Zolin (2006), references the events of 9/11, the Indonesian Tsunami, and Hurricane Katrina to highlight problems with communication, coordination, and collaboration between first responders from different organizations and how differences in organizational missions, structures, and processes make communication, coordination, and cooperation less effective. As further stated by Dr. Zolin (2006), the key to achieving collaboration through the development of swift trust is that the participants perceive that they belong to a temporary team and have a shared goal. The methodologies used for this study involved questionnaires provided to military officers asking for their experiences working in hastily formed teams (Zolin, 2006, p. 5). In addition, this researcher stated that the interviews were conducted with surviving organizations from Hurricane Katrina, which produced recommendations for governments and first responders.

Finally, conclusions were drawn from a research project, Strong Angel-Swift Trust, an international disaster response demonstration held in San Diego, California in August of 2006, which replicated a flu pandemic and tested communications, technologies, and social networks (Zolin, 2006, p. 6). The author stated:

The preliminary results indicated difficulties in establishing personal working relationships between USMs [U.S. military forces] and NGOs [non-government organizations] due to perceived differences in organizational goals, strongly held organizational stereotypes of the other organizations and perceived ideological differences between members of the two groups. (Zolin, 2006, p. 7)

In commenting on the role of trust during the federal response to the events of September 11, principally through the Federal Emergency Management Agency, in the article, “Managing Intergovernmental Responses to Terrorism and Other Extreme Events,” Comfort stated:

This informal process revealed the degree of common understanding among the senior personnel of the principal response agencies. It reflected a high degree of mutual respect, shared goals and trust among responsible personnel gained from working together in previous disaster operations. (2002, p. 42)

This captures the essence of a complex adaptive system for emergency response that is detailed in the article. Comfort (2002) made the argument that in crises incidents which require an intergovernmental response, there is a need for coordinated action among many agencies that allows access to valid information and the ability to engage in information search, exchange, absorption, and adaptation. This is based not only the technical structure to support information exchange, but also organizational structures and policies, as well as “cultural openness to new information, new strategies for addressing an unimaginable set of problems, and willingness to adapt to extraordinary difficult conditions” (Comfort 2002, p. 30).

In order to detail her argument, Comfort compared the responses on September 11, 2001 at the Pentagon and at the World Trade Center. She also stated that during Pentagon operations, due to the familiarity developed from prior training and joint exercises, the local emergency response agencies moved quickly to joint operations with the Defense Department’s Security Force (Comfort, 2002, p. 40). In comparison, the author pointed out that the first responders who operated at the World Trade Center became victims themselves, due partly to a lack of both the technical infrastructure needed to support operations and the awareness of the need for information from other departments in order to craft an effective strategy (Comfort, 2002, p. 40).

In the article, Comfort made some important distinctions related to intergovernmental responses to disasters in that hierarchical organizations tend to breakdown due to a lack of information, constraints on innovation, inability to shift resources, and action to meet new demands quickly (2002, p. 30). On the other hand, she pointed out that a complex adaptive system evolves with the expanding situation and responds to both demands from the crises environment as well as pressure and support from other organizations (Comfort, 2002, p. 30). The author explained that this is due to

the non-linear nature of responses to disasters, which require a process that is more inferential and able to rapidly react to signs or symbols, rather than strictly relying on rule-based reasoning (Comfort, 2002, p. 32).

In many different aspects of homeland security whether it involves intelligence-led policing, fusion centers, or emergency management, the need for the collaboration of various agencies and levels of government serves as the vehicle by which these operations are implemented effectively. Trust among individuals, organizations, and levels of government serves as the foundation of collaboration whereby entities are willing to share intelligence information, rely on sources and expertise outside of their own organization, work in coordination with other agencies, and view the achievement of strategic objectives as an integrated team effort.

Emergency management organizations that rely heavily on a collaborative, coordinated effort among first responders, homeland security agencies, the government, and private sector can act as facilitators of trust and collaboration. This can be fostered through a philosophy that seeks to acknowledge the individual skill sets inherent in each agency and yet reinforces how a collaborative effort will effectively achieve both individual agency objectives and global homeland security missions.

B. LEADERSHIP: THE CATALYST OF A TRUSTED, COLLABORATIVE PARTNERSHIP

The non-linear and complex nature of events in the modern world is further explored in the context of complexity leadership. If the many local, state, and federal agencies, which must coordinate and collaborate during a large scale disaster, define a complex adaptive system, then complexity leadership is the driving force behind this system. In this context, complexity leadership is defined as “that is, leadership is a dynamic that transcends the capabilities of individuals alone; it is the product of interaction, tension, and exchange rules governing changes in perceptions and understanding” (Lichtenstein et al., 2006, p. 2). This paper, which is a collaborative work, states that the tension between various agents can lead to ideas and innovations that are unanticipated and that interactions in leadership events produce a new group identity

(Lichtenstein et al. 2006). This correlates with the development of swift trust in temporary teams, noted in Dr. Roxanne Zolin's (2006) article on "Swift Trust in Hastily Formed Networks." The intersection of these critical components of trust, collaboration, and complex problem solving appears to provide a leadership opportunity that can work to effectively establish an environment permeated with the concept of trust and enable diverse forces to interact in a collaborative fashion to yield the maximum benefit from the various talents, skills, and resources to devise unique solutions to complex problems.

The authors of the paper "Complexity Leadership Theory: An Interactive Perspective on Leading in Complex Adaptive Systems" make the distinction between leadership and a leader, with leaders being the person who enables the process by which complexity leadership can occur (Lichtenstein et al., 2006). In addition, they pose the question of how formal leaders create the conditions of adaptive leadership and complexity leadership (Lichtenstein et al., 2006). The authors explored both interview and survey techniques to "capture events and interactions as data" and "gather individual/agent level data that describe interaction," as well as explaining computer modeling, such as systems dynamics and dynamic network analysis, that analyze data from the perspective of interdependence (Lichtenstein et al., 2006). Finally, the paper offers conclusions and implications of complexity leadership for organizational science and the corporate world. These include understanding dynamic organizational capabilities such as innovation and strategic alliance making, as well as providing a new perspective for creativity and positive change (Lichtenstein et al., 2006).

Further research into the implications of complex adaptive system theory are borne out of Benjamin Lichtenstein's (2000) study of change at three organizations in his article "Self-Organized Transitions: A Pattern Amid the Chaos of Transformative Change." The results of his study were generated through an extensive interview process in which he interviewed at least 50 percent of the organizations every week for nine to 12 months (Lichtenstein, 2000, p. 130). The research was based on tracking the critical changes at three companies from the perspective of two competing management theories: complex adaptive system theory, in which long term organizational success is based on optimizing resource flow and continual learning, and classical management theory, which

solely emphasizes efficiency and effectiveness and avoids transformation (Lichtenstein, 2000, p. 129). The author identified three qualities of self organization:

- Self-referencing: a new dynamic to an organization should be based on principals and values that are intrinsic to the organization.
- Intrinsic capacity: use tangible and intangible resources that already exist in the firm to increase the organization's ability to follow through on its goals.
- Interdependent organizing: self-organizing within a company is optimized at high levels of interdependence and connectedness to allow new innovation. (Lichtenstein, 2000, p. 134)

Based on these qualities of self-organization, the author provides insight on how a manager can leverage transformative change by focusing on and developing a new vision, which is bought into by the management team to support the organizational transformation needed to achieve goals and optimize the utilization of resources available (Lichtenstein, 2000, p. 140).

In exploring the relationship between leadership and trust, author Rebecca Rehfeld (2001) in her doctoral dissertation, "Organizational Trust and Intelligence: An Appreciative Inquiry into the Language of the Twenty-First Century Leader," focused on the concept of trust as a skill that can be fostered and nurtured through effective leadership. The author stated, "In other words, leaders are co-creators in the process of achieving emotional intelligence and establishing trust" (Rehfeld, 2001, p. 25). In her study, Rehfeld (2001, p. 33) identified and defined the term "architects of trust" as "a leader who courageously trusts others first; who actively and thoughtfully works to build a strong foundation for trust." Defining emotional intelligence as "the ability to sense, understand and effectively apply the power and acumen of emotions as a source of human energy, information and influence" (Rehfeld, 2001, p. 14), the author established this concept as the independent variable to determine its effect on the facilitation or impairment of organizational trust (p. 24).

This research project focused on nine participants, who were identified as successful leaders, and through the medium of interviews and storytelling explored

whether they perceived leadership success as connected to the expression of emotional intelligence and its impact on organizational trust (Rehfeld, 2001, p. 110). The thematic analysis, which was conducted based on the data from the narrative accounts of leadership experiences of these nine individuals from different organizational settings, identified themes such as commitment, collaboration, trust, spirituality, and communication (Rehfeld, 2001, p. 119). Rehfeld concluded that “A comparison of these nine stories revealed the participants unanimously agreed that the practice of emotional intelligence is an essential part of good leadership” (2001, p. 135). The author stated, “One of the outcomes of good leadership is the establishment of trust” (Rehfeld, 2001, p. 135). When data themes were plotted against the responses of the research participants, those themes relating to collaboration, trust in a leader, and leadership philosophy-trust is the emotional glue that binds were rated as high incidence with scores of nine, seven, and seven, respectively (Rehfeld, 2001, p. 119). As a result of the data analysis, the author constructed recommendations, such as “emotional intelligence training” and recognizing emotional intelligence as a significant leadership skill (Rehfeld, 2001, p. 165), in order to place this concept into operation and develop these skills as components of effective leadership.

Transformative leadership is further expanded from within an organization to among a group of organizations in an article on meta-leadership as a vital component of national emergency preparedness. Dorn, Henderson, and Marcus, (2006, p. 44) in “Meta-Leadership and National Emergency Preparedness,” define meta-leadership as “guidance, direction, and momentum across organizational lines that develop into a shared course of action and a commonality of purpose among people and agencies that are doing what appears to be very different work.” They further define meta-leaders as individuals who are able to influence and accomplish a collaborative effort across multi-jurisdictional, multi-agency, and public-private realms. In this article, the discussion of meta-leadership unfolds in the context of advancing national preparedness at an accelerated pace to meet the growing threat of terrorism and the role that a meta-leader plays in achieving a connectivity of people, organizations, resources and information to meet the challenge of national security threats (Dorn et al., 2006). This work is reliant on references from a

diverse range of literature, including leadership, organizational science, and homeland security related strategies. The article identifies the differences between the more familiar organizational leadership, which derives its power from formal authority, and meta-leadership, which is largely based in the less tangible personal and organizational credibility, as well as possessing the skills necessary to foster negotiation and a collaborative effort (Dorn et al., 2006).

Dorn et al., (2006) made the connection between meta-leaders and complex adaptive systems in that the meta-leader is able to get people and organizations, by utilizing their own unique capabilities, to embrace a new cross organizational compatibility and to establish a complex adaptive system of interwoven components needed to prepare for and respond to terrorist acts. As an example, the authors reference the Home Front Command in Israel, which after a poor emergency response to the Iraqi Scud missile attack in 1991 developed a complex integrated system of emergency response that combined a spectrum of military and civilian agencies (Dorn et al., 2006). The meta-leader must ultimately possess and utilize the skills of persuasion, conflict management, crises management as well as appreciate and foster social networks among homeland security agencies as a vehicle for transforming mindsets and advancing the national preparedness effort (Dorn et al., 2006).

C. CONCLUSION: TRUST, LEADERSHIP AND COLLABORATION –THE VALUE FOR EMERGENCY RESPONSE

Trust and collaboration appear to play a key role in the organizational settings related to homeland security and emergency management. These concepts can be viewed as components of a system consisting of various agencies or jurisdictions. This interconnected system operates as a continually evolving and adapting inter-organizational entity to meet the challenges of homeland security preparedness, response, and recovery. This process is dependent on agencies and individuals who have adopted a collaborative, “task force” mindset, facilitated by leadership that envisions each organization’s needs, appreciates each entity’s individual skills, and can effectively coordinate both of these factors into an efficient, interagency, intergovernmental

response. It is the critical concept of leadership that will promote the fostering of trust in various forms, such as the building of trusted partnerships between response agencies, as well as providing and advocating for an awareness of the truly complex nature of homeland security, the imperative need for collaborative interagency efforts that will be more successful, effective, and efficient within the context of trusted working relationships.

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III. METHODOLOGY

The method utilized for this study involved an interview process with senior officials, officers, commissioners from various agencies, such as the New York City (N.Y.C.) Office of Emergency Management, N.Y.C. Police Department, N.Y.C Fire Department, N.Y.C. Department of Health, the N.Y.C. Department of Environmental Protection, and the U.S. Environmental Protection Agency; agencies who would reasonably be expected to have a role in emergency preparedness and response within New York City. These officials represent organizations that have responsibility for, and contribute to, the emergency management process within the city of New York, wherein the term “emergency management” is defined as a continuum of activities involving prevention, preparedness, training, responding, mitigating and recovering from a terrorist, natural or man-made disaster. These respondents were selected based on two criteria: namely, that their agency responsibilities involved work at a strategic and policy level, as well as involving duties, related to emergency management that represent multi-agency efforts.

The interview process consisted of eight questions that were intended to explore the role of trust and answer the following research question: How does trust influence the development and implementation of inter-organizational collaboration?

The following interview questions were asked of all respondents for this research project:

- What factors would you identify as fostering or diminishing the ability of agencies to coordinate operations and work in a collaborative fashion?
- Does the element of trust influence the development and implementation of inter-organizational collaboration and coordination?
- Now that you have identified trust as an element, how do you define trust within the emergency management process?
- How do you differentiate between trust in representatives of an agency versus the organization that they represent?

- In what ways do you feel that trust building between organizations may lead to increased effectiveness of response, problem-solving capacities, and the utilization of limited resources?
- How do you feel trust plays a part in modern day challenges, such as responding to or planning for acts of terror?
- What strategies, or programs, can be implemented to develop and foster trust between agencies?
- Is there a leadership role in establishing trusted relationships? Do those agencies that have as their mission the coordination of emergency services, play a role in the establishment of trusted partnerships?

The interviews were conducted in a setting and according to parameters established by the respondent. This led to interviews that were conducted both in complete confidentiality and others where the interviewee was comfortable being identified as part of the research process. The intent was the establishment of a setting where the participants felt comfortable sharing their individual perspectives and experiences, related to trust, in the context of inter-organizational collaboration.

Although the interview questions remained basically the same throughout the interview process, responses during the initial interviews served as useful feedback to the researcher. In relation to question number one, “What factors would you identify as fostering or diminishing the ability of agencies to coordinate operations and work in a collaborative fashion?”, and question number two, “Does the element of trust influence the development and implementation of inter-organizational collaboration and coordination?”, there was concern on the part of the researcher that the terms ‘coordination’ and ‘collaboration’ may appear to represent the same concept. Therefore, in succeeding interviews, these questions were asked as “What factors would you identify as fostering or diminishing the ability of agencies to work in a collaborative fashion?” and “Does the element of trust influence the development and implementation of inter-organizational collaboration?”

What was discovered, however, during the transcription of these interviews, was that in responding to the interview questions, both of these concepts continued to be identified by respondents. Allowing for the possibility that the “coordination of

operations” may be viewed as representing more of a management function, and perhaps collaboration signifying a deeper, more abstract concept, it was considered by the researcher to allow for the development of each concept as a separate entity during the research process. This may assist in the analysis of the data and the focus on the pure concept of collaboration and the effect of trust, as well as discovering any relationship between coordination and collaboration. This explains the inclusion of both concepts in this study.

In relation to question number three, “Now that you have identified trust as an element, how do you define trust within the emergency management process?”, it was thought that the term “emergency management process” represented a broad concept with multiple interpretations, depending on the core mission of the agency that the respondent represents. However, as part of the interview process, this term was intended to be used and understood in the broadest sense of the concept, so as to gather data on the effect of trust in the inter-organizational environment, across all agency competencies. With this research objective in mind, but also to provide clarity during the presentation of this question, the term “emergency management process” was used to represent the entire spectrum from preparedness and prevention activities to recovery operations.

Question number eight was presented as, “Is there a leadership role in establishing trusted relationships? Do those agencies which include in their mission the coordination of emergency services, have a role in the establishment of trusted partnerships?” Based on responses to this question, it was discovered that varying perspectives on leadership and the fostering of trust were evident. This represented both intra-agency leadership experiences, as well as an inter-agency basis. Although these various ideas of leadership were provided, the researcher decided to continue with this question, in the initial format, in order to capture the wide array of perspectives on leadership and its relationship to trust. For purposes of the study, a distinction was made between the references to leadership provided from within an organization, and those opposed to a meta-leadership provided across a spectrum of organizations, along with its effect on the fostering of trust.

The data collected from each interview was summarized by listing each of the eight interview questions and reproducing the responses, thoughts, and ideas of each

interviewee. The individual respondent was either specifically named or identified only by agency, depending on the parameters established for the interview.

