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**KATRINA AND THE FEDERAL EMERGENCY MANAGEMENT
AGENCY: A CASE STUDY IN ORGANIZATIONAL FAILURE**

by Elaine Van Patten

*Masters of Science, Technology and Public Policy
Thesis Submitted in Fulfillment of the
Graduation Requirements for the*

*College of Liberal Arts/Public Policy Program at
ROCHESTER INSTITUTE OF TECHNOLOGY
Rochester, New York*

January 2007

Submitted by:

Elaine Van Patten

Elaine Van Patten

(Signature)

(Date)

Accepted by:

Dr. Franz Foltz

Faculty Advisor/Graduate Coordinator
Public Policy/Rochester Institute of Technology

(Signature)

(Date)

Former Director Bob Craig

Thesis Committee Member

(Signature)

(Date)

Campus Safety/ Rochester Institute of Technology

Dr. James Winebrake

Thesis Committee Member/Program Chair

(Signature)

(Date)

Public Policy/Rochester Institute of Technology

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Abstract

The risk of increasingly devastating natural disasters and the continuous threats of terrorism drive the nation's demand for swift and effective national emergency planning and response. Hurricane Katrina struck and devastated parts of the Gulf Region as a Category 4 hurricane in August 2005. After landfall in New Orleans, opportunities to maintain sanitation and hygiene quickly disappeared as flood water became contaminated, evacuees were stranded and forced to sleep next to dead bodies and human waste, survive without food or water and hope to be rescued. Survivors were convinced that they were abandoned by the federal government and left to die. Political leaders including President Bush, the governor of Louisiana and the mayor of New Orleans, have publicly criticized the federal emergency response. A content analysis will be presented that analyzes FEMA's actions related to New Orleans from August 26, 2005 to September 5, 2005. A timeline of FEMA actions and decisions for these dates has been compiled from three sources: the Brookings Institute, Think Progress, and Fact Check, which will be compared against the National Response Plan functions that outline responsibilities and actions for FEMA. Congressional testimony, The White House report and the Bipartisan Committee report also provide a first hand account of FEMA's response as well as providing additional information regarding actions taking by FEMA which are not included in the timelines. New recommendations, based on organizational theory, have also been developed. It is apparent that FEMA's failure is due to its organizational structure and systems. Therefore, policy is needed to correct FEMA's severe shortcomings. Such policy change has also been demanded by the public as well as local/state government entities.

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1. Chapter 1: Introduction

Organizational theory, as described by Diane Vaughan, involves the idea that, “formal organizations are designed to produce means-ends oriented social action by formal structures and processes intended to assure certainty, conformity and goal attainment” (1999, p. 273). According to Vaughan, all organizations experience mistake, misconduct, and disaster which are systematically produced based on an organization’s structure (1999, p. 271). This thesis examines the organizational structure of the Federal Emergency Management Agency (FEMA) and how its organizational structure contributed to a deficient and uncoordinated response to Hurricane Katrina around the New Orleans area in 2005.

Based on organizational theory, four research questions were developed that focus on four areas of FEMA’s deficient response to Hurricane Katrina including; centralization and flexibility, employee competency, information sharing, and business continuity planning.

1. How will centralization and flexibility affect an organization’s ability to effectively respond and adapt to new and unexpected situations?
2. To what extent will employee skill set and situational awareness affect organizational operations?
3. How will intra and external information sharing impact communication and performance?
4. To what extent will a business continuity plan effect an organization’s ability to timely recover from initial failures?

Using organizational theory, FEMA's response to Hurricane Katrina in New Orleans is analyzed by comparing the research questions against FEMA-mandated actions outlined by the National Response Plan, a timeline of events that took place, as well as congressional testimony, the Select Bipartisan Committee report, *A Failure of Initiative*, and the White House report, *The Federal Response to Hurricane Katrina*. From this analysis, recommendations will be made with the focus of increasing FEMA's preparedness and response to future disasters to prevent such dismal FEMA performance as seen with the response to Hurricane Katrina.

1.1. Why is Katrina an Issue?

The risk of increasingly devastating natural disasters and the continuous threat of terrorism drive the nation's demand for swift and effective national emergency response. In August 2005, Hurricane Katrina struck and devastated parts of Louisiana, Mississippi and Alabama as a Category 4 hurricane (CNN, 2005) in August 2005. The people who survived the 175 mph winds and 20 foot surges of water into the city expected federal relief that was exceedingly slow to arrive. Victims and evacuees waiting four full days before the federal government began to provide assistance. By all accounts, the federal response was a complete failure. In absence of federal relief, citizens around the nation took the initiative to come forth with supplies and equipment, set up donation funds, offer to take care of displaced pets, and even accept survivors into their homes knowing it would be an extended stay.

Survivors in the affected areas in the Gulf region lost hope that the federal government would come to their assistance. Violence and emotions ran high as people looted for food, water and other essential items for their survival. Media sources

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local emergency efforts (Schneider, 1993). According to Schneider, the federal thought towards emergency management must be shifted towards proactive approaches, with less emphasis on civil defense. Schneider states that the federal response in 1989 to Hurricane Hugo was found by GAO to be inadequate and that the federal response was not capable of stepping in immediately to pick up the slack of overburdened state resources (GAO, 1993).

In May 2005, Congress and the Department of Homeland Security's inspector general charged that FEMA had paid \$31 million in disaster relief without verifying damage claims beforehand from Hurricane Frances that hit Florida in 2004. FEMA also paid out nearly \$200,000 in unverified expenses for clean-up equipment. Another \$9 million in rental assistance was paid to nearly 5000 residents who did not require such assistance (Hall, 2005, p. 1). This particular incident was the first grilling session for the then current FEMA Director, Mike Brown. Media sources have acknowledged that, "Created in 1979, after criticism of previous disaster-relief efforts, FEMA is no stranger to controversy" (Marek, 2005). In fact, South Carolina Democrat Sen. Fritz Hollings summed up prevalent frustration throughout the United States in 1989 after Hurricane Hugo struck and devastated his state when he called FEMA, "the sorriest bunch of bureaucratic jackasses I've ever known" (Hall, 2005, p. 2). Marek stated, "Kate Hale, the former emergency management director of Miami- Dade County, was so exasperated by FEMA's response to Hurricane Andrew in 1992 that she asked in a tearful press conference, 'Where the hell is the cavalry' " (2005)?

The General Accountability Office (GAO), at the request of Congress, conducted research regarding FEMA's capability to respond to catastrophes after the relief efforts

for Hurricane Andrew in 1992. The GAO concluded that FEMA and the federal response were inadequate in the following areas: assessing damage and the needs of victims; providing food, shelter and other essential services, such as medical care, to disaster victims when the need for resources overburdens state and local faculties; and adequately preparing for such a disaster even with advanced warnings since the President must issue a disaster declaration before federal preparedness may commence (GAO, 1993).

The Department of Homeland Security (DHS) has been accused of moving too slowly and failing its mission of being ready for the future emergencies since September 11, 2001. This reason led to the creation of DHS; to prevent as well as respond to future large scale emergencies. Four years after September 11th, DHS has only approved a draft version of its “national preparedness goal” which covers each facet of an emergency (Washington Post, 2005). Such a document would have proven to be extremely vital during Hurricane Katrina, had government officials been able to utilize it.

Although DHS was created to prepare for all types of hazards, the Washington Post has report that, “ ‘DHS in reality emphasized terrorism at the expense of other threats’, said several current and former senior department officials and experts who have closely monitored its creation. This includes the cutting of funding for natural disaster programs and downgrading the responsibilities and capabilities of the previously well-regarded FEMA” (2005).

National Institute of Standards and Technology (NIST) and FEMA announced in April 2002 that both agencies signed an agreement designating NIST to be the research and technical resource for FEMA. The purpose of such an agreement was to assist the federal government in minimizing national disaster losses and also bolster homeland

security efforts. The agreement states that both agencies will work on projects of mutual interest, collaborate to evaluate equipment that is used by first responders (police, fire, EMS), and the agencies will meet on a semi-annual basis to assess their progress (NIST, 2002). Semi-annual meetings do not create the feeling that the parameters of the agreement are of high priority. Also, the agreement does not appear to have a focus on the prevention and response to natural disasters, other than the mention to equipment that first responders utilize. Such equipment could include clipboards or flashlights, instead of satellite communications, and mobile command units which may be more effective and necessary.

In 2004, FEMA ran a simulation in which a Category 3 hurricane, dubbed Hurricane Pam, hit Louisiana. The 5-day exercise covered various aspects of an emergency such as how to replenish shelters and hospitals with necessary supplies, establishing a command structure that would guide the effort of 800 rescuers, establishing 1000 shelters and creating a transportation plan to safely evacuate survivors. Additional topics that were discussed included identifying over 784 shelter locations, developing a plan for identifying more shelter locations, strategies to transport patients between medical facilities, and coordinating the operations and staffing of temporary schools in temporary housing locations (Longley, 2005).

A FEMA press release was issued after the conclusion of the Hurricane Pam simulation exercise on July 23, 2004, and contained the following statement from Colonel Michael L. Brown, Deputy Director for Emergency Preparedness, Louisiana Office of Homeland Security and Emergency Preparedness, "Hurricane planning in Louisiana will continue," stated Colonel Brown, "Over the next 60 days, we will polish

the action plans developed during the Hurricane Pam exercise. We have also determined where to focus our efforts in the future” (Longley, 2005).” Clearly, such a plan did not materialize before Hurricane Katrina struck and devastated the Gulf Region over a year later on August 29, 2005.

1.3. Why is it a Policy Issue?

FEMA’s failure regarding Hurricane Katrina is apparently due to its organizational structure and systems failure. Components of FEMA’s organizational structure will inherently cause FEMA to fail when preparing for and responding to disaster. These components include:

- Centralization
- Flexibility
- Information sharing
- Employee competency
- Business continuity planning

Therefore, a policy response is needed to correct each of FEMA’s severe shortcomings. The public and local/state government entities have demanded such a response. In addition, both the White House Report, *The Federal Response to Hurricane Katrina: Lessons Learned* (2006), and Select Bipartisan Committee Report, *A Failure of Initiative: The Final Report of the Select Bipartisan Committee to Investigate the Preparation For and Response to Hurricane Katrina* (2006), make several recommendations that would include policy development, change and/or implementation. In this way, both the analysis of and recommendations for FEMA closely involve policy.

The National Response Plan (NRP) is the federal government's emergency response plan and policy that coordinates the federal response to human-made and natural disasters. Hurricane Katrina was the first time the NRP was utilized since its implementation in 2004 by President Bush and clearly this new policy failed its first time being used. The development of new policies or the adjustment of current policies may be necessary to correct the problems of the NRP which contributed to FEMA's horrendous disaster response.

Policy also has a strong presence in laws. Accordingly, there are several laws and federal regulations that are involved in structuring a federal agency such as FEMA. Laws also mandate FEMA's response duties for disasters including granting FEMA its authority to prepare and respond to emergency incidents, outline action plans and assign responsibility for critical response activities.

1.4. Why is it a Science/Technology Issue?

Technology is a large part of disaster planning, management and mitigation. Technology is necessary for all facets of a disaster, including internal and external communications, search and rescue operations, federal reporting, information flow transportation, contract negotiation, etc. The use of technology is critical to the disaster response. For example, FEMA uses satellite communication equipment, portable communication hubs, and radios to maintain contact with FEMA employees, federal agencies and local governments. Heat sensitive equipment assists search and rescue teams to locate victims. Helicopters equipped with rescue tools are able to pluck stranded victims from flooded land.

The purpose of developing equipment for emergency response is to lessen the effort and time needed to accomplish essential tasks required during a disaster. The overall purpose of disaster response is to arrive at the recovery stages of a disaster as soon as possible which can be done more efficiently and effectively with the aid of technology.

The federal government has access to various advanced technologies that the general public may not even be aware of. With such great advances in technology, one would expect that federal response duties and responsibilities, particularly that of FEMA, would be completed in a timely manner with precision and accuracy. Rather, FEMA's response was primitive as they lacked the proper (or functioning) tools and equipment to effectively provide relief response. *The Federal Response to Hurricane Katrina, A Failure of Initiative*, as well as various media reports, described several instances in which federal equipment, particular FEMA's, was nonfunctional, incompatible with other agencies' equipment, not able to be located by FEMA, or not deployed by FEMA and sat in FEMA storage facilities unused.

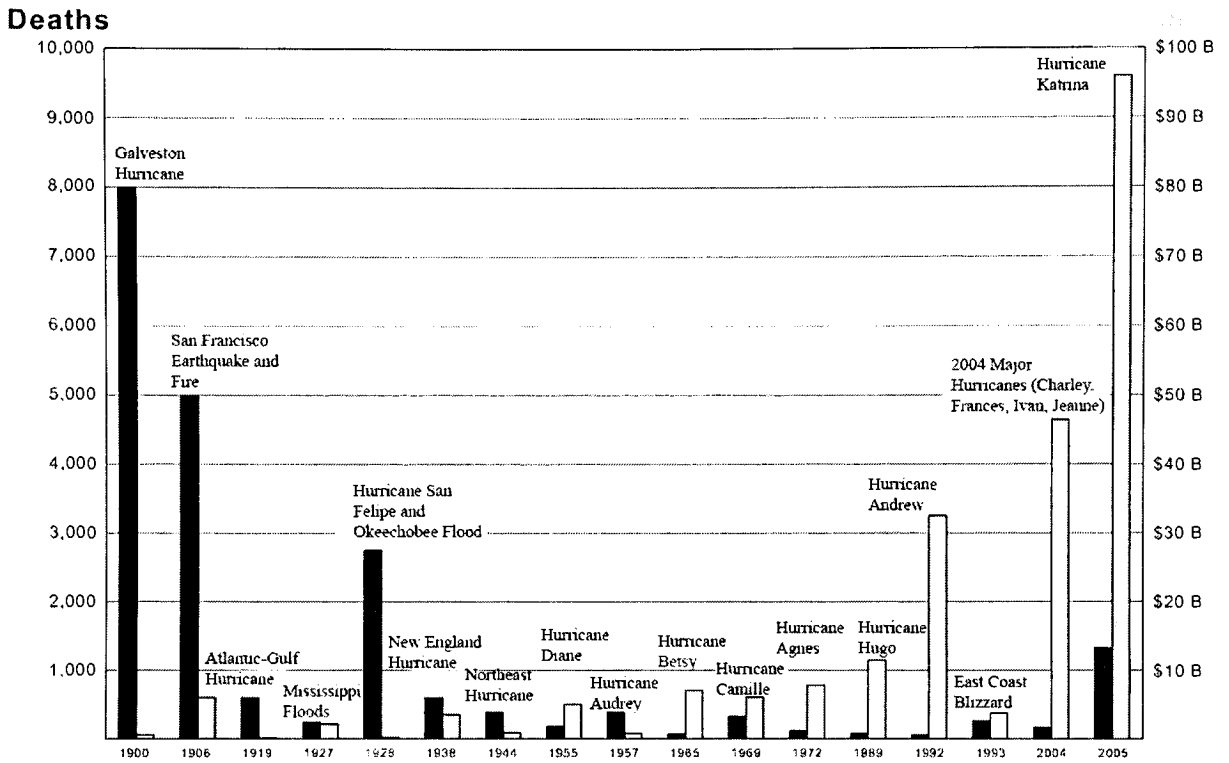
1.5. Why does it Demand a Response?

The public, as well as state and local government agencies, have demanded to know who was responsible for the failed federal response and what measures will be taken to ensure the federal government will have the capability to plan for and respond to large-scale disasters in the future. Accountability and corrective action for future human-made and natural disasters must be achieved by the federal government in order to limit the loss of life, property damage and to restore the public's faith that FEMA is an essential government agency that can sufficiently respond to the needs of disaster victims.

As demonstrated above, over the past 15 years the federal government, specifically FEMA, has consistently been found to be lax and unprepared in its responses to numerous man-made and natural disasters. Seemingly, FEMA has been criticized multiple times for the same types of shortcomings and it appears as though FEMA has not worked diligently or adequately to correct these shortcomings and improve future preparedness and response. In recent years, the threat and use of terrorism dramatically increased, while the threat of natural disasters has also become more dangerous and costly. Therefore, the need is increasingly higher for a swift and effective federal response to disaster, which should motivate FEMA to correct identified shortcomings, failures and criticisms.

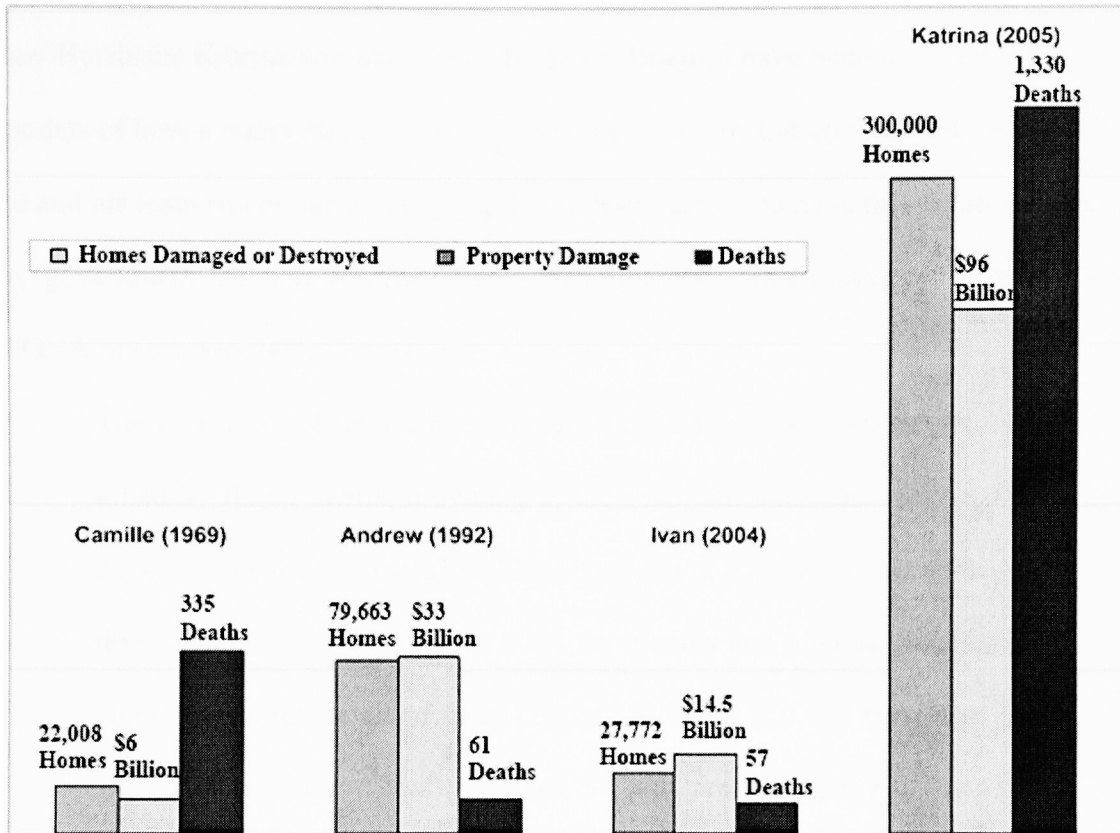
The Federal Response to Hurricane Katrina (2005) indicates that hurricanes are becoming increasingly more expensive as more property damage is resulting from more powerful storm as well as more lives are being lost. Figure 1.1 depicts the mounting costs of hurricanes each decade since 1900, which identifies a steady increase of cost and destruction. Figure 1.2 compares the property damage costs, number of damaged/destroyed homes and lives lost from Katrina to Hurricanes Ivan, Andrew and Camille, with Katrina being approximately three times as costly as the other hurricanes.

Figure 1.1 U.S. Natural Disasters that Caused the Most Death and Damage to Property in Each Decade, 1900-2005, with 2004 Major Hurricanes Added Damage in Third Quarter 2005 Dollars



Source: The Federal Response to Hurricane Katrina, 2005

Figure 1.2: Hurricane Katrina Compared to Hurricanes Ivan, Andrew, and Camille



Source: The Federal Response to Hurricane Katrina, 2005

In addition, Kerry Emanuel, an atmospheric scientist at Massachusetts Institute of Technology, has concluded that since the mid-1970s, there has been approximately a 50 percent increase in both the duration of these storms as well as their maximum wind speeds (NSF, 2005, para. 2). This increase in power and destruction is growing due to the ocean temperatures increase from global warming. Emmanuel has concluded that, “Hurricanes account for a significant fraction of damage, injury and loss of life from natural hazards, and are the costliest natural catastrophes in the United States. As the human population in coastal regions gets denser, the damage and casualties produced by more intense storms could increase considerably in the future” (NSF, 2005, para. 8).

In fact, Ivor van Heerden, a hurricane expert at Louisiana State University, states he saw Hurricane Katrina coming. 2001, he and colleagues have been generating computer models of how a major storm could inundate the region in and around New Orleans. And he and his team sought tenaciously—at times desperately—to have their warnings heeded by government officials (Nova, 2004). Van Heerden stated during an interview with NOVA in October 2004:

There is the potential for extremely high casualties—people not only killed by flying debris, drowning in the soup, but also just imagine, how do we rescue the survivors? Unlike a river flood, it doesn't come up and go down. The water stays. And it stays for months and months and months. How do you rescue all of these people? If there's 200,000 survivors, you get 20,000 out a day, that's 10 days. So how are they going to hang on? You know, this is one of the big nightmares: how do you rescue those survivors? What are they going to need?

I think that there is a real lack of appreciation for the science. I know from the exercises we've been involved in, certainly with FEMA officials, not all of them have been very responsive. You know, I think a lot of them are ex-military folk, and to them we may be geeks.

FEMA can no longer be swept aside and out of the public spotlight until the next disaster. Corrective action must be implemented now so new policies/procedures, organizational restructuring, retraining and fund allocation can be in place to lessen FEMA's burden of managing emergency incidents. FEMA must be accountable for its

deficient preparation and leadership during disaster preparedness and mitigation for Hurricane Katrina. If this trend of poor performance and lack of accountability continues, one may expect liability and litigation against FEMA for its repeated failed responses, unwillingness to effect change, and ignoring federal recommendations.

1.6. Road Map

The following road map outlines this thesis.

This thesis begins with an introductory chapter designed to make the reader aware of the purpose and need for this research. The introductory chapter also discusses a bit of preliminary background information on Hurricane Katrina to educate the reader of the scope of the disaster being discussed and analyzed. The introduction also includes fundamental information regarding FEMA, organizational structure history, and past criticized disaster responses and actions.

The theory used to explain FEMA's failed response is organizational theory. Various theories of organizations, their functioning, and organizational failure are introduced in Chapter 2. Theory operationalization, which provides examples that support this theoretical framework, are also discussed in Chapter 2. In particular, there are four organizational problem areas that provide examples and further discussion of organizational theories, including: centralization and inflexibility, employee inadequacy, information flow, and lack of planning.

The background information and description of organizational theory leads into Chapter 3, where the research methodology is outlined and discussed. The methodology includes information regarding why each of the data sources was chosen for inclusion in

this research as well as the steps and decisions made regarding how the data information was collected.

Chapter 4 examines the three main sources of data used for the content analysis. A timeline of actions from August 26th through September 5th outlines the events that took place as reported by various media sources. The National Response plan outlines responsibilities and essential functions that each of the federal government agencies, particularly FEMA, are mandated to perform during an emergency. The final section of Chapter 4 describes what FEMA did correctly during its response to Hurricane Katrina. While there are not many accomplishments, it must be recognized that FEMA was able to successfully perform some of its functions and tasks during the relief effort of Hurricane Katrina.

Chapter 4 leads into the analysis and discussion section which comprises Chapter 5. The chapter includes the findings, analysis and discussion of the research. Specific examples of FEMA's response effort are discussed. The Select Bipartisan Committee report, *A Failure of Initiative*, and the White House report, *The Federal Response to Hurricane Katrina*, provide examples of FEMA's activities during the relief response as well as investigative findings presented in each of these federal reports. Congressional testimony provides an inside look at FEMA's response during Hurricane Katrina and offers a first hand account of the events and actions that transpired during the relief effort.

Policy recommendations for FEMA will be discussed in Chapter 6. These recommendations are focused at FEMA and how it may improve its disaster preparedness, response and effectiveness. These recommendations are based on the findings and analysis section of Chapter 5. The findings and analysis are developed from

the evaluation of the research questions which were developed from the organizational theoretical framework in Chapter 2.

As with all types of research, it must be recognized that there are limitations and challenges. Chapter 7 discusses the limitations of content analysis research design, the selected data sources and methodology applied in conducting the research.

Conclusions of the research analysis are discussed in the final section, Chapter 8. Clearly, FEMA's response to Hurricane Katrina was insufficient, uncoordinated and delayed. Organizational changes must be implemented to correct FEMA's inherent deficiencies and ensure successful future disaster preparedness and response performance. The opportunities for further research are acknowledged in Chapter 8, as this research does not fully answer all possible questions regarding FEMA, its organizational functions and structure, or its response to Hurricane Katrina.

2. Chapter 2: Literature Review

In order to understand why the federal response to Hurricane Katrina was inadequate and to assist in answering the public's demand for accountability, a theoretical framework must be developed. This type of framework is necessary in order to identify what areas of the federal response, particularly FEMA's response, failed and subsequently develop policy recommendations to correct such failures. Various organizational theories provide viable systems which are applicable to explaining FEMA preparation activities and its response to Hurricane Katrina in New Orleans during what the media has termed the "Week of Crisis". Organizational theories explain how organizations function, their structure and what components and characterizations of an organization may cause such problems and failures witnessed in FEMA's response to Hurricane Katrina. More specifically, organizational theory describes an organization's behaviors, interactions and dynamics through studies of its structures (including centralization of power, coordination and formalization), functions and properties (ISCID, 2006).

Organizational deviance is defined by Diane Vaughan as, "an event, or circumstance, occurring in and/or produced by a formal organization that deviates from both formal organizational design goals and normative standards or expectations, either in the fact of its occurrence or in its consequences and that produces an unanticipated suboptimal outcome" (1999, p.283). Essentially, when organizations stray from established protocol or agency goals there is a high probability that mistake and negative consequences will result. Further, mistake and disaster are described by Vaughan as, "socially in relation to the norms of a particular group [such as an organization]" (1999). This indicates the

same action may be viewed differently depending on the structure and norms of the organization involved. When identifying a failure in an organization, it is also important to determine who has the authority to define what circumstances constitute failure (Hughes, 1951). Different organizations will have varying descriptions and classifications of what is acceptable and categorized as a deviation from the organization's norms and expectations. Each organization will also have its own definition of mistake, deviance and failure.

As described by Vaughan, organizational researchers have accepted that, "A mistake is systematically produced as a part of the social organization of work" (1999, p.283). Vaughan continues, "A mistake is defined as organizational deviance that stresses the violation of formal design goals and normative standards and expectations to include acts of omission or commission by individuals or groups of individuals, acting in their organizational roles that produce unexpected adverse outcomes with a contained social cost" (1999, p.284). Essentially, a mistake is defined as when an error occurs and the consequences are relatively small (i.e. a procedure wasn't correctly carried out and it was inconvenient for another worker to correct the action).

Vaughan has categorized misconduct as organizational deviance plus, "acts of omission or commission by individuals or groups of individuals, acting in their organizational roles, who violate internal rules, laws, or administrative regulations on behalf of organization goals. Harm is extensive and social costs are high" (1999, p. 288). Misconduct is seen as intentional deviation of organizational norms and procedures, similar to sabotage. FEMA employees did not intentionally sabotage their relief efforts or refuse to provide an adequate or timely response. In reality, FEMA did not have the

capacity or ability to properly respond to the overwhelming need for relief that Hurricane Katrina caused. Therefore, misconduct will not be included in this discussion since it was not a factor in FEMA's response effort.

While organizations strive to function efficiently and effectively, virtually all organizations have a dark side. This side of an organization has been described as a place where nonconformity, mistake, misconduct and failure may occur and how activities may go wrong in organized settings (Vaughan, 1999). Vaughan stated, "Routine nonconformity, mistakes, misconduct and disaster are not abnormal events, but systematic products of complex structures and processes" (1999).

Regarding organizational theory, the distinction must be made that the theoretical framework of this thesis is more applicable to the public sector, rather than the private sector. The main organizational theorist referenced in this thesis, sociologist Diane Vaughan, has spent several years concentrating on the sociology of public organizational failures, particularly NASA's Challenger and Columbia disasters. Coupled with Vaughan's evaluation of two shuttle disasters, Scott Snook examined the public organizational theory practical drift as experienced during a military friendly fire incident. The remaining majority of organizational theorists cited in this thesis were identified through Diane Vaughan's works related to public sector organizational theory. While not all authors may clearly make the distinction between their intent to focus on private or public sector organizational theories, the focus of this theoretical framework is solely the public sector.

Public organizational theory invariably differs from private sector organizational theory. The public sector encompasses that portion of the economy composed of all

levels of government, and excluding businesses and households (Office of Thrift Supervision, 2006). Typically, the focus of the public sector includes communal services for all citizens as well as state or federally controlled services. Also, the actions of the public sector may be politically driven.

Conversely, the private sector includes that portion of the economy composed of businesses and households, and excluding government (Office of Thrift Supervision, 2006). The private sector is generally more profit driven than the public sector, more able to quickly provide individual services to citizens and is usually less bureaucratic.

This thesis will determine whether FEMA's response to Hurricane Katrina is essentially due to organizational mistakes and failure. This thesis will also examine if FEMA was capable of adequately preparing for and responding to Hurricane Katrina. Specifically, this thesis will analyze FEMA's centralization, flexibility, employee competency, information sharing and business continuity planning.

2.1. Problem of Centralization and Inflexibility

The historic transformation of individuals into formal organizations meant that organizations now interact with other organizations and no longer individual voice to individual voice. Due to the formalization and rise of organizations, individuals lost their voice and subsequently lost a degree of individual power (Coleman, 1974).

Organizations, particularly larger ones, make it rather opportunistic for employees to hide within the organizational structure and avoid being singled out or held accountable, which may lead to a lack of accountability, and ease in passing the blame onto others.

Vaughan established that, "Formal organizations are designed to produce means-end oriented social action by formal structures and processes intended to assure certainty,"

conformity and goal attainment” (1999, p. 273). Essentially, organizations will develop a structure that will assist in maintaining organization rigidity, reliability and success. Without such formality and process, an organization is liable to fall apart as it has no backbone. This breakdown does not occur by chance, but rather it is generally a standard offshoot of the connections between the characteristics (environment, organization and cognitive practices) of the organization and its system (Vaughan, 1999, p.274). Vaughan described this as organizational deviance: “A predictable and recurring product of all socially organized systems” (1999, p.274).

High levels of formalization or centralization may result in greater organizational coordination. While formalization and centralization produce a strong spine for an organization, they are not without their drawbacks. Organizations may also suffer from rigidity in which the organization is not flexible enough to adapt to new and changing situations, policies that are not suited to address all type of situations and cumbersome procedures may stall routine decisions or rapid-response in crisis situations (Staw et. all, 1981).

Based on this theory, organizations will be unable to adapt to unforeseen situations in which there is no organizational policy or procedure. Instead, organizations will follow existing policies and procedures, despite the gravity of an urgent situation they may face. As a result, the organization will fail at effectively responding to the unplanned situation, as the organization will not have a pre-established standard for response. Due to bureaucratic red tape, organizational processes will delay critical response efforts. An organization will not bypass such time intensive structures processes. This type of theory

lends itself to an inefficient, inflexible, and bureaucratically complex organization which will inevitably delay or possibly paralyze disaster response and mitigation.

Also, power may be used by organizations as a central explanatory concept regarding new and unforeseen situations. When this occurs, the focus of an organization shifts from adapting to new and uncertain environmental conditions to the organization, “actively defining, creating and shaping its environment to suit their needs,” as described by Perrow (1986 and 1991). Selznick (1949) further explains this “power struggle” may result in goal displacement and threatened organizational stability. In order for organizations to survive and not fall victim to Darwinism, they must compete for resources.