In addition a “trust matrix” was developed as a visual representation of the various concepts that were highlighted during the interview process that were either enhanced or associated with the concept of trust, and in relation to inter-organizational collaboration.

As a result of the data collected from the interview process, an inductive, qualitative analysis was conducted to identify themes, concepts, and common thoughts on the relationship of trust and inter-organizational collaboration. This thematic analysis formed the basis of the conclusions drawn from the study. Based on the interview data, analysis, and conclusions, recommendations were formulated on the development and fostering of trust in an inter-organizational environment.

Due to the fact that the researcher is currently a New York City employee and Battalion Chief with the New York City Fire Department and in an attempt to limit any personal or professional biases, this study included officials from a wide array of agencies with differing responsibilities and functions in the emergency management process. In addition, the same eight questions were presented, in the above prescribed order, to gather data, conduct a thematic analysis, and draw conclusions and recommendations based on a focus and study of the effect of trust in the context of inter-organizational collaboration.

IV. DATA COLLECTION

The following data was collected in the form of quotes and perspectives of the respondents that were interviewed, and who represent those agencies that would reasonably be expected to play a role in emergency preparedness, prevention, training, response, and recovery efforts involving a terrorist, natural, or man-made event in New York City.

A. **QUESTION 1: WHAT FACTORS WOULD YOU IDENTIFY AS FOSTERING OR DIMINISHING THE ABILITY OF AGENCIES TO WORK IN A COLLABORATIVE FASHION?**

1. **Interview with Battalion Chief Kevin Woods, FDNY**

- Well, down here in the New York City Fire Department, without coordination with other agencies such as the NYPD and the Port Authority, it does not always operate smoothly, even though there is a CIMS [Citywide Incident Management System] document; not everyone always plays by the rules.”
- FD [New York City Fire Department] plays by the rules, we set up a command post, and most other agencies go to that command post for information.
- Last year, I responded to a steam explosion by Grand Central Station.
- There was numerous fire department representation at the command post.
- Con Edison was also at the command post, with their command board, with the maps to locate the utilities.
- Initially, I was appointed as a liaison to go up and see the NYPD [New York City Police Department], and I had to travel three blocks where all the NYPD staff had set up.

2. **Interview with Deputy Commissioner Brad Gair, New York City Office of Emergency Management**

- I think that one of the primary factors that diminishes the ability is the history of the agencies in New York City and the primary agencies that we deal with, FDNY and NYPD, both have long and great traditions and history.
- What makes them great—in that they have so much pride and confidence in what they do—also puts them at odds with one another, because you have two agencies with tremendous capabilities, great histories, and a lot of resources, and in some cases, overlapping responsibilities or capabilities, it creates a situation where they are naturally at odds.
- It makes it more challenging out there, but better to have two agencies with that go-getter, can-do attitude, to bring to bear on the kinds of difficult situations that we have in New York City, than to have no agencies that can do that, so I think that if there is a factor, we have to overcome that historical, generational, traditional aversion to one another that some people have in the agencies.
- I think that CIMS [the Citywide Incident Management System] is a good way to overcome that because one of the ways that CIMS overcomes this is by delineating the responsibilities of each agency and identifying for each agency.
- In terms of whether we should collaborate or not, it makes it very clear that there are times that collaboration is required and at times when it is not required, it makes it very clear who is in charge so there should be no discussion.
- Other ones that promote collaboration is that everybody wants to do the right thing, it is just a tendency to how you overcome that tradition of looking over your agency's needs, that is so bred into you that sometimes it affects operational performance.
- It is easy to talk about it with PD and FD, but we see it at times with other agencies, at times with DOB [Department of Buildings] and HUD [Housing and Urban Development] which have some overlapping responsibilities with regards to multi-family residential dwellings that may be unstable, both those agencies need to have input, but they often disagree, so it's everybody, it's not limited to a couple of agencies, it is a pretty complicated situation.

- I think that exercises also can help to be a factor to build on collaboration because certainly if we exercise in a way that is collaborative, then we should hopefully work that way at a real incident.
- The challenge is, and we need to be aware of it all the time, is that at most of the incidents, they are a bit too pre-scripted and when you get to an incident, you never see the people that you saw at an exercise.
- We have to figure out how to make that jump from doing those things in just an exercise to doing those things at actual incidents.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- I think that probably the key element would be the ability to communicate.
- I think that history is a great teacher and if, for instance, we look at 9/11, I think that is something that we point to, as tragic as a day that that was, the only thing that we can bring out that is to recognize some of the deficiencies that we found.
- I think that what we have done as a city is to ensure that communications is one of the biggest components that will, ah, enable us to deal with future situations should they arise.
- I think that when I talk about communications, its not only radio communications, its what we have employed as a city through the Citywide Incident Management System, known as CIMS, which basically brings to the table all emergency responders that are involved in the process.
- It is a dynamic process where you bring in core competencies of various agencies and allow them to dialogue, and again it goes back to communication.
- Whether it be something as horrible as the 9/11 incident and or any other type of incident, allows people to bring their core competencies to the table so that our first responders are protected, as well as our job, and their job is to collaboratively protect the public that we serve.

4. Interview with New York City Police Department Official

- One is turf and jealousy and the fear of giving up information.
- Jealousy, you know, we have a lot of issues, you know we're from here, and an agent most of the times comes from an area that is not New York City, we get sources quickly so sometimes there is a jealousy factor.
- As far as working together, especially as you go higher up, the professionalism, getting the job done, and protecting New York.
- It's about getting the job done, professionalism, and now as we have worked together for seven years, now we have become trusting, start getting trust, and again there is always going to be problems and issues, but you have to work through them.

5. Interview with New York City Emergency Medical Services Official

- I think that one of the things that is important, no matter what agency it is, is the agency's culture.
- Each agency has a culture and if you're not willing to understand it, we're not going to work very well with it.
- If you just take the fire department merging, and allowing EMS to merge with them, we're really two separate cultures, and if we can't understand the cultures of each, it will lead to mistrust, cooperation will be lacking, and I think the capability of knowing one's skill or performance, we will not be able to understand the people we are working with.

6. Interview with New York City Department of Health Official

- One of the main things that I see that is important is to communicate internal policy and protocol, which isn't easy.
- You must go ask, or pursue, the information on these policies.
- In this way, this will help to improve coordination between agencies, particularly that there are overlapping responsibilities between agencies.
- It is very important for the "higher up" officials to communicate agency policy and protocols, it has to be on leadership's agenda to communicate what resources an individual agency can supply and assist with.

- What are the individual agency plans and standard operating procedures?
- For instance, we can learn a lot from the FD (fire department) and police department procedures and strategies.

7. Interview with U.S. Department of Environmental Protection Official

- This one cuts right to it.
- In terms of diminishing, I think that when politics gets involved, that has a very powerful influence on things being productive and positive, especially when you are dealing with a potentially bi-partisan situation, not so much bi-partisan, but where you have different political parties, related to a local government versus a federal government., so things may be influenced that way.
- In terms of how things can be influenced in a positive way, or fostering relationships, I think that people have to go into a situation, that requires collaboration, you have to go in with a positive mentality, you know a wiliness to trust others at other levels of government.
- I think that crises almost naturally cause that to happen, and then the other factor that make it go negative come into play, like politics, but that's part of it, and so I think, my experience has shown me that, there's a lot of experience, a lot of knowledge, at all levels of government.
- When groups come together, from all levels of government, there is a willingness to get the job done.
- My experiences on world trade center have shown me that, I mean for the most part, people love what they are doing, they love the city that they are working in, and they love doing the right thing for the public, and that's come out.

B. QUESTION 2: DOES THE ELEMENT OF TRUST INFLUENCE THE DEVELOPMENT OF INTER-ORGANIZATIONAL COLLABORATION?

1. Interview with Battalion Chief Kevin Woods, FDNY

- Absolutely, there are incidents down here, I don't want to continue quoting incidents, but it's the only way I can relate this information to some extent, we had a job the other night where a woman was hanging off a boat in the South Street Seaport.

- When I arrived at the location, there were two ESU [Emergency Service Unit] officers that I recognize-one of them I went to high school with-and I had recognized them from another incident.
- And all of a sudden when I see these guys at the scene of an incident, it is a coordinated, cooperative effort, with a sense of trust-he knows me, we have worked well at other incidents.
- Absolutely-a sense of trust when you continue to work with the same people-that's agency to agency.
- A good example of a lack of trust is a recent drill we had at 7 World Trade Center with the NYPD and PAPD. The fire department command decided not to use the high rise repeater channel because the PD [New York City Police Department] could not be on it.
- I think that it's a lack of trust or something that they think that we are talking behind their backs on the radio.
- You just can't put that many people on that repeater system.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- Definitely, it is a huge factor, you know that the people that you trust are the people that you know-you know them, you know that they have limitations, and you still trust them more than people that you don't know even if you have every reason to believe that the other person or organization has greater capabilities.
- I think that it becomes a very big factor for us out there in that we need to OEM [Office of Emergency Management] build that trust out there.
- It is critical to what we need to do because all we are is selling ourselves out there as a coordinating element, and to be a coordinating element, you have to be a relatively neutral party, or at least perceived as that, and so what we work very hard on, as an agency, is building trust that people know that we are going to treat everybody the same.
- We've seen that we have been much more successful over the years when we have gotten away from identifying ourselves as being part of a specific agency or another.
- So that's one aspect, with our agency that trust becomes a big factor.

- It bleeds over into a lot of our field operations as well.
- I think that a lot of these things that we see out there are a result of not knowing one another, and therefore not trusting one another, and therefore making decisions that may not be the best decisions based on that.
- I've seen it at a trench rescue in Brooklyn where both agencies, NYPD and FDNY, both agencies arrived simultaneously on scene, and FD by CIMS [the Citywide Incident Management System], had the lead and the chief felt that even though ESU [Emergency Service Unit] guys that were there were very highly trained, he felt that he trusted his own people, he know what they could do, he knew them personally, so he felt that this should be something that they took on as sole operation.
- We need to build more of that trust so that we don't have those types of situations.
- We have to get them to where they trust one another on all of these things so to make sure that we are all working towards the same thing, which is getting the job done right and not necessarily self or agency promotion or other objectives.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection:

- Absolutely, trust is a key factor and trust being a level of confidence, and that goes back somewhat to the original statement, because of our ability to interface with our various colleagues and agencies, that allows all of us, again, to ensure that we are going to any type of situation where we can trust each other.
- We've seen each other, we've worked together on various issues, so therefore we trust the judgments and talents that each agency, with core competencies, brings to the table.
- I think that area of trust is built on the ability, to go back to the first question, on the ability to communicate, and then on the ability to work together.
- The team approach requires a great deal of trust and one has to earn that trust, so yes, trust is imperative.

4. Interview with New York City Police Department Official

- Trust is key in this line of work, dealing with sensitive information, and it takes a while to build that trust.
- You build this relationship, and then the guy moves on, and you have to start all over again and that slows things down, and it's tough but, again, you try to use professionalism to work through that, but nothing beats knowing the guys that you are dealing with.
- I've had some great trusting relationships with guys and I've had some bad ones, and I can give you example, I've sometimes said things in confidence to guys, and it ended up in an email, and that guy no longer gets the inside scoop from me, but other guys, we worked together in confidence and we got the job done.

5. Interview with New York City Emergency Medical Services Official

- I think that you need to trust not only the organization, but the people who work for the organization.
- I don't think that trust is an automatic; I think that in a lot of instances you have to learn to trust.
- You take any dynamic, large mergers, whatever, they may take personnel from the company that they merged with, but they will have to learn to trust the people that are being accepted into the organization, and the people who are merging will benefit by trusting the company that they are being brought over to, and they themselves must be trustworthy.
- I think that it is two parts-I think that it is the organization itself and the people who work for the organization.
- When you deal with our type of people-it could be the PD [New York City Police Department], it could be sanitation, it could be the fire department, it could be HHC [Health and Hospitals Corporation], whatever new people come in, and we need to earn their trust.
- The organization-we really have no choice sometimes-you really don't have a choice, but hopefully you kind of develop that before and start trusting, and when it comes to the workers, the people who are working together, I think that a lot goes on the individuals themselves.
- It's not always carte blanche, I must accept you.

- I may have to work with you, it doesn't necessarily mean that I have to trust you individually-you have to really work at that.
- So under the Health and Hospitals Corporation, they may have looked at EMS [New York City Emergency Medical Service] as their money maker, they didn't have to really worry about us, they didn't have to supervise us, or you were basically on your own.
- But when you go from that organization to another organization that is very different, they pride themselves on their name, on what they're people do, the job that they are doing, saving people-there has to be a lot of trust developed on both sides.
- It still comes down to people, in the end, I think that people make the organization a reality.

6. Interview with New York City Department of Health Official

- Yes. Other agencies have to feel that your people are competent to support them and have their best interests in mind.
- You will not put the lives of your people in another agency's hands, unless you trust their abilities.

7. Interview with U.S. Environmental Protection Official

- I think that it's one of the key ingredients to being able to work productively, and to effectively collaborate, and it's something that you have to be willing to have in your counterparts in other levels of government.
- Going into a situation, and gauging it accordingly, properly, as the process moves forward, and you know, if there is a trust that's diminished, then you have to be able to deal with that, adjust to the situation accordingly.
- Do everything you can to get that situation to work as effectively as it did when the trust was all there.
- There's no choice about it.

C. QUESTION 3: NOW THAT YOU HAVE IDENTIFIED TRUST AS AN ELEMENT, HOW DO YOU DEFINE TRUST WITHIN THE EMERGENCY MANAGEMENT PROCESS?

Note: “The emergency management process” was defined in the broadest sense of the phrase-meaning activities ranging from preparedness and prevention to recovery efforts.

1. Interview with Battalion Chief Kevin Woods, FDNY

- Trust is basically that someone that is not going to lie to your face at an incident.
- Someone that you can rely upon.
- Trust with these other agencies-as soon as someone approaches me, from another agency, and wants to offer me information, I start feeling a sense of trust for that person.
- If they are “standoffish”, there is something up their sleeve, and they do not want to offer information, then I do not want to trust these people.
- And a lot of NYPD [New York City Police Department] officers, just because of the history between the NYPD and the fire department are like this and everyone is fighting for jurisdiction.
- Some guys are great and you can tell from the initial questioning, Hey, Cap [Captain], what do you have? Do you mind if my officers standby?
- I also tell him that I have my units standing by just in case you guys get into trouble.
- Where as someone may say, that’s not really necessary, we don’t really need you-a defense action [at the scene of an incident] is a lack of trust.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- Trust in emergency management is really defined very differently than in other industries because it is not trust in the sense that-I trust that you will do a good job, its people trusting that we are going to be neutral.

- In the emergency management world, since we don't really do anything operationally, the trust that we have is in that trust that we are going to look at the big picture and look at everything in an unbiased fashion.
- If we can get that trust, then we will be able to do our jobs right.
- There will always be conflicts on jobs, conflicting priorities, and objectives, if we [Office of Emergency Management] show that we are a step above that in that we don't have any vested interest in who does it or when it gets done, or how it gets done, as long as it's the right way, if we can earn that kind of trust, then emergency management can do its job.
- If we are not able to build that trust that we are trying to get people to coordinate, and that's our only reason for being here, then we can't function. So it is probably more critical in our practice than in any other public safety type of practice.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- Trust is earned by getting to know individuals, and know that when people say things, and do things, they are driven not by self motivation but, going back to the team concept, it is driven by a motivation to ensure that what people are looking to do is to collaboratively come together to make a difference in any type of situation.
- That measurement of trust is one that, as I said, is earned.

4. Interview with New York City Police Department Official

- We'll each of us has to trust each other, that we are competent, and are going to do the right thing, so it goes to training because I don't want to have to worry about the unit to the left and right, that they're not going to get the job done.
- We have to trust that all of us are competent, and we are, and that the guys under us are competent, are trained properly, have the proper equipment.
- So having the trust that the information that I give you, stays with you, and you know about it and it doesn't get to the outside is important, and it takes a long time and a couple of cases to see that.
- I will let you know what is going on, but we want that to stay in our group, we don't want that to get out, and that's where the trust thing comes in.

- Everything since 9/11 is so dynamic and breaking new ground everyday, it's incredible, so having that trust to the guy to the left and right of you, and the guy you talk to everyday, is extremely important.

5. Interview with New York City Emergency Medical Services Official

- At a mass casualty incident, if you have a senior official who is giving you poor direction and you did not really have the trust in their knowledge or skills that could become a disaster, where nothing is being completed, certainly not the task.
- I think that with 9/11, this was a very big point, if we good not have good dialogue, or communications, with the agencies that are responsible, that could have been the FBI [Federal Bureau of Investigation], PD [New York City Police Department], any of these agencies, then would not have been able to accomplish anything.
- There has to be mutual respect for each agency, and understand that everyone has a job to do, and if everyone could just understand the job that the next agency has, we would have a better repoire and we would accomplish our goal or task quicker and easier.
- The problem is sometimes that when you are dealing with a lot of city agencies, sometimes everybody wants to be the leader or the top agency-sometimes you can't work that way-its multiple agencies that must work together to do what they need to do.
- Just recently, the plane crash, how quickly everybody just worked so well together, be it the Coast Guard, the private, the fire, be it the PD, they all worked very well and everyone was taken care of, and the trust was all there-everyone trusted one another's decisions and I think that showed.

6. Interview with New York City Department of Health Official

- Trust in emergency management is defined as putting your agencies staff in the hands of someone else, another agency performing a similar function.
- For instance, at an incident safety personnel from different agencies have to coordinate.
- There shouldn't be ten different safety officers.

- For instance, the Department of Health is trying to be recognized as the SME (subject matter expert) to the citywide safety officer at these incidents.
- As an example, at the steam explosion in midtown, we had the NYPD [New York City Police Department] wearing one level of PPE (personal protective equipment), another agency wearing a different type, that looks bad in the public eye.
- These should be a consensus and a uniform standard on personal protective equipment.

7. Interview with U.S. Department of Environmental Protection

- I think that it is something that has to be there, even if you sense that it is diminished, you have to be able to work with it at whatever level it's there, because if you don't have some level of trust, the process isn't going to work.
- One person cannot respond to an incident on his or her own, you have to be able to rely on the team at all levels, in every regard, and you need to have that trust.
- The hope is, that during the initial phases of the response, going into it with the trust that you feel needs to be there, then that trust is able to be built upon, and nurtured, and carry you as smooth as possible through the response.
- I think the difficult parts is where the trust becomes compromised, or is broken, and it has to be fixed, immediately.
- In some cases a confrontation is necessary, and there have been situations that I have been in where I have had to confront it as an issue head on.
- Most of the time its corrected itself, because I think people are basically good natured, especially those working in government, and civil servants, you know, we're in it because we are interested in doing the public good.

D. QUESTION 4: HOW DO YOU DIFFERENTIATE BETWEEN TRUST IN A REPRESENTATIVE OF AN AGENCY VS. THE ORGANIZATION THAT THEY REPRESENT?

1. Interview with Battalion Chief Kevin Woods, FDNY

- When we enter the New York City Fire Department, we are taught to trust everybody who you are working with or operating with at a fire or emergency.
- You are basically putting your life in their hands.
- We do have that sense of trust with one another, and that's why we go that extra mile.
- When you begin to trust a certain person within an agency that definitely has an effect.
- When I worked in Brooklyn as a firefighter, Lieutenant and Captain, with very minimal contact with the police department then as a chief officer coming into Manhattan, I guess I had my guard up a little, and until I started to gain the trust in police officers, that enhanced the trust for the agency.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- That is a very good distinction that needs to be made because, in the last question, I was talking about organizational trust, you know OEM [New York City Office of Emergency Management] is going to come out there and they are going to give you a fair shake and that's good, but the other piece of that emergency management is trusting an individual is also a big deal because it is sometimes difficult to make the distinction between the two and sometimes it can work in your favor and against your favor.
- If OEM has a bad reputation as an organization, that favors one or another, and never really gets it right, then that is going to reflect on the individual right?
- You can be a stand-up guy, have the best experience in the world, but no one is going to trust you because OEM is going to have a bad reputation.
- But if we send someone out there who has their own agenda, or for whatever reason they feel that they have to do something that is biased

toward one agency or another, or we are getting into an area that we should not be getting into, telling the command agency how to do tactics, that person can lose the trust of the group and they can impact on the trust of the organization.

- If someone does something on the job that is not trustworthy, then the next time, you know what; there is no sense in even calling OEM.
- So it is really important in our organization [New York City Office of Emergency Management], in our line of work, to develop both the personal trust and organizational trust that are intertwined, and because that is what we really rely on.
- In emergency management, that is all really have, it's the basis for what we do, because we don't have any skills, we don't have any physical skills that we perform or operational skills that we do.
- All we have is what we have inside us; people need to believe that we are working in everyone's best interest. Unless that happens, the trust in the organization is lost, the trust in the individual is lost or both.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- One would like to think that trust in an agency is something that is earned, as well as trust in an individual, and one would hope that in a dialogue with our sister agencies-I'll use the New York City government as an example, that we would have a repoire, and a communication, getting back to communication, that allows us to tap into the talent of individuals that are experts in each specific area.
- By doing so, we are hopeful that the leaders that we chose to run agencies, at various levels, have the people in place to have the knowledge, the expertise and the willingness to work together.
- Not every agency is looked at the same, because each agency has a different style of management, but what we seek to achieve is to ensure that we have the appropriate people that represent that agency, and their core missions and the ability to integrate their capabilities with those in other areas.

4. Interview with New York City Police Department Official

- I think that the agencies are a non-entity, with trusting each other, you know whatever the NYPD is an entity or another agency is as an entity, if the two guys on the ground are not getting it together, it's not going to work.
- So again, we're getting back to; I have to trust that person individually. It's the trust at the work level.
- And then the organization, what we can do and what some federal agencies can do, and the way they handle things and the way we handle things, and I think that it is culture, their training, their laws, their rules, the laws that are federal compared to state, so there are some issues with trust in the individual and trust in the organization.
- It's just a different culture sometimes that causes a butt of the heads.

5. Interview with New York City Emergency Medical Services Official

- When we first merged, there were a lot of dynamic changes that were transpiring, and some initial difficulties, that I think that everyone shared, was definitely the culture.
- We're very diversified, and I think that had somewhat of an impact, where you had a house full of men and they certainly didn't expect a crew of two women to knock on their door-to have them accepted, part of it stemmed from trusting them.
- So there had to be trust developed, there was no question about it, between myself and my staff, and the deputy chiefs and their staff, because we were changing their routine and maybe a little of their culture.
- There was some give and take, there had to be some give and take, otherwise it wouldn't have worked.
- They had to feel confident to trust and feel comfortable with me.

6. Interview with New York City Department of Health Official

- Trust is formed on the basis of perceived knowledge.
- I guess I would trust big agencies more based on their greater knowledge, experience and are more qualified.

- But I would not automatically reject the leadership of smaller agencies.
- I guess, especially in the initial stages, I would trust the bigger agencies like the police or fire department based on their experience and resources.

7. Interview with U.S. Environmental Protection Agency Official

- I think that you have to be able to trust both, and there's the individual that I'm dealing with, there's his first line, and there's lines above that, and there has to be some level of trust with each of them.
- The level may vary, and it's important to have some level of trust, and if there's none then you know where you stand and you have to strategize on how to deal with it.
- Political influence is not something that completely breaks down the process, but it can certainly slow it down, so you have to be able to navigate through those varying levels of trust.
- Different levels of trust cause one to behave a little differently, to handle situations, with them a little differently. It causes you to tweak your approach in dealing with issues.
- It may change with different agencies-to be completely honest, in dealing with the FD [New York City Fire department], I have never changed my approach, my level has always been the same, but with other's it's a little different.

E. QUESTION 5: IN WHAT WAYS DO YOU FEEL THAT TRUST BUILDING, BETWEEN ORGANIZATIONS, MAY LEAD TO INCREASED EFFECTIVENESS OF RESPONSE, PROBLEM-SOLVING CAPACITIES AND THE UTILIZATION OF LIMITED RESOURCES?

1. Interview with Battalion Chief Kevin Woods, FDNY

- Going back to 9/11, where numerous agencies were not coordinating operations, if we did have a sense of trust, and worked together, then I feel operations would have been coordinated more effectively.
- When the FD absorbed EMS in the early 90's, there was a tremendous amount of distrust between the two agencies.
- EMS felt threatened by their jobs, job security, we didn't feel threatened but I think the guys felt threatened about communicable diseases.

- Now it is a fifteen year program and there is a tremendous amount of trust, there are many old timers that are gone, there is a new culture, a different breed, of EMT's [Emergency Medical Technician].
- When that trust builds between agencies, there is a tremendous amount of coordination; we work so well with EMS now.
- There is so much duplication of effort, at a major incident, it is actually pathetic, and a lot has to do with a lack of trust.
- We have these full scale exercises, where we simulate things, and things do not really change, PD what are you doing?-we are going to search for people, FD what are you doing?-we are going to search for people. Two agencies performing the same function-a total duplication of effort, which is unnecessary.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- Emergency management is not like the fire service or police service, it is like an automatic anywhere you go in the country you feel comfortable walking into any firehouse, you will get this great reception, and have this common experience, this common trust, that there is already there, right?
- In the emergency management world, it is not quite like that yet, it is a relatively new industry, and a lot of people are part-time, or they worked their way into it, or fell into it, so it is very important for us to build that trust up.
- Otherwise, you get in a situation that we have in emergency management in this country that we need to overcome.
- At the federal level, FEMA, which should be our landmark agency, that should be the pinnacle of emergency management-nobody has any faith in them, and so it is very hard to have anybody collaborate with them, dedicate resources to them, because they don't have that trust built up in their colloques.
- Cities don't know what they can expect from FEMA, so there is no trust so when it comes to incident response, the emergency management world is not on the same page and confident in each other.
- It will affect response and that is what we saw in Katrina where the federal government did not have a good handle on this multi-tiered response effort, from an emergency management perspective, because the players

did not trust one another, because the state's emergency management agencies and locals did not have a lot of trust between one another, so we did not end up trying to do something with limited resources, we ended up squandering resources.

- So I think it's a pretty critical factor, and in emergency management has not developed in a way that it could, that we see in other industries.
- Wildland firefighting is probably the best example where people come from all over the country, you guys have your own teams, you have guys on IMT [Incident Management Teams] and what not, before you know it you might be out in Montana, and there is some Montana guys, there are guys from Arizona, there might be a team of Native Americans from who knows where else, everyone has this immediate bond and trust, and they are working across all levels.
- We need to figure out how to work on that in emergency management and it's a trust and experience factor.
- Trust is about familiarity, right? And when I go to a job, I may not know the chief that shows up on that job, but if I trust that my organization has a good relationship with the FDNY, then we have a natural bond because we have a good relationship between agencies, but also because we are talking the same language.
- So I think that is one of the reasons that emergency management has turned to ICS [Incident Command System], we want that structure that builds that automatic familiarity that leads to trust.
- I trust that if I ask you to be operations section chief, even though I've never met you, I know that you have been to training for it, you have a card that says that you are certified to do it, and you are going to know how to do it.
- We need to work on this in emergency management; it lays the foundation and is another way of building trust.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- I think that it is essential.
- I'm going to say this city, under the leadership of Mayor Bloomberg, preaches the ability to earn trust.
- Our preparedness and our readiness is driven not only by a document, which I referred to before as the Citywide Management System, which

actually forces agencies to communicate and work together effectively, but we also have drills together so we can cite our strengths and weaknesses.

- Learn from those drills, and not learn as a single agency or entity, but learn as an administration on how we deal with situations collaboratively using the effectiveness of each core competency that each agency brings to the table.
- So it is not only that document, as I mentioned before, that Citywide Incident Management System, but it is actually showing the ability to work together, and exercise that document in real life operations that will again earn that trust and breed success.

4. Interview with New York City Police Official

- We can go back to response here, like some jobs that EMS [New York City Emergency Medical Service] had to respond to, and I remember being at the scene, and calling them off, and they had to trust in me to know that they could not go, and go to the next job, because I know that sergeant or lieutenant, and that made our resources, that were thin, more mobile and able to go to the next job.
- Here we have limited resources between us and the federal agencies, and if we responded to every need, it would be crazy, and I have to trust in you and your capabilities and the guy who works with you, his capabilities, that you're going to handle that like I would have handled it.
- So with limited resources, without trust, we wouldn't be able to do half of what we do, because everyone would try to cross every 'T' and dot every 'I,' but we've got to spread it out.
- As far as problem solving, having these working groups, and getting together everyone's ideas, and plans are taken into account, the best one goes, but again we are professional, and trust that everyone is a professional and that's how things work.

5. Interview with New York City Emergency Medical Services Official

- There's no question, in my mind, that every city agency had to come together and learn to work with one another and share the wealth of information, as well as the resources because I believe every agency, and even private entities, have resources that maybe another department or agency may benefit from.

- The only way you would be able to reach out and accomplish what you need is that development of communications.
- If we were to have another bad situation, and it turned out to be where multiple agencies, either city, state, federal- if we don't work together, we'll never accomplish anything.
- If you would take the flood during the hurricane [Katrina], there are multiple agencies that supplied their resources, be it staffing, resources as far as ambulances, as far as tools, anything that you can think of, it all came together because everybody was able to say this is what I need to do, this is what you need to do.
- There was open communications, everybody worked, it wasn't a matter of I'm a cop and you're an EMT, we can't work together, that wasn't the case-everyone joined to work because they has one main objective, to save lives.
- If everyone can understand that that's the priority, no matter which way we look at it, peoples lives can be saved.
- Just taking that [Hurricane Katrina] as an example, we would need to do that should we ever have another catastrophe in the city of New York.
- We will need the resources beyond what we have, and we will reach out to other agencies or organizations, and if we cannot relate to people, if we don't develop that relationship, or work with people to develop some sort of program or structure, then it won't come together.
- It's always the people-isn't it true though?
- The organization supplies you the resources, but who does the work?
- It's the people.

6. Interview with New York City Department of Health Official

- If you trust each other, there is no duplication of efforts.
- There is less wasted time, wasted effort and money trying to accomplish the same things.
- If you trust, you don't have to double check and do the follow-up on tasks that should be simple.

7. Interview with U.S. Environmental Protection Agency Official

- You know preparing and working together, before the incident occurs, I think that we've learned a lot about being able to work together.
- [name deleted] meetings, where he has been able to pull various agencies and department's together, to be able to address issues, and I think a trust has grown, from that as well.
- So it's about keeping all channels open, communication flowing, information flowing, and that goes to building trust.
- Trust is one of the key ingredients in bringing all of the capabilities together, and having them work effectively, because the ingredient is there, the expertise is the best in the world, at all levels of government, its just a matter of having the trust, to work together, and draw out that expertise and put it to use.
- We didn't talk about personalities, but personalities are also a very important part of this.
- There are people that are not willing to put their neck out, they may know a lot, they may have the expertise, and they just don't have the trust.
- It's up to one of us to try and figure that out and bring it out of them, so that you can pull that person's knowledge, and expertise as a resource.

F. QUESTION 6: HOW DO YOU FEEL TRUST PLAYS A ROLE IN MODERN DAY CHALLENGES SUCH AS RESPONDING TO ACTS OF TERROR?

1. Interview with Battalion Chief Kevin Woods, FDNY

- Huge. When we plan and have some sort of tabletop exercise with different agencies, there has to be a tremendous amount of trust.
- Everyone has to open up and put everything on the table.
- If your hiding something, for your own good or benefit, then I don't know where you are going with that, but people do hold back information and I don't understand it one little bit.
- We have to coordinate and trust other departments in these terrible times, and they have to trust us.

- And the fire department is usually very straight forward, we give you all the information that we have, and just throw everything out on to the table.
- This is what the fire department has, these are our resources; this is what we do.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- That is a tough issue because terrorism is a cross jurisdictional issue, you don't know what the act of terror could be, it can be one that affects utilities, it can be one that affects cyber-technology, it can be one that causes fire, explosion, sniper attacks.
- It is so many things that it could be, probably more than most incidents, it requires trust.
- The first inclination is for you to respond to the incident at hand, the incident at hand is an explosion, we want to respond to that, but if there is a potential for terror, there could be secondary devices or other problems.
- So this became a big CIMS [Citywide Incident Management System] issue, unlike other parts of the country hazmat jobs are NYPD [New York City Police Department] single command jobs until you can eliminate it as a potential cause.
- With CIMS, and NYPD being the lead agency, it is probably a function of trust that it has to be set up this way.
- We should all trust that the NYPD will look out for our interests, whether they are in the lead or not, and the NYPD should know that we trust them with that, and trust that we will do what they tell us to protect ourselves.
- But right now we do not have that trust.
- It is a decision of trust, or lack of trust, somebody had to have that decision of having that authority thrust upon them, and I hope that as we continue to develop trust, we can get away from that—because I do not think that is the ideal situation, and what people tend to do is use that authority as a club instead as a tool.
- What we would rather do is to have us respond to an incident, whether it is a white powder job, or a suspicious package, or an actual incident, with a possible second device, and have FD [New York City Fire Department]

come up and say here is what we think we need to do to put out the fire and PD to say, OK-here is how we are going to support that so that nobody gets hurt.