Organizations respond to the work environment they are in (pressure to perform, competition for resources, etc.) instead of the true work task they are seeking to complete. When an organization develops intricate and elaborate extensions of their fundamental policies and procedures, the complexity of the organization itself increases. These rules function as myths that organizations will adopt them, establish legitimacy for them, and dedicate resources to them. Institutionalized products, services, techniques, policies and program myths are tempting to buy into and serve as powerful myths that many organizations are willing to adopt ceremonially (Meyer and Rowan, 1977). The use of these rules will conflict with the organization’s support, legitimacy and efficiency structure.

Environmental strain (conflicting goals, deadlines, complex procedures, performance pressures) is tightly associated to failure. The more environmental strain an organization experiences, the higher the chances are for it to succumb to failure. The chance of failure

is due to both internal and external pressure and organizational complexity, which make it more difficult to follow organizational procedure and standards. The organization's history, or track record, also matters (Turner, 1978) when assessing how an organization will fare with environmental strains. Have past problems been corrected and new processes put in place to correct a previous situation? Have cultural beliefs adapted to the new and changing environmental factors?

2.2. Problem of Lack of Employee Competence

As explained by Hughes, "The frequency and probability of workplace errors will vary based on occupational skill, frequency of skill performance and the role in the workplace as a social system" (1951). In addition, Hughes also stated that the opportunity for workplace errors to occur is dependent on the, "distribution of risk among occupational roles and how systems delegate, spread, or concentrate both the risk of mistakes at work and the losses that result from them" (1951). For example, a non-profit organization that has one grant as its sole funding source which allows its least experienced employee to be the sole author of the grant application will increase its risk of error, or not being funded, than an organization who diversifies its sources of funding and has a committee of experienced staff collaborating to author its grant application.

Organizations that do not adequately distribute risk or plan for losses from mistakes will have an ineffective response. Few employees are knowledgeable regarding what tasks must be accomplished if they are regularly not included in such activities. Employees may attempt to act on their own to coordinate response actions which they believe to be beneficial to both the organization's struggling response effort. When

employees drift from the organization's procedure and act on their own without supervision or approval, then the risk of mistakes and errors will be high.

When poor performance is observed, organizations respond by tightening rules and regulations in hopes of an easy resolution to the perceived problem. Increased rigidity, as noted by Crozier (1964), is a typical response to organizations error or poor performance. For each subsequent error that occurs, the response is the same and rigidity increases. This heightened level of rigidity merely perpetuates the death spiral of nonconformity since there is no method to identify and correct the problem. Thus, an organization's system of bureaucracy cannot properly correct its own errors because there is no useful feedback mechanism in place.

Hierarchy and power have a prominent role in failures. Executive goals and resource allocation may place employees in a situation where there may be a tendency for accidents to occur. Executives and administrative employees are generally removed from the daily functions of an organization and therefore are not well versed in daily tasks and procedures. As a result, administrators and executives may make decisions or take action that is harmful to the rest of the organization due to lack of knowledge of the organization. Decisions or actions may also result from the executive's own political agenda or personal gain, despite what may be beneficial for the organization. As a result, errors which may occur at the top of an organization's hierarchy have an increased potential to result in organizational accidents since such errors act as a slippery slope and often compound as they move down through the hierarchy (Turner, 1978).

2.3. Problem of Lack of Information Sharing

Specialization of knowledge between organizations or within various disciplines of an organization can lead to negative consequences (Vaughan, 1999, p. 272). Due to such barriers as technical vernacular, specialized knowledge, and technology, employees may be unable to communicate and relate to one another. This may foster frustration and an unwillingness to engage in dialogue and debate, which is essential for intellectual and policy development. Similarities in related work products and functions may not be visible to employees. In addition, Vaughan has indicated, “The sociological basis for policy implications for organizations may remain underdeveloped” (1999).

Organizations may also suffer from what Vaughan (1996) described as “structural secrecy,” which describes how, “The division of labor, organizational hierarchy and job specialization segregate knowledge regarding tasks and goals.” Vaughan also concluded that, “Structural secrecy assumes that knowledge will be partial and incomplete, the potential for actions to go wrong increases when tasks or information crosses internal boundaries, and segregated knowledge minimizes the ability to detect and halt activities that deviate from the organization’s goals and tasks” (1996). An organization that shares partial or incomplete information may be prone to redundant efforts as no one sector of the organization is fully cognizant of what the others sections are charged with completing. Lack of definite information will also breed confusion, uncoordinated and substandard services, conflicting orders, frustrated staff members and rumors which may be perpetuated by the media to the public.

Secrecy is routinely built into organization structure. Different subsystems in an organization may speak different languages or use different technologies that make

communication and information sharing difficult. Organizations may try to resolve this lack of information flow by implementing strict rules regarding when and with whom information should be shared. This formal structure usually makes communication even more complicated and employees may actually learn less (Vaughan, 1997, p. 250).

2.4. Problem of Lack of Business Continuity Planning

Turner and Pidgeon described an additional component of organizational failure: “Disaster is another type of routine nonconformity which significantly departs from the normative experience in a particular time and place” (1997). Turner and Pigeon further explained disaster as, “It is a physical, cultural, and emotional event incurring social loss, often possessing a dramatic quality that damages the fabric of social life. For an accident to be defined as a disaster, the accident would need to large-scale, unusually costly, unusually public, unusually expected, or some combination” (1997). Vaughan’s definition of disaster specifies it as, “an organizational-technical systems failure that includes acts of omission or commission by individuals or groups of individuals acting in their organizational roles, with outcomes that either in the fact of their occurrence or consequences are unexpected, adverse and of high social impact and cost regardless of number of lives and amount of property lost” (1999, p. 293).

Organizations that lack plans to manage organizational failure will fall apart during the course of their disaster response. Organizational performance will steadily decrease as the organization struggles to continue the response effort. Increased employee confusion, frustration and miscommunication will occur. Other departments of an organization will be affected by the failing department by experiencing increased mistakes or even disasters. For example, a department’s nonfunctioning piece of

communications equipment may dramatically affect the ability of all internal departments and external agencies to communicate with that department. Without a recovery plan to begin an alternate method of communication within this department, the organization will begin to fail as it no longer can share critical information and therefore can no longer provide an effective response effort.

Complexity is, according to Perrow, “a core concept in disaster studies” (1984). Systems and components (departments, equipment, etc) are all interconnected which creates system complexity. Perrow concluded, “Accidents are the result of these complex systems. The outcome of different types of interaction of system parts and the types of coupling can dictate the seriousness of the accident [mistake or disaster]” (1984). Complex interactions, by definition, are components which can interact with one or more other components either by structural design or not (Perrow, 1999, p. 77-78). Since failure can be expected at some point within all systems, the recovery plan is critical. Organizations should be able to prevent a failure from spreading to all of its components (Perrow, 1999, p. 95).

Snook (1996) has described “practical drift” as, “an incremental uncoupling of practice from written procedures designed to handle the worse-case condition when subunits are tightly coupled.” More specifically, Snook stated that, “Practical drift is the slow steady uncoupling of local practice from written procedure. It is this structural tendency for subunits to drift away from globally synchronized rule-based logics of action toward locally determined task-based procedures that places complex organizations at risk” (Longstaff, 2003). When employees stop, for one reason or another, adhering to the policies and procedures of the organization, they are placing the

organization at risk for accidents. The longer these employees are allowed to operate on their own and not maintain compliance with company policy, the higher the risk of an accident occurring. Laws are ambiguous by nature and therefore policies associated with those laws are also ambiguous. In that context, it can be very dangerous for employees to act on their own accord and not adhere to organizational procedures.

This gap between the procedure and what actually happens can dramatically cripple an effective emergency response. Therefore, it is imperative that employees have written procedures that they use on a regular basis. When an emergency situation arises, the necessary procedures will be engrained in the employees' thought processes. This can be compared to law enforcement training. Police officers are thoroughly and consistently trained for managing worst-case situations. Several officers have emerged successfully from a horrific situation and stated that they stopped panicking and let their training take over. This example helps to explain Lanir's notion that: "both intelligent technology and intelligent people have a limited ability to manage and work through unforeseeable situations, known as 'the reasonable choice of disaster' " (1989).

There are various organizational theories that provide explanations and insight as to how organizational are structured, how they function and also how they make mistakes, fail and create disasters. This framework is also the basis from which research questions will be developed and then tested against FEMA's preparation and response to Hurricane Katrina as well as mandated actions outlined in the National Response Plan.

2.5. Research Questions

While organizational theory provides a broad explanation of how organizations are structured and how they function, this theoretical framework raises many direct questions

regarding FEMA's structure, decision making practices and operations. From the above theory, four research questions have been developed which will be tested against the actions and decisions that took place during FEMA's preparation for and response to Hurricane Katrina in New Orleans between August 26, 2005 and September 5, 2005.

1. How will centralization and flexibility affect an organization's ability to effectively respond and adapt to new and unexpected situations?
2. To what extent will an employee's skill set and situational awareness affect organizational operations?
3. How will internal and external information sharing impact communication and performance?
4. To what extent will a business continuity plan effect an organization's ability to timely recover from initial failures?

These research questions were developed based on their relevance to FEMA's actions during the response to Hurricane Katrina. The compatibility of the above questions to be tested against what actually took place as reported by the media and federal reports, as well as what should have happened as outlined by the National Response Plan was an important factor when developing the research questions. The data will either support or dissent from the research questions outlined above. The outcome of this analysis will drive the development of recommendations that are presented in Chapter 6. The purpose of developing recommendations is to enhance FEMA's future disaster preparation and response capabilities.

3. Chapter 3: Methodology

This study will use content analysis to examine FEMA's actions in New Orleans, Louisiana from August 26, 2005 to September 5, 2005 in order to illustrate how FEMA's failed response was due to its organizational structure. For this thesis, a qualitative content analysis is employed, which includes collecting and organizing information into a standardized format which allows for inferences to be drawn regarding the characteristics and meanings of written and recorded material (Bureau of Justice Assistance, 2007). The theoretical framework of this research focuses on organizational theory, including organizational failure related to an organization's structure, employee competence, information sharing and pre-planning capability. Research questions developed from the organizational theoretical framework will be tested against three data sources:

- The timeline of events (comprised of media and federal report data) depicts what occurred regarding FEMA preparation and response activities
- The National Response Plan, which outlines activities FEMA is mandated to perform and
- Congressional testimony, which gives a first hand report from key federal officials and emergency management personnel of how FEMA prepared for and responded to Hurricane Katrina as well as how and where FEMA failed.

The findings from this content analysis will be developed into recommendations focused at enhancing FEMA's capacity to properly and reasonably prepare and respond to future disaster situations.

3.1. Timeline

A timeline of FEMA actions and decisions for the period of August 26, 2005 through September 5, 2005 was constructed using three sources. The first source is the Brookings Institute, a private non-profit organization that performs independent research for policy debate (<http://www.brookings.edu/index/about.htm>). The timeline authored by Brookings was selected because of the reputation the Institute has for performing high quality research while remaining impartial on the issues it investigates. The second source selected, Think Progress, is part of the American Progress Action Fund that wishes to advance progressive ideas (<http://www.thinkprogress.org/about>). The final source of timeline information was Fact Check, which has categorized itself as a non-profit, non-partisan “consumer advocate” to increase public knowledge by monitoring the factual accuracy of what is said by major US politicians (<http://www.factcheck.org/miscreports70.html>). Because organizations may skew facts based on their political leanings, these three sources were chosen not only for their credible reputations within the policy community, but also because they do not subscribe to the same political leanings. Brookings and Think Progress are both considered to be liberal groups, while Fact Check maintains that they are non-partisan.

This timeline is important for various reasons. There are several conflicting entries in the timeline which support the notion that Hurricane Katrina brought on confusion, chaos and panic that was passed onto the media from the local, state and federal officials. A timeline depicts what information the public was provided from the media sources during the federal government’s response to Katrina. The White House Report and Select Bipartisan Committee Report provide additional information regarding actions taking by

FEMA which are not included in the timelines. The federal reports, *A Failure of Initiative* and *The Federal Response to Hurricane Katrina* are the result of investigations initiated by the White House and Congress to evaluate the federal response to Katrina. Therefore, the reports will have additional information that may not have been revealed to or reported by the media in the time period being examined.

As previously mentioned, only the time period of August 26th through September 5th will be considered for this timeline. August 26th through August 28th took place before Katrina made landfall, while August 29th through September 5th has been deemed by various media outlets as The Week of Crisis, with Katrina making landfall on August 29th. This particular week has been the main focus of the media, the public, government officials and emergency management agencies that have critiqued and severely criticized the federal response to Hurricane Katrina. During the response to Hurricane Katrina, New Orleans was frequently in the media spotlight due to its population and city size compared to other areas affected by Hurricane Katrina in the Gulf Region. New Orleans also gained media attention during this Week of Crisis due to reports of violence, looting and inhumane conditions. For this evaluation, only events occurring in New Orleans will be considered. This is due to the fact that New Orleans became a consistent focus of the media, and therefore ample information regarding the federal response will be available for analysis.

The timeline does not include any information regarding September 5, 2005 since there was no data available from the three sources related to FEMA's activities or fundamental information on Hurricane Katrina. Therefore, the last day included in the timeline is September 4, 2005.

3.2. National Response Plan

The timeline will be compared against the National Response Plan (NRP). As Tom Ridge explained the purpose of the NRP in an introductory letter at the beginning of the plan, “to align Federal coordination structures, capabilities, and resources into a unified all-discipline, and all-hazards approach to domestic incident management” (NRP, 2004, p.i). Tom Ridge (NRP, 2004, p.i) also states that:

The NRP incorporates best practices from a wide variety of incident management disciplines to include fire, rescue, emergency management, law enforcement, public works and emergency medical services. The NRP is built on the templates of the National Incident Management System (NIMS), which provides a consistent doctrinal framework for incident management at all jurisdictional levels, regardless of the cause, size, or complexity of the incident.

The NRP is of particular interest since it was implemented in 2004 and subsequently used for the first time during Hurricane Katrina. The NRP outlines several areas of disaster management and critical functions that must be facilitated in relation to each area of response. The NRP identifies a coordinating, or lead agency to ensure the completion of the mandated duties and responsibilities. There are three areas of responsibility and action within the NRP (termed Emergency Support Functions) that will be examined. In these areas, FEMA is the coordinating agency tasked with fulfilling the mission and tasks associated with each (Emergency Management, Mass Care and Urban Search and Rescue). These three areas of responsibility and duty should have taken place and been completed within the time period being examined. The NRP serves as a checklist against

the timeline to compare what FEMA actually did versus what the NRP charged FEMA with facilitating.

3.3. Congressional Testimony

Congressional testimony provides a first-hand account related to FEMA's preparations and response actions regarding Hurricane Katrina. Congressional testimony provides primary information that support points and arguments made by the federal reports and the media timeline. Congressional testimony provides a definitive explanation of what actually occurred during the time period being examined. Only congressional testimony regarding FEMA's actions in or related to New Orleans between August 26th and September 5th will be included in order to uphold a means of uniformity with the timeline and federal reports also being analyzed. Such testimony was collected by visiting the US Senate's website where keyword searches related to FEMA and Katrina were conducted. For US House testimony, the *A Failure of Initiative* report was utilized for its appendices in which House testimony used in the Select Bipartisan Committee's report was documented and available to the public. This was done because keyword searches for testimony on the US House's website, www.house.gov, was unsuccessful in yielding results related to Hurricane Katrina and FEMA's response.

Keyword searches were conducted on the US Senate's website, www.senate.gov. Each testimony was examined for information relating to the parameters of the research design. Each of the following testimonies were examined for relevancy to Hurricane Katrina and FEMA's preparation and response based on the time period outlined above:

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1. Donald Smithburg before the Senate Subcommittee on Bioterrorism and Public Health Preparedness on July 14, 2006
 2. Bruce Baughman before the Senate Homeland Security and Governmental Affairs Committee on March 8, 2006.
 3. Senator Joe Lieberman before the Senate Homeland Security and Governmental Affairs Committee on December 8, 2005.
 4. Craig Nemitz before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
 5. William Lokey before the House Select Committee to Investigate the Preparation for and Response to Hurricane Katrina on December 14, 2005.
 6. Philip Parr before the Senate Homeland Security and Governmental Affairs Committee on December 8, 2005.
 7. Mayor Ray Nagin before the House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina on December 14, 2005.
 8. Colonel Jeff Smith before the House Select Committee to Investigate the Preparation and Response to Hurricane Katrina on December 14, 2005.
 9. William Lokey before the Senate Homeland Security and Governmental Affairs Committee on January 30, 2006.
 10. DHS Secretary Michael Chertoff before the House Special Committee on Katrina on October 19, 2005.
 11. Gary LaGrange before the Senate Committee on Finance on September 28, 2005.

12. Johnny Bradberry before the Senate Committee on Governmental Affairs on January 31, 2006.
13. Bill Carwile before the Senate Committee on Governmental Affairs on Preparation for and Response to Hurricane Katrina on December 8, 2005.
14. Susan Collins before the Senate Committee on Homeland Security and Governmental Affairs on December 8, 2005.
15. Congressman Bennie Thompson before the Senate Committee on Small Business and Entrepreneurship on November 8, 2005.
16. Michael Brown testified before the House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina on September 27, 2005.
17. Marty Bahamonde before the Senate Homeland Security and Governmental Affairs Committee on October 20, 2005.
18. Gregory Rothwell before the House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina on November 2, 2005.
19. Congressman Mike Ross before the Senate Committee on Homeland Security and Governmental Affairs on April 21, 2006.
20. Kenneth Horak before the Senate Committee on Homeland Security and Governmental Affairs on April 20, 2006.
21. Tina Burnette before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Federal Financial Management, Government Information and International Security on April 10, 2006.

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22. Tom Hazelwood before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
 23. David Maurstad before the Senate Committee on Banking, Housing and Urban Affairs on October 18, 2005.
 24. Thomas Gimble before the Subcommittee on Federal Financial Management, Government Information, and International Security Senate Committee on Homeland Security and Governmental Affairs on April 10, 2006.
 25. Robert David Paulson before the Senate Committee on Homeland Security and Governmental Affairs on October 6, 2005.
 26. Governor Haley Barbour before the Senate Committee on Appropriations on March 7, 2006.
 27. J. Robert Hunter before the Senate Committee on Banking, Housing and Urban Affairs on February 2, 2006.
 28. Craig Nemitz before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
 29. Donald Powell before the Senate Committee on Homeland Security and Governmental Affairs on January 17, 2006.
 30. Bruce Baughman before the Senate Committee on Homeland Security and Governmental Affairs on March 8, 2006.
 31. Donald Smithburg before the Senate Subcommittee on Bioterrorism and Public Health Preparedness on July 14, 2006.
 32. Governor Kathleen Babineaux Blanco before the Senate Appropriations Committee on March 7, 2006.

33. Rev. Doc. C. Welton Gaddy before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
34. Almetra Franklin before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
35. Paul Sarbanes before the Senate Committee on Banking, Housing, and Urban Affairs on October 18, 2005.
36. Major Todd Hawks before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
37. Jean Cefalu, RN, before the Senate Committee on Aging Members on May 18, 2006.
38. Roberto Beinfait before the Senate Subcommittee on Federal Financial Management, Government Information and International Security on July 28, 2006.
39. David Pressly before the Senate Committee on Banking, Housing, and Urban Affairs on February 2, 2006.
40. Mary Lynn Wilkerson before the Senate Committee on Small Business and Entrepreneurship on September 22, 2005.
41. Richard Skinner before the Senate Committee on Homeland Security and Governmental Affairs on February 13, 2006.
42. Tanya Harris before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
43. Senator Barbara Mikulski before the Senate Committee on Health, Education, Labor and Pensions on March 8, 2006.

44. Wayne Fairley before the Senate Committee on Health, Education, Labor and Pensions on January 24, 2006.
45. Scott Cowen before the Senate Subcommittee on Education and Early Childhood Development on July 14, 2006.
46. Mayor Brent Warr before the Senate Committee on Homeland Security and Governmental Affairs on January 17, 2006.
47. Hector Barreto before the Senate Committee on Small Business and Entrepreneurship on November 8, 2005.
48. Donald Kettl before the Senate Committee on Homeland Security and Governmental Affairs on June 8, 2006.
49. Michael O'Hanlon before the Senate Subcommittee on Terrorism, Technology and Homeland Security on October 26, 2005.
50. David Garratt before the Senate Committee on Homeland Security and Governmental Affairs on April 27, 2006.
51. Major General Ronald Johnson before the Senate Committee on Small Business and Entrepreneurship on November 8, 2005.
52. Jim Bunning before the Senate Committee on Banking, Housing and Urban Affairs on October 18, 2005.
53. Dan Hanfling before the Senate Committee on Health, Education, Labor and Pensions on March 16, 2006.
54. Steve Ellis before the Senate Democratic Policy Hearing Committee on May 19, 2006.

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55. Jayne Wright before the Senate Committee on Health, Education, Labor and Pensions on March 7, 2006.
 56. Captain Timothy Bayard before the Senate Committee on Homeland Security and Governmental Affairs on January 30, 2006.
 57. Jason Jackson before the Senate Committee on Homeland Security and Governmental Affairs on November 16, 2005.
 58. Wayne Thomas before the Senate Judiciary Committee, Subcommittee on Terrorism, Technology, and Homeland Security on October 26, 2005.
 59. R. David Paulison before the Senate Committee on Homeland Security and Governmental Affairs on May 24, 2006.
 60. William Woods of the Government Accountability Office before the Senate Committee on Homeland Security and Governmental Affairs on April 10, 2006.
 61. Alberto Ashwood before the House Committee on Transportation, Infrastructure Subcommittee on Economic Development, Public Buildings and Emergency Management on October 6, 2005.
 62. Paul McHale before the House Committee on Armed Services Subcommittee on Terrorism, Unconventional Threats, and Capabilities and House Committee on Homeland Security Subcommittee on Emergency Preparedness, Science, and Technology on November 9, 2005.
 63. David Johnson before the House Committee on Science on October 7, 2005.
 64. Lieutenant Governor Mitchell Landrieu before the House Committee on Transportation and Infrastructure on October 18, 2005.

65. Norman Rabkin before the House Subcommittee on Oversight and Investigations, Committee on Energy and Commerce on September 28, 2006.

Each of the three sources of data (NRP, timeline and congressional testimony) will be compared separately to the research questions which have been developed from organizational theory. From these three comparison analyses, findings and recommendations will be generated that are aimed at enhancing future FEMA actions related to disaster management and response. The development of recommendations will be designed to prevent a repeat of the grossly inadequate performance of FEMA's response to Hurricane Katrina.

4. Chapter 4: Findings

FEMA's relief effort for Hurricane Katrina has been criticized by the American public, officials in the emergency management community, as well as federal officials, and political figures. In order to analyze each of the research questions as they relate to FEMA and its response to Hurricane Katrina, it is essential to identify what FEMA actually did, or did not, do before conclusions can be drawn about FEMA's relief effort. The findings of this analysis will impact the types of recommendations that will be developed in order to improve FEMA's future disaster preparedness and response abilities. There are two main data sources that assist in unearthing what FEMA actions took place.

The first data source is a timeline of events that occurred. Key events and actions regarding FEMA have been underlined for emphasis. Underlined items in the timeline signify major errors and actions that occurred for which FEMA is responsible. The underlined text will assist the reader in identifying some of the more important decisions, actions and impacts of FEMA's response to Hurricane Katrina, which will also be incorporated into the upcoming findings and recommendations chapters.

The second data source is the National Response Plan (NRP), which serves as a checklist in order to understand the activities and decisions FEMA is charged with coordinating tasks related to emergency management, mass care, and search and rescue functions. The NRP is the federal plan used for planning for and responding to any type of disaster. This type of checklist assists in discerning if the actions identified in the timeline were in compliance with the tasks and responsibilities outlined in the NRP, lax or insufficient from what the NRP outlines, or all together nonexistent.

While FEMA clearly had several deficiencies in its response, the final section of this chapter identifies tasks that FEMA successfully completed as identified through comparing the timeline with the NRP outline. Positive and successful FEMA actions were also recognized and included from each of the federal reports. It is worth noting that there were tasks and functions that FEMA was able to successfully complete. While FEMA's overall response effort to Hurricane Katrina has been deemed a failure, FEMA was able to successfully manage a few portions of the response effort. The positive actions were grouped into five categories; individual initiative, pre-staging and deployment of resources, information flow, general response and pre-landfall warnings/advisories.

4.1. What Actually Happened:

The timeline below is a compiled list taken directly from three sources: Brookings Institute, Fact Check and Think Progress, which provides a breakdown of FEMA actions in New Orleans for each day during the time period of August 26, 2005 through September 4, 2005. There were no data for September 5, 2005 that provided information related to FEMA or fundamental information on Hurricane Katrina. Therefore, September 5th is not included in this timeline.

Also, various points on the timeline will conflict with each other. For example, the same action may be listed on the timeline twice under two separate days, even though in reality the action only occurred on one of the days. This exemplifies the fact that the flow of information was not clear and resulted in confusion and contradictory media reports. In addition, some of the points on the timeline are not directly related to FEMA,

but they provide important background information regarding Hurricane Katrina and a baseline to understanding the federal response.

Friday August 26th, 2005

- 9am – White House declares impending disaster area and orders FEMA and DHS to prepare. 10,000 National Guard troops are dispatched along Gulf Coast (arrival time unclear) (Brookings)
- The storm heads into the Gulf of Mexico and by 10:30 am is reported to be "rapidly strengthening." (Fact Check)
- 11 pm – Governor Kathleen Blanco declares a state of emergency for Louisiana (Brookings, Fact Check and Think Progress)
- Center of Katrina's landfall is expected to be in Gulfport and New Orleans (Brookings)

Saturday August 27th

- 5am Katrina is upgraded to a Category 3 Hurricane with 115mph winds. Hurricane warning is issued for Louisiana's SE coast and for the northern Gulf Coast (Brookings, Fact Check and Think Progress)
- Gov. Blanco requests that Bush declare a federal state of emergency in Louisiana "I have determined that this incident is of such severity and magnitude that effective response is beyond the capabilities of the state and affected local governments, and that supplementary federal assistance is necessary to save lives, protect property, public health, and safety, or to lessen or avert the threat of a disaster." (Think Progress and Fact Check)
- A federal emergency is declared by Bush. DHS and FEMA are given full authority to respond to Katrina. "Specifically, FEMA is authorized to identify, mobilize, and provide at its discretion, equipment and resources necessary to alleviate the impacts of the emergency." Bush does so, authorizing the Department of Homeland Security and FEMA "to coordinate all disaster relief efforts..." and freeing up federal money for the state. (Think Progress and Fact Check)
- Afternoon – National Hurricane Center Director Max Mayfield calls New Orleans Mayor Nagin to advise him regarding the need for a mandatory evacuation. (Brookings and Fact Check)
- 5 pm – Nagin declares a State of Emergency in New Orleans and establishes a voluntary evacuation order. Residents in low-lying areas are encouraged to evacuate. (Brookings)
- 6 pm – Weather Service Prediction: 45% chance that a Category 4 or 5 storm will hit New Orleans directly. (Brookings)

Sunday August 28th

- 2am – Katrina is upgraded to a Category 4 Hurricane with winds at 145mph (Think Progress and Fact Check)

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- 7am – Katrina is upgraded to a Category 5 Hurricane with 160mph winds. NOAA predicts "coastal storm surge flooding of 15 to 20 feet above normal tide levels." (Brookings, Fact Check and Think Progress)
 - Morning – Louisiana newspaper indicates that forecasters fear the levees will not endure the hurricane "Forecasters Fear Levees Won't Hold Katrina": "Forecasters feared Sunday afternoon that storm driven waters will lap over the New Orleans levees when monster Hurricane Katrina pushes past the Crescent City tomorrow." (Think Progress)
 - Early - DHS Secretary Chertoff and FEMA Director Brown are given electronic briefings by the National Hurricane Center regarding the possibility of a levee break. (Brookings)
 - 8am – Superdome opens up and allows people inside. (Brookings)
 - Morning – Mayor Nagin issues the first mandatory evacuation of New Orleans. Ten shelters are set up for those unable to leave (Nagin referred to them as "refuges of last resort" rather than shelters). Evacuation orders are posted all along the coast. President Bush suggests mandatory evacuation after the decision was already made, but before it was reported to the public. "We're facing the storm most of us have feared," said Nagin. "This is going to be an unprecedented event." The evacuation call comes only 20 hours before Katrina would make landfall – less than half the time that researchers had determined was necessary to evacuate the city. (Brookings, Think Progress and Fact Check)
 - 9:30 am – Nagin announces that Regional Transit Authority (RTA) buses will pick up people in 12 locations throughout the city to take them to places of refuge, including the Superdome. The New Orleans Comprehensive Emergency Management Plan calls for buses to evacuate citizens out of the city (this component was not in effect). (Brookings)
 - 10am – NOAA raises their estimate of storm surge flooding to 18 to 22 feet above normal tide levels. The levee protecting New Orleans from Lake Pontchartrain is only 17.5 feet tall, but other levees and floodwalls designed to protect against storm-driven waters from the Gulf of Mexico vary in height, and are even much lower. (Fact Check)
 - Afternoon – Bush, Brown, Chertoff are warned of the levee failure by the National Hurricane Center Director. Dr. Max Mayfield, director of the National Hurricane Center: "We were briefing them way before landfall. ... It's not like this was a surprise. We had in the advisories that the levee could be topped." (Think Progress)
 - 3pm Superdome has 10,000 people inside with 150 National Guardsmen stationed there (approximately two-thirds are unarmed). (Brookings)
 - 4 pm - National Weather Service issues a special hurricane warning: In the event of a category 4 or 5 hit, "Most of the area will be uninhabitable for weeks, perhaps longer. ... At least one-half of well-constructed homes will have roof and wall failure. All gabled roofs will fail, leaving those homes severely damaged or destroyed. ... Power outages will last for weeks. ... Water shortages will make human suffering incredible by modern standards." (Think Progress)
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- National Hurricane Center Director Max Mayfield participates in a video conference call to the President, who is at his ranch in Crawford, Texas. (Fact Check)
- Approximately 30,000 evacuees gather at the Superdome with about 36 hours worth of food. (Think Progress)
- Louisiana National Guard requests 700 buses from FEMA for evacuations. FEMA sends only 100 buses. (Think Progress)
- 7 pm – National Weather Service predicts the levees may be "overtopped" due to storm surge. (Brookings)
- 8:30 pm - An empty Amtrak train leaves New Orleans, with room for several hundred potential evacuees. "We offered the city the opportunity to take evacuees out of harm's way...The city declined," said Amtrak spokesman Cliff Black. The train left New Orleans with no passengers on board. (Fact Check)
- Late night – Reports are made of water toppling over the levees: "Waves crashed atop the exercise path on the Lake Pontchartrain levee in Kenner early Monday as Katrina churned closer." (Think Progress)
- FEMA sends water, food and supplies to Georgia and Texas in preparation. (Brookings)

Monday August 29th

- 6:10am – Katrina makes landfall as a Category 4 Hurricane with 145mph winds with sustained winds of nearly 145 mph and predicted coastal storm surge of up to 28 feet. The National Hurricane Center warns that "some levees in the greater New Orleans area could be overtopped." The Center states a weather buoy located about 50 miles east of the mouth of the Mississippi river had reported wave heights of at least 47 feet. (Think Progress, Fact Check and Brookings)
- 7:30am – The Bush Administration is notified of a levee breach. The administration finds out that a levee in New Orleans was breached. On this day, 28 "government agencies, from local Louisiana parishes to the White House, [reported that] that New Orleans levees" were breached. (Think Progress)
- 9am Lower 9th Ward Levee reportedly breached. Floodwaters are 6-8 feet high in this area. (Brookings)
- Morning – Brown warns Bush about the potential devastation that Katrina may bring. In a briefing, Brown warned Bush, "This is, to put it mildly, the big one, I think." He also voiced concerns that the government may not have the capacity to "respond to a catastrophe within a catastrophe" and that the Superdome was ill-equipped to be a refuge of last resort. (Think Progress)
- Late morning – a levee is breached: "A large section of the vital 17th Street Canal levee, where it connects to the brand new 'hurricane proof' Old Hammond Highway Bridge, gave way late Monday morning in Bucktown after Katrina's fiercest winds were well north." A full day will pass before state or federal officials fully realize what is happening. (Think Progress, Fact Check and Brookings)
- 11am – Brown finally requests that DHS dispatches 1000 DHS rescue employees to the region and gives them 2 days to arrive on scene and requests 2000 more

within the next 7 days. “Brown’s memo to Chertoff described Katrina as ‘this near catastrophic event’ but otherwise lacked any urgent language. He proposes sending the workers first for training in Georgia or Florida, then to the disaster area “when conditions are safe.” Among the duties of the workers, Brown proposes, is to “convey a positive image of disaster operations to government officials, community organizations and the general public.” The memo politely ended with, ‘Thank you for your consideration in helping us to meet our responsibilities.’” (Think Progress, Fact Check and Brookings)