- So we need to build trust which will help us at the city level.
- As we go beyond that, we have to interface with agencies that we normally do not interface with so for instance the F.B.I.[Federal Bureau of Investigation] emergency management dynamic is not one that you find traditionally taking place.
- But now in the preparedness mode, we are going to have to work with a lot more agencies like that, we are not sure about them, they are not sure about us, you get into security clearances, which can be an automatic trust breaker or trust builder.
- Trust takes on a little different dynamic in terrorism than in anything else that we do in emergency management-we really haven't comes to grips with that-if you go around the country, you will find very few people with security clearances, the official trust of the federal government, and yet there are a lot of people in emergency management, who have to respond to these events, deal with these events who are not prepared for this very reason.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- It goes back to being essential.
- When it comes to dealing with situations, the trust that is built up is based on our ability to act as one.
- When it comes to dealing with different situations, the trust that is built up is based on our ability to act as one.
- Every agency has a different responsibility, and a different core competency, but again what the mayor has done, has continually driven us to ensure that the team concept, that I alluded to before, is exercised and is based on the trust, knowledge and expertise of the various agencies acting as one.
- What we have effectively done is challenge ourselves to say, “this is not a fire department issue, this is not a DEP [Department of Environmental

Protection] issue, this is not a police department issue, or our other sister agencies, this is a city issue.” That challenge is one that we take on collaboratively to achieve those results.

- Everything that we talk about is building on the trust and confidence that is built up over the course of time.

4. Interview with New York City Police Official

- Well, ya know, after 9/11, because of the two attacks that were successful, that the underlying trust in the federal government to protect New York, from another attack, was not there, so New York is still relying on them as an outer shield, but providing an inner shield of defense so there’s a case where a lack of trust causes a divergence of resources, personnel, to something that we really never did before.
- You know that a lot of cities are not devoting the resources that we are now, a lot of those cities were not attacked either, so there’s a case of trust, the lack of it I should say, causing us to re-focus some of our stuff, our resources, but in the interim, seven years later, this new organization forming a trust with its counterpart, to get the job done.
- Each day that we show what we are doing, our professionalism, and knocking down that wall to get closer.

5. Interview with New York City Emergency Medical Services Official

- At this point we have, the department, has on-going training, and that is something that we have to continue, and the on-going training needs to incorporate not only the fire side, it must be the EMS side too.
- It’s the everyday small type of drill that will prepare us for the next catastrophe, but that also brings me to the point that attending these drills, or tabletops, I find it very important when you have other agencies participating, because most likely these agencies will be part of the larger group should we have a terrorist attack again.
- We’ve had, looking back at the World Trade Center, you had FEMA, [Federal Emergency Management Agency], who supplied DMAT [Disaster Medical Assistance Team], who supplied nurses, who supplied doctors, this is not an agency that worked for us, but an outside agency who supplied us.
- We need as much resources as possible no matter where the next terrorist attack may take us.

- We have to always be on our utmost education, the drilling, developing our new folks, because if something happens five years from now, those who have been drilling, who have the knowledge, if that knowledge did not get passed down, these people will not be successful.
- That goes with working with other agencies, on an continual basis, not just the annual, bi-yearly, quarterly, large drill, that other agencies participate in, that even doing it on a smaller scale, to keep up that relationship, that we will need, or they will need from us, should something happen.
- One agency could really hinder another agency, if they will not participate, then they will not acknowledge another agency for what they can offer, as well as what they can actually be successful in.
- Again, its like, I'm the lead, you listen to me and to I don't want to hear- we have to get over that.
- I'm not just talking about the department here, but on a general note, this happens, and we see it on the smaller realm of things, whatever it may be- you know a flood and you have five agencies show up.
- If you can't work together on the smaller scale, you'll have a harder time on the larger scale, and this has to be continuous because every year you lose your most senior, most knowledgeable, most skilled people, who are training those who are coming on board right now, so its continuous training, and development-and that's including interagency relationships.

6. Interview with New York City Department of Health Official

- The trust plays a role in that you must respect that some agencies specialize more, or have greater expertise in some areas.
- You have to trust their competencies.
- You have to realize that you can't do it all, you have to step back and let the other agencies exercise their expertise.
- It is important to get everyone's input on different scenarios.

7. Interview with U.S. Environmental Protection Agency Official

- We'll, I mean, its in my mind one of the key ingredients, just in dealing with World Trade Center, the expertise at various levels is there, there is no question about it.

- I mean we have it as a city, the federal government has it, the state has it, and it's just a matter of how that can all come together to effectively respond to a crises situation.
- I think that for the most part its worked well, I mean we have gotten our lumps along the way, there's no question, I mean all levels of government came together to effectively respond to the collapse of the trade center.
- I mean the pit was excavated and removed in absolute record time; that would not have happened anywhere else in the world in that amount of time.
- So we deserve a lot of credit for that; was everything done perfectly? No, and that's never going to happen but I think a lot of it had to do with the various individuals and agencies to trust, to be able to rely on various expertise, at various levels, to do the job that they were trained to do.
- And the communication that occurred, the daily meetings, the emergency operations center, that was set up up-town, where people were able to walk from one table to another to consult.
- You had your routine progress meetings; that was important to keeping that trust at the right level, and I think that we can only learn from it and improve our ability to respond more effectively in the future.
- I think there is a session, and I believe it is sponsored by New York City, and its about sharing data, and I attended one of them last year, and I think that they are having one soon, and its important because its about preparing, its about keeping everyone on the same page, God forbid there's another incident.
- It's about sharing information, and all that leads to the level of trust that is needed in a crises situation.

G. QUESTION 7: WHAT STRATEGIES, OR PROGRAMS, CAN BE IMPLEMENTED TO DEVELOP AND FOSTER TRUST BETWEEN AGENCIES?

1. Interview with Battalion Chief Kevin Woods, FDNY

- Multi-unit drills.
- We attempted this with the Port Authority, on their World Trade Center site, had rescue companies come down and walked with ESU [Emergency Service Unit] people, and the Port Authority was great.

- They wanted to work with the fire department, coordinated drills, removing someone via crane basket from the site.
- Programs to foster trust; OEM [New York City Office of Emergency Management] is working on a simulator, bringing all the agencies together where they will simulate terrorist incidents.
- This scenario simulator is going to be a great device to get all the agencies and commanders together, and once you work with these people you will gain this sense of trust and hopefully that carries out into the field.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- So I think that the two things that are the best to do are multi-agency exercises, which we really have to work on making more realistic so that it tests our capabilities.
- Like at the PATH [Port Authority Trans Hudson] planning exercise, two weeks ago, they were starting to say we'll pick the command post now, so that we will have that out of the way, but that's the thing that we fight most about on these jobs, so if we do not exercise those difficult tasks, we are not going to get past those issues of trust.
- Trusting that there is a right place for doing that-the problem is that we don't trust each other's judgment.
- The fire department thinks that the safest place is to put command as close as possible to whatever is burning, while the NYPD [New York City Police Department] thinks something else, and they don't trust each other's judgment on that enough to say you know what maybe there is somewhere in between that works best for all of us.
- I think that the other piece is training, because if we learn things together, we build trust on a couple of levels, we have a common knowledge base that we are coming from, and that we are starting to meet people from other agencies, like the program you are in, building trust and knowledge across jurisdictions.
- I think that training is very good for that. One of the things that we are doing at OEM is developing a CIMS curriculum that will be accepted by all agencies.
- When it is done it will be taught to FD, PD, OEM, DOB [Department of Buildings], everyone will have the same curriculum.

- One of the things that we see is that if we are operating out of a different playbook you will have natural conflicts.
- If you are operating off the same knowledge base, you won't.
- We are creating an impediment to trust.
- That's a deal breaker, we need a common curriculum with everyone learning the same lessons in the same way, then that will help build trust.
- The other piece of that is I really think that we need to learn together, hear it together, hear about the what-if's together, questions and work through scenarios together.
- We need that mix so that we learn what each other's concerns are because those same concerns that come out in class are the same ones that will come out in the field.
- If we can work these kinds of things out, then we can go back and tell our agencies, hey I went to this CIMS class at OEM and these are the type of situations that we came up with, and here is what we need to be thinking about.
- I think that this curriculum, the exercises and the CIMS document itself are the key pieces, making sure it is a living document, we have been very reluctant to update it, it has not been edited since 2004 when it was adopted, and that is because of a lack of trust.
- We bled over that document, there was a lot of bloodshed, battling, a lot of concessions and now nobody yet trusts each other enough to open it up.
- It wasn't a big happy signing ceremony, behind the scenes there were people that were not happy with it, but they got stuff they could live with, and because of that nobody has the trust to say, you know what we have been doing this for three or four years now, and we all know that there are things that are in it, we had a Roosevelt Island stop and we really didn't have an incident type for that and we have these white powder jobs, which are a little different than what CIMS talks about, so maybe we should open this thing up, look at it again and make some adjustments to it.
- We don't yet have the trust to do that.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- Absolutely, putting aside the drills, I think that we can have continual meetings to discuss how we can constantly improve, what we don't do, and I think that one of the biggest mistakes we can do is being stagnant.
- The dynamics of the world change on a daily basis, and so do we, and what we attempt to, going back to the key element of allowing everyone to communicate effectively, quickly and efficiently, is where everybody is encouraged to state their views and their points.
- The ability to articulate criticisms, in certain areas, constructive criticisms, is very helpful, because at the end of the day, what we do is we build on each other's strengths, to ensure that we recognize every potential problem that we may be confronted with, and we hope that, by meeting on a constant basis, being directed by great leadership, that we will be able to work things out collaboratively and be prepared for any type of incident.

4. Interview with New York City Police Official

- I have a couple of things, one is social events, meeting and discussing things not just at work and seeing that the guys and girls on the other side are just like you, have families, and fostering a relationship way from work.
- You could do all kinds of things, conferences, team building exercises.
- The military is big with that, up at West Point, a leadership course where there's different obstacles and you have to think as a group how to do it.
- So you do that with a mix of guys, they are not just friends, but guys that you don't know, and let everyone learn and develop leadership skills.
- I think that taking a day to do that is well worth it-building trust, confidence and a team building spirit.
- We could do briefings on our capabilities, and how we do things, and having things done from the other organizations, so that we know their people and procedures.
- You have to get to know that guy, you know walk in his shoes.
- We've done things where we have melded guys together, one agent and one detective seeing how they do stuff and vice-a-versa.

5. Interview with New York City Emergency Medical Services Official

- The tabletops they are not always continuous, and not everyone has an opportunity to participate in a tabletop, and there will always be certain people, who will be there, from the training academy, certain high ranking officers who will continually be there, and that's all well and good, but sometimes we have to go back to the everyday person who we will be tasking to do the job.
- I think we need to do some more, not so much with the officers, but with the people who are going to be in the street, and we don't always encompass that.
- I would like to see a tabletop where you have just one company or two and have EMT's [Emergency Medical Technicians] and Paramedics, see what they think, not necessarily by the perspective of their commanding officer or chief.
- They need to develop too, and I would like to see more tabletops that involve our folks who willing be telling, this is what you need to do.
- One of the things that I saw, and I think is a great idea, is our rescue.
- We have really developed our personnel, and they work very well with our hazmat, rescue and squad.
- They go out and they train and they have now developed the trust where they know each other and every person's skill, knowledge, they've earned respect amongst each other, and they certainly would trust, anyone of them, with they're life, because they have the trust in the capability to handle the situation.
- The other group is the Haz-Tac [Hazardous Materials Tactical Ambulance] and the Hazmat Battalion, where our Haz-Tac officers, if there is a hazmat job, automatically reports to the Hazmat Officer, and they have developed a relationship and the trust that they know, be it the Haz-Tac unit or the Hazmat group, that they know their job.
- We need to do a little more outside the specialty group, and start bringing more of our folks together, and again the tabletops are good, but sometimes we always send the same people, and I think we need to be a little more open about that.
- I would like to see five lieutenants with five fire companies with five lieutenants from my division-just sitting down and throwing things out, getting to know each other, and see what do we know?

- It's the same where I had a division conference, and I was invited over to the division, and I spoke a little about my division and they spoke about their division, because we do so many special events, we have a very good repore.
- But that's because we made it our business to work together.
- We need to work together, I may need something from you, you may need something from me, and there is always that possibility.
- And if I was to show up on a scene, I would want the chief to feel comfortable with me, and certainly I want to feel comfortable enough to go over to him, or her.
- This is how we constantly develop, and one division conference I brought over my MERV [Mobile Emergency Response Vehicle], I had my LSU [Logistical Support Unit] and I wanted them to know what my capabilities were.
- Now we have tactical scenarios, we've used our tent; we've used our lights, because if I didn't bring it over, people wouldn't know we have those resources.
- I'm not a firefighter and I would like to know what's going on, I want to see the hose, I'll ask the chief, what did this mean?
- I may not fight a fire and I don't intend to-not my forte- but I'm still interested in it.
- I mean it's just something that brings a little more knowledge and understanding of what people are doing on something that I'm not doing, and that's why I would want them to know about some of the things that we do, so they just know and feel comfortable.
- If you don't take an interest in what each of us has, it's a downfall.
- We have to know, it may not be 100% important, but you have to have an idea.
- You know people look at me and say, how come you want to know this, 'cause I want to know, it enriches the experience.
- I hope that other people feel the same way and I think that's how we continue to communicate, it may be very small, but can go along way.

- I'll tell you that the first time we set up the rehab [rehabilitation unit], one of the fire chief's was there, who we had demonstrated it for, and he told the fireman, Oh, its nothing, just put it [the monitor] on your finger- because he, the fireman, had no idea, and maybe the terminology we were using, and again it's the culture, the way we speak, the terminology that we use, and I'm sure everybody has their own little lingo.
- Now today the rehab works out well because its safety, its good health, and it teaches our personnel about not being afraid to treat firemen, and helps the firemen understand we can treat you, trust us.
- We've come a long way.

6. Interview with New York City Department of Health Official

- It is very important for agency leadership, commissioners to meet to discuss the sharing of resources and devising of plans.
- The commissioners have to see eye to eye, and have a similar priority placed on bringing these ideas, plans, back to their agencies.
- Also, how fast will these programs be implemented?
- It depends on the priority given to implementing these ideas for each agency.
- Tabletops or facilitated discussions between agencies are also important.
- One of the problems is the time lapse that occurs from the identification of lessons from these exercises to when changes are implemented at the agency level based on these lessons.

7. Interview with U.S. Environmental Protection Agency Official

- I have a risk assessor on board, I don't know if you know him, he's a really knowledgeable guy, his background is in toxicology, he came on board from the New York City Health Department, but his game is to talk to everyone about everything.
- He loves to interact with people.
- When I see him at work, more often than not in a public forum, and I've learned so much from him, because that's how he's gotten a public audience to trust him, because he portrays himself as being open, knowledgeable, caring and transparent.

- In reality, barring the politics of the situation, we have nothing to hide, we're public servants, we're smart, we have a lot to offer, and so I think in terms of fostering trust, as it is in this case, fostering trust between agencies, and the levels of government, I think its about allowing them to react.
- As much as possible, because people get to know each other, people get to know each other before a crisis.
- There have been a lot of exercises going on where there has been some opportunity for that, and resources, for doing these exercises are limited in this economy, but that's probably the thing to get on doing.

H. QUESTION 8: IS THERE A LEADERSHIP ROLE IN ESTABLISHING TRUSTED RELATIONSHIPS? DO THOSE AGENCIES, THAT HAVE AS THEIR MISSION THE COORDINATION OF EMERGENCY SERVICES, HAVE A ROLE IN THE ESTABLISHMENT OF TRUSTED PARTNERSHIPS?

1. Interview with Battalion Chief Kevin Woods, FDNY

- OEM [Office of Emergency Management] is a coordinating agency and they are one of the perfect, if not the perfect agency, to start this coordination and trust program with this simulator.
- Actually, it is a trust and coordination program, where you would bring in these multiple agencies to go over these real life scenarios that are probably going to happen and this way we have a plan and we can operate instead of running around at an incident that has never occurred in New York City.
- Everything would run so much more smoothly by having this coordination before hand.

2. Interview with Brad Gair, Deputy Commissioner, New York City Office of Emergency Management

- The role of emergency management as the coordinating agency, as defined in CIMS [Citywide Incident Management System], it's exactly to do the things that we have been talking about and that's to sort of overlay trust into the operation, be that bridge between agencies that may not have total trust in one another, to share that common ground to each other.

- To say I know that this is a collapse, and you guys are in single command on this, and I know that you really want to look for the victims yourselves, but P.D. [New York City Police Department], these guys are trained, these ESU [Emergency Service Unit] guys go through a lot of exercises, and it would be good for the city if we showed a unified front, so how about you send in three guys, and they'll send in three guys, and we'll go in together to do that- we're building that trust.
- I know you don't know this guy, and you don't like him because of the color of the uniform he is wearing, but listen to me, I'm asking you to trust him for me-that is what we basically have to say in emergency management, and the only reason that they trust us is because we are neutral.
- A perfect example is U.S. Air 1509, CIMS says that a water rescue is a NYPD single command, so we had to have a discussion over whether a plane crashing into the Hudson is an aviation incident, or is it a water rescue, because that determines who is in command, right?
- So you shouldn't have to have that kind of discussion, but that's where OEM's role is to say, O.K-I understand it's a water rescue, people were rescued and its on the water, I hear your point, but you have to understand what the chief is saying, beside look around you at how complicated this is.
- There is a lot of work for all of us to do, so let's call it a unified command, were going to look out for you and your interests because that is what people are concerned about in command and control.
- If I'm not in command, whose looking out for my interests, so we are going to have to trust them that OEM [New York City Office of Emergency Management] is going to make sure their interests are not ignored, that's what we spend an awful lot of time doing.