- 11am - Brown arrives in Baton Rouge at the State Office of Emergency Preparedness. (Brookings)
- Afternoon – FEMA issues a statement asking first responders to only come to the city if there was proper coordination between state and local officials (Brookings).
- 1:45pm President Bush declares Emergency Disaster for Louisiana and Mississippi and frees up federal funds. (Brookings)
- The Superdome sustains damage (with 10,000 people inside). Refineries suffer damage and eight refineries closed. Airports also close. (Brookings)
- Coast Guard rescues 1200 from flood and the National Guard is called in. (Brookings)
- 2 pm – CDT – City Hall confirms 17th Street levee breach. About 20% of the city is flooded. (Brookings)
- FEMA employee Marty Bahamonde listens to reports of the levee breach at the 17th Street Canal and provides regular updates to FEMA Headquarters. Bahamonde conducts a flyover of the area with the assistance of a Coast Guard helicopter. From Bahamonde’s bird’s eye view, there was no doubt there was a breach and he is also able to observe that the city is 80% flooded. Bahamonde then calls Brown at 7 pm and relays his spot report. Brown did not ask Bahamonde any questions. Brown contacts the White House with this information. The White House discounted this FEMA eyewitness account. *A Failure of Initiative*, 2006, p.142).
- 8pm – Gov. Blanco requests (for a second time) assistance from Bush. “Mr. President, we need your help. We need everything you’ve got.” Bush later assures her “help is on the way”. (Think Progress and Fact Check)
- Late night – Bush ends the night without acting on Gov. Blanco’s requests. (Think Progress)

Tuesday August 30

- Early morning – The first reports of looting are made.
- Midday – Chertoff indicates he finally becomes aware that the levee has failed. “It was on Tuesday that the levee—may have been overnight Monday to Tuesday—that the levee started to break. And it was midday Tuesday that I became aware of the fact that there was no possibility of plugging the gap and that essentially the lake was going to start to drain into the city.” Later reports note that the Bush administration learned of the levee breach on Aug. 29. (Think Progress)
- Mass looting is reported and security shortages cited. “The looting is out of control. The French Quarter has been attacked,” Councilwoman Jackie Clarkson

said. “We’re using exhausted, scarce police to control looting when they should be used for search and rescue while we still have people on rooftops.” (Think Progress)

- U.S.S. Bataan sits off-shore unused. “The USS Bataan, a 844-foot ship designed to dispatch Marines in amphibious assaults, has helicopters, doctors, hospital beds, food and water. It also can make its own water, up to 100,000 gallons a day. And it just happened to be in the Gulf of Mexico when Katrina came roaring ashore. The Bataan rode out the storm and then followed it toward shore, awaiting relief orders. Helicopter pilots flying from its deck were some of the first to begin plucking stranded New Orleans residents. But now the Bataan’s hospital facilities, including six operating rooms and beds for 600 patients, are empty.” (Think Progress)
- 4:30 pm Officials call for anyone with boats to help with rescue mission. (Brookings)
- 6:30 pm – Mayor Nagin issues urgent bulletin that waters will continue to rise 12-15 feet in some places. He reports that pumps will soon fail. (Brookings)
- 8:10 pm – Reports suggest looting is widespread. (Brookings)
- 10:15 pm – Gov. Blanco orders an evacuation of the Superdome. She sets no timetable. (Brookings)
- An estimated 50,000-100,000 remain in New Orleans on roofs, in the Superdome, and in the convention center. (Brookings)
- FEMA stops volunteer firefighters with hurricane expertise due to the insecurity of the city and asks them to wait for National Guardsmen to secure city first. (Brookings)
- FEMA activates the National Response Plan to fully mobilize federal government's resources. (Brookings)
- Second levee in New Orleans breaks. Water covers 80% of the city (20 feet high in some places). (Brookings)

Wednesday August 31st

- 1:45 am – FEMA requests ambulances that do not exist. “Almost 18 hours later, [FEMA] canceled the request for the ambulances because it turned out, as one FEMA employee put it, ‘the DOT doesn’t do ambulances.’” (Think Progress)
- HHS Secretary declares federal health emergency throughout the Gulf Coast and sends in medical supplies/workers. (Brookings) “After a natural disaster, short and long-term medical problems can occur. Diseases like cholera, typhoid, hepatitis and mosquito-borne illnesses tend to break out under these conditions.” (Think Progress)
- Buses begin arriving to evacuate the Superdome. 25,000 people are in the Superdome with another 52,000 people in Red Cross shelters. (Brookings)
- 11:20 am - FEMA staff warns Brown that there have been fatalities in the Superdome. Three hours later, Brown’s press secretary wrote to colleagues complaining that Brown needed more time scheduled to eat at a restaurant: “He needs much more that (sic) 20 or 30 minutes. We now have traffic to encounter to

go to and from a location of his choice (sic), followed by wait service from the restaurant staff, eating, etc. Thank you.” (Think Progress)

- Tens of thousands are trapped in the Superdome and conditions deteriorate. “A 2-year-old girl slept in a pool of urine. Crack vials littered a restroom. Blood stained the walls next to vending machines smashed by teenagers. “We pee on the floor. We are like animals,” said Taffany Smith, 25, as she cradled her 3-week-old son, Terry. By Wednesday, it had degenerated into horror. At least two people, including a child, have been raped. At least three people have died, including one man who jumped 50 feet to his death, saying he had nothing left to live for. There is no sanitation. The stench is overwhelming. (Think Progress)
- 12:30 pm Refugees begin arriving in Houston at the Astrodome. (Brookings)
- Water level stops rising in New Orleans. (Brookings)
- Looting grows exponentially and intensifies in New Orleans. Mayor Nagin orders most of the police to abandon search and rescue missions for survivors and focus on packs of looters who are becoming increasingly violent. (Brookings and Fact Check)
- The London Avenue canal is breached. (Brookings)
- Military transport planes take the seriously ill and injured to Houston. (Brookings)
- FEMA deploys 39 medical teams and 1700 trailer trucks. (Brookings)
- Jefferson Parish Emergency Director states that food and water supplies are gone “Director Walter Maestri: FEMA and national agencies not delivering the help nearly as fast as it is needed.” (Think Progress)
- 80,000 are believed to be stranded in New Orleans. Former Mayor Sidney Barthelemy “estimated 80,000 were trapped in the flooded city and urged President Bush to send more troops.” (Think Progress)
- 3,000 people are stranded at the Convention Center without food or water. “With 3,000 or more evacuees stranded at the Convention Center — and with no apparent contingency plan or authority to deal with them — collecting a body was no one’s priority. ... Some had been at the Convention Center since Tuesday morning but had received no food, water or instructions.” (Think Progress)
- 8pm – Brown indicates he is surprised by the size of the storm. “I must say, this storm is much much bigger than anyone expected.” (Think Progress)

Thursday September 1st

- There is still no command or control established in New Orleans. Terry Ebbert, New Orleans Homeland Security Director: “This is a national emergency. This is a national disgrace. FEMA has been here three days, yet there is no command and control. We can send massive amounts of aid to tsunami victims, but we can’t bail out the city of New Orleans.” (Think Progress)
- 2pm – Nagin issues “desperate SOS” to the federal government. “This is a desperate SOS. Right now we are out of resources at the convention center and don’t anticipate enough buses. We need buses. Currently the convention center is unsanitary and unsafe and we’re running out of supplies.” Storm victims were raped and beaten, fights and fires broke out, corpses lay out in the open and

rescue helicopters and law enforcement officers were shot at as a flooded-out New Orleans descended into anarchy Thursday. (Think Progress and Brookings)

- 2pm – Brown claims that he has not previously heard of reports of violence. “I’ve had no reports of unrest, if the connotation of the word unrest means that people are beginning to riot, or you know, they’re banging on walls and screaming and hollering or burning tires or whatever. I’ve had no reports of that.” (Think Progress)
- 8pm – CDT- Brown learns of evacuees in Convention Center. “We learned about that (Thursday), so I have directed that we have all available resources to get that convention center to make sure that they have the food and water and medical care that they need.”
 - Speaking from Baton Rouge in a live interview with CNN's Paula Zahn, he says:
 - Brown: And so, this -- this catastrophic disaster continues to grow. I will tell you this, though. Every person in that Convention Center, we just learned about that today. And so, I have directed that we have all available resources to get to that Convention Center to make certain that they have the food and water, the medical care that they need...
 - Q: Sir, you aren't telling me...
 - Brown: ... and that we take care of those bodies that are there. . . .
 - Q: Sir, you aren't just telling me you just learned that the folks at the Convention Center didn't have food and water until today, are you? You had no idea they were completely cut off?
 - Brown: Paula, the federal government did not even know about the Convention Center people until today.
 - (Brookings, Think Progress and Fact Check)
- Military increases National Guard deployment to 30,000. Violence, carjacking, looting continues. Military helicopters are shot at while evacuating residents. FEMA water rescue operations suspended because of gunfire. (Brookings and Fact Check)
- The first buses arrive at the Superdome to take evacuees to the Astrodome in Houston, 355 miles away. (Fact Check)
- Superdome and Convention Center now housing up to 45,000 refugees. (Brookings)

Friday September 2nd

- Government agencies demand that DHS pay attention to worker-safety. “By Friday, experts and officials from NIH, the Department of Labor and the Environmental Protection Agency began to make frantic calls to the Department of Homeland Security and members of Congress, demanding that the worker-safety portion of the national response plan be activated.” (Think Progress)
- 10:35am – Bush, arriving in Alabama to tour the disaster area, says of the FEMA Director at a live news conference: "Brownie, you're doing a heck of a job. The FEMA director is working 24 -- (applause) -- they're working 24 hours a day. Again, my attitude is, if it's not going exactly right, we're going to make it go

exactly right. If there's problems, we're going to address the problems.” (Think Progress and Fact Check)

- Afternoon – FEMA’s Deputy Director Patrick Rhode is “impressed” with the government’s response. “I am actually very impressed with the mobilization of man and machine to help our friends in this unfortunate area...I think it’s one of the most impressive search-and-rescue operations this country has ever conducted domestically.” (Think Progress)

Saturday September 3rd

- 8:05 pm – FEMA finalizes bus request. FEMA ended up modifying the number of buses it thought it needed to get the job done, until it settled on a final request of 1,335 buses at 8:05 p.m. on Sept. 3. The buses, though, trickled into New Orleans, with only a dozen or so arriving the first day. (Think Progress)

Sunday September 4th

- Superdome is fully evacuated (except stragglers). (Brookings)
- Carnival Cruise offers cruise ships for 7000 victims. (Brookings)

This timeline depicts a lack of information flow between federal agencies and within FEMA itself. There are also various instances in which FEMA’s attempts to provide relief were not without delay. The relief that was provided was often insufficient and less than what was requested. In some instances, it seemed as though requests for relief were ignored all together.

The timeline data definitively shows that FEMA made several errors in providing relief to Hurricane Katrina victims in New Orleans. For example, FEMA did not activate the NRP until Tuesday, August 30th. In addition, the USS Bataan with its medical resources and rescue equipment went used as it sat off-shore. FEMA requests ambulances from the Department of Transportation (DOT). FEMA took almost a full day to realize that the DOT does not provide ambulance services. The full scope of Hurricane Katrina was not realized until more than 48 hours after landfall. Director Brown did not contain urgent language when requesting relief assistance from DHS and

gave relief workers a 2 day deadline to arrive in New Orleans. Such lax directives indicate that Brown had not grasped the gravity of the situation in New Orleans.

While the timeline is a breakdown of the actions that took place during FEMA's preparations for and response to Hurricane Katrina, the following section outlines what tasks and responsibilities FEMA is responsible for coordinating and completing as outlined by the NRP. More specifically, FEMA is the coordinating agency responsible for facilitating the following Emergency Support Functions; Emergency Management, Mass Care and Urban Search and Rescue. Both sections regarding what should have happened and what actually happened concerning FEMA's response to Hurricane Katrina can be compared individually to the research questions.

4.2. What Should Have Happened

The purpose of the NRP is, "to establish a comprehensive all-hazards approach to enhance the ability of the United States to manage domestic incidents" (NRP, 2004 p.2). The NRP continues to state (FEMA.gov, 2006):

The plan incorporates best practices and procedures from incident management disciplines—homeland security, emergency management, law enforcement, firefighting, public works, public health, responder and recovery worker health and safety, emergency medical services, and the private sector—and integrates them into a unified structure. It forms the basis of how the federal government coordinates with state, local, and tribal governments and the private sector during incidents.

The NRP was used for the first time in the federal response to Hurricane Katrina as a handbook for required actions to be taken by federal agencies including FEMA. The

NRP specifically outlines disaster management responsibilities and activities that FEMA must engage in during the preparedness and mitigation phases of a national incident. Therefore, the NRP is essential to this content analysis since it provides a checklist of actions that FEMA should have completed to be compared against the activities that actually occurred.

4.2.1. Introduction to the NRP

In the NRP preface, a letter authored by Tom Ridge (NRP, 2004, p.i) explains:

In Homeland Security Presidential Directive (HSPD)-5, the President directed the development of a new National Response Plan (NRP) to align federal coordination structures, capabilities, and resources into a unified all-discipline, and all-hazards approach to domestic incident management.

The NRP incorporates best practices from a wide variety of incident management disciplines to include fire, rescue, emergency management, law enforcement, public works and emergency medical services. The NRP is built on the templates of the National Incident Management System (NIMS), which provides a consistent doctrinal framework for incident management at all jurisdictional levels, regardless of the cause, size, or complexity of the incident.

Tom Ridge indicated that the NRP, “is in place to be a concerted national effort to prevent terrorist attacks with the US; reduce America’s vulnerability to terrorism, major disasters, and other emergencies; and minimize the damage and recover from attacks, major disasters and other emergencies that occur. It is the core operational plan for national incident management” (NRP, 2004, p.1).

All of the sections that follow below regarding the description and layout of the NRP come directly from the NRP itself.

4.2.2. Organization of the NRP

The NRP is organized into several sections, all of which address the responsibilities and duties assigned to FEMA in various aspects of an emergency response. These sections include the base plan, appendixes, emergency support function annexes, support annexes and incident annexes. However, for this evaluation, only parts of the base plan, appendixes and emergency support function annexes will be discussed. The base plan describes the structures and the processes that comprise the national approach to domestic incident management designed to integrate the efforts and resources of federal, state, local, tribal, private-sector and nongovernmental organizations. Components of the base plan include planning, assumptions, roles and responsibilities, concept of operations, incident management actions and plan maintenance instructions.

The Emergency Support Function (ESF) Annexes detail the missions, policies, structures and responsibilities of federal agencies for coordinating resource and programmatic support to states, tribes and other federal agencies or other jurisdictions and entities during Incidents of National Significance (NRP, 2004, p.xi). Please note that not all Incidents of National Significance result in the activation of ESFs. Each ESF is composed of primary and support agencies. The NRP identifies primary agencies on the basis of authorities, resources and capabilities (2004, p.11). FEMA is the primary agency for the ESFs examined further in this document.

4.2.3. Essential Staffing of Groups and Centers

With regard to federal departments and agencies, as required by HSPD-5, federal departments and agencies will designate representatives to staff the HSOC (Homeland Security Operations Center), NRCC (National Response Coordination Center), and IIMG (Interagency Incident Management Group). Federal agencies will also carry out responsibilities assigned to them in the Emergency Support Function (ESF) Annexes of the NRP and establish connectivity with and report incidents to the HSOC. Federal agencies must also modify existing interagency incident management and emergency response plans and protocols within 120 days of the issuance of this plan. This includes incorporating the following; procedures for transitioning from localized incidents to Incidents of National Significance; and accelerated resource activation, mobilization and deployment requirements outlined in the NRP Catastrophic Incident Annex (NRP, 2004, p.x). Modifications to existing federal interagency plans must be completed and reported to DHS within 120 days of the publication of the NRP (NRP, 2004, p.ix).

The HSOC, IIMG, and NRCC are critical committees and groups that must be staffed and activated in times of disaster preparation and response. Group and center functions include disseminating weather warnings to the federal government, passing critical information through the federal government to the White House and making essential decisions with regards to disaster mitigation and response. Each ESF will designate who is in charge of activating and ensuring adequate staffing for each of these groups and centers.

The Interagency Incident Management Group (IIMG) is a federal headquarters-level multi-agency coordination entity that facilitates strategic federal domestic incident

management for Incidents of National Significance. The Secretary of Homeland Security activates the IIMG based on the nature, severity, magnitude and complexity of the threat or incident. Its responsibilities include: providing decision making support for threat or incident-related prevention, preparedness, response and recovery efforts, and provides strategic coordination and recommendations for the application of federal resources in cooperation with existing agency and interagency resource management and private-sector entities (NRP, 2004, p. 22). FEMA is included in core group staffing for this organization.

The Homeland Security Operations Center (HSOC) is the primary national hub for domestic incident management operational coordination and situational awareness. It facilitates homeland security information sharing and operational coordination with other federal, state, local, tribal, and nongovernmental emergency operations centers (EOCs). Federal departments and agencies are required to report information relating to actual or potential Incidents of National Significance to the HSOC (NRP, 2004, p.24). The HSOC was activated when reports of the impending danger that Hurricane Katrina posed before it made landfall. FEMA is among one of the HSOC representatives and is mandated to send representatives to staff this center. Due to FEMA's direct link to the HSOC, FEMA was alerted to the weather warnings and preparation was being initiated in order to respond to Katrina, despite FEMA claims that it was not aware of the above information.

The NRCC is a multi-agency center that provides overall federal response coordination for Incidents of National Significance and emergency management program implementation. Its functions include monitoring potential or developing Incidents of National Significance and supports the efforts of regional and field components,

coordinating and sustaining federal response, and monitoring the preparedness of national-level emergency response teams and resources. The Departments of Homeland Security, the Emergency Preparedness and Response Directorate of DHS, and the Federal Emergency Management Agency (DHS/EPR/FEMA) maintains the NRCC as a functional component of the HSOC in support of incident management operations (NRP, 2004, p.25). Again, FEMA has a direct link to this group as well. In fact, FEMA is in charge of assisting with the facilitation of this center. This center would have monitored Katrina's progress, including weather related warnings that would indicate an approximate size and scope of Katrina's path and estimated damage. The NRCC, with FEMA's guidance, was charged with preparing accordingly. This NRCC would have been a major information clearinghouse to assist FEMA in preparing rescue worker, relief supplies and the appropriate number of employees to ensure a swift and effective response.

The Regional Response Coordination Center (RRCC) is a standing facility operated by DHS/EPR/FEMA that is activated to coordinate regional response efforts, establish federal priorities and implement local federal program support until a JFO (Joint Field Office) is established in the field and/or a federal official appointed to lead the field response effort can assume their NRP coordination responsibilities. The DHS/EPR/FEMA Director activates the RRCC based on the level of response required. The RRCC is led by an RRCC Director and includes DHS/EPR/FEMA staff and regional ESF representatives (NRP, 2004, p.27). While it is not immediately known if the RRCC was activated or not, it clearly should have been launched based on the warnings that were disseminated to the public regarding Katrina's predicted path and extent of

destruction. As mentioned above, the activation of such a center was left up to FEMA to accomplish. The RRCC would have given FEMA advance notice to provide a fast and efficient relief response by establishing initial regional federal programs of relief and response until a more concerted federal response was able to arrive and assume situational control. Such advanced notice would have made a dramatic difference in the response efforts made in the wake of Hurricane Katrina to rescue and provide assistance to victims.

The Federal Coordinating Officer, or FCO, (Secretary Chertoff), in coordination with the HSOC, facilitates distribution of warning, alerts and bulletins to the emergency management community (NRP, 2004, p.48). While Chertoff is the main figure charged with dissemination of warnings and alert bulletins, he is not alone. FEMA is part of the HSOC which assists DHS Secretary Chertoff in such distributions. This gave FEMA an opportunity to alert the federal government on the predicted dangers of Hurricane Katrina well ahead of time. FEMA's involvement in the HSOC warning dissemination provided FEMA with ample warning to adequately review plans and prepare resources for a timely and successful response to Hurricane Katrina.

4.2.4. Incidents of National Significance

This plan distinguishes between incidents that require DHS coordination, termed Incidents of National Significance, and the majority of incidents occurring each year that are handled by responsible jurisdictions or agencies through other established authorities and existing plans (NRP, 2004, p.3). A majority of incidents that occur daily nationwide are generally handled by local authorities, such as flooding, power outages, naturally

occurring incidents (windstorms, drought), and the like. Only large-scale incidents receive national attention or federal government response.

It is critical to understand both the definition of an Incident of National Significance and that Hurricane Katrina met this definition. Based on the criteria established in HSPD-5, Incidents of National Significance are those high-impact events that require a coordinated and effective response by an appropriate combination of federal, state, local, tribal, private-sector, and nongovernmental entities in order to save lives, minimize damage and provide the basis for long-term community recovery and mitigation activities (NRP, 2004, p.3). FEMA does not have the authority to tell other federal agencies what to do or sufficient budget or staff to manage large emergencies without external assistance (The Heritage Foundation, 2005).

As the principal federal official for domestic incident management, the Secretary of Homeland Security declares Incidents of National Significance and provides coordination for federal operations and/or resources, establishes reporting requirements and conducts ongoing communications with federal, state, local, tribal, private-sector, and nongovernmental organizations to maintain situational awareness, analyze threats, assess national implications of threat and operational response activities, and coordinate threat or incident response activities (NRP, 2004, p.4).

The NRP bases the definition of Incidents of National Significance on situations related to the following four criteria set forth in HSPD-5: A federal department or agency acting under its own authority has requested assistance from the Secretary of Homeland Security; the resources of state and local authorities are overwhelmed and federal assistance has been requested by the appropriate state and local authorities; the Secretary

of DHS has been directed to assume responsibility for managing a domestic incident by the President, and finally more than one federal department or agency has become substantially involved in responding to an incident (NRP, 2004).

4.2.5. Requests for DHS assistance

Federal support to states is provided through the following procedure. DHS/EPR/FEMA processes a Governor's request for Presidential disaster or emergency declarations under the direction provided in the Stafford Act (NRP, 2004, p.52). Concurrent with a Presidential declaration of a major disaster or emergency and official appointment of an FCO, DHS/EPR/FEMA designates the types of assistance to be made available and the counties eligible to receive such assistance. In large-scale or catastrophic events, the declaration process can be expedited. Typically, the Governor must create a report to the President which is reviewed by DHS/FEMA/EPR which must indicate that the state is overwhelmed and must specifically call on the federal government for assistance (NRP, 2004). However, during major incidents, this report may be sent to the federal government after the federal assistance has been initiated in order to prevent relief assistance from being delayed. As mentioned above, FEMA is charged with correctly identifying which types of federal resources are needed and what areas are eligible to receive such assistance. Clearly there was some sort of disconnect with this stage of the response, as FEMA sent too little too late in terms of relief and relief workers.

4.2.6. Pre-declaration Authorities

DHS can use limited pre-declaration authorities to move initial response resources closer to a potentially affected area (food, water, emergency generators, etc.) before an incident strikes (NRP, 2004, p.5). In accordance with HSPD-5, federal departments and agencies are expected to provide their full and prompt cooperation, available resources and support, as appropriate and consistent with their own responsibilities for protecting national security (NRP, 2004, p.7). This passage clearly shows that FEMA had the capability and opportunity to preplan for this national incident, strategically stage relief workers, emergency rescue teams, assemble and transport relief supplies including food, water, and medical equipment, and expect the full cooperation of other federal agencies. Government preparation seemed to be entirely lacking as it took relief supplies four days (September 2nd) to reach victims after Katrina struck. Clearly, FEMA failed to provide its full and prompt cooperation. The incompetence that consumed FEMA can be visibly demonstrated on Wednesday August 31st, when FEMA ordered the Department of Transportation (DOT) to send its ambulances to respond and assist with victims. However, it took FEMA a full 18 hours after it placed this request for assistance to realize that the DOT does not even own ambulances (Think Progress).

4.2.7. Emergency Support Functions (ESF)

A federal agency designated as an ESF primary agency serves as a federal executive agency under the Federal Coordinating Officer (FCO) to accomplish the ESF mission. Responsibilities include: orchestrating federal support within their functional area, providing staff for operations functions at fixed and field facilities, notifying/requesting assistance from support agencies, managing mission assignments, coordinating with

state/support agencies, and working with appropriate private-sector organizations to maximize available resources. Additional duties consist of executing contracts, procuring goods and services as needed, planning for short-term and long-term incident management and recovery operations, and maintaining trained personnel to support interagency emergency response and support teams (NRP, 2004, p.101). A primary agency is identified to assist the FCO in managing each ESF as well as overseeing the completion of the outlined tasks, mission and goals of the ESF.

Each ESF corresponds to a particular aspect of an emergency response, including transportation, communication, mass care, energy, etc.(Refer to Appendix 2). Three out of the five ESFs that FEMA is the coordinating or primary agency for including: public works and engineering; emergency management; mass care, housing and human services; urban search and rescue; long-term community recovery and mitigation; and external affairs. Emergency management, urban search and rescue, along with mass care, housing and human services were chosen to be evaluated. These three particular ESFs were chosen because they most closely target the critical functions that must be performed both in preparation for Katrina's landfall and in the first week after Katrina made landfall. These functions were also frequently in the New Orleans media spotlight and therefore more information regarding these ESFs will be available for analysis.

For each of the ESFs below, a summary table has been developed which outlines the ESF's purpose, the actions that will take place within each ESF, and the actions of the agency that heads each ESF. For this thesis, each ESF discussed below is headed by DHS/EPR/FEMA. The information for the three summaries was taken from the National Response Plan.

4.2.7.1. ESF #5 – Emergency Management

ESF #5 Emergency Management		
Purpose	ESF Actions - Headquarters, Regional and Field	Primary Agency Responsibilities
<p>Provides core management and administrative functions that support the operations of the NRCC, RRCC and JFO</p> <p>Supporting overall activities of the federal government for domestic incident management</p>	<p>DHS/EPR/FEMA activates the ESF by increasing staffing and the operational tempo at the NRCC and RRCC</p> <p>Maintains constant communications with the affected state emergency operations center (EOC) and facilitates periodic video teleconferences with all appropriate parties to coordinate the joint local, state and federal operations</p> <p>Provides situational reports and other information to the NRCC</p> <p>DHS/EPR/FEMA activates the ESFs required to handle the threat or incident</p> <p>DHS/EPR/FEMA establishes and deploys special teams under operational control of headquarters</p> <p>Staff develops the initial Incident Action Plan outlining federal operations priorities and coordinates with other ESFs to implement the plan</p> <p>Staff develops the schedule for staffing and operating the NRCC while it is activated</p> <p>DHS/EPR/FEMA staffs and operates the RRCC</p> <p>Initiates actions to identify, staff and operate the JFO</p> <p>DHS/EPR/FEMA regions establish communications with the affected state(s) to coordinate initial requests for federal assistance</p> <p>Helps maintain situational awareness of the threat or incident, in coordination with the HSOC</p>	<p>Activates and convenes federal emergency assets to prevent and respond to an Incident of National Significance</p> <p>Coordinates with local, regional, state law enforcement agencies and emergency management organizations</p> <p>Coordinates federal planning activities including immediate, short-term, and long-range planning</p> <p>Coordinates the use of remote sensing and reconnaissance operations, activation and deployment of assessment personnel or teams and Geographic Information System support</p> <p>Coordinates overall staffing of federal emergency management activities at the NRCC, RRCC and JFO levels</p>

This particular ESF is seemingly the nerve center of the emergency preparedness and planning that occurs at the federal level. Emergency preparedness is a critical stage in overall emergency management. Poor pre-planning and communication preparations will inevitably lead to an inadequate emergency response.

4.2.7.1.1. Purpose

Both the ESF coordinator and primary agency of ESF #5 is DHS/EPR/FEMA. The purpose of this ESF is to be responsible for supporting overall activities of the federal government for domestic incident management. ESF #5 provides the core management and administrative functions in support of NRCC, RRCC and Joint Field Office (JFO) operations (NRP, 2004, p.139). It also facilitates the information flow in the pre-incident prevention phase in order to place assets on alert or to pre-position resources for a hastened response. In the post-incident response phase, this ESF is charged with support and planning functions.

4.2.7.1.2. Scope

ESF #5 activities include those functions that are critical to support and facilitate multi-agency planning and coordination for operations involving potential and actual Incidents of National Significance. This includes alert and notification, deployment and staffing of Department of Homeland Security (DHS) emergency response teams, incident action planning, coordination of operations, logistics and material, direction and control, information management, facilitation of requests for federal assistance, resource acquisition and management (to include allocation and tracking), worker safety and

health, facilities management, financial management, and other support as required (NRP, 2004, p. 139).

Essentially, FEMA is required to preposition its assets to facilitate a timely and effective response to a domestic incident. Furthermore, FEMA is in charge of federal coordination and planning of all critical support functions and bringing multiple agencies together for a unified incident response once an incident has occurred. This scope is overwhelming in terms of items that do not seem to have been completed prior to Katrina making landfall in Louisiana. One can assume that if FEMA adequately followed through and performed these necessary tasks that the federal government would have been more prepared and responded more quickly to the victims of Katrina.

4.2.7.1.3. Policies

ESF #5 is responsible for establishing the federal support infrastructure in the affected state or region in anticipation of requirements for prevention, response, and recovery federal assistance. ESF #5 staff identifies and resolves resource allocation issues identified at the JFO, the RRCC, and/or the NRCC. Those issues that cannot be resolved at the NRCC level are referred to the Interagency Incident Management Group (IIMG) (NRP, 2004, p.140).

ESF #5 staff provides the informational link between the NRCC and the Homeland Security Operations Center (HSOC) headquarters. ESF #5 also serves as the centralized conduit for federal situation reports to the HSOC from the various other ESFs. ESF #5 maintains an on-call workforce of trained and skilled reserve employees to provide surge capability to perform essential emergency management functions on short notice and for varied duration. (NRP, 2004, p.140).

4.2.7.1.4. Actions

Actions taken under ESF #5 occur at different sectors of the federal government. In DHS Headquarters, when there is a credible threat, DHS may take several actions, including but not limited to, activating the IIMG, deploying a Principal Federal Official (PFO) and supporting staff to the threat area, as well as pre-positioning strategic assets. The HSOC monitors the threat situation and notifies the NRCC and other DHS component operations centers accordingly. The Principal Federal Official (PFO) group, when deployed pre-incident, reports back to the HSOC and IIMG. These PFO situation reports are pushed from the HSOC to the NRCC, for situational awareness and for determination of the need to activate ESF #5 and other ESFs (NRP, 2004, p. 141).

At the DHS/EPR/FEMA Headquarters level, when an incident occurs or has the potential to occur, DHS/EPR/FEMA activates ESF #5 by increasing the staffing and operational tempo at the NRCC and RRCC, as required. Actions include alerts, notifications, and situation reporting in coordination with the HSOC headquarters element. Once activated, ESF #5 is operational at the NRCC on a 24-hour basis. ESF #5 maintains constant communications with the affected state emergency operations center and facilitates periodic video teleconferences with all appropriate parties to coordinate the joint local, state, and federal operations (NRP, 2004, p. 141). ESF #5 provides situation reports and other information as required to the NRCC, a functional component of the HSOC, in accordance with HSOC standard operating procedures and protocols. DHS/EPR/FEMA activates the ESFs required to handle the threat or incident at hand, issues initial activation mission assignments, and establishes reporting and

communications protocols with the activated agencies and the Federal Coordinating Officer (FCO) (NRP, 2004, p. 142).