3. Interview with Robert Alvatroni, Deputy Commissioner, New York City Department of Environmental Protection

- OEM has a role today as a coordinating agency; it coordinates the management of incidents, not by taking a lead role, but by allowing the agencies in the process to do their jobs, and to ensure that every agency that is needed is brought into the process.
- They are not the experts in the field, and that mindset has been put forward by its leader, Joe Bruno, at the direction of the mayor, that has not always been the case.

- It's about coordination, communication and the abilities of allowing people in a unified command structure, to exercise their core competencies and ultimately protect the public.

4. Interview with New York City Police Department Official

- Leadership is big. If your leaders are talking negatively about other organizations, that is going to filter down to the troops, so that can't happen, you always need to speak positively, even if something bad happens, and listen in this business some bad incidents are going to happen, so you can't just start blanketing, saying bad negative things, especially in public in front of your subordinates.
- We've had some bad things happen, but you have to work through them, you be the better man, say listen, that was a mistake, we have to work through this.
- We have to protect New York so we have to go beyond certain things that happen.
- Between the fire department and the police department, some of our stuff between us wouldn't happen if the bosses didn't say stuff and that stuff filters down, and if the attitudes at the top weren't like that, it wouldn't be like that at the bottom.
- If we are going to be in any type of emergency services, we must have trusted partnerships.
- To do this job, and not have trust in the guys around you, you can't do it.
- Eventually you have to try to form some trusting relationship to any work, and today with resources the way they are, and cuts the way they are, and the ground that we have to cover, everyone has to be on the same wavelength.

5. Interview with New York City Emergency Medical Services Official

- You know, talking about leadership, you may have the rank, you may have the title, but what does that really mean?
- Its all well and good being respected for a title, but guess what, it goes right back to the person who holding the title who needs to be able to develop, with his subordinates, the trust, so he can be successful in that title, and the responsibilities within that title to be successful.

- It's more than just a title, do they want to work for me.
- And that's part of trust also, I have to learn to trust others and it just doesn't stop at the lower level, it also starts at the top too.
- I need to trust in my staff, to be able to give them whatever I need to give them, to accomplish what I need.
- I need the trust in my staff, and this is with any title, that if I'm not here would they be able to do the job and do it just as good.
- And again, it has to do with people-you can have wonderful titles-the titles are empty without the person.
- Somebody who I trust, I probably would do more and be willing to do more happily.
- As far as, I think you mentioned OEM [New York City Office of Emergency Management], I think that the more we do tabletops where OEM is involved, I think that we will understand their role a little better.
- I think we need to respect their capabilities, because they do have a lot of ways of getting the resources, to get the agencies together, and that's what happens quite a bit at a MCI [Mass Casualty Incident].
- Where OEM was really involved, well you definitely had it with the airplane, but you also had it with the steam pipe explosion, where they were very much a part of it, and we needed various different agencies.
- OEM was able to get the agencies together, and get the structure out of it, and to define everyone's role, and to reach out and get additional resources if any one agency needed it.
- You had so many different agencies, that needed to figure out their roles their responsibilities, and how could they help one another.
- Just cleaning the streets and how to clean the streets became an issue, so it is extremely important that all the agencies get together and work together.
- Not everyone is going to agree, and that's where good interpersonal communications, as well as understanding, or having clearer direction, will rectify that misunderstanding.

6. Interview with New York City Department of Health Official

- OEM's role is huge; it is their main role or purpose to bring everyone to the table.
- One thing to realize that developing relationships is not just dependent on the agency commissioners.
- Assistant commissioners and lower can be very effective in facilitating communications and coordination, and bringing issues to light.
- Many of the tools to accomplish this can come from the lower levels.
- I think that one of the things that OEM could do is to establish interagency, scenario specific committees, with a representative from each agency, to discuss what resources can be supplied, what can be accomplished?
- The coordination of training by OEM is very important.

7. Interview with U.S. Environmental Protection Agency Official

- You mentioned OEM, but every agency and every individual has a leadership role.
- There are situations where someone has a lot of knowledge, expertise and ability, but isn't inclined to be forthcoming, that sort of person is not going to establish himself as a leader.
- That person is going to sit back and contribute where he or she feels comfortable, but not necessarily all the time, so someone is going to have to pick up on that.
- I think that it works the same way in situations that require various levels of government, various agencies, to come together to address a response.
- Now granted, on paper, there's a lead agency identified, but that's on paper, and it's fine to get the process going, but it may not work that way throughout the entire process.
- You may have issues come up that require other individuals, from other agencies, to step up and pick up on some of the leadership.
- Frankly, I think there is some offense taken, in a response, if you have an agency that wants to maintain that role constantly.

- Because you get back to personalities as well.
- You recall the meetings that we would have here everyday after the fire, [referring to August 2007 fire at Deutsche Bank, Manhattan] Brad Gair, [Office of Emergency Management] was it.
- He allowed things to move along as the chair, but he allowed others to work in their expertise, their authorities, and when there was silence, he would get it going again.
- I had my performance review, and the person giving me the review is now the deputy regional director, but at the time I was dragged into World Trade Center, he was my division director in another division, and I told him I am very appreciative of you pulling me into this, because I've learned so much.
- The part that I've learned the most is the need, this requirement, to work collaboratively, with FD [New York City Fire Department], DOB [Department of Buildings], with OSHA [Occupational Safety and Health Agency], with the contractors, with LMDC [Lower Manhattan Development Corporation], and it's been a really worthwhile experience for me.
- So I can't emphasize how important it is to have the ability, and to be able to navigate through the various levels of trust.
- Everyone is brought into this from different experiences, different life perspectives, so we are each driven differently, so you just have to deal with it.

I. TRUST MATRIX

The following trust matrix (Table 1) was developed as a visual representation of the various concepts that were highlighted during the interview process, which were either enhanced or associated with the concept of trust, and in relation to inter-organizational collaboration.

Table 1. Trust Matrix

RESPONDENT	R1	R2	R3	R4	R5	R6	R7
COMMUNICATION	x	x	X	x	X	x	X
COORDINATION	X	X	X		X	X	X
COLLABORATION	X	X	X	X	X	X	X
LEADERSHIP	X	X	X	X	X	X	X
TRUST	X	X	X	X	X	X	X
FAMILIARITY	X	X	X	X	X	X	X
HONESTY	X	X	X	X			X
RELIABILITY	X	X	X	X	X	X	X
CULTURE OF ORGANIZATION	X	X	X	X	X		X
HISTORY OF ORGANIZATION	X	X		X	X		
KNOWLEDGE	X	X	X	X	X	X	X

V. ANALYSIS

An analysis was conducted by the researcher on data collected as a result of the interview process. In order to identify themes related to inter-organizational collaboration and the influence of trust, the data gathered from the interview questioning was grouped together for analysis.

Question 1, *What factors would you identify as fostering or diminishing the ability of agencies to work in a collaborative fashion?*, was isolated for purposes of analysis so that thoughts and perspectives involving the general concept of inter-organizational collaboration and its development and implementation could be identified.

Questions 2, 3, and 4 were grouped together to specifically analyze the element of trust within the inter-organizational collaborative process. These questions were asked: *Does the element of trust influence the development and implementation of inter-organizational collaboration; Now that you have identified trust as an element, how do you define trust within the emergency management process; and How do you differentiate between trust in a representative of an agency verses the organization that they represent?* The data analyzed consisted of the perspectives of various agency representatives on the meaning of trust and its significance in collaboration.

Question 5, *In what ways do you feel that trust building, between organizations, may lead to increased effectiveness of response, problem solving capacities and the utilization of limited resources?*, represented a new grouping, measuring the impact of trust.

Finally, questions 6, 7 and 8, *How do you feel trust plays a role in modern day challenges such as responding to or planning for acts of terror; What strategies, or programs, can be implemented to develop and foster trust between agencies; and Is there a leadership role in establishing trusted relationships; Do those agencies that have as their mission the coordination of emergency services, have a role in the establishment of*

trusted partnerships?, were collectively analyzed to measure both the importance of trust and to identify strategies to foster its development in an inter-organizational collaborative environment.

This analytical process produced the following themes in relation to the concept of trust and inter-organizational collaboration:

- The effect of overlapping agency responsibilities and significant intra-agency resources that are available for utilization.
- The history or traditions of the various response agencies that operate in New York City.
- The willingness, of agency representatives to collaborate, and the development of organizational mindsets that look beyond intra-agency needs and priorities, in favor of achieving inter-organizational objectives.
- The role of understanding individual agency culture, procedures, responsibilities and priorities in relation to trust building and establishment of collaborative relationships.
- The element of familiarity, amongst agencies, and its effect on the development of trusted partnerships.
- Trust, as a component of inter-organizational collaboration, and the effect on inter-agency coordination, reduction of duplicative efforts to achieve objectives and the development of problem solving capabilities.
- The need for strategies and programs to increase the opportunities for inter-agency interaction in the furtherance of the development of inter-organizational trust and collaboration.
- The establishment of environments that provide for inter-agency communication and coordination, and provide for agency interactions to foster trust and develop collaborative relationships
- Leadership roles, both intra-agency and in a meta-leadership context, that affect the fostering of inter-agency trust and collaboration.

A. RESPONSIBILITIES, RESOURCES AND HISTORY

In exploring the various factors that can foster or diminish the ability of agencies to work in a collaborative fashion, the existence of overlapping responsibilities, coupled

with significant individual agency capabilities and resources, were cited as serving as the basis for a lack of inter-organizational collaboration at incidents within New York City. As stated by B. Gair:

What makes them great—in that they have so much pride and confidence in what they do—also puts them at odds with one another, because you have two agencies with tremendous capabilities, great histories and a lot of resources, and in some cases, overlapping responsibilities or capabilities, it creates a situation, where they are naturally at odds. (Personal communication, March 26, 2009) (See Figure 1.)

This inter-agency dynamic was also cited as being associated with trust in that “There is so much duplication of effort at a major incident, it is actually pathetic, and a lot has to do with a lack of trust” (K. Woods, personal communication, March 23, 2009). In the view of one agency representative, it also provides an impetus for the establishment of effective inter-agency communication: “One of the main things that I see is important is to communicate internal policy and protocol, which isn’t easy” (New York City Department of Health Official, personal communication, April 20, 2009). Continuing further, this official stated, “In this way, this will help to improve coordination between agencies, particularly that there are overlapping responsibilities between agencies” (New York City Department of Health Official, personal communication, April 20, 2009)

This reality is set against a background of agency history and tradition which can diminish cooperative efforts at the scene of an emergency. Commissioner Gair stated:

I think that one of the main factors, primary factors, that diminishes the ability is the history of the agencies in New York City and the primary agencies that we deal with, FDNY and NYPD, both have long and great traditions and history. (Personal communication, March 26, 2009)

Although thought of as a NYPD/FDNY issue, the effect of cross-organizational responsibilities on the ability of agencies to collaborate is present across all city agencies, regardless of the agency’s competency. Brad Gair explained:

It is easy to talk about it with PD and FD, but we see it with other agencies, at times with DOB [Department of Buildings] and HUD [Housing and Urban Development] which have some overlapping

responsibilities with regards to multi-family residential dwellings that may be unstable. (Personal communication, March 26, 2009)

The following figure (Figure 1) represents the current state of factors that exist, within the New York City emergency response environment and how they interact, and their effect on inter-organizational collaboration.

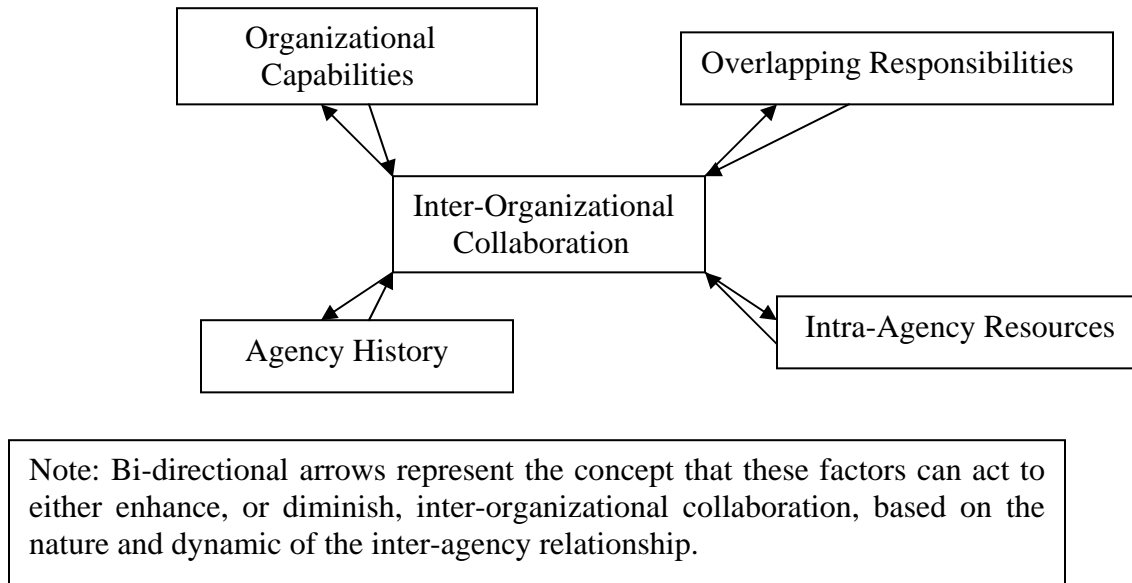


Figure 1. Factors that Enhance or Diminish Inter-Organizational Collaboration

B. AGENCY TALENTS AND COLLABORATION—KEYS TO FINDING THE RIGHT MIX

Indeed, it was expressed by some of the interviewees from the various agencies of the significant abilities that knowledge and experience of those organizations that play a role in the emergency management process. As stated by a U.S. Environmental Protection Agency Official (personal communication, April 22, 2009) in relation to trust and operations after 9/11, “Well, I mean, it’s one of the key ingredients, just in dealing with World Trade Center, the expertise at various levels in there, there is no question about it.” This interviewee continued, “I mean the pit was excavated and removed in

absolute record time, that would not have happened anywhere else in the world in that amount of time” (U.S. Environmental Agency Official, personal communication, April 22, 2009). Specifically referring to two of the largest New York City response agencies, the New York City Police and Fire Departments, Commissioner Gair made the point:

It makes it more challenging out there, but better to have two agencies with that go-getter, can-do attitude, to bring to bear on the kinds of difficult situations that we have in New York City, than to have no agencies that can do that. (B. Gair, personal communication, March 26, 2009)

However, in the view of the respondents, it is imperative to balance that great history, “can-do” attitude, and resources with the need to operate as a team, effectively coordinating, collaborating, and communicating. Commissioner Gair emphasized, “We have to overcome that historical, generational, traditional aversion to one another that some people have in the agencies” (personal communication, March 26, 2009). Citing a lack of an integrated multi-agency response effort, Chief Woods explained:

Well down here in the New York City Fire Department, without coordination with other agencies, such as the NYPD and the Port Authority, it does not always operate smoothly, even though there is a CIMS [City Wide Incident Management] document, not everyone always plays by the rules. (Personal communication, March 23, 2009)

Although the Citywide Incident Management System, which memorializes the responsibilities and authority of various agencies during a crises, was cited as providing a framework for interagency coordination, it is viewed as providing the base, with other factors affecting the continued growth of inter-organizational collaboration (see Figure 2). As highlighted by R. Alvatroni, “So it is not only that document, as I mentioned before, that Citywide Incident Management System, but it is actually showing the ability to work together, and exercise that document that breeds success” (personal communication, April 1, 2009). It was identified that agencies have to be willing to trust and collaborate, to operate and plan collectively with other entities. It was the perspective of one official who said, “I think that people have to go into a situation that requires collaboration, you have to go in with a positive mentality, you know a willingness to trust

others at other levels of government” (U. S. Environmental Protection Agency Official, personal communication, April 22, 2009). Communication and the sharing of information serve as examples of a willingness to collaborate. K Woods stated, “trust with these other agencies-as soon as someone approaches me, from another agency, and wants to offer me information, I start feeling a sense of trust for that person” (personal communication, March 23, 2009),

This was reported as requiring a change in mindset, to look beyond your own agency needs and priorities, in order to accomplish strategic, operational and tactical objectives. As Brad Gair explained:

We have to get them to where they trust one another on all of these things so to make sure that we are all working towards the same thing, which is getting the job done and not necessarily self or agency promotion or other objectives. (Personal communication, March 26, 2009)

This mindset is well illustrated in this summary by a New York Police Department Official:

It’s about getting the job done, professionalism, and now as we have worked together for seven years, now we have become trusting, start getting the trust and again there is always going to be problems and issues, but you have to work through them. (Personal communication, April 9, 2009)

The following visual representation (Figure 2) depicts the various factors which interact, within the environment of trust, to foster collaboration.