DHS/EPR/FEMA establishes and deploys special teams under the operational control of headquarters, including the National Emergency Response Team, Mobile Emergency Response Support, Nuclear Incident Response Team, Mobile Air Transportable Telecommunications System, National Disaster Medical System, and FIRST in coordination with ESF #8. ESF #5 staff develops the initial Incident Action Plan outlining federal operations priorities and coordinates with the other ESFs to implement the plan. ESF #5 staff develops the schedule for staffing and operating the NRCC from activation to stand-down (NRP, 2004, p. 142).

At the regional and field level, when an incident occurs or has the potential to occur, appropriate DHS/EPR/FEMA regions activate and increase the operational tempo of ESF #5 as described in the NRP (2004). This includes alert, notification, and situation-reporting to regional and field components. This also includes staffing and operating the RRCC on a 24-hour basis. ESF #5 staff makes the initial contact with the affected state(s) and reviews capabilities and shortfalls as a means of determining initial response requirements for federal support. ESF #5 staff also develops and issues the appropriate operational orders to the required ESFs, issues initial activation mission assignments or reimbursement agreements, and establishes reporting and communications protocols with the activated agencies (NRP, 2004, p. 142).

4.2.7.1.5. Responsibilities

As the primary agency, DHS/EPR/FEMA responsibilities include: activating and convening federal emergency assets and capabilities to prevent and respond to an

Incident of National Significance, and coordinating with state, regional, local, and tribal law enforcement agencies and emergency management organizations. DHS/EPR/FEMA will also coordinate federal planning activities including immediate, short-term, and long-range planning. Additionally, the response planning and operations implementation priorities of the federal government are developed, tracked, and implemented through ESF #5 (NRP, 2004, p. 143).

ESF #5 also coordinates the use of remote sensing and reconnaissance operations, activation and deployment of assessment personnel or teams, and Geographic Information System (GIS) support as needed for incident management. It is also responsible for coordinating overall staffing of federal emergency management activities at the NRCC, RRCC, and JFO levels, including which ESFs are activated, the size and composition of the organizational structure, the level of staffing at the above facilities, as well as the key personnel required to staff the Section Chief and other command staff positions (NRP, 2004, p. 143).

In essence, this particular ESF is charged with overseeing and coordinating resource allocation and tasking response activities. This is a major component of the criticisms that the federal government has received for its response to Hurricane Katrina. FEMA has been criticized for providing an uncoordinated and chaotic response effort as well as not having nearly the amount of resources and supplies that were needed.

DHS/EPR/FEMA also decides what areas need which type of emergency response and determines who and what type of equipment/supplies to deploy to the areas in need. FEMA failed to successfully complete this task by not providing adequate relief resources. FEMA was reported to have turned away empty Amtrak trains to evacuate

victims, not have rescue boats staged and waiting to facilitate water rescues, and not having an organized or timely response to provide relief to victims stranded on rooftops or patches of land and roadway throughout New Orleans. Clearly, this ESF makes FEMA and the collaborative federal groups FEMA staffs (NRCC, HSOC, and IIMG) the central nervous system of federal response planning and mitigation for any incident.

4.2.7.2. ESF #6 – Mass Care, Housing and Human Services

ESF #6 - Mass Care, Housing and Human Services		
Purpose	ESF Actions - Headquarters, Regional and Field	Primary Agency Responsibilities
<p>Supports local, regional and state governments' efforts to address the non-medical mass care needs of individuals and families impacted by Incidents of National Significance</p> <p>Mass Care involves the coordination of non-medical mass care services to include sheltering of victims, organizing feeding operations, providing emergency first aid at designated sites, collecting and providing information on victims to family members, and coordinating bulk distribution of emergency relief items.</p>	<p>Assesses the situation, validates resource requests and anticipates response needs</p> <p>Coordinates resource requests with federal departments and agencies and the NRCC</p> <p>Validates resource requests from the regional ESF #6</p> <p>Provides technical assistance to the NRCC and affected state</p> <p>Determines the adequacy of response and recovery activities</p> <p>Manages the process for requests for federal assistance</p> <p>Provides reports to the national ESF #6 response structure and JFO</p> <p>Initiates actions to identify, staff and operate the JFO</p> <p>DHS/EPR/FEMA regions establish communications with the affected state(s) to coordinate initial requests for federal assistance</p> <p>Helps maintain situational awareness of the threat or incident, in coordination with the HSOC.</p>	<p>Activates appropriate support agencies</p> <p>Coordinates logistical and financial activities supporting ESF #6 associated priorities and activation</p> <p>Plans and supports regular meetings with the primary and support agencies related to preparedness, response and recovery activities</p> <p>Ensures primary and support agencies are informed and involved in all meeting related to ESF #6 activities</p> <p>Assists and coordinates the release of information for notification of relatives</p> <p>Assists in the provision of medical supplies and services</p> <p>Provides available resources, including cots, MREs, logistical support and communications, as appropriate</p>

4.2.7.2.1. Purpose

The ESF Coordinator of this particular ESF is DHS/EPR/FEMA with the primary agency including DHS/EPR/FEMA and the American Red Cross. The purpose of ESF #6 is to provide support to state, regional, local, and tribal government and nongovernmental organization (NGO) efforts to address the non-medical mass care, housing, and human services needs of individuals and/or families impacted by Incidents of National Significance (NRP, 2004, p. 145).

4.2.7.2.2. Scope

The scope of ESF #6 is quite large. It promotes the delivery of services and the implementation of programs to assist individuals, households and families impacted by potential or actual Incidents of National Significance. ESF #6 includes three primary functions: mass care, housing, and human services (NRP, 2004, p. 145). Although this section involves three major functions, only the mass care aspect will be evaluated. Mass care is part of an immediate response to an incident and undoubtedly did/should have occurred within the first week after Katrina made landfall in Louisiana. The media seemed to focus on the issue of mass care and repeatedly broadcasted images of stranded evacuees on rooftops, highways and bridges all waiting for relief workers to arrive with food, ice and water. The other aspects of housing and human services are hopefully initiated within the first week after an incident but may continue for several months after an incident occurs.

4.2.7.2.3. Policies

Included in ESF #6 policy is the underlying principle that ESF #6 support may vary depending on an assessment of incident impact(s), the magnitude and type of event, and the stage of the response and recovery efforts. Also, supporting mass care activities and providing services will be done without regard to economic status, race, religion, ethnic or religious affiliation (NRP, 2004, p. 146).

4.2.7.2.4. Concept of Operations

ESF #6 Concept of Operations involves initial federal response activities focused on meeting urgent mass care needs of victims. Recovery efforts are initiated concurrently with initial response activities. Close coordination is required among those federal agencies responsible for response operations and recovery activities, and other nongovernmental organizations providing assistance (NRP, 2004, p. 146).

Mass care involves the coordination of unified federal assistance to provide non-medical mass care services to include sheltering of victims, organizing feeding operations, providing emergency first aid at designated sites, collecting and providing information on victims to family members, and coordinating bulk distribution of emergency relief items in affected areas (NRP, 2004, p. 146).

Emergency shelter includes the use of pre-identified shelter sites in existing structures, the creation of temporary facilities or the temporary construction of shelters, and use of similar facilities outside the incident area, should evacuation be necessary (NRP, 2004, p. 146).

Feeding is provided to victims through a combination of fixed sites, mobile feeding units, and bulk distribution of food. Feeding operations are based on sound nutritional

standards to include meeting requirements of victims with special dietary needs to the fullest extent possible. Emergency first aid, consisting of basic first aid and referral to appropriate medical personnel and facilities, is provided at mass care facilities as well as at designated sites (NRP, 2004, p. 146). Bulk distributions provide for emergency relief items to meet urgent needs and are distributed through sites established within the affected area. These sites are may also be used to coordinate mass care food, water, and ice requirements, and distribution systems coordinated with federal, state, local, and tribal governmental entities and NGOs (NRP, 2004, p. 147).

4.2.7.2.5. Actions

Initial action taken on at the headquarters level includes: assessment of the situation, validation of resource requests from the regional ESF #6, forecasting response needs, providing technical assistance to the regional ESF #6 and NRCC, and coordinating ESF #6 resource requests with federal departments, agencies and the NRCC (NRP, 2004, p. 148).

Initial actions at the regional level include: providing technical assistance to support incident priorities, establishing communications with the national ESF #6 response structure, assessing the incident situation and determining the adequacy of response and recovery activities. Additional tasks include; providing technical assistance to the state designated mass care agency, managing the process for requests for federal assistance, providing reports to the national ESF #6 response structure and JFO, and anticipating future requirements (NRP, 2004, p. 148).

4.2.7.2.6. Responsibilities

Responsibilities of DHS/EPR/FEMA as the ESF #6 coordinating agency: activates appropriate support agencies, coordinates logistical and fiscal activities supporting ESF #6 associated priorities and activation, designates DHS/EPR/FEMA Recovery Division staff with specific ESF coordination responsibilities to ensure information and coordination support to the primary and support agencies, as appropriate, plans and supports regular meetings with the primary and support agencies related to preparedness, response, and recovery activities, and ensures primary and support agencies are informed and involved in all meetings related to ESF #6 activities (NRP, 2004, p. 148).

The primary agencies, DHS/EPR/FEMA, will provide leadership in coordinating and integrating overall federal efforts associated with mass care, housing, and human services (NRP, 2004, p. 149).

DHS/EPR/FEMA, as the primary agency for recovery activities pursuant to a presidentially declared disaster or emergency, has a number of responsibilities. DHS/EPR/FEMA assists and coordinates the release of information for notification of relatives; assists in establishing priorities and coordinating the transition of mass care operations with recovery activities based on incident information and the availability of resources that can be appropriately applied; provides available resources such as cots, blankets, meals-ready-to-eat (MREs), additional initial response resources, and logistical support, including communications, as appropriate and assists in the provision of medical supplies and services (NRP, 2004, p. 149).

This ESF was also frequently in the media spotlight as a large amount of attention was focused on the delay of mass care being delivered to Hurricane Katrina victims.

Katrina victims did not receive relief supplies (food, water, ice, basic medical care) until a full four days after Katrina struck Louisiana. Media images of helpless victims, corpses and stranded pets were center stage across various types of media outlets. Nationwide, citizens could not understand why the federal government was so delayed in providing mass care and relief supplies. After seeing the horrific condition of New Orleans and the images of suffering and despair on the news, some Americans left their home states and traveled to Louisiana to assist victims themselves. Many news reports quote victims as stating they believed they were not going to survive this chaotic and terrifying situation and that the federal government left them there to die.

4.2.7.3. ESF #9 – Urban Search and Rescue

ESF #9 - Urban Search and Rescue		
Purpose	ESF Actions - Headquarters, Regional and Field	Primary Agency Responsibilities
<p>Rapidly deploys parts of the US&R System to provide specialized life-saving assistance to local and state authorities during an Incident of National Significance</p> <p>US&R activities include locating, extricating, and providing on-site medical treatment to victims trapped in collapsed structures</p>	<p>The NRCC serves as the single point of contact for responding task forces for situation information and response status during the initial stages of an incident</p> <p>Upon notification of an Incident of National Significance, the NRCC notifies DHS/EPR/FEMA of the potential need to activate task force, and cooperative agreements</p> <p>The NRCC develops recommendations on the type and quantity of resources to be alerted or activated</p> <p>The NRCC issues Activation Orders for task forces</p> <p>The NRCC issues Alert Orders placing additional task forces in a heightened state of readiness</p> <p>The NRCC collects assessment information from special teams, DHS/EPR/FEMA officials and local/state government officials for situational reports and for decision-making regarding the need for US&R resources</p> <p>DHS/EPR/FEMA officials from the affected region designate an initial point of contact for the ESF</p> <p>The regional ESF representative provides overall management and coordination of all deployed US&R resources</p>	<p>Serves as the primary agency for the ESF, provides planning guidance and coordination assistance, funds special equipment, and evaluates task force operational readiness</p> <p>Coordinates logistical support for US&R assets during field operations</p> <p>Provides status reports on US&R operations throughout the affected area</p>

4.2.7.3.1. Purpose

The ESF Coordinator and primary agency of this ESF is DHS/EPR/FEMA. The purpose of ESF #9 is to rapidly deploy components of the National Urban Search & Rescue (US&R) Response System to provide specialized life-saving assistance to state,

local, and tribal authorities during an Incident of National Significance. US&R activities include locating, extricating, and providing onsite medical treatment to victims trapped in collapsed structures (NRP, 2004, p. 173).

4.2.7.3.2. Scope

The National US&R Response System integrates US&R task forces, Joint Management Teams (JMTs), and technical specialists. JMTs provide coordination and logistical support to US&R task forces during emergency operations. They also conduct needs assessments and provide technical advice and assistance to state, local, and tribal government emergency managers. The JMTs are comprised of personnel from US&R task forces; federal, state, local, and tribal government emergency response organizations; and private-sector organizations (NRP, 2004, p. 173).

4.2.7.3.3. Policies

The National US&R Response System assists and augments state and local US&R capabilities. Upon activation by the Department of Homeland Security (DHS) under the National Response Plan (NRP), US&R task forces are considered federal assets under the Robert T. Stafford Disaster Relief and Emergency Assistance Act and other applicable authorities (NRP, 2004, p. 173).

4.2.7.3.4. Concept of Operations

Department of Homeland Security/Emergency Preparedness and Response/Federal Emergency Management Agency (DHS/EPR/FEMA) may activate the National US&R Response System for any actual or potential Incident of National Significance likely to result in collapsed structures that may overwhelm existing state and local US&R

resources. Activation is dependent upon the nature and magnitude of the event, the suddenness of incident onset, and the pre-existence of US&R resources in the affected area (NRP, 2004, p. 174).

4.2.7.3.5. Actions

There are various initial actions that must be completed by headquarters and regional sectors of this ESF. From the aspect of Headquarters, the NRCC serves as the single point of contact for responding task forces and JMT members for situation information and response status of US&R resources during the initial stages of the incident. NRCC staff in ESF #9 establishes and maintains a chronological log of US&R events and information obtained from the field. Upon notification of an Incident of National Significance with potential or actual structural collapse, the US&R Response System staff immediately notifies the ESF #9 NRCC staff, support contractors, and the DHS/EPR/FEMA Military Support Liaison Officer of a potential need for US&R response. The NRCC staff also notifies DHS/EPR/FEMA of the potential need to activate task force, JMT, and cooperative agreements (NRP, 2004, p. 175).

Upon establishing the need for US&R assets, the NRCC: develops recommendations regarding the type and quantity of resources to be alerted or activated; issues activation orders for task forces and JMT members; and issues alert orders placing additional task forces in a heightened state of readiness.

Initial actions from regional sects are just as critical as the actions completed by headquarters. DHS/EPR/FEMA officials from the affected region designate an initial point of contact for ESF #9 activities. The NRCC notifies the DHS/EPR/FEMA Regional Office responsible for the affected area. Copies of all advisories and alert and

activation orders issued by the NRCC are transmitted to the regional US&R point of contact for the affected region, as well as for those regions whose resident task forces have been alerted or activated. Initial recommendations on US&R resources to be alerted or activated are coordinated with the regional US&R point of contact. Regional US&R points of contact with alerted or activated task forces maintain contact with the sponsoring states and task forces (NRP, 2004, p. 175).

While US&R task forces and JMTs are activated at the national level, the regional ESF #9 contact provides information related to the need for US&R resources. Regional officials process state requests for federal US&R assistance. The regional ESF #9 representative coordinates the preparation for the arrival of task forces and JMT members and ensures the JMT is fully incorporated into the region's ERT structure. The regional ESF #9 representative also provides overall management and coordination of all deployed US&R resources through the JMT. The ESF #9 representative coordinates all US&R activities with the functional groups of the ERT. The ESF #9 representative keeps the ESF #9 leader in the NRCC informed of all US&R field activities (NRP, 2004, p. 175).

4.2.7.3.6. Responsibilities

The responsibilities of DHS/EPR/FEMA as the primary agency of this ESF are critical. DHS/EPR/FEMA develops national US&R policy, provides planning guidance and coordination assistance, standardizes task force procedures, evaluates task force operational readiness, funds special equipment and training requirements within available appropriations, and reimburses task force costs incurred as a result of deployment under the NRP, as appropriate. DHS/EPR/FEMA also serves as headquarters-level ESF #9

coordinator. DHS/EPR/FEMA establishes, maintains, and manages the National US&R Response System. This includes pre-incident activities such as training, equipment procurement, and evaluation of operational readiness. Additionally, DHS/EPR/FEMA dispatches one or more JMTs to the affected area(s), manages US&R task force deployment to, employment in, and redeployment from the affected area, coordinates logistical support for US&R assets during field operations, develops policies and procedures for the effective use and coordination of US&R assets and provides status reports on US&R operations throughout the affected area (NRP, 2004, p. 177).

FEMA, as both coordinator and primary agency for this particular ESF is charged with deploying the Urban Search and Rescue Team (US&R) to an incident. FEMA assists with all aspects of maintaining the US&R system including financial resources, equipment and training needs, and ensuring adequate staffing. If there are not adequate US&R teams or such teams do not have the proper training or equipment – the blame will fall back on DHS/EPR/FEMA (NRP, 2004, p. 177). The US&R System is vital to any incident nationwide where there may be victims who are trapped or injured and need to be evacuated or rescued from a location. The number one goal in any incident response and mitigation is to preserve and safeguard life. Therefore, there is no acceptable excuse for the US&R Team to not be properly equipped, funded or trained. After all, this is the team that is called in when local and state government emergency response teams are overwhelmed. The national US&R team can be categorized as the last line of defense against an incident. There is no alternative entity to activate if the US&R fails and therefore, it is critical they are properly trained, equipped and ready to provide an effective response.

The overall NRP outlines numerous critical tasks in which FEMA is the coordinating federal agency in charge of ensuring successful task completion. For this research design, this NRP account of what should have happened is used as a checklist to compare against the timeline and congressional testimony for the purpose of identifying where FEMA made mistakes and failed. Analyzing this data against the four research questions will assist in determining how and why FEMA made mistakes and failed with several responsibilities and functions. Once it is understood why FEMA failed, recommendations can be developed to correct FEMA's organizational operation and also improve future disaster planning and response.

4.3. FEMA Successes

Although the overall FEMA's disaster preparedness and response to Hurricane Katrina was a failure, there are certain responsibilities that FEMA successfully fulfilled. There are also situations in which FEMA employees made individual decisions that were ultimately beneficial for FEMA's overall preparation and response to Hurricane Katrina. While the positive contributions from FEMA do not outweigh the dramatic organizational paralysis and poor performance, they are worth noting. In most instances, FEMA made an attempt to prepare and respond according to the needs of the affected areas in New Orleans as well as FEMA's bureaucratic procedure for accommodating such requests. Generally speaking, FEMA's response was on a much smaller scale than what was truly needed. As a result, FEMA was not able to accommodate the essential needs and fell apart organizationally trying to do so.

Pre-staging and Deployment of Resources

Resources were pre-staged to various locations adjacent to areas that were predicted by the National Weather Service to be the most severely effected. Although FEMA went to great lengths to pre-deploy resources and FEMA personnel, there were not nearly enough to meet the needs of Katrina victims. FEMA also did not calculate the transportation needs that would be required to bring resources and personnel into devastated and flooded cities.

The Select Bipartisan Committee report describes several instances in which FEMA successfully prepared for Hurricane Katrina through pre-staging and resource deployment activities. FEMA positioned an unprecedented number of resources in affected areas prior to Katrina's landfall (*A Failure of Initiative*, 2006, p.59). FEMA's efforts far exceeded any previous operation in the agency's history. Louisiana expressed its satisfaction with the supplies and that former FEMA Director Brown directed that commodities be "jammed up" the supply chain (*A Failure of Initiative*, 2006, p.131). On August 28, 2005, in Louisiana alone a total of 36 trucks of water (containing 18,000 liters per truck) and fifteen trucks of MREs (21,888 per truck) were pre-staged at Camp Beauregard. Nine US&R task forces and Rapid Needs Assessment Teams also were deployed to Louisiana on the Saturday before landfall (*A Failure of Initiative*, 2006, p.59).

The White House report, *The Federal Response to Hurricane Katrina*, indicated that state and local governments supported by the federal government and FEMA had carried out unprecedented preparations in comparison to those made for previous "average" hurricanes (2006, p.31). Pre-deployed assets were placed throughout the region to

encircle the forecasted impact area. On Sunday, August 28th, FEMA opened a federal logistics mobilization center at Barksdale Air Force Base in Louisiana. The report indicates that FEMA pre-staged over 400 truckloads of ice, more than 500 truckloads of water and nearly 200 truckloads of food at logistics centers in Alabama, Louisiana, Georgia, Texas and South Carolina (2006, p. 31). This was the beginning of the pre-staging efforts that increased to the largest pre-positioning of federal assets in history by the time Hurricane Katrina made its second landfall on August 29th.

Within twenty-four hours of the storm, surface operations (boats) were conducted out of Zephyr Field (a local professional baseball stadium). According the Coast Guard, a unified command for surface operations was established at Zephyr Field with the Coast Guard, FEMA, and the Louisiana Department of Wildlife and Fisheries (*A Failure of Initiative*, 2006, p.215).

FEMA's Mobile Emergency Response Support detachments were pre-positioned in Louisiana to provide emergency satellite communications capability. FEMA partially anticipated the communications infrastructure would be needed in the Gulf coast and pre-positioned with each of the three states' EOCs a Mobile Emergency Response Support detachment (MERS) detachment which is designed to provide, "rapid multimedia communications, information processing, logistics, and operational support to federal, state and local agencies during catastrophic emergencies and disasters (*A Failure of Initiative*, 2006, p.164)." FEMA also deployed a MERS to the state Emergency Operations Center (EOC) in Jackson, Mississippi to provide satellite communications systems for its operations in the Gulf Coast region (*A Failure of Initiative*, 2006, p.165).

Due to efforts by FEMA and the National Guard, the Cloverleaf was completely cleared by Saturday, September 3rd, where 6000 to 7000 people had been stranded (*A Failure of Initiative*, 2006).

FEMA also conducted their first video teleconference, a call held each day at noon from August 25th until well after landfall, which helped to synchronize response efforts between federal, state and local governments (*The Federal Response to Hurricane Katrina*, 2006, p.23). The report also indicates that Bush regularly received briefings and held numerous conversations with many federal, state and local leaders who unanimously stated that FEMA was providing excellent assistance and they had “no concerns at this time” (2006).

The morning of August 27th, FEMA headquarters commenced Level 1 operations requiring full staffing on a round-the-clock, seven-days-a-week basis. This is FEMA’s highest alert. FEMA’s regional headquarters for Regions IV (Atlanta) and VI (Denton, Texas) went to Level 1 activation as well (*The Federal Response to Hurricane Katrina*, 2006, p.27). At this point, all fifteen National Response Plan Emergency Support Functions had been activated. Region IV had staged at Camp Beauregard 540,000 liters of water, 680,000 pounds of ice, 15,120 tarps and 328,320 MRE’s with more commodities pre-staged elsewhere in the region (*The Federal Response to Hurricane Katrina*, 2006, p.27). FEMA’s Logistics Representative stated that one hundred and two trailers with water and MREs were staged at the FEMA Logistic Center in Ft. Worth, Texas (*The Federal Response to Hurricane Katrina*, 2006, p.27).

On August 30th, Governor Blanco announced her desire to begin evacuating the Superdome (Brookings). FEMA personnel at the Superdome requested that FEMA

headquarters provide buses to transport evacuees from the stadium. The report states that within an hour of receiving the call, FEMA tasked the DOT to assemble a bus fleet of over 1100 vehicles (2006). Significant numbers of federally-contracted buses began to arrive at the Superdome on the evening of August 31st. By September 4th, both the Superdome and the Convention Center had been evacuated (Brookings).

4.3.1. Warnings and Advisories Prior to Landfall

FEMA disseminated warnings and information advising the Gulf region of Katrina's predicted path of destruction and strength. FEMA's Hurricane Liaison Team was activated and deployed to the National Hurricane Center on August 24th in anticipation of Katrina making landfall to work with the National Hurricane Center in monitoring weather forecasts and ensuring advisories were made. The Hurricane Liaison Team (HLT) is made up of FEMA, the National Weather Service, and state and local emergency management officials (*A Failure of Initiative*, 2006, p.59). The HLT is charged with assisting in the coordination of advisories with federal, state and local emergency management agencies, providing forecast updates and technical advice, and closely coordinating with FEMA Headquarters (*A Failure of Initiative*, 2006, p.164). Federal officials, including FEMA, also informed Blanco and Nagin about the threat to New Orleans (NRP, 2004).

Brigadier General David L. Johnson testified before the House Committee on Science in 2005:

The FEMA/NWS Hurricane Liaison Team (HLT), established in 1996, coordinates communications between NOAA and the emergency

management community at the federal and state levels. Membership consists of FEMA Hurricane Program Managers and Disaster Assistance employees as well as National Weather Service meteorologists and hydrologists. The Hurricane Liaison Team is activated by FEMA, at the request of the director of the National Hurricane Center, or his or her designee. The HLT is activated a few days in advance of any potential U.S. hurricane landfall. Once activated, FEMA hosts the daily HLT audio or video conference calls. FEMA invites state and local emergency managers in the potential impact area to participate in these calls.

Additionally, FEMA disseminated pre-landfall warnings to state and local governments as well as the White House. FEMA listened to the forecast predications and warnings originated by the National Weather Service and made notifications to Mayor Nagin, the White House and President Bush. While these notifications are few in number, FEMA contacted the key players who would have the power to authorize action, cut bureaucratic red tape and demand priority response to Katrina victims.

Katrina's growing intensity led NHC (National Hurricane Center) Director Mayfield to make personal calls on Saturday night to state and local officials in the region to emphasize the threat Katrina posed (*A Failure of Initiative*, 2006, p.164). FEMA Director Michael Brown shared Mayfield's concerns during the daily teleconference with the state EOCs and FEMA Regional staff on Sunday, August 28th (*A Failure of Initiative*, 2006, p.164).

On Monday, August 29th, Brown warned Bush about the potential devastation that Katrina may bring. In a briefing, Brown stated, “This is, to put it mildly, the big one, I think” (Think Progress). He also voiced concerns that the government may not have the capacity to “respond to a catastrophe within a catastrophe” and that the Superdome was ill-equipped to be a refuge of last resort (Think Progress).

4.3.2. Individual Initiative

Despite the rigid procedures of the federal government, there were various FEMA employees that took their own initiative to effect change and bring about a hastened and much needed response. Policies and procedures cannot be a substitute for common sense. Policies and procedures also cannot foresee every possible challenge that may arise during an emergency situation. FEMA employees eventually broke away from agency procedures and policies and began pushing resources and services to local and state governments even though requests for assistance for those items had never been made. Various FEMA officials took it upon themselves to cut the red tape and deliver essential items without processing or approval delay. They also thought on their own and outside of the organizational structure to create evacuation plans on an ad-hoc basis and gather much needed intelligence for federal decision making. The downfall to the individual initiative was that the federal hierarchy would halt or ignore their efforts.

FEMA officials also took planning into their own hands at times when it appeared that federal plans were lacking and action was essential. On Tuesday August 30th, FEMA official Phil Parr and other FEMA officials sheltered in the Superdome, who were apparently unaware of the evacuation planning at the EOC, began their own plans to evacuate the Superdome as they observed the rising waters around the building and

realized that people would not be able to walk out of the dome and return home. They devised a plan where virtually all evacuees in the Superdome could be airlifted by nine helicopters in about thirty hours. They communicated their plan to the FEMA Regional Response Center in Denton, Texas and received initial approval. The next day Parr learned that the JTF Katrina Lt. General Honore halted and threw out their plan as he arrived in Louisiana to lead the JTF Katrina (*A Failure of Initiative*, 2006, p.121).

Individual initiative also applied to distribution of resources by FEMA. The federal response evolved into a push system over several days after Katrina made landfall. The Select Bipartisan Committee indicated, “Federal response officials in the field eventually made the difficult decisions to bypass established procedures and provide assistance without waiting,” for appropriate requests from the states or for clear direction from Washington (*A Failure of Initiative*, 2006, p.132). This push system initially occurred in an uncoordinated fashion (*A Failure of Initiative*, 2006, p.132) and became widespread by the end of the first week.

In Louisiana, FEMA response personnel tried on a number of occasions to push commodities and assets into the field (*A Failure of Initiative*, 2006, p.139). In cases where there was a need for life-saving and life-sustaining commodities but no clear state distribution system set up, FEMA acted proactively to provide assistance (*A Failure of Initiative*, 2006, p.139).

When FEMA gained access to several helicopters, FEMA began ferrying food and water to people stranded on high ground even though there was no formal request by the state to perform this function. FEMA also contracted with over 100 ambulances to transport hospital evacuees (*A Failure of Initiative*, 2006, p.139). This mission was not

requested by the state, but FEMA responded proactively because the situation demanded this immediate attention.

On Monday, August 29th, FEMA employee Marty Bahamonde listened to reports of the levee breach at the 17th Street Canal and regularly updated FEMA Headquarters. He received assistance from a Coast Guard helicopter to do a flyover of the area (*A Failure of Initiative*, 2006, p.142). From Bahamonde's bird's eye view, there was no doubt there was a breach and he was also able to observe that the city was 80% flooded. He then called Brown at 7pm and told him of his spot report. The White House discounted this FEMA eyewitness account that ultimately proved to be accurate (*A Failure of Initiative*, 2006, p.142).

4.3.3. Flow of Information

At times, the flow of information with FEMA was successful. In particular, FEMA strived to maintain daily teleconference calls with the White House and other key officials in an effort to provide situational awareness and status updates and to facilitate consistent communications within the federal government. However, FEMA's successful attempts at facilitating information flow are quickly shadowed by the overwhelming information and reports of how poorly FEMA managed information and communication logistically and bureaucratically. Even within FEMA there were conflicting accounts of information as well as a severe lack of overall communication. While FEMA did pre-deploy communications equipment, these setups were outdated, frequently broken down, and were not compatible with other federal organizations.

At the beginning of the federal response to Hurricane Katrina, communication between FEMA and the Department of Defense (DOD) was strained. Requests were not

filled by FEMA if the DOD did not exactly follow FEMA's rigid procedure for requesting assistance from the federal government. However, as time went on, FEMA and DOD worked out Requests for Assistance and communications, resulting in improved information sharing (*A Failure of Initiative*, 2006, p.204).

4.3.4. General Response

It should be noted FEMA used existing resources, procedures, and staff to organize and conduct a massive civil logistics operation beyond any this country has seen before (*A Failure of Initiative*, 2006, p.322). FEMA was able to pre-position an unprecedented amount of water, ice and MREs before Hurricane Katrina made landfall. Several FEMA employees took individual initiative to provide information to the White House, coordinate evacuate plans in the Superdome, take charge of medical operations at field facilities, as well as strategically place resources and equipment.

4.4. Summary

FEMA is the primary agency for several functions and responsibilities under the National Response Plan. When the NRP is activated, it is expected that FEMA will adequately staff and fulfill responsibilities of the NRCC, IIMG and HSOC. Under the Emergency Management ESF, FEMA will adequately prepare for the impending disaster and maintain constant communication with the effected areas. FEMA will also deploy special teams units, resources and equipment that will be necessary in the disaster response effort. With regards to the Mass Care ESF, it is ordered that FEMA will provide logistical support, necessary resources (including; cots, blankets, MREs, etc.) and the critical coordination to facilitate mass care. Under the Search and Rescue ESF of the

National Response Plan, FEMA is mandated to evaluate team readiness to respond to disasters, provide coordination guidance, provide funding for equipment and standardize the search and rescue process to ensure uniformity and efficiency. FEMA clearly was not able to successfully complete each of these expectations due to lack of preparation and planning for such a large scale disaster. While FEMA may have attempted to complete such responsibilities and expectations, FEMA's response was paralyzed and uncoordinated in various aspects of the response effort and was not able to recover and continue to forge ahead with its relief plans as outlined by the NRP.

The few positive actions and responses FEMA do not outweigh the overall organizational failure and inoperability that resulted in an ineffective and shoddy disaster response. Organizationally, FEMA's response effort fell apart because it was unable to accommodate unplanned circumstances due to lack of structure for such occurrences, and the rather small, untrained and inexperienced agency staff was not capable of properly planning for a disaster of this magnitude despite weather predictions and warnings and subsequently responding to overwhelming quantities of requests for assistance. FEMA also did not have a plan to respond to Katrina, but rather responded in an ad hoc "here and now" fashion which lacked strategy, efficiency, coordination, or interagency cooperation (*A Failure of Initiative*, 2005).

Although FEMA's overall preparation and response to Hurricane Katrina was ineffective, uncoordinated and generally poor, FEMA's successes cannot be ignored. FEMA was able to accomplish certain emergency preparedness and mitigation tasks and at times accomplished them rather well. Individual initiative, thought, and brevity on the part of some FEMA staff members must also be recognized. Without their individual

efforts and accomplishments, FEMA's response and reputation may both have been worse off.

5. Chapter 5: Analysis and Discussion

The findings from the analysis of the research questions will be the basis for the development of policy recommendations aimed at improving FEMA's ability to adequately prepare for and respond to future disaster needs. This research comparison is a compilation of FEMA's performance, decisions and activities throughout the preparation and response to Hurricane Katrina. In order to develop the findings, the National Response Plan's outline of FEMA responsibilities and tasks will be compared to the media timeline, congressional testimony and the two federal reports. Each of the four research questions will be examined in order to determine if the data presented regarding FEMA's response to Hurricane Katrina supports each research question.

Congressional testimony will be a large component of this comparison, as it is the sole primary data source which provides a first hand account of what occurred and what did not regarding FEMA's response effort. Congressional testimony was provided by FEMA officials, state emergency management workers, Senators, Congressmen and other federal officials. There may be additional congressional testimonies or portions of testimonies that were not released to the public due to the presence of classified information. Therefore, the congressional testimony accessed on both the US House and US Senate's websites are only what was released for public consumption. The possibility of omitted testimony, which may provide additional information critical to this research, but not available to the public does exist.

A research question is deemed supported when the data sources identified above provide multiple distinct and clear instances that exemplify the posed organizational inadequacy outlined in each research question. The data examples must clearly state

what occurred and/or the impact of the action being described. If a research question is adequately substantiated by FEMA's actions or lack of action, then policy recommendations will be made relating to the research question in Chapter 6. Conversely, if a research question is not supported by evidence of FEMA's relief response to Hurricane Katrina, then policy recommendations will not be made related to that research question.

Through congressional testimony, the White House and Select Bipartisan Committee reports, it is expected that each of the four research questions will be clearly supported with examples of the extent of each organizational issue outlined in each respective research question. FEMA was closely followed by the media during its preplanning and response to Hurricane Katrina and conveyed a large amount of information to the public concerning FEMA's response activities. Regarding the federal reports, the federal government has the authority to demand records and documents. Therefore, the federal reports contain information that the public may not have been able to access and will assist to definitively show FEMA's successes and failures.

It becomes apparent through this plethora of documentation that FEMA suffered from several types of organizational failures outlined in the theoretical framework. FEMA was not prepared to face such a dramatic disaster due to lack of funding, training, staffing, and even disaster focus. Organizational centralization and bureaucratic red tape were also factors in FEMA's inadequate preparation and delayed response. These series of failures on account of FEMA attributed to a second disaster of failed federal response.

5.1. Analysis

1. How will centralization and flexibility affect an organization's ability to effectively respond and adapt to new and unexpected situations?

The federal government is a victim of bureaucratic red tape, which typically involves complicated policies and procedures that greatly extend the amount of time needed to complete tasks and are generally not adaptable to unexpected situations. Clearly, the federal government does not adopt a one-size-does-fits-all approach and FEMA is no exception. FEMA's systems were overburdened and ill prepared for Hurricane Katrina. As a result, many of FEMA's systems became paralyzed from its inability to handle unexpected situations, large amounts of requests for assistance, and multi-agency coordination. It is apparent that FEMA steadily declined to a level of inoperability as the days after Katrina made landfall marched on. Various media reports depicted FEMA employees arriving to an affected location without any supplies in hand, but promising to return with aid and then never doing so. FEMA was broken down by failure and was unable to recover.

Donald Smithburg, Executive Vice President, LSU System CEO, Health Care Services Division testified before the Subcommittee on Bioterrorism and Public Health Preparedness Committee on July 14, 2006:

To give you one concrete example, despite the designated role of our hospitals to receive evacuated patients, we received far fewer than we had capacity for. I personally worked at the state Office of Emergency Preparedness headquarters to help move both the patients and the staff

from Charity and University to other LSU hospitals that were prepared to accept them, but this approach – the *planned* approach – was overruled by FEMA. Instead, patients from Charity and University Hospital were taken to the New Orleans airport, ultimately put on military transports and scattered across the country. Only medical records, but no staff, accompanied them. To our knowledge, no record was kept of who was on what plane, where they came from or where they were taken. Immediately after the evacuation, it was as if our patients had disappeared, and when the calls from families came asking about those in our care, we could not tell them where they were. Staff spent literally weeks calling hospitals across the country asking if any of our patients had been transferred there. Despite these efforts and those of the Louisiana Hospital Association, we never did find out where all our patients were taken.

As the evidence shows, it is apparent that Hurricane Katrina did not fit the federal government's, particularly FEMA's, rubric for disaster preparedness and response needs. Hurricane Katrina has been deemed one of the most devastating natural disasters in US history. Various media sources appeared to repeatedly report that FEMA was "overwhelmed". FEMA's current policies and procedures are not conducive to a swift and coordinated disaster response, especially for a large scale disaster. For example, FEMA procurement tracking processes have not yet been automated. This made the job of tracking shipments inaccurate and labor intensive to locate relief supplies that were in route. Also, initially FEMA did not provide relief resources to New Orleans unless a

request for resources was received and approved, even if it was known that there was the need for such resources. Rather, FEMA would not initiate fulfilling requests for services unless the state or local government (which not all were able to do) made a formal request by following FEMA's rigid request procedure.

FEMA was incredibly ineffective with regards to requests for assistance. Requests took time to be processed and approved by FEMA before action took place. Some requests were claimed to have never been received. FEMA could have pre-positioned mobile communications in New Orleans but did not do so because it believed that it should first be asked to do so by local authorities (*A Failure of Initiative*, 2006, p.163).

On December 8th, Senator Joseph Lieberman testified before the Senate Homeland Security and Governmental Affairs Committee, "Under these kinds of catastrophic conditions, FEMA should not have seen its role as a butler waiting in the wings to assist when called."

Ivor van Heerden, hurricane expert at Louisiana State University, stated during an interview with NOVA in 2005:

The other important thing about the Pam exercise is that a lot of local officials came away from it understanding that FEMA, the Federal Emergency Management Agency, had to act within 48 hours—that FEMA would arrive with all the troops, all the food, all the water, and all the rescuers that we needed.

The second thing is, we could have had military transport aircraft flying into the New Orleans Airport—it was serviceable early on Tuesday

[August 30]—bringing food and water, the necessary amphibious vehicles if needed. There was a promise that in 48 hours, FEMA would start delivering all those things.

According to Bruce Baughman, Alabama's Director of Emergency Management, during his March 8, 2006 testimony before the Senate Homeland Security and Governmental Affairs Committee:

Unfortunately, the Administration, Congress, and all of us have stood by and watched as FEMA has become a shell of its former self. We are at the same point as the nation was after Hurricane Andrew in 1992, questioning organizational structures, leadership, the roles of federal, state, and local government, and even citizen preparedness.

David Paulison, FEMA Director, acknowledged the government is often slow to revamp itself, comparing the recommendations made after Hurricane Andrew in 1992 to Katrina more than a decade later. "You could have taken 'Andrew' out and put 'Katrina' in," Paulison said in a brief interview (Jordan, 2006).

Craig Nemitz, Disaster Services Manager of America's Second Harvest testified before the Committee on Health, Education, Labor and Pensions of the United States Senate on March 7, 2006 and stated, "The DHS oversight of FEMA adds a layer to the communications channels but fortunately my office knew who to call at the right time for the right answers." William Lokey, Federal Coordinating Officer, testified on December

14, 2005 before the House Select Committee To Investigate the Preparation for and Response to Hurricane Katrina that:

The FCO indicated that after FEMA came under DHS that his authority to make decisions in the field has been curtailed and many of his actions are now subject to review at FEMA headquarters and in many cases DHS.

This slows the recovery process greatly.

Senator Lieberman testified on December 8, 2005 during opening statements before the Senate Homeland Security and Governmental Affairs Committee that, “Yet, as we will hear from one of our witnesses today, Mr. Parr, who led the FEMA emergency response team sent to the Superdome, the team didn’t depart Baton Rouge for New Orleans until noon Tuesday – almost a full day after the hurricane had passed.” Philip Parr, Deputy Federal Coordinating Officer, testified before Senate Homeland Security and Governmental Affairs Committee on December 8, 2005 to which he stated:

On Saturday August 27th, I was informed that I would be the Emergency Response Team Advance Element team leader for the state of Texas. My team was composed of personnel from FEMA, Region 1 (New England), and we were instructed to rendezvous in the Region 6, Regional Response Coordination Center in Denton, TX. Sunday August 28th. Soon it became clear that Texas was not in the path of Hurricane Katrina and that members of my team and I would be assigned as the lead element in New Orleans, La.

I flew into Louisiana, immediately following the hurricane passing Monday the 29th of August with a contingent of my team, and Tuesday morning on the 30th we helicoptered into the Superdome. Our mission was three fold: (1) form a unified command with the State (as represented by the Louisiana National Guard), and the City of New Orleans; (2) maintain visibility of commodities ordered; and (3) build out a base from which FEMA teams could be formed to locate and assist in the hardest hit Parishes.

The Honorable James Oberstar stated at a press conference on May 9, 2006 on the Introduction of the Restoring Emergency Services to Protect Our Nation from Disasters (“RESPOND”) Act:

Moving FEMA into the Department of Homeland Security (DHS) was the wrong thing to do. It trapped the agency – an agency that needs to be nimble and be able to marshal resources quickly – in a bureaucratic morass. During its time in DHS, FEMA has been partially dismantled, has been bled of necessary resources, has been unable to fill key management positions on a permanent basis, has been unable to make timely decisions to deal with emergencies, and has been forced to focus on terrorism at the expense of natural disasters.

I, along with many others, feared that including FEMA in the new Department would undermine its effectiveness by diverting resources

away from its traditional mission of preparing for and responding to natural disasters, thereby leaving the federal government unprepared to respond to a disaster like Hurricane Katrina.

Mayor Ray Nagin testified before the House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina on December 14, 2005 and described the inadequate federal response to New Orleans.

Every day, requests were sent to the State and Federal authorities for emergency assistance needed to save lives and restore order. We requested search and rescue assistance, busses for evacuation, assistance in patching the levees, food, water, medical supplies, police and fire equipment and pumps to drain water. We were in most desperate need for assistance.

On Wednesday, the situation in the Superdome was tenuous at best and no food or water had arrived at the Convention Center. Little help had arrived as the day turned to night and you could feel the heaviness of the aftermath. Imagine the nights -- pitch black, no power, intense heat and people crying for help.

On Thursday, conditions continued to deteriorate. I received word from the National Guard and New Orleans police that the suffering in the Superdome and Convention Center were becoming inhumane. There was

increasing pressure to leave the buildings and incidents of violence were escalating. As the day passed, I sent out more urgent pleas for help. Finally, on Friday afternoon we began to see passengers loading into busses. Late Friday night, I watched the last bus leave the Convention Center. Saturday, the final bus left the Superdome. Many people had been there for 7 full days.

According to the Select Bipartisan Committee, there were several severe performance issues with FEMA. The Committee report stated that FEMA, “is a dysfunctional system in DHS that simply waits for requests for aid that state and local officials may be unable or unwilling to convey” (*A Failure of Initiative*, 2006). “The blinding lack of situational awareness and disjointed decision making needlessly compounded and prolonged Katrina’s horror” (*A Failure of Initiative*, 2006). One of the Select Bipartisan Committee’s findings included that, “FEMA management lacked situational awareness of existing requirements and resources in the supply chain. An overwhelmed logistics system made it challenging to get supplies, equipment and personnel where and when needed” (*A Failure of Initiative*, 2006). In fact, FEMA was overwhelmed and unable to coordinate all aspects of providing relief to Katrina victims. On Thursday, September 3rd, FEMA requested that the DOD take over the logistics distribution function of coordinating relief to be provided to victims. The formal Mission Assignment was begun by DOD on September 3rd, which involved the planning and execution for procurement, transportation and distribution of ice, food, water, fuel and medical supplies in

participation of the Katrina disaster relief effort in Louisiana and Mississippi (*A Failure of Initiative*, 2006).

FEMA's lack of real-time asset-tracking system left federal managers in the dark regarding the status of resources once they were shipped. Some post-landfall requests took weeks before any shipments arrived to local officials. Parish officials were universally critical of FEMA for providing relief commodities late. There were also misunderstandings of what constituted an official request for assistance (verbal requests during conference calls versus written requests as FEMA requires, etc.)

FEMA's database systems are also not linked inter or intra agency which resulted in delays in requests reaching FEMA and also the requests being fulfilled. State officials complained about FEMA's non-automated process that made tracking status difficult. They also complained about weaknesses in tracking the transportation and estimating arrival of FEMA-contracted commodities. FEMA officials have acknowledged these weaknesses. One unnamed employee interviewed was worried about holes in the tracking system, noting: "White House is asking, 'where are the water trucks?' I didn't know. ... We don't have confidence that the trucks have checked in, arrived at the destination. We have to rely on third parties to tell us they have arrived" (Jordan, 2006).

FEMA also failed in other areas of planning and response. FEMA logistics and contracting systems did not facilitate a unified, proportional, or prolonged coordination of commodities. According to *A Failure of Initiative*, in some cases FEMA had contracts and in other cases FEMA had to, "start buying off the street to meet the demand" (2006, p.330). FEMA, DOD and Kenyon International Emergency Services, a mortuary services contractor, were in discussions for recovery services and it was unclear who was

in charge of the recovery effort. Kenyon stated that it was not given the foundation it needed from FEMA to meet its objectives and ended up pulling out of the contract (*A Failure of Initiative*, 2006, p.330).

Katrina overwhelmed FEMA management and overloaded its logistics system. Response and relief personnel had little access into available federal assets and resources. The process for requesting assistance could not sustain the volume of requests, and the technology supporting that process proved inadequate. Due to degrading communications, many highly publicized requests for food and water may not have ever reached FEMA. According to Wells, requests for easily obtainable commodities were inappropriate because the state should not rely on FEMA for basic items that are otherwise easily obtainable, like writing tablets (*A Failure of Initiative*, 2006, p.324).

The Select Bipartisan Committee indicated in its report that, “The failure of initiative was also a failure of agility” (2004). Response plans at all levels of government, including the federal government, lacked flexibility and adaptability to successfully manage Katrina’s strength and destruction.

Colonel Jeff Smith, of the Louisiana Office of Homeland Security and Emergency Preparedness, testified before the House Select Committee to Investigate the Preparation and Response to Hurricane Katrina on December 14, 2005 and stated:

Two huge issues emerged with FEMA in resourcing: Not only were resources slow in coming, but there is no tracking system in place. FEMA could not advise with a degree of certainty when a particular resource would arrive. Once something is ordered FEMA has no way to determine the arrival date. When FEMA provided an arrival date, yet did not deliver,

huge problems were created. The most notable example is the failure to deliver buses, as promised, to evacuate the City of New Orleans.

Generators are a key element in emergency response. FEMA's method to supply generators is totally absurd. There are many documented cases where it took three and four days to get generators in place and operating, when there were generators on hand at a staging area.

The Louisiana EOC stated that FEMA should have been more sympathetic and provided more assistance when it was clear Louisiana was overwhelmed by the size of Katrina's devastation. There are several instances of state and local officials making requests to FEMA that were never processed because they did not follow the formal request process. In these cases, no immediate action was taken because FEMA assumed the state would follow up the verbal requests with official written requests.

According to Assistant Secretary of Defense of Homeland Defense, Paul McHale, during the response to Hurricane Katrina, the federal military remained under FEMA's control (*A Failure of Initiative*, 2006, p.204). In fact, the DOD grew frustrated with FEMA's inefficiency regarding appraising situations prioritizing need. The DOD operated under FEMA and therefore could act only when FEMA gave it direction to do so. Since the DOD had more advanced equipment and expertise than FEMA, DOD began appraising the incident more quickly than FEMA could, and began drafting their own work plans and requests for assistance. The DOD would then send these documents to FEMA who in turn sent them right back to DOD for action.

Former FEMA Director Michael Brown testified that too little was pre-positioned too late in various affected locations in the Gulf Region: “It was the largest natural disaster ever to strike the United States – 92,000 square miles. Logistics were falling apart” (*A Failure of Initiative*, 2005). When FEMA did arrive, representatives sometimes were empty-handed (*A Failure of Initiative*, 2006, p.320). Senator Pryor stated, “When FEMA finally did show up, everybody was angry because that is all they had was a Web site and a flier. They didn’t have any real resources that they could give” (*A Failure of Initiative*, 2006, p.320).

William Lokey, FEMA Baton Rouge Federal Coordinating Officer testified on January 30, 2006 before the Senate Homeland Security and Governmental Affairs Committee that the federal government and particularly FEMA, were overwhelmed:

Were we overwhelmed? The simple answer is, yes. But what needs to be understood is that at any disaster the initial response always feels overwhelmed. I must draw on my experience as a local responder to give you an example on a small scale of what I mean, and then a larger one. The police officer who pulls up to a two car accident with severe injuries while he operates alone waiting for help is overwhelmed.

The Federal Response to Hurricane Katrina also documented the inflexibility and bureaucracy of FEMA which contributed to its failed and often paralyzed response.

FEMA’s pre-positioned supplies were inadequate to meet demands throughout the region after landfall. As Katrina made landfall, Brown provided public assurances that FEMA was prepared to act to meet the logistical challenge. As it turns out, FEMA

personnel were quick to discover that the quantity of resources requested post-landfall stripped their logistical capabilities. FEMA was not able to buy resources quickly enough to keep up with needs of the affected areas and the requests for assistance. FEMA's contracts with private companies were incapable of supplying the quantities needed. As a result, shortages plagued the Gulf Region (*The Federal Response to Hurricane Katrina*, 2006, p.44-45).

DHS Secretary Michael Chertoff testified on October 19, 2005 in front of the House Special Committee on Katrina that:

By all measures, Hurricane Katrina was the largest natural disaster that FEMA has ever been called upon to support. Although FEMA pre-positioned significant numbers of personnel, assets and resources before the hurricane made landfall, we now know its capabilities were simply overwhelmed by the magnitude of this storm.

William Lokey, Federal Coordinating Officer, testified on December 14, 2005 before the House Select Committee To Investigate the Preparation for and Response to Hurricane Katrina that:

Despite all of our efforts and despite the fact that we pre-positioned more commodities and staged more rescue and medical teams than ever in our history, as a result of the catastrophic size and scope of Katrina, our initial response was overwhelmed.

Ineffective communications between FEMA and other federal agencies prevented available federal resources from being effectively used for response operations. There was no efficient mechanism for proficiently integrating and deploying these resources that were at times repeatedly offered by the USDA, HUD, VA, and DOI. FEMA did not know how to manage these requests because there was no procedure available regarding this type of circumstance.

The Federal Response to Hurricane Katrina states that FEMA turned to DOD for major assistance with logistical problems. FEMA could neither efficiently accept nor manage the deluge of charitable donations. Even other countries had a hard time getting through to a contact person in FEMA. A flight of relief supplies from Switzerland was cancelled because FEMA only wanted a portion of the cargo and Switzerland could not unload and repackage the supplies.

FEMA officials lacked situational awareness and were oblivious to their own resource capabilities. FEMA had deployed two Mobile Emergency Response Support (MERS) detachments to the Gulf and quickly moved them to the affected areas in Louisiana. MERS consists of vehicles equipped with phone and data lines, satellite communications, generated power, mobile communication, etc. These two units were not adequate to manage Katrina's magnitude. Key officials in Washington, DC and in the field were not aware that there were additional MERS available.

On Saturday, August 27th, FEMA issued a statement in the afternoon asking first responders to only come to the city if there was proper coordination between state and local officials (Brookings). On Tuesday, August 30th, FEMA stopped volunteer firefighters with hurricane expertise due to the insecurity of the city. They were asked to

wait for National Guardsmen to first secure city (Brookings). This clearly demonstrates how bureaucracy can greatly delay and also halt critical assistance and resources merely because

Five full days passed after Hurricane Katrina made landfall in New Orleans before FEMA was able to secure transportation to evacuate New Orleans. On Saturday evening, September 3rd FEMA finalized a bus request. “FEMA ended up modifying the number of buses it thought it needed to get the job done, until it settled on a final request of 1,335 buses at 8:05 p.m. on September 3rd. The buses, though, trickled into New Orleans, with only a dozen or so arriving the first day” (Think Progress). Essentially, the evacuation effort was delayed because FEMA did not have the knowledge or skill to determine how many buses it needed to evacuate New Orleans. Instead of making an initial bus request and following up with an additional request (if needed), FEMA delayed evacuations by waiting until they had a more definitive idea of how many buses should be requested.

2. To what extent will an employee’s skill set and situational awareness affect organizational operations?

The Homeland Security Act was signed into law by President Bush in November of 2002 (NRP, 2004). This act directs FEMA to, “protect the Nation from all hazards by leading and supporting the Nation in a comprehensive, risk-based emergency management program” (The Heritage Foundation, 2005).

In March 2003, The Department of Homeland Security (DHS) assumed control of twenty-two federal agencies, including FEMA, in an effort to better coordinate national security, emergency preparedness, response and civil defense (FEMA.gov, 2006). The

Department of Homeland Security is charged with degrading virtually all aspects of the Federal Emergency Management Agency when it came under DHS in 2003. Reportedly, FEMA's operating budget for fiscal years 2003 and 2004, after FEMA was absorbed by DHS, was cut by \$80 million and \$90 million respectively (*A Failure of Initiative*, 2004, p.156).

In addition, FEMA did not have any succession planning. Top officials, senior workers and specialists were victims of "FEMA brain drain," meaning that these FEMA employees were moved to other sectors of DHS to fill staffing needs and left FEMA without the knowledgeable, skilled and seasoned workers it once had (*A Failure of Initiative*, 2004, p.152). According to DHS Secretary Chertoff, "Currently, FEMA has a very capable and well respected Acting Director in David Paulison. But FEMA must work to replenish its ranks at the senior level with experienced staff" (October 19, 2005 testimony before the House Special Committee on Katrina).

DHS Secretary, Michael Chertoff, testified before the House Special Committee on Katrina on October 19, 2005:

Hurricane Katrina was the first large-scale test for the new National Response Plan that Congress as well as other federal, state, and local partners worked with our Department to create and implement over the past few years. And it was by any measure an extraordinary test. The one-two combination of a catastrophic hurricane and massive flood overwhelmed the normal disaster relief system.

As seen with the Hurricane Pam exercise, funding for training was also cut. In 2004, FEMA encouraged a mock Hurricane disaster to bring together multiple federal agencies for training, named Hurricane Pam, out of realization that the Gulf Region was a vulnerable location for a large-scale hurricane (*A Failure of Initiative*, 2004). A follow-up exercise was planned for 2005, but it never materialized due to insufficient funding (*A Failure of Initiative*, 2004, p.82). With funding cut for training, employees are unsure of their roles and responsibilities in the face of a disaster, do not know how to collaborate (meaning communicate with, meet with, or divide responsibilities) with other responding agencies (i.e. first responders, local/state emergency officials, federal agencies or other sectors within FEMA) for an effective, managed and unified response.

Colonel Jeff Smith, of the Louisiana Office of Homeland Security and Emergency Preparedness, testified before the House Select Committee to Investigate the Preparation and Response to Hurricane Katrina on December 14, 2005 and stated:

In addressing the shortcomings in the Federal response, I share the views of many other emergency managers and other[s] that many of the shortcomings are directly a result of FEMA being brought under the umbrella of the Department of Homeland Security (DHS). It is my understanding that the Department of Homeland Security is made up some 180,000 employees of which FEMA is barely over 2,000. Critics of the current federal structure have been validated by the response of DHS and FEMA to Katrina. It is apparent that DHS does not understand the full spectrum of emergency management. DHS hindered FEMA's ability to plan and coordinate. It appears that DHS has literally stripped FEMA of

its assets: just recently the Preparedness Division of FEMA was taken away from FEMA and moved into DHS.

While natural disasters such as Katrina cannot be prevented, there can be preparation. The desperately needed ability to prepare has been stripped from FEMA. When you read about the role of the new preparedness division that is now in DHS, it is clear that the emphasis is terrorism and preventing terrorism. This is not the same as “preparing”. Only one short reference is made to natural disasters.

DHS publicizes that it is “all hazards” but the grant guidelines reflect an entirely different picture. Unless the training exercise has something to do with weapons of mass destruction (“WMD”), it is very difficult to get funding.

FEMA is the only federal agency that is able to properly prepare and respond to disasters given the necessary tools, including funding and staffing. Baughman stated during his March 8, 2006 testimony before the Senate Committee on Homeland Security and Governmental Affairs:

No federal agency is more qualified structurally and statutorily than FEMA to help our nation respond to and recover from disasters. FEMA has the direct relationships with state and local governments because of the grant programs and the disaster relief programs authorized through the

Stafford Act. FEMA is the only federal agency authorized under the Robert T. Stafford Disaster Relief and Emergency Relief Act (42 U.S.C. 5121 et seq.) to carry out duties on behalf of the President.

FEMA is vastly understaffed at both the headquarters and regional offices. Currently, 4 of the 10 regional offices are led by Acting-Directors. The constant strain of placing civil service employees in an acting capacity takes away from the work-load in the office, since decisions have to be made about what tasks to put aside because of staffing shortages. I would estimate that, regional offices are staffed to about 70 percent of the level that they were three years ago.

Gary LaGrange, President and CEO of Port of New Orleans, testified before the Senate Committee on Finance on September 28, 2005 in which he stated, "However, it is difficult to keep the FEMA person focused on one crisis. FEMA employees are often moved around to address the newest crisis and that often that delays recovery of older problems."

Albert Ashwood, Vice-President, National Emergency Management Association and Director, Oklahoma Department of Emergency Management testified before the House Committee on Transportation, Infrastructure Subcommittee on Economic Development, Public Buildings and Emergency Management in 2005, "More and more, FEMA is forced to rely on state and local governments to support their own activities because FEMA just does not have the volume of necessary personnel and institutional knowledge

within the agency anymore (2005). Senator Joseph Lieberman also indicated in his testimony before the Senate Homeland Security and Governmental Affairs Committee (2005):

As we will hear today, FEMA deployed too few people to respond to Katrina and deployed them too slowly. Many of those it did deploy apparently failed to appreciate what the breaking of the levees meant, even when they belatedly learned of the breaks – a failure that had disastrous consequences for the people of New Orleans.

Several media reports also indicate since FEMA's inclusion into DHS in 2003, the focus of FEMA was no longer disaster preparedness and response. Rather, FEMA was forced to focus on terrorism, as is DHS's main focus (*A Failure of Initiative*, 2004). According to *A Failure of Initiative*, FEMA's trained response teams were reduced to merely names on a roster and by no means coordinated or well trained (2004, p.158).

As mentioned in *A Failure of Initiative*, FEMA personnel were meeting officials from other agencies for the first time ever during the response to Hurricane Katrina (2004, p.152). An effective, swift and coordinated interagency federal response cannot be expected if members of the involved organizations do not have any experience training together.

All of these factors contribute to FEMA's severely lacking response to Katrina. There are several examples given by both of the federal government's reports and the timeline which demonstrate a clear lack of training, familiarization, knowledgeable personnel, situation awareness, and practice.

The Select Bipartisan Committee determined that FEMA's disastrous response was a result of organizational and societal failures of initiative (*A Failure of Initiative*, 2004, p. 359). There were several examples of failure including, "tardy and ineffective execution of the NRP, an under-trained and under-staffed FEMA, and a perplexing inability of FEMA to learn from Hurricane Pam and other exercises" (*A Failure of Initiative*, 2006, p.132). Additional failures include, "a complete breakdown in communications that not only paralyzed command and control, but made situational awareness murky at best, and an overwhelmed FEMA logistics and contracting system that could not support the effective provision of urgently needed supplies" (*A Failure of Initiative*, 2004, p. 359). Some of these mistakes resulted in failure since these errors resulted in extensive harm and social costs including substantial loss of life, grave human suffering and significant property damage.

The Select Bipartisan Committee stated that the medical operation at the New Orleans Airport was chaotic due to lack of planning, preparedness and resources (*A Failure of Initiative*, 2004, p.287). FEMA officials did not conduct an adequate assessment of the situation before deploying DMATs. Upon arrival, many teams were confused about where to place assets and how to integrate into the existing operation. Many DMATs arrived before their cache of supplies, limiting their ability to do their work. Medical personnel reported doing the best they could with limited resources by, "black tagging the sickest people and culling them away from the masses so they could die in a separate area" (*A Failure of Initiative*, 2004, p.287). DMAT units TX-1 and TX-4 were the first to arrive. Their equipment had not been updated, so they couldn't link together other critical equipment, such as ventilators (*A Failure of Initiative*, 2004, p.287). In addition,

the two FEMA employees sent to operate these DMAT units were unfamiliar with the controls and functions of the units and ultimately were not able to successfully man them. Technology cannot be an effective instrument in disaster planning, mitigation or response if the equipment operators lack the necessary knowledge and skill set to properly set up and manage technological tools and equipment.

Katrina overwhelmed several areas of FEMA's response, particularly staffing. "The response to Katrina required large numbers of qualified personnel at a time when FEMA's professional ranks had declined" (*A Failure of Initiative*, 2004, p.157). FEMA response officials in Louisiana testified that FEMA's, "inability to field sufficient numbers of qualified personnel had a major impact on federal response operations" (*Failure of Initiative*, 2004, p.157). A lack of trained, professional personnel at both the state and federal level greatly hindered the response. FEMA was significantly shorthanded regarding available trained staff to send into the field. Wells stated that, "We did not have the people. We did not have the expertise. We did not have the operational training folks that we needed to do our mission" (*A Failure of Initiative*, 2004, p.157).

In *A Failure of Initiative*, Scott Wells, Deputy FCO for Louisiana stated that, "A ninety person FEMA regional office is woefully inadequate to perform its two primary disaster functions: operating a regional response coordination center and deploying people to staff emergency response teams in the field" (2004, p.157). Further, Wells indicated that, "FEMA response officials in both Mississippi and Louisiana testified that the department's inability to field sufficient numbers of qualified personnel had a major impact on federal response operations" (*A Failure of Initiative*, 2004). According to *A*

Failure of Initiative, “Ultimately, FEMA officials turned to federal agencies like the US Forest Service and city firefighters from across the country to staff FEMA positions in the Louisiana” (2004). FEMA had fifty-five acquisition slots, and procurement officials think it should have had a minimum of one-hundred-seventy-two. Further, only thirty-six of the fifty-five slots were actually occupied (*A Failure of Initiative*, 2004, p.157).

A Failure of Initiative found that FEMA and DHS lacked both an adequately trained and experienced staff capable of planning for and managing the federal response to Hurricane Katrina. According to *A Failure of Initiative*, Brown’s memo, “identified budget cuts and organizational changes he believed were harming FEMA’s ability to perform its statutory responsibility of leading the federal government’s response to all disasters, including terrorist attacks. FEMA’s operational budget baseline had been permanently reduced by 14.8% since joining DHS in 2003” (2004). Brown also stated that, “FEMA lost \$80 million in fiscal year 2003 and \$90 million in fiscal year 2004 from its operation budget. These budget reductions were preventing FEMA officials from maintaining adequate levels of training and ready staff, according to Brown” (*A Failure of Initiative*, 2004, p.155-156).

As Brown described, recent organizational changes [the transfer of several FEMA preparedness programs to ODP in Secretary Tom Ridge’s reorganization plan of September 2003] have divided what was intended to be one, all-hazards preparedness mission into two artificially separate preparedness categories of terrorism and natural disasters. Brown also said FEMA no longer managed numerous functions that were essential to meeting its statutory responsibilities and therefore did not have the tools to successfully accomplish its mission (*A Failure of Initiative*, 2004, p.155).