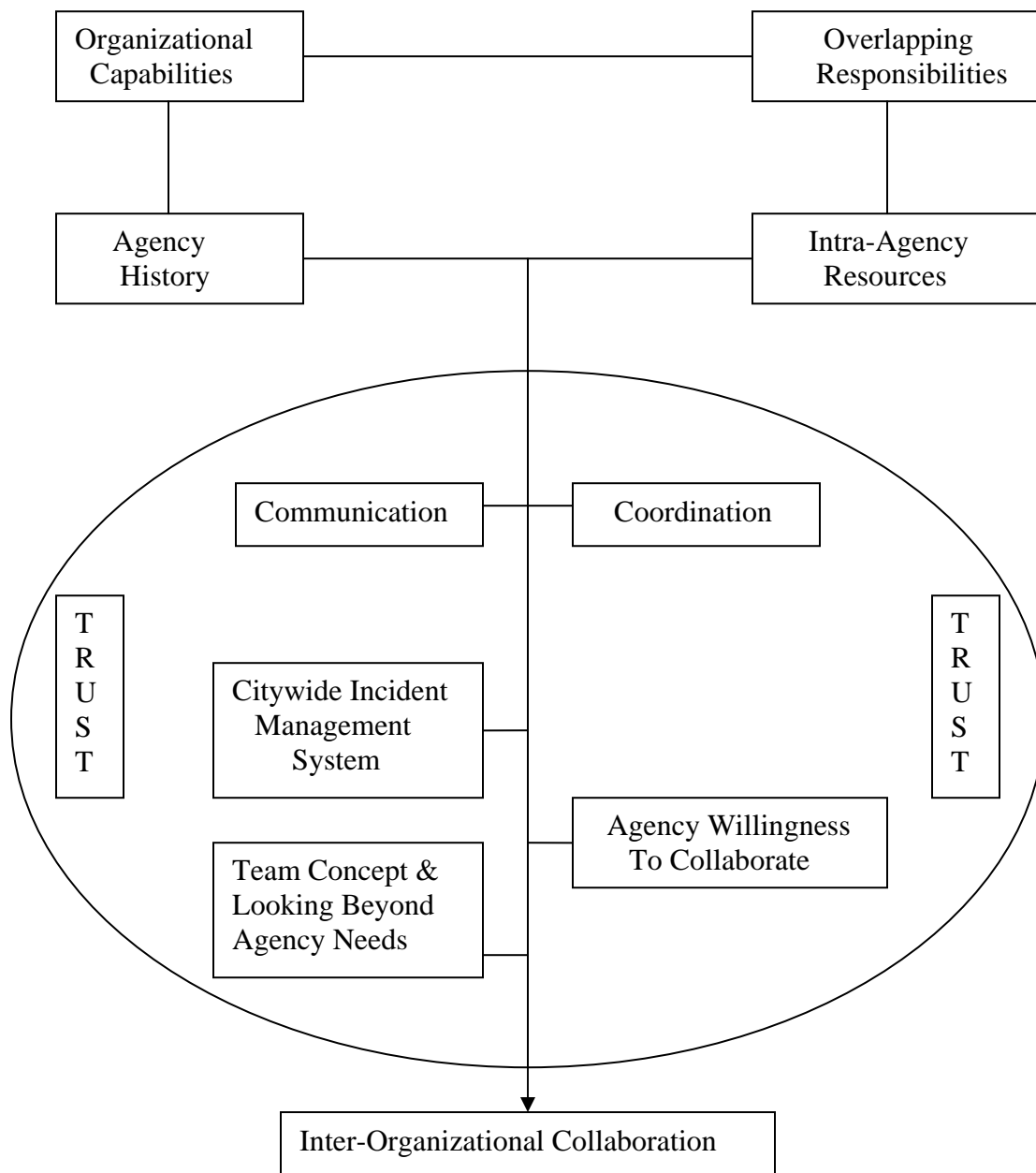


Figure 2. Interaction of Components within the Context of Trust that Contribute to Inter-Organizational Collaboration

C. AGENCY CULTURE AND CAPABILITIES

In addition, an understanding of each agency's strengths, resources and capabilities was viewed as vital to improve coordination and effectively utilize each organization's talents during all stages of emergency management (see Figure 3). As stated by a senior New York City Emergency Medical Services official:

There has to be mutual respect for each agency, and understand that everyone has a job to do, and if everyone could just understand the job that the next agency has, we would have a better repaire and we would accomplish our goal or task quicker and easier. (Personal communication, April 15, 2009)

Agency leaders have a responsibility of communicating information on individual agency's resources in the furtherance of collaboration. As stated by a Department of Health Official, "It is very important for the higher up officials to communicate agency policy and protocols, it has to be on leadership's agenda to communicate what resources an individual agency can supply and assist with" (personal communication, April 20, 2009).

This is tied in with the differing cultures of each agency, which can serve as both an impediment and an asset and must be accounted for in establishing strategies or implementing programs to foster collaboration amongst agencies. As stated by the interviewee from the New York City Emergency Medical Services, "I think that one of the things that is important, no matter what the agency is, is the agency's culture" (personal communication, April 15, 2009). She continued, "Each agency has a culture and if you're not willing to understand it, we're not going to work well with it" (New York City Emergency Medical Services Official, personal communication, April 15, 2009). This understanding and ability to work through cultural issues was again linked to the component of trust, with collaborative relationships as stated by a New York City Police Department Official, "I think that it is culture, their training, their laws, their rules, the laws that are federal compared to the state, so there are some issues with trust in the individual and trust in the organization" (personal communication, April 9, 2009).

D. COLLABORATION AND THE CONCEPT OF TRUST

An element, recognized by the respondents in this study that influences the development of inter-organizational collaboration is the concept of trust. Trust was linked with a familiarity or history of working with a certain representative from another responding agency, with this factor sometimes rating a higher value than known agency capabilities. This was emphasized by Deputy Commissioner Gair:

Definitely, it's a huge factor, you know that the people that you trust are the people that you know-you know them, you know that they have limitations, you still trust them more than people that you don't know even if you have every reason to believe that the other person or organization has greater capabilities. (Personal communication, March 26, 2009)

The idea of not knowing each other diminishes the level of inter-organizational trust, which has a negative impact on emergency management operations and the ability to collaborate. Brad Gair further explained:

I think that a lot of these things that we see out there are a result of not knowing one another, and therefore not trusting one another, and therefore making decisions that may not be the best decisions based on that. (Personal communication March 26, 2009)

However, trusted relationships built upon past experiences of working together on various issues and developing a reliance and respect for the judgments and talents of other agencies can provide a significant asset in collaborative efforts. Battalion Chief Kevin Woods, referring to a recent multi-agency rescue incident, stated, "And all of a sudden when I see these guys [Emergency Service Officers] at the scene of an incident, it is a coordinated, cooperative effort, with a sense of trust-he knows me, we have worked well at other incidents" (personal communication, March 23, 2009). The positive effects of familiarization extend to other facets of emergency management. Deputy Commissioner Robert Alvatroni, New York City Department of Environmental Protection stated that when dealing with multi-agency issues, "We've seen each other,

we've worked together on various issues, so therefore we trust the judgments and talents that each agency, with core competencies, brings to the table" (personal communication, April 1, 2009).

Trust in an individual agency representative, as opposed to trust in an organization, occupies a higher level of importance in gauging the ability to rely on the capabilities and decisions of other organizations. As stated by the NYPD interviewee:

I think that the agencies are a non-entity, with trusting each other, you know what ever the NYPD is as an entity or another agency is as an entity, if the two guys on the ground are not getting it together, it's not going to work. (Personal communication, April 9, 2009)

Individual interactions that are favorable, in terms of building trust, can serve as the beginnings of a more global trust in the organization. This was the perspective of Battalion Chief Kevin Woods when he related his experiences upon being assigned to Manhattan as a chief officer:

When I worked in Brooklyn as a firefighter, Lieutenant and Captain, with very minimal contact with the police department, then as a chief officer coming into Manhattan, I guess I had my guard up a little, and until I started to gain the trust in police officers, that enhanced the trust for the agency. (Personal communication, March 23, 2009)

In particular, there must be a feeling or trust in the competence and knowledge of other agencies, especially in terms of decisions made by other agencies that effect the health and safety of an agency's own personnel. This is emphasized by an official from the New York City Police Department when stating, "We have to trust that all of us are competent, and we are, and that the guys under us are competent, are trained properly, and have the proper equipment" (personal communication, April 9, 2009). The reality of relying on other agency expertise forms the basis of trusted partnerships in that "trust in emergency management is defined as putting your agency's staff in the hands of someone else, another agency performing a similar function" (New York City Department of Health Official, personal communication, April 20, 2009.) This Health Department Official further explained, "You will not put the lives of your people in another agency's hands, unless you trust their abilities" (personal communication, April 20, 2009).

E. TRUST, COMMUNICATIONS, AND A “TASK FORCE” MINDSET

The development of trust, much like the process of collaboration, is reliant on the individual agency thought process that embraces the desire to trust and work collaboratively. This concept was explained by an official from the U.S. Environmental Protection Agency, “There are people that are not willing to put their neck out, they may know a lot, they may have the expertise, and they just don’t have the trust” (personal communication, April 22, 2009). This official further stated, “It’s up to one of us to try and figure that out and bring it out of them, so that you can pull that person’s knowledge and expertise as a source” (U.S. Environmental Protection Agency Official, personal communication, April 22, 2009). The value of honest, open communications is an essential ingredient in the establishment of trust between organizations. This point was stressed during the interview with Robert Alvatroni, who stated, “I think that area of trust is built on the ability, to go back to the first question, on the ability to communicate, and then on the ability to work together” (personal communication, April 1, 2009). Mr. Alvatroni further explained, “It’s a dynamic process where you bring in core competencies of various agencies and allow them to dialogue, and again it goes back to communication” (personal communication, April 1, 2009).

The existence and level of trust is dynamic, differing in various settings, agencies, and individuals. This was very clearly explained by the respondent from the U.S. Environmental Protection Agency:

I think that it is something that has to be there, even if you sense that it is diminished, you have to be able to work with it at whatever level its there, because if you don’t have some level of trust, the process isn’t going to work. (Personal communication, April 22, 2009)

It must be accounted for, in the inter-organizational context, as it will affect cooperative efforts and the support that can be anticipated to execute strategic decisions in the emergency management realm. As stated by the U.S. Environmental Protection Agency official, “The level may vary, and it’s important to have some level of trust, and if there’s none, then you know where you stand and you have to strategize how to deal with that” (personal communication, April 22, 2009). Determining the level of trust can

also serve as an impetus for implementing programs or actions to repair or build upon trusted relationships. A senior New York City Emergency Medical Services official explained, “It’s not always *carte blanche*, I must accept you, I may have to work with you, it does not mean that I have to trust you individually, you have to work at that” (personal communication, April 15, 2009). This point is further emphasized by the respondent from the U.S. Environmental Protection Agency, “Going into a situation, and gauging it accordingly, properly, as the process moves forward, and you know, if there’s trust that’s diminished, then you have to be able to deal with that, adjust to the situation accordingly” (personal communication, April 22, 2009).

Trust serves as a component of developing an agency attitude of accomplishing the mission, or achieving strategic goals, over the individual agency objectives. Deputy Commissioner Alvatroni stated:

Every agency has a different responsibility, and a different core competency, but again what the mayor had done, has continually driven us to ensure that the team concept, that I alluded to before, is exercised and based on the trust, knowledge and expertise of the various agencies acting as one. (Personal communication, April 1, 2009)

Citing an example of where the lack of trust impeded inter-agency collaboration, Battalion Chief Kevin Woods stated, “Going back to 9/11, where numerous agencies were not coordinating operations, if we did have a sense of trust, and worked together, I feel operations would have been coordinated more effectively” (personal communication, March 23, 2009). The application of the concepts of familiarity with agency representatives, an understanding of individual organizational culture, the knowledge and competency of agency representatives and the development of a “task force” mindset to further enhance inter-organizational collaboration within a context of trust, are all depicted in Figure 3.

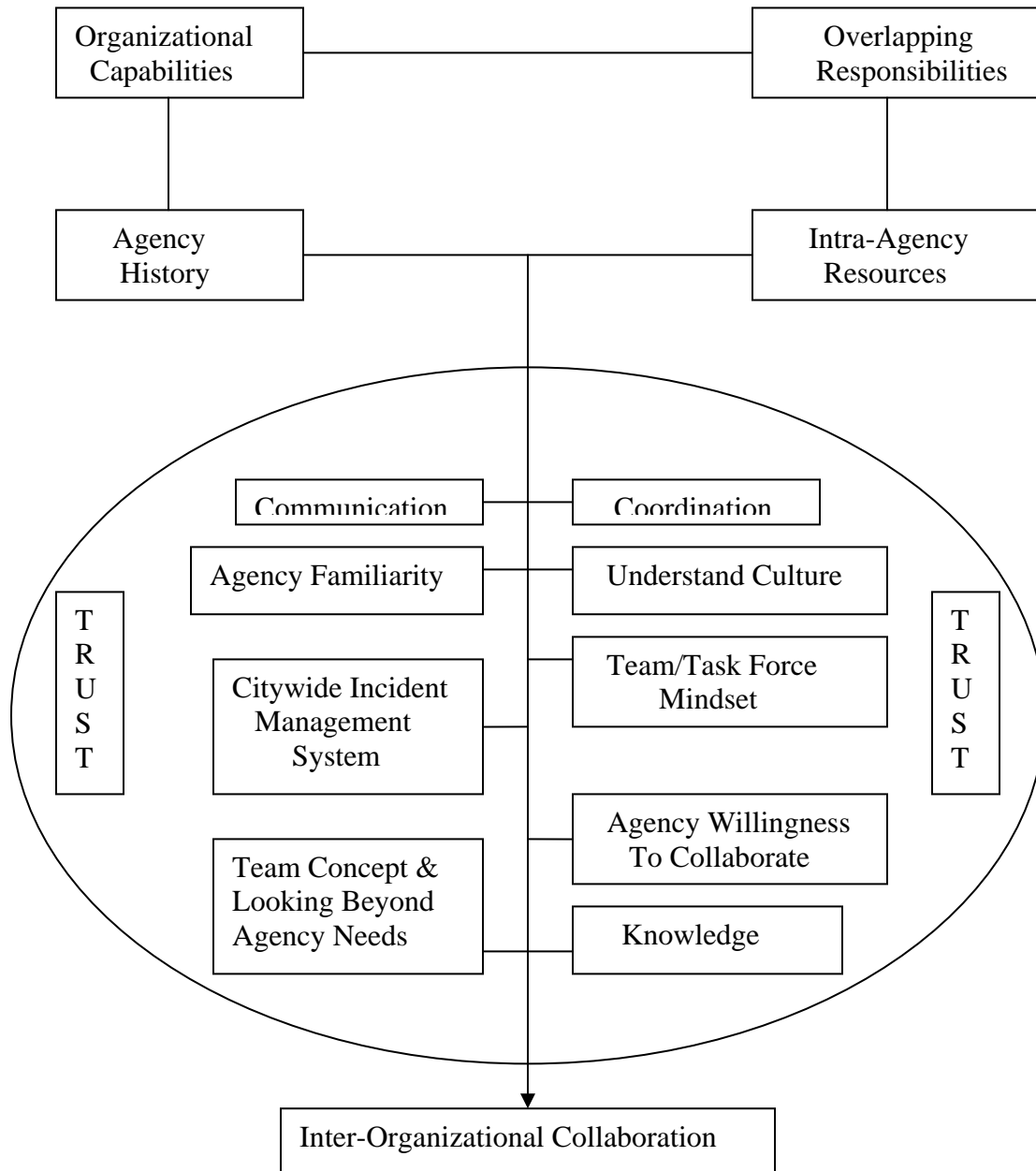


Figure 3. Interaction of Familiarity, Culture, Knowledge, Competency, and a Task-Force Mindset

F. TRUST, PROBLEM SOLVING, AND RESOURCE UTILIZATION

Trust was identified, during the interview and data gathering process, as a key ingredient to a team approach to problem solving, and it is supported by the facilitation of agency communication (see Figure 4). Deputy Commissioner Alvatroni explained:

Trust is earned by getting to know individuals, and know that when people say things and do things, they are driven not by self-motivation, but, going back to the team concept, it is driven by a motivation to ensure that what people are looking to do is to collaboratively come together to make a difference in any type of situation. (Personal communication, April 1, 2009)

Trust is developed over time, and through repeated interactions, so that opportunities to interface with representatives from various agencies can be very beneficial in establishing these trusted partnerships. A senior New York City Police Department Official emphasized, “Trust is key in this line of work, dealing with sensitive information, and it takes a while to build that trust” (personal communication, April 9, 2009). Reinforcing the need for interaction and interface between organizations, Robert Alvatroni (personal communication, April 1, 2009) stated:

Absolutely, trust is a key factor and trust being a level of confidence, and that goes back somewhat to my original statement, because of our ability to interface with our various colleagues and agencies that allows all of us, to ensure that we are going to any type of situation where we can trust each other.