The emergency management community has complained since 2003 that FEMA was being systematically dismantled, stripped of authority and resources and suffering from low morale, in part because of the Department's focus on terrorism. *A Failure of Initiative* described the decline in preparedness has been seen as a result of, "the separation of the preparedness function from FEMA, the drain of long-term professional staff along with their institutional knowledge and expertise and the diminished readiness of FEMA's national emergency response teams" (2004, p.158). *The Federal Response to Hurricane Katrina* claims that at least two factors account for FEMA's loss of seasoned veterans. First, the report indicated that, "Like other government agencies, many of FEMA's long-term professionals are reaching retirement age" (2004, p.157). Secondly, "Job satisfaction was second to last in 2005, according to Partnership for Public Service" (*A Failure of Initiative*, 2004, p.157).

In a June 30, 2004 memo, FEMA's top disaster response operators, the cadre of Federal Coordinating Officers (FCOs), warned then FEMA Director Brown that the national emergency response teams were unprepared because no funding was available for training exercises or equipment. "It appears no actions were taken to address the problems," identified the memo (*A Failure of Initiative*, 2004, p.158).

The diminished readiness of the national emergency response teams has been attributed to a lack of funding for training exercises and equipment. Numerous officials and operators, from state and FEMA directors to local emergency managers told the same story: if members of state and federal emergency response teams are meeting one another for the first time at the operations center, then you should not expect a well-coordinated response (*A Failure of Initiative*, 2004, p.158).

The lack of adequate staff and insufficient training are directly attributable to limited funding for FEMA operations. The funding for training exercises is and has been deficient. This is evident in the lack of coordination of FEMA staff. According to Bill Carwile (FCO in Mississippi), training funding for national emergency response teams dried up in 2003 (*A Failure of Initiative*, 2004, p.193). Teams sent to the Gulf never had an opportunity to train together (*A Failure of Initiative*, 2004, p.193). This contributed to delays and inefficiency in federal response.

Senator Joe Lieberman described the training and funding issues as, “A FEMA disaster waiting to happen because we weren’t giving FEMA the resources to get ready for this.” (*A Failure of Initiative*, 2004, p.193). The FCO in Mississippi, Bill Carwile testified before the Senate on December 8, 2005 that, “By 2004, the readiness of FEMA’s emergency response teams had plummeted dramatically.” Funding for the teams dried up after 2002 (*A Failure of Initiative*, 2004, p.158). They lost their dedicated communications equipment. Teams were split up into ever smaller units. Team training and exercises ceased (*A Failure of Initiative*, 2004, p.158).

One FEMA official, Deputy FCO Scott Wells, also said there was no clear unity of command at the Superdome (*A Failure of Initiative*, 2004, p.185). He said he arrived there on Wednesday, August 31 and when he tried to contact the leadership at the location to coordinate FEMA activities, he found, “nobody in charge, and no unified command” (*A Failure of Initiative*, 2004). For example, Wells stated that there was no organization or structure to collect requests, prioritize them and pass them on to the next appropriate echelon (*A Failure of Initiative*, 2004, 186).

According to *The Federal Response to Hurricane Katrina*, DMATs are supposed to set up self-supporting field hospitals and provide medical care within the first seventy-two hours after a disaster before the arrival of other federal assets (*A Failure of Initiative*, 2004, p.298). Jack Beall, NDMS Chief, said most of the FEMA NDMS officials deployed during Katrina and giving orders to DMATs were unseasoned, unfamiliar with how to operate the communications equipment (*A Failure of Initiative*, 2004, p.298). The inexperience of FEMA employees contributed to the delayed response.

The Select Bipartisan Committee determined that the effects of lack of command had various consequences on the overall response effort including: delayed and duplicative efforts to plan for and carry out post landfall evacuations at the Superdome, uncoordinated search and rescue efforts that resulted in residents being left for days without food and water and confusion over deliveries of commodities because some officials diverted trucks and supplies without coordination with others (*A Failure of Initiative*, 2004, p.183).

The Federal Response to Hurricane Katrina cites two additional poignant instances not previously mentioned by the Select Bipartisan Committee, which exemplify the lack of FEMA staff training and ability, FEMA coordination and poor performance. First, FEMA teams were deployed to assess damage to the regions did not focus on critical infrastructure and did not have the expertise necessary to evaluate protection and restoration needs (*The Federal Response to Hurricane Katrina*, 2004, p.61). Lastly, since March 2003, DHS has spread FEMA's planning and coordination capabilities and responsibilities among DHS's other offices and bureaus. DHS also did not maintain the personnel and resources of FEMA's regional offices (*The Federal Response to Hurricane*

Katrina, 2004, p.53). Additionally, many FEMA programs that were operated out of the FEMA regions have moved to DHS headquarters in DC (*The Federal Response to Hurricane Katrina*, 2004, p.53). Therefore, there were no local relationships which are critical to an integrated and effective response.

On Monday morning, August 29th, Brown finally requests that DHS dispatch 1000 DHS rescue employees to the region and allows them 2 days to arrive on scene and 2000 more within the next 7 days. "Brown's memo to Chertoff described Katrina as 'this near catastrophic event' but otherwise lacked any urgent language. He proposes sending the workers first for training in Georgia or Florida, then to the disaster area "when conditions are safe." Among the duties of the workers, Brown proposes, is to "convey a positive image of disaster operations to government officials, community organizations and the general public." The memo politely ended with, 'Thank you for your consideration in helping us to meet our responsibilities.' " (Think Progress, Fact Check and Brookings)

Early Wednesday morning, August 31, FEMA requests ambulances that do not exist "Almost 18 hours later, [FEMA] canceled the request for the ambulances because it turned out, as one FEMA employee put it, 'the DOT doesn't do ambulances' " (Think Progress). This clearly demonstrates a severe lack of familiarity of resources, poor situational awareness and the absence of a working relationship between agencies.

Two days after Hurricane Katrina struck (Wednesday, August 31st) Jefferson Parish Emergency Director states that food and water supplies are gone, "Director Walter Maestri: FEMA and national agencies not delivering the help nearly as fast as it is needed" (Think Progress).

On Thursday, September 1st, there was still no command or control established in New Orleans. Terry Ebbert, New Orleans Homeland Security Director stated, “This is a national emergency. This is a national disgrace. FEMA has been here three days, yet there is no command and control. We can send massive amounts of aid to tsunami victims, but we can’t bail out the city of New Orleans” (Think Progress). On Sunday, August 28th, Louisiana National Guard requests 700 buses from FEMA for evacuations. FEMA sends only 100 buses (Think Progress).

3. How will internal and external information sharing impact communication and performance?

Communication was a constant problem with FEMA and any other agency collaborating with FEMA. Logistically, FEMA was not able to deploy adequate communications equipment to the areas most in need, repair them when they were not functioning properly and FEMA’s equipment was not typically compatible with the equipment used by other agencies. Therefore, both intra- and inter-organizational communication was unreliable and typically nonexistent.

Although FEMA experienced several technological failures and employees lacked the skill to operate functional communications equipment, FEMA had recently simplified its equipment needs. Before 2001, it was commonplace for FEMA to require approximately four days to set up equipment before its main disaster field office would be operational with technical services. Now FEMA employees are able to set up wireless communications for a field office in one day (Dean, 2001). There is no longer a need for several trailers worth of equipment. Instead, FEMA employees only need one pick-up

truck to transport their communications kit. Each employee that is deployed to the field office receives a wireless phone and laptop. In addition, FEMA inspectors are, “equipped with a handheld tablet computer that is loaded with a list of homes to inspect on a given day. At the end of the day, the inspector's work is uploaded to FEMA's National Emergency Management Information System (NEMIS)” (Dean, 2001).

FEMA claims that it has been using GIS mapping technology since before Hurricane Andrew in 1992 (FEMA, 2004). In fact, “in the aftermath of Hurricane Andrew, GIS began to take a more cohesive shape within FEMA. FEMA began to use GIS based hurricane wind and earthquake damage estimation models and disaster maps” (FEMA, 2004). Moreover, FEMA states (FEMA.gov, 2005):

In 1994, FEMA formed the GIS Applications Branch in the Information Technology Services Directorate (ITSD). Under the management of the ITSD GIS Applications Branch, the Mapping and Analysis Center (MAC) was designed and developed as a state-of-the-art GIS laboratory to support the EST and the Response and Recovery Directorate. In addition, MAC staff also developed complete sets of deployable GIS suites and put in place on-call GIS contract support to provide on-site GIS field support.

This GIS technology is still used by FEMA during disasters. Johnny Bradberry, Secretary of the LA. Department of Transportation and Development testified before the Senate Committee on Governmental Affairs on January 31, 2006 that, “It was several days [from Tuesday, August 30th] before FEMA was able to produce maps for its crews that are attempting to go into neighborhoods and rescue stranded citizens.”

Within the federal government, FEMA did not consistently or effectively pass information down to its employees, or up through the HSOC to the White House (*A Failure of Initiative*, 2004). The HSOC is charged with providing a clear situational picture for the White House of the current events (*A Failure of Initiative*, 2004). According to the NRP, FEMA is a primary agency which belongs to the HSOC and provides staff to run it (2004). The HSOC operated poorly due to its lack of knowledge regarding what its duties and responsibilities. Subsequently, the White House did not consistently or clearly receive information on the status of the situation throughout the federal response to Hurricane Katrina (*A Failure of Initiative*, 2004, p. 139).

R. David Paulison testified on May 24, 2006 before the Homeland Security and Governmental Affairs Senate Committee regarding FEMA communications and situational awareness:

With what is predicted to be another active hurricane season just days away, much has already been accomplished towards strengthening and retooling FEMA. Since September of last year, I have led FEMA through a period of much-needed re-tooling to gear up for the next major hurricane or disaster. Our top three areas of improvement are in: 1) situational awareness and communications, 2) logistics and commodity management and 3) victim management and assistance.

Having real-time, on-the-ground information in the 24 hours immediately before and after a disaster, especially a hurricane, is the best method for us to support first responders and help save lives. One of the ways we are

improving our situational awareness is by enhancing our technology to include satellite phones, high-frequency and land mobile radios and other mobile and disaster communications equipment to better equip our response teams. Our teams also will liaison with state and local emergency operations centers to establish unified incident command with state and local officials and report information from the local level.

Bennie Thompson testified before the Senate Committee on Small Business and Entrepreneurship on November 8, 2005:

Given the inability of the Department and FEMA to prepare and respond to Hurricane Katrina, I was concerned that they would continue their sub-par performance with regard to contracts that were awarded as a part of the response and recovery process. As such, it became obvious to me that oversight and accountability were critical and should be an integral part of the contracting process.

William Woods of the Government Accountability Office testified before the Homeland Security and Governmental Affairs Senate Committee on April 10, 2006:

Our fieldwork identified examples where unclear responsibilities and poor communications resulted in poor acquisition outcomes. For example: The process for ordering and delivering ice heavily depends on effective communications between FEMA and the Corps. However, according to Corps officials, FEMA did not fully understand the contracting approach

used by the Corps and ordered at least double the amount of ice required, resulting in an oversupply of ice and a lack of distribution sites available to handle the volume ordered. Additionally, the local Corps personnel were not always aware of where ice might be delivered and did not have the authority to redirect ice as shipments arrived, resulting in inefficient distribution and receipt at the state level.

It was evident that no clear or unified communications were in place. Conflicting pieces of information were consistently reported to the public. For example, FEMA Director Brown had indicated that he was unaware for days that evacuees had flocked to the Convention Center (*A Failure of Initiative*, 2004). Also, early in the Week of Crisis, FEMA officials incorrectly indicated that the levee breaches may be able to be repaired in a matter of days (*A Failure of Initiative*, 2004). FEMA employees were not able to consistently remain in contact with coworkers and subsequently did not know where they were or what they were doing. The lack of reliable communication led to omission of necessary activities, duplication of effort, confusion, miscommunication and an overall poor disaster response. This also furthered the lack of a unified command and response to Katrina since communications were virtually nonexistent due to incompatible communications systems and weather which affected the ability for communications equipment to operate properly.

A lack of communications internally between FEMA officials also externally created a lot of confusion, delayed relief response and lot of criticism. Repeatedly, during the daily video teleconferences, state and federal officials expressed their frustrations with the level of communications. The Select Bipartisan Committee found that the HSOC

failed to provide valuable situational information to the White House and key operational officials during the disaster. During Katrina, the roles and responsibilities of the HSOC were unclear (*A Failure of Initiative*, 2004, p.139). One of the primary roles is to maintain an accurate picture of events as an incident unfolds by fathering and integrating information from multiple sources. Edward Buikema, Regional Director for FEMA Region 5, stated that while situational reports were continually flowing up the ladder from FEMA headquarters to the HSOC, no information was flowing back down from the HSOC to the NRCC (*A Failure of Initiative*, 2004, p.140).

Michael Brown told the Senate Bipartisan Select Committee one of his biggest failures was failing to properly utilize the media as first informer. Brown testified on a September 27, 2005 hearing, “We should have been feeding that information to the press... in the manner and time that we wanted to, instead of letting the press drive us.”

Without sufficient working communications capability to get better situational awareness, the local, state and federal officials directing the response in New Orleans had too little factual information to address, and if needed, rebut what the media was reporting to the public. The lack of situational awareness allowed inhumane situations to continue longer than they should have and, as noted, delayed response efforts, as well as perpetuated the evacuees’ fear and anxiety of not being rescued from the Superdome and Convention Center. On September 1st, during a FEMA videoconference call, FEMA Baton Rouge Federal Coordinating Officer, William Lokey stated that, “media reports and what we are getting from on-scene were contradictory and we [did not] have a clear picture of what exactly went on.” (*A Failure of Initiative*, 2004, p.248).

FEMA officials claimed they did not know for days about thousands of people at the New Orleans Convention Center, or that first responders in helicopters could not talk to crews patrolling in boats (*A Failure of Initiative*, 2004, p.173-174). Brown was widely criticized in the media for saying on Thursday night, September that he only found out that afternoon about the people at the Convention Center. When asked by the media about conditions at the Convention Center, Brown said, “We learned about that [Thursday], so I have directed that we have all available resources to get that convention center to make sure that they have food and water and medical care that they need” (*A Failure of Initiative*, 2004, p.280). Convention Center General Manager Warren Reuther says no such medical provision was ever made. He estimates that between 18,000 and 25,000 eventually gathered there (*A Failure of Initiative*, 2004, p.280). To bolster the fact that FEMA had poor situational awareness, the FEMA Acting Director for Response during Katrina, Ed Buikema, also said that on Tuesday and Wednesday, August 30th and 31st, there was still some hope that the breaches in the levees could be repaired quickly (*A Failure of Initiative*, 2004, p.121).

Communications between DOD and DHS, and in particularly FEMA, during the immediate week after landfall, reflect a lack of information sharing, near panic and problems with process (*A Failure of Initiative*, 2004, p.203). FEMA officials’ perceptions of a slow response from DOD reflected that they were unaware of the planning already under way before final decisions were resolved and possibly an unrealistic expectation that acceptance of such a massive mission would result in immediate action (*A Failure of Initiative*, 2004, p.214). In addition, the Red Cross experienced substantial communication issues with FEMA. The Red Cross relied on

FEMA to provide primary necessities to operate its shelters. The Red Cross noted that there were frequent miscommunications regarding evacuees arriving without warning, and warning followed by no evacuees arriving (*A Failure of Initiative*, 2004, p.347).

The flow of intra- and inter-flow of communication throughout the response effort was often criticized by local, state and federal agencies as slow or nonexistent (NRP, 2004). This may have been due to the hierarchal chain that information was required to pass through before it could ultimately arrive at its final destination. This communications journey allowed for various opportunities in which communications were misunderstood or not delivered all together. The Select Bipartisan Committee report found that, “Information passed through the maze of departmental operations centers and ironically-named ‘coordinating’ committees, losing timeliness and relevance as it was massaged and interpreted for internal audiences” (*A Failure of Initiative*, 2004, p.360).

FEMA official Marty Bahamonde was in New Orleans during and immediately after landfall. Lokey and his staff in the EOC were not aware of this until they were informed by FEMA headquarters on late Monday, August 29th. Before that time, they did not even know he was there or what his function was (*A Failure of Initiative*, 2004, p.190). Bahamonde testified on October 20, 2005 before the Senate Homeland Security and Governmental Affairs Committee:

I am Marty Bahamonde. I work for the Federal Emergency Management Agency (FEMA) as a Public Affairs Officer for FEMA’s Boston office and worked in FEMA’s Headquarters in Washington, D.C. I worked in New Orleans prior to and immediately following Hurricane Katrina and

have spent that past 6 weeks working at the Joint Field Office in Baton Rouge. I was the only FEMA employee deployed to New Orleans prior to the storm.

Regarding the 17th Street Canal levee breach, Bahamonde also testified that: At approximately 11am, the worst possible news came into the EOC. I stood there and listened to the first report of the levee break at the 17th Street Canal. I do not know who made the report but they were very specific about the location of the break and the size. And then they added it was “very bad”. I continued to provide regular updates to FEMA Headquarters throughout the day as the situation unfolded.

At approximately 5pm, I rushed over to the Superdome because I had been notified that a Coast Guard helicopter was able to take me for a short flyover so that I could assess the situation in the city and plan for Under Secretary Brown’s visit the next day. My initial flyover lasted about 10 minutes and even in that short time I was able to see that approximately 80 percent of the city was under water, and I confirmed the 17th Street Canal levee break. I was struck by how accurate the 11am call was about the levee. About 15 minutes later, I went back up on a second Coast Guard helicopter for approximately 45 minutes, and during this flight, I was able to get a real understanding of the impact of Katrina on New Orleans and the surrounding area. Upon landing, I immediately made three telephone

calls. The first was to Under Secretary Mike Brown at approximately 7pm.

The second was to FEMA's front office, and the third was to FEMA Public Affairs.

When Bahamonde called Brown at 7pm to advise him of what he had seen, Brown did not ask any questions and merely stated, "Thank you. I am now going to call the White House." White House didn't consider the rumors confirmed until 6:30am the next morning after they received an updated report from DHS (*A Failure of Initiative*, 2004, p.142).

On Tuesday, August 30th, FEMA official Parr and others were in the Superdome. They were unaware of any other evacuation plan being made, so they devised their own and sent the plan to FEMA Regional Command Center in Denton, Texas, where they received initial approval (*A Failure of Initiative*, 2004, p.121). That FEMA office began looking for the needed resources to complete the plan. The next day, Parr learned that the Commander of Joint Task Force Katrina, General Honore, cancelled the plan when he came to Louisiana. Parr and his coworkers estimate that their plan would have used nine helicopters to completely evacuate the Superdome in about thirty hours (*A Failure of Initiative*, 2004, p.121).

Flood water prevented hospitals from receiving supplies or personnel, and some private hospitals, such as Methodist, say medical supplies and fuel tanks being airlifted to them by their corporate headquarters were being intercepted by FEMA. Army officers and FEMA officials arrived on Tuesday and Larry Graham (CEO for Pendleton Memorial Methodist Hospital) informed them he needed assistance with evacuations.

The officials assured him they would return but never did (*A Failure of Initiative*, 2004, p.286).

On Wednesday morning, August 31st, FEMA staff warned Brown that there had been fatalities in the Superdome. Three hours later, Brown's press secretary wrote to colleagues complaining that Brown needed more time scheduled to eat at a restaurant: "He needs much more than (sic) 20 or 30 minutes. We now have traffic to encounter to go to and from a location of his choice (sic), followed by wait service from the restaurant staff, eating, etc. Thank you" (Think Progress).

On Thursday, September 1st, around 8:00pm, Brown learns of evacuees in Convention Center. "We learned about that (Thursday), so I have directed that we have all available resources to get that convention center to make sure that they have the food and water and medical care that they need." Speaking from Baton Rouge in a live interview with CNN's Paula Zahn, he stated, "And so, this -- this catastrophic disaster continues to grow. I will tell you this, though. Every person in that Convention Center, we just learned about that today. And so, I have directed that we have all available resources to get to that Convention Center to make certain that they have the food and water, the medical care that they need." Zahn began to ask, "Sir, you aren't telling me..." Brown interrupted and said, "... and that we take care of those bodies that are there." Zahn then asked, "Sir, you aren't just telling me you just learned that the folks at the Convention Center didn't have food and water until today, are you? You had no idea they were completely cut off? Brown replied, "Paula, the federal government did not even know about the Convention Center people until today." (Brookings, Think Progress and Fact Check)

On Thursday afternoon, September 1st, Brown claims that he has not previously heard of reports of violence. “I’ve had no reports of unrest, if the connotation of the word unrest means that people are beginning to riot, or you know, they’re banging on walls and screaming and hollering or burning tires or whatever. I’ve had no reports of that” (Think Progress).

4. To what extent will a business continuity plan effect an organization’s ability to timely recover from initial failures?

FEMA did not have an adequate recovery plan in place in the event that part of the emergency response plan failed. As mentioned in Chapter 4 and Chapter 5, FEMA did experience such failure and did not have a recovery plan in place to assist the agency in recovering and continuing providing relief to New Orleans. There was no back-up for obtaining supplies or resources, sending in additional FEMA personnel to effected areas, establishing and maintaining communications systems or any other facet of disaster mitigation. In fact, due to poor planning, FEMA struggled greatly just to bring the basic relief aid to evacuees in an adhoc basis. This primitive response still took four full days to reach Katrina victims in New Orleans. Supplies were not sufficiently stocked and pre-deployed before Katrina hit, despite having a directive from President Bush on Saturday, August 27th, to coordinate all federal disaster relief to do what is necessary to prepare and mitigate the disaster by freeing up federal funds. Specifically, “FEMA is authorized to identify, mobilize, and provide at its discretion, equipment and resources necessary to alleviate the impacts of the emergency” (The White House, 2005).

In particular, there was no back-up plan for evacuating citizens from New Orleans, bringing FEMA's outdated communications systems back online after they failed to work properly, bringing desperately needed medical supplies and relief (water, ice, MREs) to the area, accounting for procurement shipping and tracking, or accounting for personnel locations and duties, to name a few aspects.

Congressman Bennie Thompson, ranking member of the Committee on Homelands Security U.S. House of Representatives, testified before the Senate Committee on Small Business and Entrepreneurship on November 8, 2005 in which he said:

Based on FEMA's failings in its response to Hurricanes Katrina, Rita, and Wilma of which we had notice, I do not believe that it is capable of responding to an event that brings no notice--such as a terrorist attack. Simply stated, we have not reached the level of preparedness or response that this nation needs and deserves.

Senator Susan Collins testified on December 8, 2005 before the Homeland Security and Governmental Affairs Committee that:

FEMA has mobile communications vehicles, but by the time anyone thought to bring one to the Superdome, the building was already surrounded by water, and FEMA was apparently unable to figure out a way to get its equipment into the building. FEMA also has communications equipment that could have been airlifted in. But despite Mr. Parr's urgent requests for such equipment, none arrived. Mr. Parr

estimates that the unfortunate lack of communications equipment reduced his team's effectiveness by an astounding 90 percent.

Senator Joseph Lieberman stated on December 8, 2005 before the Senate Homeland Security and Governmental Affairs Committee:

Yet FEMA somehow miscalculated the gravity of the storm coming and failed to realize that doing business as usual would compound the disaster. Katrina simply was not a typical hurricane that allowed FEMA to work off of its typical playbook – but one that required a more aggressive and urgent federal response. But FEMA seemed to expect this severely damaged state and local response network – itself the victim of the catastrophe – to operate as if it was at full and normal capacity.

We've learned from other witnesses that the Coast Guard was performing rescue missions as soon as hurricane-force winds abated on Monday afternoon. The State sent its rescue boats out late Monday afternoon. But FEMA's search and rescue teams didn't arrive in New Orleans until Tuesday morning.

Again, given the catastrophic nature of Katrina's damage – something well understood by these other agencies – I find it impossible to understand why FEMA wasn't prepared to move sooner.

Steve Ellis, Vice President of Programs at Taxpayers for Common Sense (a national, non-partisan budget watchdog organization) testified before the Senate Democratic Policy Committee on May 19, 2006:

Murphy's law tells us that whatever can go wrong, will go wrong. Pre-disaster planning was superficial or poor at best. Contracts exceeding \$100 million quickly went to the so-called big four: Shaw Group, Bechtel Corp., CH2M Hill, Inc. and Fluor Corp. From at least as early October 2005, FEMA has been promising to re-bid contracts.

Essentially, FEMA did not have a back-up plan in place to recover from failure in one part of FEMA. In order for an organization to be able to successfully recover from a failing portion of their organization, employees must have a strong knowledge of their roles, responsibilities and how they may alternatively provide the services needed at that time. FEMA was unable and unprepared to stop any type of failure from spreading throughout the agency.

According to Colonel Jeff Smith, Deputy Director for Emergency Management with the Louisiana Office of Homeland Security and Emergency Preparedness, "The single largest failure of the federal response was that it failed to recognize the likely consequences of the approaching storm and mobilize federal assets for a post-storm evacuation of the flooded city" (*A Failure of Initiative*, 2004, p.134-135). If it had, then undoubtedly the federal response and resources would have arrived to the Gulf Region several days earlier.

FEMA and HHS needed to plan for the worst. Instead, they scrambled for supplies in an effort that was often times uncoordinated. With only nominal amounts of medical supplies pre-positioned by FEMA and HHS, a great deal of medical provisions had to be scrounged and supplied after Katrina made landfall (*A Failure of Initiative*, 2004, p.275).

The establishment of the DMAT (Disaster Medical Assistance Teams) in the Sports Arena connected to the Superdome came thirty-six hours after FEMA reported serious medical problems in the Superdome, including four hundred people with special needs, forty-five to fifty patients in need of hospitalization, and the rapid depletion of medical supplies (*A Failure of Initiative*, 2004, p.290).

The federal government lost communications and initial efforts to bring in supplemental capabilities to improve command and control were unsuccessful. For example, FEMA has a mobile command and control suite, named Red October, which is housed in an oversized tractor trailer. Red October was pre-deployed to Shreveport, in northern Louisiana to keep it out of harms way and also for rapid deployment into Baton Rouge or New Orleans after the hurricane passed. Red October is able to set up thirty work stations and robust communications. FEMA officials decided to move Red October to New Orleans to assist with connecting New Orleans and National Guard authorities at the Superdome. Red October's trailer was too big to fit into the flooded city (*A Failure of Initiative*, 2004, p.192).

Other FEMA communications vehicles, such as MERS detachments, were not capable of driving through the floodwaters without damaging their sensitive electronic equipment. Therefore, FEMA was unable to use these to restore command and control with its forward teams in New Orleans, led by Parr (*A Failure of Initiative*, 2004, p.192).

FEMA pre-positioned communications assets, but not in New Orleans, where the need became exceptionally critical. Former FEMA Director Brown testified and said in hindsight FEMA should have pre-positioned a MERS detachment in New Orleans (*A Failure of Initiative*, 2004, p.169). As a result, one of the federal assets that might have allowed FEMA and local and state governments to work around the damage to the communications systems and sooner gain situational awareness about conditions in New Orleans was not present (*A Failure of Initiative*, 2004, p.169). Arguably, this instance of *A Failure of Initiative* – leaving a MERS detachment outside of the city – exacerbated the degree to which the massive damage to the local communications infrastructure delayed the ability of FEMA to learn of or confirm events on the ground in New Orleans and act accordingly (*A Failure of Initiative*, 2004, p.169).

On Monday morning, August 29th, Brown warned Bush about the potential devastation that Katrina may bring. In a briefing, Brown warned Bush, “This is, to put it mildly, the big one, I think.” He also voiced concerns that the government may not have the capacity to “respond to a catastrophe within a catastrophe” and that the Superdome was ill-equipped to be a refuge of last resort (Think Progress). Interestingly, on Wednesday night, August 31st, Brown indicates he is surprised by the size of the storm: “I must say, this storm is much much bigger than anyone expected” (Think Progress).

While certain statements had more evidence and examples than others, each of the statements was proven true. Senator Lieberman summarizing FEMA’s performance when he testified before the Senate Homeland Security and Governmental Affairs Committee on December 8, 2005:

But adequately preparing for and responding to a disaster of this magnitude required a well-led, well-trained and well-drilled FEMA that had a plan in place and a sense of mission to guide its actions. All these things seemed to have been lacking as disaster swept across the Gulf Coast region last August. ...having reviewed your testimony, and other testimony and documents gathered by the Committee so far, I conclude that FEMA is a troubled agency that failed in its prime mission – the mission it draws its name from – ‘Emergency Management’.

In several instances, FEMA was not sufficiently prepared to effectively mitigate this disaster. Various media reports and federal reports indicate that several FEMA staff members were caught off guard or surprised by Hurricane Katrina’s strength and magnitude of destruction despite frequent and thorough warnings from the National Weather Service. It is surprising that FEMA claims that no one could have known about Katrina’s potential force and destruction since the National Weather Service is part of FEMA’s Hurricane Liaison Team, along with state and local emergency officials.

5.2. Findings

Clearly, FEMA is a victim of all four of these research questions. This means that FEMA suffers from organizational failure to such an extent that FEMA’s ability to fulfill its federal duties and responsibilities is greatly inhibited. FEMA is the only federal agency in the nation that is charged with the national emergency preparedness and response. If this agency is not able to fulfill its essential functions and duties, then it is

likely during an emergency situation that unnecessary loss of life and property damage will occur due to FEMA's inability to properly plan and respond for such situations.

1. How will centralization and flexibility affect an organization's ability to effectively respond and adapt to new and unexpected situations?

FEMA is part of a bureaucratic system in which simple processes may be consumed with labor intensive and complex procedures. In this type of system, there is no other way to accomplish a function without first completing all of the necessary bureaucracy which can also be very time consuming. FEMA is in dire need of breaking free from this bureaucratic red tape and being allowed to adjust its actions, focus, policies and procedures based on the type of emergency it is facing. Certain procedures may be not critical and may be completed at a later date once critical functions are satisfied.

2. To what extent will an employee's skill set and situational awareness affect organizational operations?

Several FEMA and non-FEMA officials have voiced their concern that FEMA currently does not have adequate funding for training its employees, practicing for emergency response situations which results in employees being unskilled and unfamiliar with FEMA's policies and procedures for emergency preparedness and response. This issue must be addressed as staff training is essential to the future success of FEMA.

Dr. Robert Mager, founder of the Mager Institute and expert on training and human performance improvement, has recognized that training is not always the answer to correct problems with employee performance and knowledge. Dr. Mager posed the

question, 'could employees perform the function correctly if their lives depended on it?' If the answer is 'yes', then training is not needed. Rather, employee performance, accountability and motivation may need to be addressed. With regards to FEMA, clearly the answer to Dr. Mager's question is 'no'. FEMA employees could not correctly perform assigned tasks if their life depended on it since they were unfamiliar the task at hand or the resources available to accomplish it.

3. How will internal and external information sharing impact communication and performance?

Due to bureaucracy, information sharing is an issue within FEMA and also among other federal and state agencies. Inaccurate or partial information is shared which may lead to confusion, inappropriate action, duplicated efforts, inaction or other consequences. As the only federal agency charged with national emergency preparedness and response, FEMA must have a seamless transition of actions to ensure swift and effective emergency management which will save lives and reduce property damage.

4. To what extent will a business continuity plan effect an organization's ability to timely recover from initial failures?

FEMA must be flexible and have skilled staff to plan for recovery when one part of the agency fails in completing its actions and responsibilities during an emergency incident. If FEMA does have contingency planning, then inevitably the entire agency will succumb to failure since there is no "Plan B" to pick up the pieces left by the original plan of action and continue in its efforts. As seen in Hurricane Katrina, FEMA did not

have any type of back-up or recovery plan to get itself back on its feet when it suffered a set back or failure. This type of planning is essential to ensure the future of FEMA and its ability to plan and respond to emergency incidents.

It becomes apparent that these four issues must be resolved so that FEMA can regain trust from the American people, enhance the capability to reasonably prepare for and respond to national emergencies, and improve FEMA organizational functionality. Current FEMA and federal policies foster bureaucracy, slow the transfer of information within and between agencies, and allow for under-trained employees to assume positions of critical importance and responsibility which they cannot fulfill. Each of these all issues has the ability to delay or even halt emergency planning and response. Therefore, new policies are essential in securing the future of not only FEMA, but the nation.

5.3. Discussion

When analyzing media reports, the White House report, and the Select Bipartisan Committee report for a compilation of FEMA's performance and activities throughout the preparation and response to Hurricane Katrina, it becomes apparent that FEMA suffered from several types of organizational failures mentioned above. FEMA was not prepared to face such a dramatic disaster due to lack of funding, training, staffing, and even disaster focus. These series of failures caused by FEMA have been referred to as a secondary disaster.

Each of the four research questions below has been supported by various examples provided from the federal government's reports, congressional testimony, and the timeline compilation. The evidence presented for each respective research question also exemplifies the impact each type of organizational inadequacy. For each research

question, a chart has been developed that comparing examples FEMA's actions versus what FEMA should have done. This comparison results in a FEMA's actions being deemed either a success or failure. A success indicates that FEMA's action coincides with what it should have done as mandated by the NRP. A failure indicates that FEMA's action is not aligned with what action the NRP outlined.

1. How will centralization and flexibility affect an organization's ability to effectively respond and adapt to new and unexpected situations?

Category	What Should Have Happened	FEMA's Actions	Success/Failure
Centralization and Flexibility	FEMA should have properly evaluated and analyzed Hurricane Katrina's predicted size and scope to proportionately prepare and pre-deploy resources.	<p>FEMA did not pre-deploy or stage adequate resources to respond to New Orleans. This resulted in a shortage of relief and a delay in obtaining and delivering additional resources.</p> <p>FEMA was able to pre-position an unprecedented amount of water, ice and MREs before Hurricane Katrina made landfall.</p>	<p>Failure</p> <p>Success</p>
	FEMA's bureaucratic procedures must be flexible to adequately prepare assets and resources to respond quickly and effectively to disasters.	<p>FEMA's response structure was unable to adapt to the size and scope of Hurricane Katrina's impact to provide a coordinated and unified response. FEMA's response became overwhelmed and paralyzed.</p> <p>FEMA delayed providing relief resources to locations that did not correctly follow FEMA's procedure for requesting federal assistance.</p> <p>FEMA was unable to evaluate needs and assessing situations in a timely manner due to lengthy procedures and outdated equipment. The Department of Defense (DOD) grew frustrated and took over the task of generating its own orders on behalf of FEMA.</p> <p>FEMA was overwhelmed with the task of coordinating relief supply distributions in New Orleans. FEMA requested that DOD take over this function.</p> <p>FEMA employees broke away from agency procedures and policies and began pushing resources and services to New Orleans even though requests for assistance were not made.</p>	<p>Failure</p> <p>Failure</p> <p>Failure</p> <p>Failure</p> <p>Success</p>

The federal government is a victim of bureaucratic red tape which typically involves complicated and rigid policies and procedures which greatly extend the amount of time

needed to complete tasks and requests and are not adaptable to unexpected situations. Clearly, the federal government is not a one-size-does-fits-all approach. FEMA is no exception. FEMA's systems were overburdened and ill prepared for Hurricane Katrina. As a result, many of FEMA's systems became paralyzed from its inability to handle unexpected situations, large amounts of requests for assistance, and its inflexibility. It's apparent that FEMA steadily declined to a level of inoperability as the days after Katrina made landfall marched on. Various media reports depict FEMA arriving to a scene without anything in hand, promising to return with aid and never doing so. FEMA was broken down and unable to recover.

As the evidence shows, Hurricane Katrina did not fit the federal government's, particularly FEMA's, rubric for disaster preparedness and response needs. Hurricane Katrina has been deemed one of the worst natural disasters in US history (refer to Figure 1.1 and 1.2 in Chapter 1). This media seemed to repeatedly state the FEMA was "overwhelmed". FEMA's policies and procedures are not conducive to a swift and coordinated disaster response. Procurement tracking processes are not automated. FEMA would not initiate fulfilling requests for services unless the state or local government (which not all were able to do) made a formal request by following FEMA's request procedure.

FEMA was incredibly ineffective with regards to requests for assistance. Requests took time to be processed and approved by FEMA before action took place. Some requests were claimed to have never been received. In fact, the DOD grew frustrated of FEMA's inefficiency regarding appraising situations prioritizing need. The DOD operated under FEMA and therefore could act only when FEMA gave it direction to do

so. Since the DOD had more advanced equipment and expertise than FEMA, DOD began drafting their own work plans and would send them to FEMA who in turn sent them right back to DOD for action.

FEMA was unable to handle the logistics of distributing relief supplies to evacuees in Louisiana. By Thursday, September 1st, FEMA relinquished this responsibility to the military (*A Failure of Initiative*, 2004, p213). The need overpowered FEMA's structure and FEMA was unable to operate.

2. To what extent will an employee's skill set and situational awareness affect organizational operations?

Category	What Should Have Happened	FEMA's Actions	Success/Failure
Employee Competency	FEMA employees must train regularly as an agency as well as with external agencies to maintain skills, develop working relationships, and determine best practices for emergency preparedness and response.	A follow-up exercise to Hurricane Pam was never conducted as previously planned.	Failure
		FEMA employees did not know what their disaster preparation and response roles were.	Failure
		FEMA's special response teams did not train and became merely names on a roster.	Failure
		FEMA did not train with other agencies and subsequently did not develop a unified response strategy to effectively manage and respond to emergencies.	Failure

The Homeland Security Act was signed into law by President Bush in November of 2002 (NRP, 2004). In March 2003, The Department of Homeland Security (DHS) assumed control of 22 federal agencies, including FEMA, in an effort to better coordinate

national security, emergency preparedness and response and civil defense (FEMA.gov, 2006). The Department of Homeland Security is charged with dismantling virtually all aspects of the Federal Emergency Management Agency when it came under DHS in 2003 (*A Failure of Initiative*, 2004). Reportedly, FEMA's operating budget for fiscal years 2003 and 2004, after FEMA was absorbed by DHS, was cut by \$80 million and \$90 million respectively (*A Failure of Initiative*, 2004, p.156). Top officials, senior workers and specialists were victims of "FEMA brain drain"; meaning that these FEMA employees were moved to other sectors of DHS to fill staffing needs and left FEMA without the knowledgeable, skilled and seasoned workers it once had (*A Failure of Initiative*, 2004, p.152).

As seen with the Hurricane Pam exercise, funding for training was also cut. In 2004, FEMA urged a mock Hurricane disaster to bring together multiple agencies for training, named Hurricane Pam, out of realization that the Gulf Region was a vulnerable location for a large-scale hurricane (*A Failure of Initiative*, 2004). A follow-up exercise was planned for 2005, but it never materialized due to insufficient funding (*A Failure of Initiative*, 2004, p.82). With funding cut for training, employees are unsure of their roles and responsibilities in the face of a disaster, do not know how to collaborate (meaning communicate with, meet with, or divide responsibilities) with other responding agencies (i.e. first responders, local/state emergency officials, federal agencies or other sectors within FEMA) for an effective, managed and coordinated response.

According to Jane Bullock, former FEMA Chief of Staff (Haddow and Bullock, 2005):

By all accounts, the government's response to this catastrophic event has been disorganized and dysfunctional. The near exclusive focus on terrorism since the September 11 attacks and the deconstruction of FEMA's response capabilities resulted in a breakdown of the entire disaster response system.

Experienced disaster managers from FEMA have been replaced by contractors with no previous disaster experience and all recovery decisions are being made at DHS headquarters and at the Office of Management and Budget. By any measure, the process is moving too slowly and this has severely compromised the economic and societal recovery in the impacted region.

Mitigation has gone from being the foundation of our emergency management system to an after thought. ... No one is in charge.

Several media reports also indicate that since FEMA's inclusion into DHS in 2003, the focus of FEMA was no longer disaster preparedness and response. Rather, FEMA was forced to focus on terrorism, which is the main focus of DHS (*A Failure of Initiative*, 2004). According to *A Failure of Initiative*, FEMA's trained response teams were merely names on a roster and by no means coordinated or well trained (2004).

As mentioned in *A Failure of Initiative*, FEMA personnel were meeting officials from other agencies for the first time ever during the response to Hurricane Katrina (2004). An

effective, swift and coordinated interagency federal response cannot be expected if members of the involved organizations do not have any experience training together.

All of these factors contribute to FEMA's severely lacking response to Katrina. There are several apparent examples given by the both of the federal government's reports and the timeline which demonstrate a clear lack of training, familiarization, knowledgeable personnel, situation awareness, and practice.

3. How will internal and external information sharing impact communication and performance?

Category	What Should Have Happened	FEMA's Actions	Success/Failure
Information Sharing	FEMA must evaluate the most effective locations to pre-deploy communications equipment so communications can quickly be made operational after Katrina made landfall in New Orleans	FEMA did not deploy adequate communications equipment to areas in New Orleans or have the ability to repair nonfunctional communication units.	Failure
	FEMA should establish communications with local, state and federal agencies before Katrina made landfall. After experiencing lacking inter-agency communication, an alternate means of communication should have been used.	FEMA communications equipment was not compatible with communications units used by other state, local and federal agencies which impeded information sharing.	Failure
	The HSOC is charged with passing information provided by FEMA through DHS to the White House and consistently deliver a clear situational picture of the response efforts and actions.	FEMA is a primary agency in charge of running the HSOC. Throughout the response, this did not happen consistently.	Failure
	The hierarchical chain of communication within FEMA as well as outside of FEMA should have been observed and utilized. FEMA is charged with coordinating the federal response effort and ensuring information is consistently and accurately relayed to local, state and federal agencies, as per ESF #5.	<p>FEMA did not communicate consistently with each other or with outside agencies. This led to conflicting information reports and duplicated or neglected response efforts.</p> <p>Beginning on August 25th and continuing well into the response effort, FEMA held video teleconferences daily with local, state and federal agencies.</p>	<p>Failure</p> <p>Success</p>
	FEMA needs to maintain clear situational awareness at all times and push information to media outlets.	FEMA's overall lack of communication resulted in a lack of situational awareness. As a result, FEMA relied on conflicting media reports for information and was not able to provide the media with accurate information or updates.	Failure
	As a part of the Hurricane Liaison Team (HLT), FEMA must assist with the dissemination of advisories and warnings to local, state and federal agencies	FEMA's HLT was deployed to the National Hurricane Center (NHC) on August 24th in anticipation of Katrina's landfall to work with the NHC in monitoring weather forecasts and ensuring advisories were made.	Success

Communication was a repeated issue with FEMA and any other agency interacting with FEMA. Logistically, FEMA was not able to deploy adequate communications equipment to the areas most in need, repair them when they were not functioning properly and FEMA's equipment was not typically compatible with the equipment used by other agencies. Therefore, both intra and inter-organizational communication was unreliable and typically nonexistent.

Within the federal government, FEMA did not consistently or effectively pass information down to its employees, or up through the HSOC to the White House. The HSOC is charged with providing a clear situational picture for the White House of the current events (*A Failure of Initiative*, 2004). FEMA is a primary agency which belongs to the HSOC and provides staff to run it. The HSOC operated poorly due to its lack of knowledge regarding its duties and responsibilities (*A Failure of Initiative*, 2004). Subsequently, the White House did not consistently or clearly receive information on the status of the situation.

It was evident that no clear or unified communications were in place. Conflicting pieces of information were consistently reported to the public. FEMA Director Brown indicated that he was unaware for days that evacuees had flocked to the Convention Center (*A Failure of Initiative*, 2004). Early on, FEMA officials indicated that the levee breaches may be repaired in a matter of days (*A Failure of Initiative*, 2004). FEMA employees were not able to consistently remain in contact with coworkers and subsequently did not know where they were or what they were doing. This led to omission of necessary activities, duplication of effort, confusion, miscommunication and a poor disaster response. This also furthered the lack of a unified command and response

to Katrina since communications were virtually nonexistent due to incompatible communications systems and weather which affected the ability for communications equipment to operate properly.

4. To what extent will a business continuity plan effect an organization's ability to timely recover from initial failures?

Category	What Should Have Happened	FEMA's Actions	Success/Failure
Business Continuity Planning	FEMA will initiate its business continuity plan when a segment of FEMA's response effort experiences failure. This will allow FEMA to continue its response effort and despite having failure in a portion of the response effort.	FEMA struggled to provide a primitive relief response and allowed partial organizational failures to paralyze and severely delay the response effort.	Failure
		The inoperable FEMA communications equipment was a major obstacle for FEMA's response. In the absence of a continuity plan, FEMA's response succumbed to ineffective and disorganized conditions.	Failure
		FEMA did not have an alternate plan to travel through the severely flooded streets of New Orleans to bring relief supplies, evacuate citizens or coordinate rescues.	Failure

FEMA did not have an adequate recovery plan in place in case part of the emergency response plan failed which can be seen from the evidence provided. There was no back up for obtaining supplies or resources, sending in additional FEMA personnel to effected areas, establishing and maintaining communications systems or any other facet of disaster mitigation. In fact, due to poor planning, FEMA struggled greatly just to bring the basic relief aid to evacuees in an adhoc basis. This primitive response still took 5 full days to reach Katrina victims in New Orleans. Supplies were not sufficiently stocked before

Katrina hit, despite receiving a directive from President Bush on Saturday, August 27th, to coordinate all federal disaster relief to do what is necessary to prepare and mitigate the disaster by freeing up federal funds (www.whitehouse.gov, 2005). In particular, there was no backup plan for evacuating citizens from New Orleans, bringing FEMA's outdated communication systems back online after they failed to work properly, bringing desperately needed medical supplies and relief (water, ice, MREs) to the area, accounting for procurement shipping and tracking, or accounting for personnel locations and duties, to name a few aspects.

Essentially, there was no business continuity plan since there was no concrete base plan in place. In order for an organization to be able to successfully recover from a failing portion of their organization, employees must have a strong knowledge of their roles, responsibilities and how they may alternatively provide the services needed at that time. FEMA was unable and unprepared to stop any type of failure from spreading throughout the agency.

While certain statements had more evidence and examples than others, each of the statements was proven true from the content analysis completed on the National Response Plan, timeline, congressional testimony and compared with the organizational research questions. In several instances, FEMA was not sufficiently prepared to effectively mitigate this disaster. Various media reports and federal reports indicate that several FEMA staff members were caught off guard or surprised by Hurricane Katrina's strength and magnitude of destruction despite frequent and thorough warnings from the National Weather Service. It is surprising that FEMA claims that no one could have known about Katrina's potential force and destruction since the National Weather Service

is part of FEMA's Hurricane Liaison Team, along with state and local emergency officials. From this analysis, policy recommendations can be developed in order to improve FEMA's disaster planning and response.

6. Chapter 6: Policy Recommendations

The National Response Plan charges FEMA with numerous essential tasks and responsibilities that must be completed properly and timely in order for the entire federal relief effort to succeed. Currently, FEMA is not capable of carrying the burden placed on its shoulders by the NRP. FEMA was not prepared to respond to a disaster of Katrina's magnitude as an individual agency, let alone manage several critical Emergency Support Functions (ESFs) as the federal emergency management coordinating agency. FEMA must make changes to its organizational functions and operating structure in order to have the capacity and flexibility to respond to future disasters, either natural or man-made. Currently, it is difficult to imagine that FEMA would be able to respond to an act of terrorism in a coordinated, efficient or timely manner. FEMA had adequate advanced warning of Katrina's impending strength and damage, particularly because FEMA is part of the Homeland Security Operations Center (HSOC), which is the primary federal center for situational awareness and operations coordination. All federal agencies must report information through the HSOC regarding potential or impending disasters. Although FEMA had ample advanced warning to prepare for Hurricane Katrina, it appears as though FEMA could not coordinate itself in order to prepare properly and provide a uniform and effective response.

FEMA's incredibly poor response to Hurricane Katrina opens the door for several recommendations. As the evidence shows, FEMA is not currently operating at full capacity or with adequate resources in order to properly prepare and respond to disaster situations. FEMA appears to be run in an ad hoc manner in which situations are addressed as they arise during a disaster, instead of being preplanned and strategically

managed during the relief effort. Outside federal agencies claim that they met FEMA officials for the first time when they arrived on scene to respond to an emergency. The absence of a inter-agency working relationship results in confusion over roles and responsibilities, miscommunication and either duplicated response efforts or omission of action entirely. Clearly, FEMA is in need of changes and improvements to its organization and operations in order for it to successfully function in the future.

For each research question, at least one recommendation has been developed. The recommendations are based on the findings of the content analysis which included an evaluation of the research questions against the responsibilities and tasks outlined in the NRP, first hand accounts and comments of FEMA's response effort provided by congressional testimony, and the media timeline which depicts the federal response effort as reported to the media. Each of these data sources was compared against each of the four research questions. The purpose of the recommendations is to enhance FEMA's capability to respond to disaster situations with adequate response to meet the needs of the victims/evacuees in a reasonable amount of time. It must be noted that a "reasonable amount of time" would vary with each disaster and be situationally dependent on such factors as type of disaster, number of victims, geographic location, etc.

In order for FEMA to improve its preparation and response capabilities, obtain confidence from the American people and begin to repair its reputation, policy changes and corrective action must occur quickly. The policy recommendations described below are organized to address each of the four research questions. The chart below summarizes the recommendations.

Thesis Research Questions	Recommendations
1. How will centralization and flexibility affect an organization's ability to effectively respond and adapt to new and unexpected situations?	1. FEMA must establish the capacity to maintain direct communications with the White House during disaster situations. 2. FEMA must adopt a policy which would allow response procedures to be abbreviated during disasters. 3. FEMA must create a contingency plan to manage unforeseen circumstances.
2. To what extent will employee skill set and situational awareness affect organizational operations?	4. FEMA employees must be held personally liable for their actions 5. FEMA must develop minimum communication equipment standards.
3. How will intra and external information sharing impact communication and performance?	6. Organizational communication must be coordinated to ensure that the same message is being sent and received by all FEMA employees. 7. Inter-agency federal emergency scenario training must be conducted.
4. To what extent will a business continuity plan effect an organization's ability to timely recover from initial failures?	8. FEMA must develop a business continuity plan to manage organizational disaster.

6.1. Centralization and Flexibility

1. FEMA must establish the capacity to maintain direct communications with the White House during disaster situations.

The Director of FEMA should have direct communication with the White House during federally declared disasters. A direct communication will eliminate delays in information passing up the hierarchal chain to the White House and improve information flow back down the hierarchy to FEMA from the White House. Currently, information must pass through the communications hierarchy in FEMA and then in DHS before the information will reach the President. As the research shows, rapid communication between the President and FEMA is essential, particularly since FEMA is the only federal

agency with the authority to carry out federal emergency preparedness and responses duties on the behalf of the President of the United States. Direct communications will increase seamless service from FEMA, miscommunications will decrease since the information will not pass through as many hands, and lack of information being passed both up and down the hierarchy is reduced by eliminating the number of people and agencies that critical information must pass through.

This is necessary as seen in the communications between FEMA and the White House in an attempt to confirm the levee breach. When Marty Bahamonde called FEMA Director Brown at 7pm to advise him of what he had seen, Brown did not ask any questions and merely stated, "Thank you. I am now going to call the White House." White House didn't consider the rumors confirmed until 6:30am the next morning after they received an updated report from DHS.

2. FEMA must adopt a policy which would allow response procedures to be abbreviated during disasters.

Current FEMA policies and procedures have been criticized by emergency management officials and federal agencies as being cumbersome and bureaucratic which often resulted in delayed relief response during Hurricane Katrina. For example, the Department of Defense became frustrated that FEMA was moving too slowly to develop work plans for DOD to complete under FEMA's authority. As a result, DOD drafted its own work plans and submitted them to FEMA. FEMA turned around and handed them right back to DOD for action.

The procedure for requesting assistance from FEMA has also been criticized as a bureaucratic burden. FEMA would not honor requests for assistance from state governments if the request did not exactly follow FEMA's procedure. FEMA's strict procedural requirements resulted in delays in assistance, as states were forced to resubmit their requests in the proper format and wait for FEMA to review and decide if the request would be approved.

Such a streamlined policy would provide a skeletal outline of critical steps in an emergency response that cannot be bypassed during a disaster response while omitting procedures that can be completed once the emergency need is met, or eliminated entirely. This policy would alleviate the bureaucratic ripple effect that state and local governments experience from FEMA policies and procedures. In addition, increased response times, reduced miscommunication and less confusion will result.

3. FEMA must create a contingency plan to manage unforeseen circumstances.

Unforeseen circumstances are inevitable during a disaster. FEMA must develop a policy that will direct FEMA to respond to such circumstances in addition to the primary disaster. This policy must allow for operational and emergency response flexibility in order to accommodate a seemingly endless list of unforeseen circumstances that may arise during a disaster. Such situations may include a secondary disaster including: weather related complications, lack of electricity, insufficient transportation and the like. There is no guarantee that only one disaster will occur at a time.

For example, the events of September 11, 2001 were several separate disasters that snowballed together to collectively demand a coordinated federal response, assistance to

victims, an investigation of events, and recovery. The following actions that occurred on September 11, 2001 each represent a separate disaster; the first plane crashing into the north tower, the second plane crashing into the south tower, a plane striking the Pentagon, Flight 93 crashing in Pennsylvania, intelligence suggesting the White House as an additional target, individually providing protection for the President and Vice President, the north tower collapsing, the south tower collapsing, the establishment of a 'no fly zone', and all nationwide air traffic halted (CNN, 2001).

Such contingency plans would allow FEMA to continue its response operations despite encountering situations that may deviate from the National Response Plan (NRP). The NRP does not include provisions for managing secondary disasters. Without such, a secondary disaster situation may have the ability to paralyze FEMA's response efforts and leave FEMA unable to recover from this failure.

There are several components that must be included in a contingency plan, such an internal and external communications hierarchy, prioritized list of essential tasks and functions, primary and secondary FEMA personnel charged with completing the prioritized list and additional federal agencies who may provide assistance to the list.

6.2. Employee Competency

4. FEMA employees must be held personally liable for their actions.

Based on the Robert T. Stafford Disaster Assistance and Emergency Relief Act, federal employees are not held personally liable for their actions and decisions made during a disaster situation. More specifically, the act states that, "The Federal Government shall not be liable for any claim based upon the exercise or performance of or the failure to exercise or perform a discretionary function or duty on the part of a

Federal agency or an employee of the Federal Government in carrying out the provisions of this Act” (Disastersrus.org, 2006). FEMA officials should reverse this federal law by enacting a policy that would hold FEMA employees accountable for their actions and also lack of action. By holding federal workers personally accountable for their actions and opening up the possibility of lawsuits and liability, FEMA employees would undoubtedly act in more cautious and personally invested manner with their actions and decisions. This change in policy has the potential to increase employee performance, accuracy and accountability. Several professions, most specifically first responders, are already accountable and personally liable for their actions on a daily basis, such as police officers and emergency medical technicians. FEMA employees should be no different.

Typically, in the hierarchal chain of federal emergency management, FEMA is considered to be a third responder. The local government resources are first responders to a disaster. Once overwhelmed by the size and scope of the disaster, the local government relies on the state government to intervene and provide resources. If the state government also becomes overwhelmed, then the state governor requests federal assistance. This is the point at which FEMA becomes involved. Generally, most disasters in the United States are managed and the local and state level without the need to involve the federal government.

This policy should extend only to direct hires of FEMA, not contracted vendors, volunteers, or FEMA reservists. Additionally, FEMA employees should be held accountable by agency administrators and federal officials for all actions as well as lack of action that clearly do not adhere to FEMA policy or directives, or the mandated missions and actions outlined in the NRP. FEMA employees should be held personally

liable and vulnerable to lawsuits in instances in which unnecessary suffering, loss of life, and property damage occurred as a direct result of a FEMA employee's imposed action or decision-making during disaster planning, mitigation and recovery. The possibility of FEMA supervisors and direct reports also being held liable would be situational dependent.

In fact, on February 9, 2007, a U.S. District Court judge ruled that the Army Corps of Engineers may be sued for negligence with regard to the flood damage that ravaged New Orleans after Hurricane Katrina (NewsInferno, 2007). "In that ruling, a federal judge allowed a suit to proceed charging the Corps was liable for the flooding of eastern New Orleans and suburban St. Bernard Parish by waters from the Mississippi River-Gulf Outlet" (Burdeau, 2007). If the Corps is found liable in court, they may be responsible for billions of dollars in damages (News Inferno, 2007).

Professional development is critical to the operability of FEMA. Accordingly, FEMA employees must be provided with consistent training to become skilled and knowledgeable in response efforts and activities. Therefore, there should be no opportunity for FEMA officials to be excluded from being held accountable and liable for their actions due to the gravity and serious wrought by disaster situations. Other professionals, again police officers, are not held to that same standard and are personally responsible for their actions in each situation they may encounter as a police officer. For example, according to media reports, Mississippi Sheriff Billy McGee of Forest County, Mississippi, "commandeered two 18-wheelers full of ice from Camp Shelby, a FEMA staging area, after five days passed with little relief for residents living without electricity in the wake of the deadly storm" (Mohr, 2006).

AllExpert summarizes the incident regarding Sheriff Billy McGee (AllExperts, 2006):

In the afternoon of September 4, 2005, Sheriff Billy McGee sent three deputies to the FEMA Distribution Center co-located at Camp Shelby. They asked the coordinator why the trucks weren't moving out and the coordinator told them that the eleven ice drop-off points had not been completely set up yet. The deputies immediately commandeered two semi-trucks and their drivers and started to move out. U.S. Army Captain Michael Bryant climbed on the step of one of the trucks and tried to talk to the driver. The deputies removed him from the truck, handcuffed him, and arrested him for disorderly conduct and interference with a police officer. CPT Bryant claimed he sustained injuries to his hands, arms, face, and shoulder as well as nerve damage to his hands from the handcuffs being too tight.

The ice was delivered to Mississippi Katrina victims and many needed the ice to keep their medications cold (Mohr, 2006). Sheriff Billy McGee is being charged with interfering with, intimidating and impeding a federal officer. The three deputies involved are all facing federal felony charges (AllExperts, 2006).

As the evidence in Chapter 4 has shown, there are several instances in which FEMA employees were untrained and not familiar with processes. Gary LaGrange, President and CEO of Port of New Orleans, testified before the Senate Committee on Finance on September 28, 2005 in which he stated, "However, it is difficult to keep the FEMA

person focused on one crisis. FEMA employees are often moved around to address the newest crisis and that often delays recovery of older problems.”

5. FEMA must develop minimum communication equipment standards.

Minimum communication procurement standards should be developed and recommended by FEMA for all federal, state and local emergency officials which would provide procurement guidance for governments and emergency management officials. It is expected that future communication equipment procurement by states and federal agencies would follow FEMA’s recommended standards. Over time, increased equipment compatibility and communication flow can be expected. Such standards would also create a shift with communications manufacturing to develop products that meet FEMA standards in order to compete in the marketplace.

It is important that support agencies for NRP Emergency Support Functions in which FEMA is a coordinating or primary agency be able to communicate quickly, efficiently and consistently. The ability for equipment to be used interchangeably by federal and state governments will decrease confusion related to operating various models of equipment. It will increase the ability of agencies/governments to work together to supplement deficient equipment needs as well as ensure a timely, steady and unified response.

6.3. Information Sharing

- 6. Organizational communication must be coordinated to ensure that the same message is being sent and received by all FEMA employees.**

Regular agency-wide debriefs must be conducted by an agency designee to ensure all employees are receiving informational updates at the same time and from the same source. Such debriefs may be conducted electronically as to be able to reach organizational employees who may be in staged in different parts of the nation. Employees will increasingly become more organized with the status of critical tasks, reduce redundancy of responsibilities and efforts, and provide a more unified response as everyone has access to the same knowledge, updates and agency directives.

There are several instances in which communication was lacking as well as all employees receiving the same message. Michael Brown told the Senate Bipartisan Select Committee one of his biggest failures was, "...failing to properly utilize the media as first informer." Brown testified on a September 27, 2005 hearing before the House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, "We should have been feeding that information to the press... in the manner and time that we wanted to, instead of letting the press drive us."

7. Inter-agency federal emergency scenario training must be conducted.

To increase inter-organizational communications, emergency scenario simulation training (similar to the Hurricane Pam exercise) among various federal agencies must be conducted on an annual basis, at minimum.

This type of training will allow federal agencies to work together on simulated crises in order to increase a seamless provision of emergency response services, enhance communication between agencies and allow agencies to build working relationships among each other. The federal agencies that should be involved in such scenario training

would be based on the National Response Plan's Emergency Support Functions (ESFs). The agencies that are part of the ESFs in which FEMA is either a coordinating or primary agency should participate in the annual interagency training to ensure a unified and efficient response to emergencies.

Based on this structure, training would be conducted annually on 5 out of the 15 ESFs. While many federal agencies seem to be involved in each ESF as support agencies, many of these are involved in multiple ESFs which therefore increases the necessity for each agency to send representatives to participate in the training. Funding for the training should be set up as nondiscretionary to demonstrate the nation's dedication to national preparedness and to guarantee future training sustainability.

6.4. Business Continuity Planning

8. FEMA must develop a business continuity plan to manage organizational disaster.

Internally, FEMA must design a business continuity plan to manage an organizational disaster. Disaster may occur with any of FEMA's responsibilities as outlined by the five NRP's EFSs in which FEMA is a primary or coordinating agency.

FEMA is the sole federal agency charged with coordinating the federal response to disasters and emergencies. Essentially, FEMA is the nerve center of the federal response. When the hub of information and coordination falls apart, so will the supporting agencies as their direction, guidance and support for action is lost. FEMA must be able to plan for organizational disasters and appropriately halt them from spreading through the agency. For example, if FEMA's mobile communication vehicles are not functional, the response effort cannot cease. FEMA must be able to move on and work around a failure that may

be experienced in one part of the organization and not allow it to paralyze the entire organizational effort.

In each department, a back-up individual or team (based on departmental structure) should be identified. This person or team should also be included in all training opportunities as the “first string” FEMA responders. In addition, a metric must be developed to determine when this back-up should be activated and define what constitutes a failed response, such as having a time limit for certain services or functions to be delivered or completed.

6.5. Summary

The recommendations listed above will assist FEMA in providing a streamlined, timely, and organized response effort. With such policy changes, FEMA will be able to operate with less federal red tape, increase internal and external communications, provide procedures to recover from agency failure and increase interagency cohesiveness.

In the past, FEMA has been repeatedly criticized for not implementing recommendations that have made by various government entities and officials after numerous other disaster situations, including Hurricane Andrew in 1992. The Government Accountability Office (GAO) found that FEMA was lacking in the following areas: assessing damage and the needs of victims; providing food, shelter and other essential services to disaster victims when the need for resources overburdens state and local faculties and adequately preparing for such a disaster even with advanced warnings (GAO, 1993, p.1). The same inadequacies have been cited again 13 years later with FEMA’s response to Hurricane Katrina. It appears that FEMA has not made concerted efforts to correct its emergency response inadequacies. The recommendations

listed above will address and correct several of the chronic deficiencies that FEMA has experienced repeatedly in the past.

The public and other agencies have since lost confidence that FEMA is competent to properly plan for and successfully manage emergency situations after witnessing recurring disastrous and pathetic emergency response. FEMA must make changes to its organization in order to demonstrate its commitment to emergency management including national preparedness and response. The recommendations outlined above are key strategies that would bring FEMA to the road of recovery and allow for FEMA to begin making noticeable and sustained improvements in its disaster planning and response.

7. Chapter 7: Limitations of Study

No research is without its limitations and this research project is no exception. There are various limitations and weaknesses associated with the content analysis research method and data sources included in this research, which must be acknowledged. This research project also provides various future research opportunities regarding FEMA's organizational structure and functionality, FEMA's response to Hurricane Katrina, and implementing changes that are essential for the survival and future successes of FEMA.

7.1. Limitations of Methodological Choice

There are alternative research methods that could have been utilized to conduct this analysis, such as interviews or surveys. However, there are several reasons why content analysis was selected over the other possible methodologies. Due to the scope of the topic, a content analysis seemed to be the most compatible research method. This topic included several layers of complexity, such as: Hurricane Katrina itself, the federal action taken by the federal government and FEMA (conversations held, closed door decision-making, and classified information being withheld from the public by the federal government). Other types of research would have required an analysis of federal government officials as well as state and local leaders, citizens and other persons that should be interviewed or surveyed. Given the size and scope of Hurricane Katrina's destruction, such analysis is complicated and time consuming.