The support of trusted relationships, coupled with an understanding and respect for other agencies’ needs and responsibilities, is tied to the ability to accomplishing tasks efficiently and effectively (see Figure 4). Deputy Commissioner Alvatroni stated:

Not every agency is looked at the same, because each agency has a different style of management, but what we seek to achieve is to ensure that we have the appropriate people that represent that agency, and their core missions, and the ability to integrate their capabilities with those in other areas. (Personal communication, April 1, 2009)

In fact, trust was identified by the respondents as occupying a particularly critical role in that the collaborative process will not work without its presence in some form. The interviewee from the New York City Department of Health stated, “trust plays a role in that you must respect that some agencies specialize more, or have greater expertise in some areas” (personal communication, April 20, 2009). He further emphasized, “You have to trust their competencies” (Department of Health Official, personal communication, April 20, 2009). In regards to facilitation of collaborative efforts, Brad Gair emphasized, “If we are not able to build that trust that we are trying to get people to coordinate, and that’s our only reason for being here, then we can’t function” (personal communication, March 26, 2009).

Trust and communication were identified as providing an environment where agency talents can be utilized effectively amongst a diverse group of agencies with differing structure and cultures to work in a manner that is in the best interest of all entities. As articulated by Mr. Alvatroni:

What we do is build on each other’s strengths, to ensure that we recognize every potential problem that we may be confronted with, and we hope that, by meeting on a constant basis, being directed by great leadership, that we will be able to work things out collaboratively and be prepared for any type of incident. (Personal communication, April 1, 2009)

Respondents highlighted the concept of trust in relation to the effective use of limited resources, duplication of effort, and providing the foundation for the coordination of assets from multiple agencies. This concept was explained by a Department of Health Official, “If you trust each other, there is no duplication of efforts, there is less wasted time, wasted effort, and money trying to accomplish the same things” (personal communication, April 20, 2009). This point was reiterated by a New York City Police Department Official when he stated, “So with limited resources, without trust, we wouldn’t be able to do half of what we do, because everyone would be trying to cross every ‘T’ and dot every ‘I’, but we’ve got to spread it out” (personal communication, April 9, 2009). Specifically due to the significant priorities placed on the emergency

management system, and coupled with finite resources, that trust provides the vehicle for the most effective, coordinated utilization of assets to complete the mission. As stated by a New York City Police Department official:

Here we have limited resources, between us and the federal agencies, and if we responded to every need, it would be crazy, and I have to trust in you and your capabilities, and the guy who works with you, his capabilities, that you're going to handle it like I would have handled it. (Personal communication, April 9, 2009)

It was also emphasized that the lack of trust can be a contributing factor to the ineffective and inefficient use of assistance. For example, this environment of trust was not well established during the response operations at Hurricane Katrina, as pointed out by Deputy Commissioner Gair:

It will affect response and that is what we saw in Katrina where the federal government did not have a good handle on this multi-tiered response effort, from an emergency management perspective, because the players did not trust one another, because the state's emergency management agencies and locals did not have a lot of trust between one another, so we did not end up trying to do something with limited resources, we ended up squandering resources. (Personal communication, March 26, 2009)

In addition, as stated in the interview with the New York City Police Department, "Well, you know, after 9/11, because of the two attacks that were successful, that the underlying trust in the federal government to protect New York was not there"(personal communication, April 9, 2009). This senior official further explained:

You know that a lot of cities are not devoting the resources that we are now, a lot of those cities were not attacked either, so there's a case of trust, the lack of it I should say, causing us to re-focus some of our stuff, our resources, but in the interim, seven years later, this new organization forming a trust with its counterpart, to get the job done. (New York City Police Department Official, personal communication, April 9, 2009)

The growth of a trusted relationship between agencies can transform a setting of duplicative efforts to one in which talents, capabilities, and assets are synthesized and

coordinated. Referring to the successful rescue of passengers aboard U.S. Airways flight 1509, which landed in the Hudson River, a New York City Department of Emergency Medical Services Official commented:

Just recently, the plane crash, how quickly everybody just worked so well together, be it the Coast Guard, the private, the fire, the PD, they all worked very well, and everyone was taken care of, and the trust was all there—everyone trusted one another’s decisions and I think that showed.”
(Personal communication, April 15, 2009)

One respondent stated simply, “if you trust, you don’t have to double check and do follow-up on tasks that should be simple” (Department of Health Official, personal communication, April 20, 2009). The positive effects of increased problem-solving capacities, utilization of limited resources, and effectiveness of response as a product of collaboration and trust, are depicted in Figure 4.

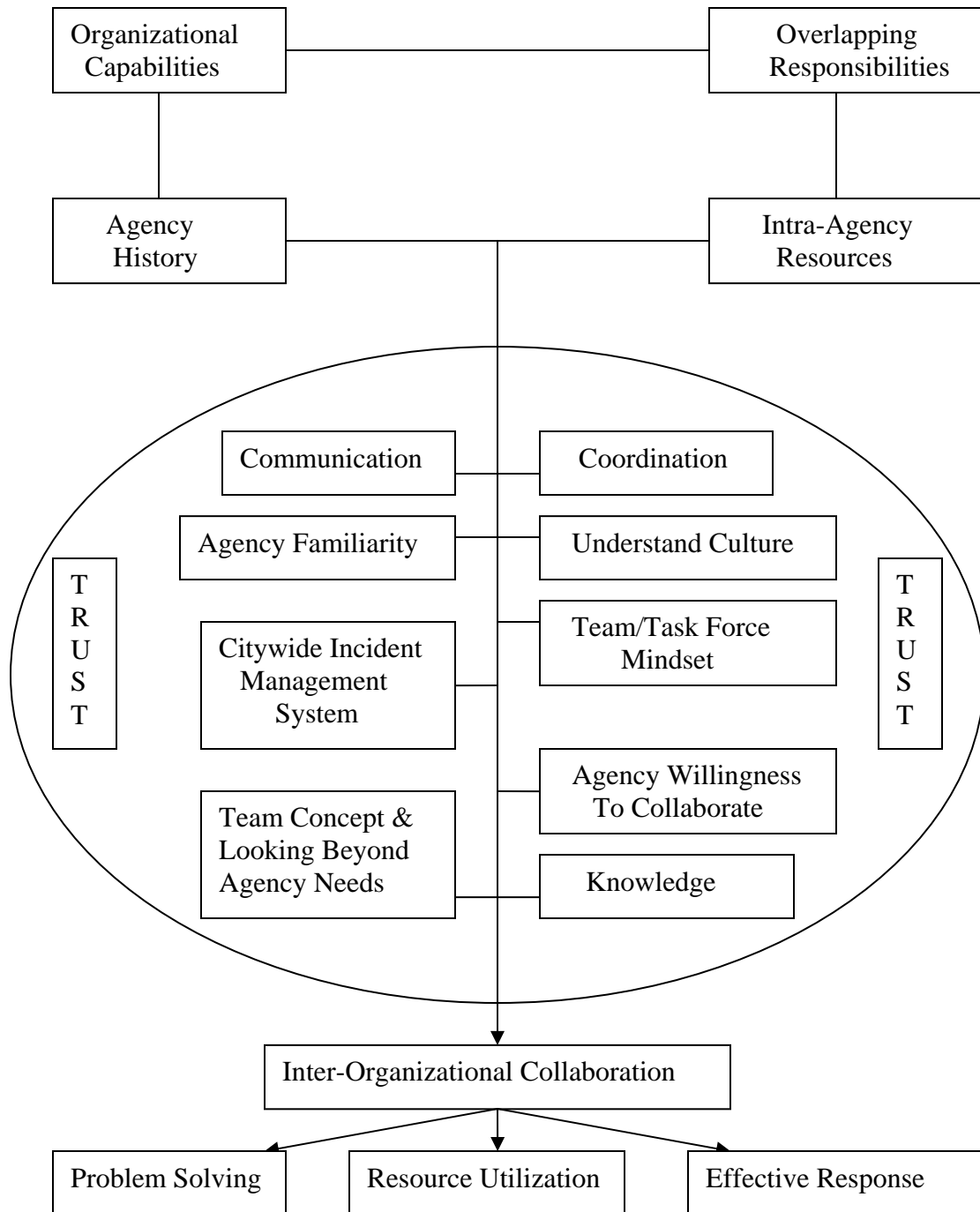


Figure 4. Positive Effects of Collaboration and Trust—Increased Problem-Solving Capacity, Utilization of Limited Resources and Increased Effectiveness of Response

G. INCORPORATING STRATEGIES TO FOSTER TRUST

The interviewees identified strategies that could be incorporated as a method of developing inter-agency familiarization and the establishment of trust (see Figure 5). One strategy identified was the incorporation of multi-agency drill and exercises. This training concept, however, which is already in place to some extent, requires modification to be more realistic, less pre-scripted, and more inclusive in terms of the participants. Deputy Commissioner Gair stated, “So I think that the two things that are best to do are multi-agency exercises, which we really have to work on making more realistic, so that it tests our capabilities” (personal communication, March 26, 2009). Mr. Gair went on to explain:

Like at the PATH [Port Authority Trans Hudson] planning exercise, two weeks ago, they were starting to say we’ll pick the command post now, so that we will have that out of the way, but that’s the thing that we fight most about on these jobs, so if we do not exercise those difficult tasks, we are not going to get past those issues of trust. (Personal communication, March 26, 2009)

This was the general view across the various respondents that in its current form, multi-agency exercises do not realistically represent conditions that would exist at an actual emergency and without a realistic flow of events; problems will not manifest themselves so that they can be addressed. Battalion Chief Woods explained:

Everyone has to open up and put everything on the table, if your hiding something, for your own good or benefit, then I don’t know where you are going with that, but people do hold back information and I don’t understand it one little bit. (Personal communication, March 23, 2009)

In addition, it was articulated during the interview process, that because many times these exercises do not include those agency representatives most likely to respond, the necessary interactions among field personnel, which serve as a starting point for the establishment of trusted partnerships, are not given the opportunity to develop. This point was clearly established by a New York City Emergency Medical Services official when she explained:

The tabletops are not always continuous, and not everyone has an opportunity to participate in a tabletop, and there will always be certain people, who will be there, from the training academy, certain high ranking officers who will continually be there, and that's all well and good, but sometimes we have to go back to the everyday person we will be tasking to do the job. (Personal communication, April 15, 2009)

Citing an example of where interagency collaboration and continual cross training has lead to success, this New York City Emergency Medical Services Official spoke about the Emergency Medical Service Rescue Medics and their working relationship with the fire department:

They go out and they train and they have now developed the trust where they know each other and every person's skill, knowledge, they've earned the respect amongst each other, and they certainly would trust, anyone of them, with they're life, because they have the trust in the capability to handle the situation. (Personal communication, April 15, 2009)

Whether it is the traditional training exercise, or as mentioned by one respondent, the introduction of a training simulator for responding to terror incidents, respondents emphasized the need to learn in a multi-organizational context, to highlight problems, devise solutions, and gain a working knowledge of the other agencies needs, capabilities, and responsibilities. This is evident in the statement by Brad Gair:

I think that the other piece is training, because if we learn things together, we build trust on a couple of levels, we have a common knowledge base that we are coming from, and that we are starting to meet people from other agencies, like the program you are in, building trust and knowledge across jurisdictions. (Personal communication, March 26, 2009)

In addition, Battalion Chief Kevin Woods pointed out that with regards to a newly implemented training simulator:

The scenario simulator is going to be a great device to get all the agencies and commanders together, and once you work with these people you will gain this sense of trust and hopefully that carries out into the field. (Personal communication, March 23, 2009)

Other mechanisms for trust building were mentioned by respondents that support the interaction of representatives from various agencies. For instance, the official from the New York City Police Department offered:

You could do all kinds of things, conferences, team building exercises, the military is big with that, up at West Point, a leadership course where there's different obstacles and you have to think as a group how to do it." (Personal communication, April 9, 2009)

Furthermore, a New York City Department of Health Official (personal communication, April 20, 2009) highlighted that "It is very important for agency leadership commissioners to meet to discuss the sharing of resources and the devising of plans." This official went on to explain that "tabletops or facilitated discussions between agencies are also important" and that "one of the problems is the time lapse that occurs between the identification of lessons from these exercises to when changes are implemented at the agency level based on these lessons." (New York City Department of Health Official, personal communication, April 20, 2009).

H. LEADERSHIP AND THE ESTABLISHMENT OF TRUSTED PARTNERSHIPS

Interviewee viewpoints on leadership, both from the perspective of the individual agency or in the context of a meta-leadership role to develop inter-organizational trust, were presented during the course of the research study. Two respondents stated their view that coordinating agencies, such as the Office of Emergency Management, through the execution of roles in a multi-agency environment, can help to foster inter-organizational trust. Chief Kevin Woods offered, "OEM [Office of Emergency Management] is a coordinating agency and they are one of the perfect, if not the perfect agency, to start this coordination and trust program with this simulator" (personal communication, March 23, 2009). Specific references were made not only to training initiatives, but to the execution of duties by representatives of the Office of Emergency Management who assist in coordination but ultimately provided for the fostering of trusted partnerships. As stated by a New York City Department of Health Official (personal communication, April 20, 2009), "OEM's role is huge, it's their main role or purpose to bring everyone to the

table.” Also, he went on to say, “The coordination of training by OEM is very important” (New York City Health Department Official, personal communication, April 20, 2009). One agency respondent, representing the largest New York City response agency, NYPD, focused on inter-agency leadership providing the basis for trust building but did not specifically identify a role for the Office of Emergency Management:

Between the fire department and the police department, some of our stuff between us wouldn't happen if the bosses didn't say stuff and that stuff filters down, and if the attitudes at the top weren't like that, it wouldn't be like that at the bottom. (New York City Police Department Official, personal communication, April 9, 2009)

This official went on to say, “If we are going to be in any type of emergency services, we must have trusted partnerships, to do this job, and not having trust in the guys around you, you can't do it” (New York City Police Department Official, personal communication, April 9, 2009).

The other four agencies not only provided a mix of the recognition of the ability and the responsibility of individual agency leadership in relation to fostering collaborative trusted relationships, but also the capacity of emergency management agencies, such as the Office of Emergency Management, to create an environment where agencies can collaborate. As explained by a New York City Emergency Medical Services Official:

Its all well and good being respected for a title, but guess what, it goes right back to the person holding the title, who needs to develop, with his subordinates, the trust, so he can be successful, in that title, and the responsibilities within that title to be successful. (Personal communication, April 15, 2009)

This official went on to state, “Someone who I trust, I probably would do more and be willing to do more happily” (New York City Emergency Medical Services Official, personal communication, April 15, 2009) As contrasted with this intra-agency trust, this same New York City Emergency Medical Services Official (personal communication, April 15, 2009), when speaking about the role of emergency management in the context of trust building articulated, “OEM was able to get the

agencies together, and get the structure out of it, and to define everyone's role, and to get additional resources if any one agency needed it." This New York City Emergency Medical Services officer went on to say, "I think we need to respect their capabilities, because they do have a lot of ways of getting resources, to get the agencies together, and that's what happens quite a bit at a MCI [Mass Casualty Incident]" (personal communication, April 15, 2009).

This theme of multiple levels of trust operating was evident when speaking with a U.S. Environmental Protection Agency Official, "You mentioned OEM [Office of Emergency Management], but every agency and every individual has a leadership role." Continuing though, this official (personal communication, April 22, 2009) recognized the role of emergency managers when stating, "Brad Gair [Deputy Commissioner, New York City Office of Emergency Management] was it" and "he allowed things to move along, but he allowed others to work in their expertise, their authorities, and when there was silence, he would get it going again" (U.S. Environmental Protection Agency Official, personal communication, April 22, 2009). Further thoughts were presented by Deputy Commissioner Alvatroni when he explained:

OEM [Office of Emergency Management] has a role today as a coordinating agency; it coordinates the management of incidents, not by taking a lead role, but by allowing the agencies in the process to do their jobs, and to ensure that every agency that is needed is brought into the process. (Personal communication, April 1, 2009)

Mr. Alvatroni further clarified that when referring to the role of emergency management, "It's about coordination, communication, and the abilities of allowing people in a unified command structure, to exercise their core competencies and ultimately protect the public" (personal communication, April 1, 2009).

When viewed from the perspective of an emergency manager, Mr. Brad Gair stated:

The role of emergency management as the coordinating agency, as defined in CIMS [Citywide Incident Management System], it's do the things that we have been talking about and that's to sort of overlay trust into the operation, be that bridge between agencies that may not have total trust in one another, to share that common ground. (Personal communication, March 26)

The role of leadership in trust building is depicted in Figure 5.

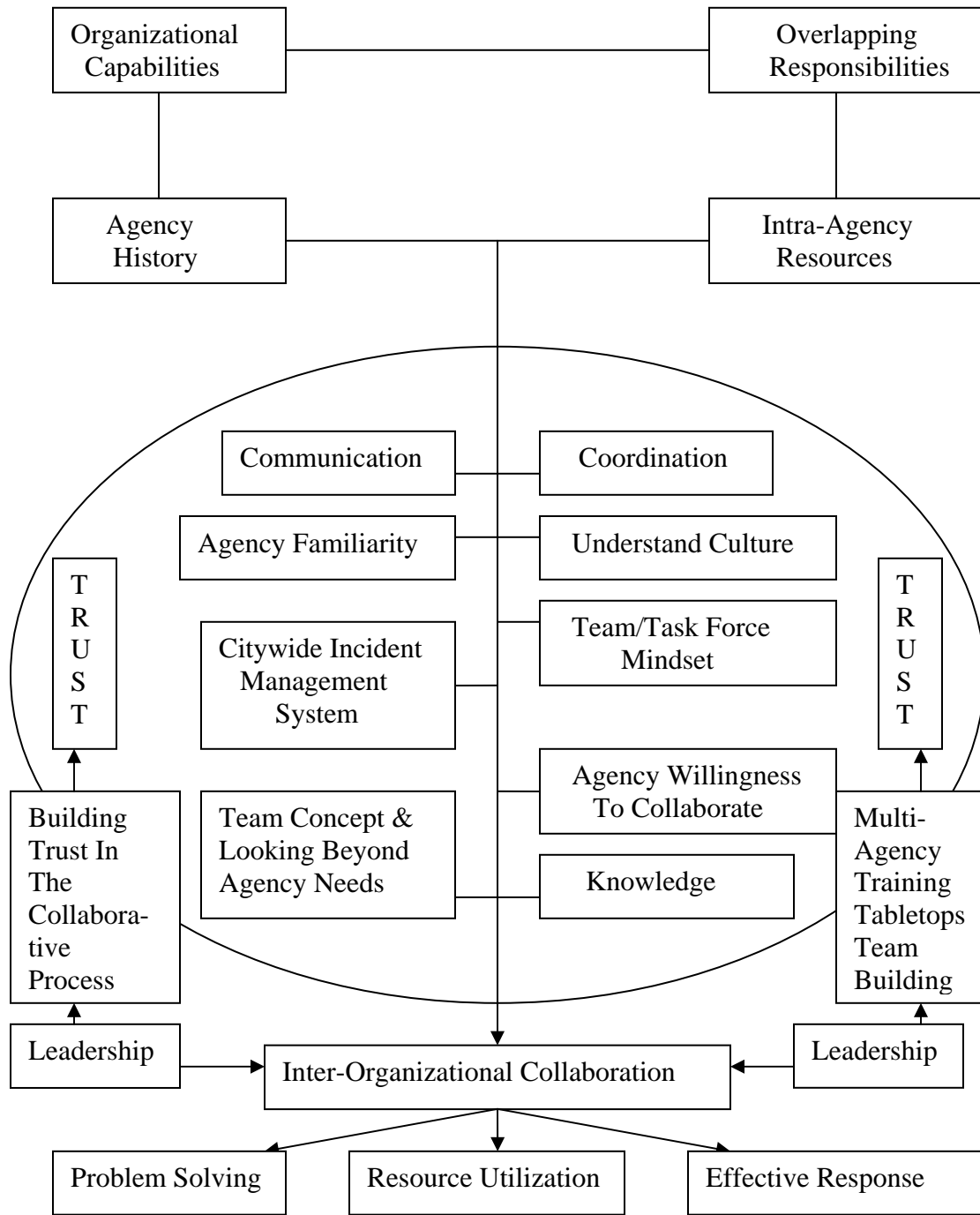


Figure 5. The Dual Role of Leadership and the Developing of Inter-Organizational Trust

I. SUMMARY

The concept of trust as a component of inter-organizational collaboration forms the basis for the development of various concepts, such as communication, coordination, and problem solving capacities. Each concept, such as knowledge, confidence, or familiarity, which would seem to stand alone as ingredients of inter-agency relationships, is instead enhanced when existing within an environment of trust.

It was mentioned throughout the interview process that, particularly in relation to large disasters or complex situations such as the events of September 11, 2001, the accomplishment of strategic objectives is heavily reliant on inter-organizational trusted relationships. Particularly in highly dynamic settings, such as terror attacks, where the safety and operational effectiveness is inextricably tied to the competence, knowledge, and assets of another agency, trust is viewed as a vital component of these inter-agency relationships. This type of trust in another agency's expertise can be developed through the presence of a mindset where it is recognized that agencies must rely on each other's capabilities, and it is based on a familiarization with the capabilities that exist.

Trust is coupled with communication, professionalism, and information exchange in order to provide a catalyst to the most efficient use of expertise and resources. For those agencies that have a specific role in coordinating agency staff resources, it was highlighted by one respondent that a pre-established trusted relationship provides an inherent advantage in the implementation of collaborative efforts. The creation of communicative environments, which allow for the various core competencies of agencies to integrate, is at the root of fostering inter-organizational collaboration. Communication, in the collaborative planning context, was repeatedly mentioned as playing a significant role in inter-organizational collaborative efforts. The realistic implementation of multi-agency exercises, interagency training, and collaborative planning serve as some of the forums for the development of these relationships.

Although these research results do provide for the role of emergency managers to increase collaboration or trust between agencies, they are also indicative of a "leadership in building trust" concept that is complex and requires input from various entities. Trust

in emergency management was defined from the viewpoint of the interviewee with knowledge, communications, and competency representing some individual agency perspectives. However, this same question when responded to by a New York City Emergency manager took on a more overarching, global meaning in the ability to have agencies trust in the collaboration process itself (see Figure 5). That is, the concept of developing trust may require operating at two simultaneous levels on the part of emergency managers: on one level providing interaction opportunities through training, drills, and conferences for agencies to develop a familiarity, respect, and understanding of each other's needs and responsibilities, while at a deeper, more fundamental level, attempting to lay a foundation of trust in the collaboration process itself. In the absence of the ability and success of emergency managers to facilitate the development of response agency mindsets, which embrace both the need and belief in inter-organizational trust and collaborative efforts to solving problems in complex environments, the concept of inter-agency, trust-building activities can be limited in their effectiveness.

VI. RECOMMENDATIONS

Inter-organizational collaboration, within the context of and in an environment of trust, is composed of many factors that act as the ingredients or building blocks of this relationship. As previously noted, these include concepts such as familiarity, coordination, cultural understanding, communication, and knowledge. In addition, there are more abstract conditions of “looking beyond one’s own agency’s needs” and approaching planning and operations from a team or task force mindset and a willingness to collaborate.

Therefore, the recommendations that follow represent strategies or programs that are instituted to foster inter-agency collaborative efforts and trusted partnerships, and to create situations and opportunities to foster the development of concepts such as inter-organizational familiarity, cultural understanding, and communication.

A. MULTI-DISCIPLINARY TRAINING AND EDUCATION

As a possible venue for reinforcing the need for collaborative efforts and exposing emergency responders to the expertise that each agency brings to the planning and response process is through structured, continuous training programs that serve as mandatory, in-service forums to learn about and discuss various planning and response scenarios. As stated by Deputy Commissioner Gair:

I think that the other piece is training, because if we learn things together, we build trust on a couple of levels, we have a common knowledge base that we are coming from, and that we are starting to meet people from other agencies, like the program you are in, building trust and knowledge across jurisdictions. (Personal communication, March 26, 2009)

This training could be especially significant for those agency members serving in middle management positions with the potential to promote upward to more senior level, staff positions. A promising example of this type of training is expressed by Battalion Chief Kevin Woods (personal communication, March 23, 2009) when speaking about a new Office of Emergency Management initiative, “Programs to foster trust, OEM [New

York City Office of Emergency Management] is working on a simulator, bringing all the agencies together where they will simulate terrorist incidents.” Chief Woods continued:

This scenario simulator is going to be a great device to get all the agencies and commanders together, and once you work with these people you will gain this sense of trust and hopefully that carries out into the field. (Personal communication, March 23, 2009)

In addition, current New York City programs, such as the Management Academy and Executive Leadership Program, that are coordinated by the New York City Department of Citywide Administrative Services, could be enhanced and revised to provide leadership instruction from the standpoint of interagency teamwork and homeland security. Awareness, through education, of the critical need for interagency cooperation to solve complex homeland security issues will build a foundation of support from both the current organizational leadership as well as those members who will assume authority in the future.

These programs can facilitate an understanding of how each agency’s knowledge and resources can assist in disaster preparedness, prevention, response, and recovery, and also how the achievement of the overall strategic objectives is dependent on each agency’s ability to contribute its individual expertise. This can be accomplished through facilitated discussions, conferences, drills, tabletop scenarios, and large scale exercises that highlight the need for multiple agency participation, with a focus on how other agencies can assist in the accomplishment of that mission. For instance, what would be the logistical, security, and operational needs of the Department of Health, while overseeing the mitigation activities subsequent to the deployment of a radiological dispersal device? How will other New York City response agencies utilize their expertise and provide their personnel and equipment to help ensure the accomplishment of the Department of Health’s objectives? The mindset should be that the successful completion of the Department of Health’s mission reflects a component of the global New York City response strategy for this incident, and that failure to meet the Department of Health’s objectives will negatively impact the operations of all agencies, diminishing individual agency capacities for accomplishing intra-agency objectives.

Finally, this training and education should highlight the unique role that emergency managers play in the collaborative process. As illustrated in the comments of Deputy Commissioner Alvatroni:

OEM has a role today as a coordinating agency; it coordinates the management of incidents, not by taking a lead role, but by allowing the agencies in the process to do their jobs, and to ensure that every agency that is needed is brought into the process. (Personal communication, April 1, 2009)

In this way, the deep well of resources that exist across agencies, such as hazardous materials capabilities, can be effectively deployed within the context of supporting the efforts of the response agency that has the primary responsibility for mitigating a particular issue.

An educational and training focus on joint problem solving, will assist in increasing the awareness of each agency's capabilities, limitations, and in what manner each organization contributes to the formulation of solutions, further enhancing an inter-agency familiarity, and providing support for the development of trusted partnerships.

B. REALISTIC TRAINING/REVISED EXERCISE PROGRAM

A component of trust building is the provision of opportunities where issues of trust can be exposed, discussed, and remediated. These issues usually manifest themselves in tactical and strategic decision making, which is sometimes not based on accomplishing objectives as a coordinated emergency response effort, but on the basis of a lack of familiarity with agency expertise, lack of confidence in its knowledge or looking to accomplish intra-agency needs without consideration for the citywide strategy. One method to bring those issues of trust and collaboration to light is through realistic training that allows strategy and tactics to unfold naturally, even if some actions are deemed less than satisfactory, and are in need of review and revision. As articulated by Brad Gair (personal communication, March 26, 2009), "So I think that the two things that are the best to do are multi-agency exercises, which we really have to work on making more realistic so that it tests our capabilities." Deputy Commissioner Gair continued:

Like at the PATH [Port Authority Trans Hudson] planning exercise, two weeks ago, they were starting to say we'll pick the command post now, so that we will have that out of the way, but that's the thing that we fight most about on these jobs, so if we do not exercise those difficult tasks, we are not going to get past those issues of trust. (Personal communication, March 26, 2009)

C. ENHANCED COMMUNICATIONS

Despite intra-agency communication procedures, codes, and equipment, an emphasis at the command or strategic level of interoperable communications should be implemented during all planning and training activities. Training and exercises should reinforce the critical need for networked communications, particularly during large-scale incidents. It should be practiced both during exercises and drills, and implemented during incidents. Communication hardware must be available to all responding agencies to link up to a multi-agency communication network.

In addition, a focus must be placed on timely, comprehensive information sharing between agencies. Information needs, and the mechanisms for request of information, should be planned out and practiced well in advance as part of interagency disaster preparedness and exercising. This will reinforce the need for collaborative efforts, supported by effective information sharing, and implemented by a networked communication process. As agencies begin to trust in the knowledge and expertise of other agencies and the vital contribution they make to the emergency management process, the need for networked, interoperable communications will be evident as a component of facilitating a multi-agency problem solving approach to large scale incidents, and complex homeland security issues.

D. JOINT OPERATIONS TEAMS

Strategies must be implemented in order to harness the natural tendency for first responders to want to help and provide a public service, and to synthesize those abilities, good intentions, and resources. The consideration and planning for the establishment of joint operations teams, supported by inter-organizational training and exercising,

interoperable communications, familiarity with individual agency resources and equipment, and standard operating procedures, serves the function of providing an avenue for the application of agency expertise in a collaborative fashion. A New York City Emergency Medical Services Official (personal communication, April 15, 2009) provided this current example utilizing the Emergency Medical Services Rescue Medics, “One of the things that I saw, and I think is a great idea, is our rescue, we have really developed our personnel, and they work very well with our hazmat, rescue and squad.” This New York Emergency Medical Services official continued to explain:

They go out and they train and they have now developed the trust where they know each other and every person’s skill, knowledge, they’ve earned respect amongst each other, and they certainly would trust anyone of them with their life because they have the trust in the capability to handle the situation. (Personal communication, April 15, 2009)

E. STUDY LIMITATIONS AND FUTURE RESEARCH

One of the primary limitations of the research study was obtaining a “snapshot” of the significance of trust as a component of collaborative, inter-organizational efforts across the large homeland security and emergency response structure that exists in New York City. Interviewing the senior leadership across the spectrum of New York City public safety agencies provides a snapshot, on a global and strategic basis, of insights and experiences related to trust and collaboration that were representative of an individual agency’s perspective at a point in time rather than across agencies and across time.

Secondly, because the element of trust takes on different meaning or significance, depending on one’s background and experiences, conducting a uniform, reproducible interview was a concern. The researcher attempted to structure this process in a consistent method by asking the same eight questions of each interviewee, and in the same exact order regardless of the interviewee’s position in the organization or agency affiliation.

Thirdly, the study was limited to those agencies that are a primary part of the planning and response process for a terrorist incident or natural disaster in New York City. This thesis did not examine the effect of trust in building collaborative partnerships

on the state, regional or federal level. However, many of the lessons learned and recommendations made are likely generalizable to other contexts.

These limitations open up opportunities for further study on the role of trust in inter-organizational collaboration. For instance, within the New York City emergency response environment, one could expand the research into the role of trust to include additional agency representatives, both horizontally across the various public safety agencies, as well as vertically, including other levels of supervision and management. The resulting data could potentially be significant as a basis for new program or strategy development, so that training, planning, and response initiatives can provide the widest, most useful application throughout the ranks and across agency lines.

The study of trust can be further expanded to include collaborative relationships with state agencies, regional entities, particularly those bordering with New Jersey as well as federal civilian and military partners. This is particularly significant, as demonstrated by the events of September 11, 2001, because large-scale disasters quickly expand to include the participation of state, regional, and federal resources. In addition, further inquiry and study can be conducted to encompass collaborative efforts and the role of trust with members of the private sector and non-governmental agencies, who may have additional expertise, resources, and personnel to assist in homeland security preparedness efforts.

Finally, as referenced in this recommendations chapter, there are many program options to explore in the quest to build trusted partnerships. Further research into case studies, perhaps of other jurisdictions or at various government levels, to examine the lessons learned and successes and failures in the area of trust and collaborative relationship building, would assist in advancing the body of knowledge in this area.

F. CONCLUSION

This trust and collaborative relationship-building process will require a comprehensive enhancement of the New York City Office of Emergency Management's mandate for coordinating the establishment and implementation of these various

programs, and empowered through an informed and supportive city administration. Programs and strategies to build trust, not only in the individual expertise of each agency but in the collaborative process itself, and the necessity for approaching complex incidents or issues with a “task force” mindset, represents a major cultural shift. In fact, the New York City Office of Emergency Management’s mission will be fundamentally altered in order to assist in developing collaborative inter-agency relationships and trusted partnerships. It is a leadership position that must first establish a belief in the necessity and positive attributes of establishing collaborative relations between agencies and be built on a foundation of trust with an emphasis on enhanced problem solving capacities, the effective utilization of limited resources, the application of expertise from multiple agencies, and an increased effectiveness of response.

In addition, this shift in agency perspective and a cultural change will not succeed without the “buy-in” and input of agency commissioners and senior command staff. The development and implementation of strategies to build trust in each other and in a collaborative process will require the knowledge, experience, and guidance of senior agency leadership. It is these senior managers who will assume a leadership role in supporting the message that the complex issues of terrorism, as well as large-scale natural and man-made disasters require a collaborative, multi-agency response system.

From this foundation, specific programs, such as multi-agency training and education, interoperable communications, inter-organizational forums for planning activities, joint-agency response teams, can be instituted to foster an understanding of various agency cultures, enhance information sharing, increase the effectiveness in applying specific agency expertise, reduce competition, and eliminate un-integrated response and planning efforts.

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