Data collection, by any other means, would have been difficult to obtain. Making contact with all of the necessary federal, state and local officials in order to obtain

interviews would have been nearly impossible. Most likely, these officials would decline to participate in due to confidentiality and protecting political careers.

In addition, it would be difficult to determine which officials and victims should be contacted for an interview or surveyed. Victims of Hurricane Katrina have relocated throughout the nation. Determining the identities of victims and obtaining their current contact information would be costly, time consuming and nearly impossible. Also, mailing surveys to all involved officials and victims or traveling around the United States conducting interviews with persons who were victims of Hurricane Katrina or participated in the relief effort would be too costly.

Also, content analysis is a relatively easy and straightforward method, out of all the research methods with regards to ease of replication (Sommer, 2000). Typically, the materials used in a content analysis research can be made available for others to use (Sommer, 2000).

Finally, the quality and quantity of information that interviews or surveys could provide must be considered. Due to the traumatic and chaotic situation of Hurricane Katrina, victims as well as emergency officials may not be able to recall specific details or information that would be specific or useful as the federal reports. Victims were also not in a position to provide an accurate or specific account of the federal government's preparation and response to Hurricane Katrina since victims were struggling to survive without essential supplies, let alone access to news and communications equipment where victims could closely monitors the actions of the federal government.

Without using the federal reports, *The Federal Response to Hurricane Katrina* and *A Failure of Initiative*, which are a thorough compilation of federal information, it would

not be time or cost effective to attempt to obtain the same documents providing they are available through the Freedom of Information Act. The federal government has the authority, unlike individual citizens, to demand private correspondence, documents and require federal officials to provide testimony. Therefore, content analysis is the most practical methodology for this type of analysis and topic since there are federal documents available that contain the information necessary for this research.

Content analysis itself has various weaknesses. This methodology allows subjective information to be included in the research design which may be based on research limitations including finances, time and expertise. Also, content analysis is only able to analyze information that is recorded or documented. Therefore, information that was not documented, such as verbal communications, personal thoughts or actions, cannot be included in a content analysis. The analysis is limited by availability of material. Observed trends in media may not be an accurate reflection of reality (Sommer, 2000). In other words, an event that receives more media coverage than other may skew the reality and importance of either event.

Content analysis also is a descriptive means of analysis and is thus able to explain the information included in the research, but is not able to draw conclusions regarding underlying causes or motives behind such observations (Sommer, 2000). Thus, if a researcher desires to explore the underlying motive, an additional research design must be implored, otherwise the researcher is left to make their own subjective speculations.

7.2. Limitations of the Data Sources

The reports developed by the federal government, *A Failure of Initiative* and *The Federal Response to Hurricane Katrina*, included information that may be difficult for

the public to obtain, specificity, and clear examples to support the Select Bipartisan Committee's arguments, recommendations, and criticisms. These reports were authored by the federal government who has the power and ability to omit and suppress any information it does not wish to be made public. The federal government also decided what additional information would be made available to the public through media reports. Therefore, in places, it seems as though the federal reports are vague. Access to additional information from the federal government may have been available through the Freedom of Information Act, however, request and processing is time and cost prohibitive. There is a strong probability that there is further information being withheld from public consumption.

The federal government's reports were also influenced by politics. The content of the federal government's report may have been influenced by several aspects of politics including: political agendas, reputations, strategies, promises or compromises with regards to what information the reports would include and what would be left out. As such, one can assume that there is further information regarding the federal government's preparation and response to Hurricane Katrina that were suppressed and never made public. Furthermore, the information included in the reports may have been tweaked or falsified to show certain political leaders in a more favorable light while highlighting the weaknesses and mistakes of political adversaries in hopes of swaying public opinion of certain political leaders.

Congressional testimony provides a first hand account related to FEMA's preparations and response actions regarding Hurricane Katrina. Congressional testimony provides primary sources that support points and arguments made by the federal reports

and the media timeline. Congressional testimony provides a definitive expression and explanation of what actually occurred during the time period being examined. However, congressional testimony does not provide the researcher an opportunity for additional questions or specific details.

The ability for the National Response Plan to be examined against the timeline and federal reports was restricted by the federal government's limitation of information sharing. It is difficult to discern if FEMA fulfilled every action outlined and mandated by the National Response Plan. The media did not focus on reporting the progress of FEMA in relation to completing NRP tasks and responsibilities. The federal government also has not released that type of detailed information to the public. Therefore, it is difficult to discern what tasks were completed and what were forgotten. The federal reports and timeline provide the closest assessment of FEMA's adherence and completion of NRP tasks and duties.

Politics will also impact how media outlets report news. Media sources are not politically impartial. Media outlets each have their own political biases and political agendas. Therefore, the media is notorious for reporting based on their political leanings and agendas. Media sources may report in a certain way as to attract political and/or financial support.

Secondary sources are also not without limitations. The sources used for this analysis include the federal reports *A Failure of Initiative* and *The Federal Response to Hurricane Katrina*, media reports of federal activity and communication, are secondary sources. This research is dependent on secondary information since primary information, such as federal correspondence/transcripts, federal meeting minutes, interviews, field reports,

undisclosed federal agency internal policies/procedures, FEMA training curriculum, and other similar information was not accessible to the researcher. The use of secondary sources comes with the risk of information from the primary source may have been skewed, misinterpreted, described poorly, or inaccurately relayed by the secondary source either which may be done either due to lack of skill and accuracy, or intentionally for some sort of alternate gain (political, financial, etc).

While there are several alternate research methods that could be selected for a research design, content analysis was an appropriate research method for the restrictions of this study and the type of data used in this analysis. Given the restrictions on time, finances, and access to federal information, content analysis was the best choice for this particular research design. Content analysis allowed for flexibility when analyzing multiple data sources at once in terms of comparing secondary sources to primary.

8. Chapter 8: Conclusions

This thesis has shown that the organizational structure of FEMA contributed to its inability to successfully provide relief and assistance to the New Orleans victims of Hurricane Katrina in a reasonable, sufficient and timely manner. FEMA failed in preparing for and responding to Hurricane Katrina. Katrina survivors were left stranded for four full days. FEMA provided an uncoordinated and delayed response in providing relief and medical attention to survivors. Research has shown that to date, FEMA has not made significant policy or organizational changes to improve its response efficiency and effectiveness.

Each of the research questions below examined an area of FEMA's deficient and delayed response including, organization centralization and inflexibility, lack of employee training/knowledge, lack of information sharing and lack of pre-planning.

5. How will centralization and flexibility affect an organization's ability to effectively respond and adapt to new and unexpected situations?
6. To what extent will an employee's skill set and situational awareness affect organizational operations?
7. How will internal and external information sharing impact communication and performance?
8. To what extent will a business continuity plan effect an organization's ability to timely recover from initial failures?

8.1. FEMA Failures

It is understood that FEMA's response to Hurricane Katrina was a failure on multiple levels. FEMA made several crucial mistakes that led to its failure to achieve its mission. FEMA lacked several necessary components in order to provide an effective, timely and adequate response to Hurricane Katrina. FEMA's insufficient and delayed actions can be understood through organizational theory, the theoretical framework of this research. This analysis includes fundamental organizational theory regarding organizational failure as related to FEMA's structure, employee competence, information sharing and pre-planning capability.

While mistakes certainly did occur throughout FEMA's inadequate response effort to Hurricane Katrina, misconduct did not occur. Misconduct may have been considered if FEMA intentionally and purposely did not adequately respond to Hurricane Katrina and willfully contributed to delays and obstacles in the relief effort that furthered human suffering and loss of life. However, this thesis has shown that FEMA's response failed due to its organizational structure, not employee misconduct.

8.1.1. Centralization and Inflexibility

FEMA's highly centralized and inflexible federal organizational structure does not allow FEMA to be adaptable to new or unforeseen circumstances. FEMA's federal organizational structure is rooted in bureaucracy, which means FEMA has lengthy, and often time consuming, procedures it must follow when a decision needs to be made or action needs to be taken. FEMA is consistently wrapped up in bureaucratic red tape so it is unable to act or provide assistance until all necessary procedures have been appropriately completed. FEMA is not structured or authorized by the federal government to adjust

policies and procedures based on the type of emergency or disaster that FEMA is planning for, or responding to in order to provide such assistance in a more timely manner. FEMA, as the only federal agency that coordinates planning and relief of national emergencies and disasters, must be able to function and fulfill its primary objective of saving human life without being tied up with bureaucratic red tape.

8.1.2. Lack of Employee Competence

When analyzing media reports, the White House report, and the Select Bipartisan Committee report for a compilation of FEMA's performance and activities throughout the preparation and response to Hurricane Katrina, it becomes apparent that FEMA suffered from several types of organizational failures. FEMA was not prepared to face such a dramatic disaster due to lack of funding, training, staffing, and even disaster focus. When Hurricane Katrina was itself a disaster, these series of FEMA's failures have been criticized as a second disaster.

After FEMA's absorption into the Department of Homeland Security (DHS) in 2003, FEMA lost a number of essential tools for carrying out its functions and mission. Senior FEMA staff members with expertise in the field either left the agency or were reassigned to other parts of DHS (*A Failure of Initiative*, 2004). FEMA suffered budget cuts. A large number of positions remained vacant. FEMA's focus was shifted from disaster management to terrorism. FEMA no longer had the ability to properly train staff or train with other federal agencies. Lack of available funds severely restricted procurement for equipment upgrades as well as employee training funding (*A Failure of Initiative*, 2004).

The lack of financial resources and loss of seasoned personnel as well as expertise in 2003 left a huge gap and loss of direction for the remaining FEMA employees to fill.

FEMA was not able to adequately train its remaining and new employees, or focus on emergency and disaster management. The federal report, *A Failure of Initiative* describes the lack of FEMA training and employee knowledge in a 2004 FEMA memo, which illustrated the dismal preparations that FEMA response teams had. The memo explained that due to lack of funding for training and equipment upgrades, FEMA response teams had been reduced to merely names on a roster.

8.1.3. Lack of Information Sharing

Non-filtered communication is the key to the successful management of any emergency or disaster situation. FEMA was not able to easily or consistently share information with its employees or with other agencies. Throughout the relief effort of Hurricane Katrina, FEMA experienced a lack of both intra-communication and inter-communication. FEMA did not pre-deploy adequate communications units to the Gulf Region in preparation for Hurricane Katrina. The equipment that was positioned was outdated, could not communicate with the equipment other agencies used, and was not placed in practical locations to quickly establish communications after the hurricane. Frequently, communications equipment was not functioning or had to be located and moved out of flood waters to more optimal locations. Throughout the relief efforts of Hurricane Katrina, FEMA found itself unable to communicate within its agency or with other federal, state and local government agencies. This lack of communication hindered coordination among agencies and within FEMA caused delays in the arrival of relief and caused the unnecessary duplication of various relief efforts by multiple agencies.

8.1.4. Lack of Business Continuity Planning

FEMA did not have a recovery plan in place to assist the agency in continuing its relief effort should a portion of its response plan fail. Without such a plan, the failure experience in one area of FEMA was able to spread to the rest of the agency. For example, FEMA did not have a back-up plan to manage the nonfunctioning communications systems, accurately locate or track supply shipments, coordinate with other federal agencies, or navigate through flooded areas to bring relief supplies to residents of New Orleans. FEMA was not able to recover from these and other failures experienced during its relief effort in New Orleans after Hurricane Katrina. A business continuity plan should include also include technology. If one technology fails, an alternate technology should be available for us. For example, FEMA relied on outdated technology to conduct situation assessments and prioritize relief needs which created delays in developing mission orders for the military. Instead of bringing in alternate technology and equipment to properly complete the task and correct this failure, FEMA gave up and turned this duty over to the military. In early September, FEMA requested that the Department of Defense (DOD) take over the logistics of coordinating the military response effort.

8.2. Data Sources

The timeline by The Brookings Institute, Fact Check and Think Progress provided accounts of what happened during FEMA's preparation and response to New Orleans. Conflicting reports can be found within this timeline. It is important to note such conflicts as it depicts the type of confusion and miscommunication that took place in the

aftermath of Hurricane Katrina. This confusion and misunderstanding was subsequently conveyed to the media and general public.

The National Response Plan (NRP) provides the standard or checklist that FEMA's actions should be compared against. The NRP is an outline for what should have happened during the federal response. The NRP is a relatively new document and was implemented in 2004 by President Bush. The NRP was used for the first time during the response to Hurricane Katrina. There has been consistent criticism by disaster management officials and federal officials who feel that FEMA was not familiar with the NRP and therefore was not able to fulfill the duties and responsibilities it had.

The federal reports also provided additional information regarding what actually happened during the response to Katrina that were not previously included in media reports. The federal reports, *A Failure of Initiative* and *The Federal Response to Hurricane Katrina* are the result of investigations initiated by the White House and Congress to evaluate the federal response to Katrina. Therefore, the federal investigating body of each report had the authority to demand federal documents that were classified and not available to the public.

Congressional testimony is another important data source in this analysis. Congressional testimony is the main primary data used for this evaluation. Testimony was gathered from both the US Senate and US House from federal officials, Senators, Congressmen, state and local disaster management employees and the like. Testimony also provides first hand accounts of the overall federal response effort, as well as criticisms and identification of poor performance. Congressional testimony is beneficial for further supporting the timeline, as well.

The timeline, NRP and congressional testimony were collectively compared against the research statements derived from the organizational theoretical framework in order to assess what should have happened versus what actually happened regarding FEMA's response to Hurricane Katrina in New Orleans between August 26, 2005 and September 5, 2005. Recommendations were made based on the findings of this content analysis. Each theoretical statement has its own recommendation(s).

8.3. Recommendations

FEMA's inadequate response to Hurricane Katrina has reaffirmed the lost credibility and trust for FEMA felt within the emergency management field as well as from American citizens. FEMA has been criticized that it is no longer able to adequately prepare for and provide a timely, coordinated and effective response to emergency and disasters. In order for FEMA to regain its credibility in the field, build internal confidence, empower its employees, successfully prepare response efforts and provide adequate relief assistance to victims and survivors, several critical changes to FEMA's organizational structure must be implemented.

8.3.1. Centralization and Flexibility

FEMA must have more flexibility in its policies to accommodate unforeseen circumstances. During an emergency situation, bureaucracy needs to be curtailed in order to alleviate time intensive procedures that could delay relief efforts. This would include the ability to streamline bureaucratic processes while completing critical disaster response activities. Such streamlined procedures may be completed at a later date after the disaster has passed the response stage.

Also, a catch-all policy and procedure should be created to manage unplanned outcomes within FEMA. This policy must allow for operational and emergency response flexibility in order to accommodate a seemingly endless list of unforeseen circumstances that may arise during a disaster. Currently, the National Response Plan does not have any provisions for managing secondary disasters or other unforeseen circumstances. FEMA was not prepared for Hurricane Katrina, even though there were ample warnings announcing Katrina's arrival. One can only wonder how well FEMA would handle a terrorist attack, especially since such attacks are likely to come without any warning at all.

Direct communication should also be developed between FEMA and the White House to ensure more accurate flow of information to and from the White House. This would eliminate the need for passing information up the federal hierarchy through the Department of Homeland Security and then onto the White House. Passing information up the hierarchy delays the delivery of information and also allows the opportunity for information to be miscommunicated as the information is passed through additional hands.

8.3.2. Employee Competence

In order to allow FEMA officials to respond to disasters with more accuracy, capacity and enhanced skill-sets, FEMA employees should be held personally liable for their actions, as is the common practice in many other professions. This would push FEMA employees to perform at a higher level, eliminate careless errors and grow more dedicated to the mission of FEMA due to the looming threat of personal liability should FEMA fail to respond adequately to the needs of the victims/evacuees. Also, an

incredibly poor response by FEMA to an emergency situation has the potential to create a secondary disaster. For example, FEMA's delayed rescue of victims and evacuees stranded in attics, on roofs and in the blistering sun resulted in a rather large number of cases of sun poisoning, dehydration, sun burn and other associated illnesses.

FEMA must also properly train its staff members. Training needs to occur with all federal agencies in an attempt to encourage a seamless federal response in which each agency is familiar with the operations and functions of the other.

Also, minimum communication procurement standards should be developed and recommended by FEMA for all federal, state and local emergency officials. This would provide procurement guidance for governments and emergency management officials. Such standards would also create a shift with communications manufacturers to develop products that meet FEMA standards in order to remain competitive.

8.3.3. Information Sharing

Regular agency-wide debriefs must be conducted by an agency designee to ensure all employees are receiving informational updates at the same time and from the same source. Employees will become increasingly more organized with the status of critical tasks, reduce redundancy of responsibilities and efforts, and provide a more unified response as everyone has access to the same knowledge, updates and agency directives.

To increase inter-organizational communications, emergency scenario simulation training (similar to the Hurricane Pam exercise) among various federal agencies must be conducted on an annual basis, at minimum. This type of training will allow federal agencies to work together on simulated crises in order to increase a seamless provision of emergency response services, build internal confidence, foster trust, enhance

communication between agencies and allow agencies to build working relationships among each other.

8.3.4. Business Continuity Planning

FEMA must develop a business continuity plan for itself in order to carry out its duties and responsibilities despite experiencing a failure in one part of its response. FEMA must be able to carry on and provide an effective and timely disaster response. FEMA is the only federal agency with the authority and responsibility to coordinate the entire federal response to disasters and emergencies. Essentially, FEMA is the nerve center of the federal response. When the hub of information and coordination falls apart, so do the supporting agencies as they lose their direction, guide and support for action. FEMA must be able to plan for organizational disasters and appropriately halt them from spreading through the agency.

8.4. Next Steps

FEMA's preparations and response to Hurricane Katrina in 2005 is still a relatively new topic of interest for researchers. While there have been a number of studies already conducted, there are plenty of opportunities for future research on FEMA, its organizational structure and its responses to emergencies and disasters.

This analysis provides several opportunities for additional research. Research focusing on primary data sources involved in Hurricane Katrina would provide for a more in depth examination and first hand account of FEMA's response efforts, failures and successes. Such research may be accomplished through interviews or surveys of key federal officials and state/local disaster management leaders who were affected by

Hurricane Katrina. Interviews and surveys would allow the research to develop new questions that may not have been asked through congressional testimony and would provide an opportunity for new information to be brought to the research spotlight.

Other areas for future research include a more in depth study of organizational mistake and failure theory as related to how FEMA is structured and its operating abilities. There may be additional factors that are involved in FEMA's emergency response limitations that are not immediately apparent or known to the public. This type of research may require access to documents and information that is not readily accessible to the public, particularly on the organization and functionality of FEMA and the federal government.

Another research opportunity includes a study of the severity and effects of federal bureaucracy on FEMA's ability to provide timely and adequate disaster preparations and response to disaster situations. It is established that bureaucratic red tape delayed and at times paralyzed the federal response due to the overburdening need for approvals, specific paperwork being required before action could be taken, lack of information flow and situational awareness, as well as the unwillingness for FEMA to bypass overcomplicated procedures in order push relief resources into New Orleans. This red tape resulted in inexcusable additional loss of life and property damage as relief efforts were delayed or never fulfilled due to multiple instances of bureaucratic red tape.

Also, the focus of this thesis was related to FEMA's initial response to Hurricane Katrina in New Orleans. Future research opportunities could examine FEMA's response to Hurricane Katrina in other affected areas in the Gulf Region and create a comparison.

It is possible that the federal response documented in this thesis may be unique to New Orleans and not uniform throughout the Gulf Region.

Providing FEMA implements the recommendations outlined in Chapter 6, future research may include an evaluation of the recommendations after a specific time period to determine if the recommendations are impacting FEMA and its functional abilities negatively, positively or neither. The impact of training and related changes may also be researched. From this research, additional recommendations for improving FEMA's training and capabilities may be developed, or the recommendations in Chapter 6 may be adjusted and then reevaluated.

I. Appendix 1 – Timeline Extension

This timeline is an extension of the timeline presented in Chapter 4. The information in this section is not directly related to FEMA and its activities in New Orleans between August 26th and September 5th 2005 and thus was not included in the timeline in Chapter 4. The information in this section describes additional activities that occurred during Hurricane Katrina, including actions of other federal agencies, and descriptive information about Hurricane Katrina. The most pertinent information, which is underlined, demonstrates other inadequacies and poor decision-making within the federal government. The data below demonstrates several areas of inadequacy, naivety, lack of situational awareness, and advancing of political agendas.

Most shockingly, President Bush and other federal officials frequently staged photo opportunities for press releases and political prestige as well as attended to personal events and errands instead of focusing their attention and efforts on the relief response. The staged photo opportunities incorporated the use of relief workers who were diverted from providing rescue and relief assistance, to posing with President Bush. A lack of situational awareness was illustrated several times as President Bush and other federal officials addressed the media rather ambiguously and briefly regarding the Katrina relief effort and indicate the relief effort was proceeding well when in reality efforts were delayed and insufficient. There are also instances throughout the federal response where President Bush and federal officials blatantly lied to the public and maintained they did not have knowledge of certain pieces of information.

Friday August 26th, 2005

- Gulf Coast States request troop assistance from the Pentagon. At a 9/1 press conference, Lt. Gen. Russel Honoré, Commander, Joint Task Force Katrina, said that the Gulf States began the process of requesting additional forces on Friday, 8/26. (Think Progress)

Sunday August 28th

- 11:31am - President Bush, from his Crawford ranch, delivers statement vowing to help those affected. His statement contains 203 words about Katrina and 819 congratulating Iraqis on their new constitution. "We will do everything in our power to help the people in the communities affected by this storm," he says of the approaching hurricane. (Brookings and Fact Check)
- 6pm - Nagin orders a curfew of 6 PM. (Brookings)
- Gov. Blanco requests disaster relief funds (some evidence of this request was on 8/27/05) (Brookings)
- President Bush declares State of Emergency in Mississippi, Florida, and Alabama. (Brookings)

Monday August 29th

- 8am – Mayor Nagin reports that water is flowing over the levees. “I’ve gotten reports this morning that there is already water coming over some of the levee systems. In the lower ninth ward, we’ve had one of our pumping stations stop operating, so we will have significant flooding, it is just a matter of how much.” (Think Progress)
- Morning – Mayfield warns Bush about the toppling of the levees. In the same briefing, Max Mayfield, National Hurricane Center Director, warns, “This is a category 5 hurricane, very similar to Hurricane Andrew in the maximum intensity, but there’s a big big difference. This hurricane is much larger than Andrew ever was. I also want to make absolutely clear to everyone that the greatest potential for large loss of lives is still in the coastal areas from the storm surge. ... I don’t think anyone can tell you with any confidence right now whether the levees will be topped or not, but there’s obviously a very very grave concern.” (Think Progress)
- Morning – Bush calls Chertoff to discuss immigration. “I spoke to Mike Chertoff today — he’s the head of the Department of Homeland Security. I knew people would want me to discuss this issue [immigration], so we got us an airplane on — a telephone on Air Force One, so I called him. I said, are you working with the governor? He said, you bet we are.” (Think Progress)
- Morning – Bush shares a birthday cake photo opportunity with Senator John McCain (Think Progress)
- 11:06 am – Bush visits a resort in El Mirage, Arizona to promote Medicare drug benefit during a 44-minute event. He devotes 156 words to the hurricane, among them: "I want the folks there on the Gulf Coast to know that the federal government is prepared to help you when the storm passes. I want to thank the governors of the affected regions for mobilizing assets prior to the arrival of the

storm to help citizens avoid this devastating storm." (Think Progress and Fact Check)

- 11:13am – The White House circulates an internal memo regarding the levee breach. “Flooding is significant throughout the region and a levee in New Orleans has reportedly been breached sending 6-8 feet of water throughout the 9th ward area of the city.” (Think Progress)
- 4:40pm - Bush appears in Rancho Cucamonga, California for another Medicare event. He again devotes a few words to Katrina: "It's a storm now that is moving through, and now it's the time for governments to help people get their feet on the ground... For those of you who are concerned about whether or not we're prepared to help, don't be. We are. We're in place. We've got equipment in place, supplies in place. And once the -- once we're able to assess the damage, we'll be able to move in and help those good folks in the affected areas." (Think Progress and Fact Check)
- 8pm – Rumsfeld attends San Diego Padres baseball game. Rumsfeld “joined Padres President John Moores in the owner’s box...at Petco Park.” (Think Progress)

Tuesday August 30

- 11:04am – In San Diego, California, Bush delivers a 31-minute speech marking the 60th anniversary of the end of World War II. Of Katrina, he says, "we're beginning to move in the help that people need." (Fact Check and Think Progress)
 - Immediately after the speech, White House Press Secretary Scott McClellan tells reporters that Bush will return to Crawford, then cut short his Texas stay and go to Washington. McClellan says, "This is one of the most devastating storms in our nation's history. I think that's becoming clear to everyone. The devastation is enormous." (Think Progress)
 - Pentagon claims there are adequate National Guard troops in the region “Pentagon spokesman Lawrence Di Rita said the states have adequate National Guard units to handle the hurricane needs.” (Think Progress)
 - 2pm – Bush plays guitar with country singer Mark Willis (Think Progress)
 - Bush returns to Crawford for the final night of his vacation (Think Progress)
 - At a Baton Rouge briefing, Sen. Mary Landrieu reports that "most of the roads and highways are impassable, and water is still coming into the city of New Orleans. The water is up to the rooftops in St. Bernard and Plaquemine. We think there may be only one major way into the city right now and it has to be used for emergency personnel to get food and water and rescue equipment to people who are in desperate need."
 - US Sen. David Vitter said of the still-rising water:
 - Sen. Vitter: In the metropolitan area in general, in the huge majority of areas, it's not rising at all. It's the same or it may be lowering slightly. In some parts of New Orleans, because of the 17th Street breach, it may be rising and that seemed to be the case in parts of downtown. I don't want to alarm everybody that, you know, New Orleans is filling up like a bowl. That's just not happening.
-

- None of the officials present at the press conference correct the mistaken remark. And Blanco seems puzzled when a reporter asks the governor about the water pollution that will later emerge as a major public health risk:
 - Q: Does the water that's downtown -- does this represent what everyone feared before the hurricane would come, that you would have this toxic soup that has overrun the city?
 - Blanco: It didn't -- I wouldn't think it would be toxic soup right now. I think it's just water from the lake, water from the canals. It's, you know, water.
 - Q: Well, something could be underneath that water.
 - Blanco: Pardon?
- (Fact Check)
- 3:00pm – Officials report that the Army Corps of Engineers has surveyed the levee damage and will soon attempt repairs (Fact Check)
- 5:50pm - President Bush announces that he will cut vacation short. (Brookings)
- 8:55pm - Army Corps of Engineers begin work on 17th St levee. (Brookings)
- The convention center was discussed as a possible option for refugees by New Orleans officials, but it was never officially chosen as a place of refuge. It was not a shelter listed in the New Orleans Comprehensive Emergency Management Plan. Unclear as to why it became a shelter. (Brookings)

Wednesday August 31st

- Early morning – Gov. Blanco again request assistance from Bush. “She was transferred around the White House for a while until she ended up on the phone with Fran Townsend, the president’s Homeland Security adviser, who tried to reassure her but did not have many specifics. Hours later, Blanco called back and insisted on speaking to the president. When he came on the line, the governor recalled, “I just asked him for help, ‘whatever you have’ ” She asked for 40,000 troops.” (Think Progress and Brookings)
- Early – Bush passes over New Orleans in Air Force One on his way back to Washington. His press secretary tells reporters: "The President, when we were passing over that part of New Orleans, said, 'It's devastating, it's got to be doubly devastating on the ground.' " (Fact Check)
- 10am – Texas Governor spokesperson says that Superdome refugees will be put in Astrodome. (Brookings)
- National Guard troops arrive in Louisiana, Mississippi, Alabama and Florida. Troops arrive two days after they are requested. (Think Progress)
- Pentagon sends four Navy ships with emergency supplies. Launches search-and-rescue mission. (Brookings)
- Bush organizes task force to coordinate federal response. Bush says on Tuesday he will “fly to Washington to begin work...with a task force that will coordinate the work of 14 federal agencies involved in the relief effort.” (Think Progress)
- Public health emergency is declared for the entire Gulf Coast. “After a natural disaster, short and long-term medical problems can occur. Diseases like cholera,

typhoid, hepatitis and mosquito-borne illnesses tend to break out under these conditions.” (Think Progress)

- Chertoff is “extremely pleased with the response” of the government. “We are extremely pleased with the response that every element of the federal government, all of our federal partners, have made to this terrible tragedy.” (Think Progress)
- 4pm – Bush gives first major address on Katrina. “Nothing about the president’s demeanor... — which seemed casual to the point of carelessness — suggested that he understood the depth of the current crisis.” (Think Progress)
- Late Afternoon Bush, back at the White House, holds a cabinet meeting on Katrina and speaks for nine minutes in the Rose Garden to outline federal relief efforts. He says FEMA has moved 25 search and rescue teams into the area. As for those stranded at the Superdome, "Buses are on the way to take those people from New Orleans to Houston," the President says. (Fact Check)
- 7pm – Condoleezza Rice attends a Broadway show. “On Wednesday night, Secretary Rice was booed by some audience members at ‘Spamalot!, the Monty Python musical at the Shubert, when the lights went up after the performance.” (Think Progress)

Thursday September 1st

- 7am – Bush claims that no one expected the levees to break. “I don’t think anybody anticipated the breach of the levees.” His remark comes in a live interview on ABC's *Good Morning America*
 - Bush: I want people to know there's a lot of help coming. I don't think anybody anticipated the breach of the levees. They did anticipate a serious storm. These levees got breached and as a result, much of New Orleans is flooded and now we're having to deal with it and will. (Think Progress and Fact Check)
- Rice visits the U.S. Open. “Rice, [in New York] on three days’ vacation to shop and see the U.S. Open, hitting some balls with retired champ Monica Seles at the Indoor Tennis Club at Grand Central.” (Think Progress)
- Rice goes shoe shopping. “Just moments ago at the Ferragamo on 5th Avenue, Condoleezza Rice was seen spending several thousands of dollars on some nice, new shoes. A fellow shopper, unable to fathom the absurdity of Rice’s timing, went up to the Secretary and reportedly shouted, ‘How dare you shop for shoes while thousands are dying and homeless!’ ” (Think Progress)
- Sandbags arrive for levees. (Brookings)
- Red Cross President Marsha Evans asks permission to enter the city with relief supplies, but Louisiana state officials deny permission. (Fact Check)
- Senators return from recess to begin work on emergency aid bill. (Brookings)
- DHS Secretary Chertoff states in an interview that he was not aware of the people at the convention center until recently. (Brookings)

Friday September 2nd

- Rove-led campaign to blame local officials begins. “Under the command of President Bush’s two senior political advisers, the White House rolled out a

-
- plan...to contain the political damage from the administration's response to Hurricane Katrina." President Bush's comments from the Rose Garden Friday morning formed "the start of this campaign." (Think Progress)
- The Red Cross renews its request to enter the city with relief supplies. Louisiana officials say they needed 24 hours to provide an escort and prepare for the Red Cross's arrival. However, 24 hours later, a large-scale evacuation is underway and the Red Cross relief effort never reaches New Orleans. (Fact Check)
 - Early morning – Bush watches DVD of the week's newscasts created by his staff who thought he "needed to see the horrific reports". "The reality, say several aides who did not wish to be quoted because it might displease the president, did not really sink in until Thursday night. Some White House staffers were watching the evening news and thought the president needed to see the horrific reports coming out of New Orleans. Counselor Bartlett made up a DVD of the newscasts so Bush could see them in their entirety as he flew down to the Gulf Coast the next morning on Air Force One." (Think Progress)
 - 10am – Bush stages photo-op "briefing". Coast Guard helicopters and crew diverted to act as backdrop for President Bush's photo-op. (Think Progress)
 - Noon A convoy of military trucks drives through floodwaters to the convention center, the first supplies of water and food to reach victims who have waited for days. Thousands of armed National Guardsmen carrying weapons stream into the city to help restore order. (Fact Check)
 - Bush visits ground food aid. "Three tons of food ready for delivery by air to refugees in St. Bernard Parish and on Algiers Point sat on the Crescent City Connection Bridge Friday afternoon as air traffic was halted because of President Bush's visit to New Orleans, officials said." (Think Progress)
 - Levee repair work orchestrated for Bush's visit. Sen. Mary Landrieu, 9/3: "Touring this critical site yesterday with the President, I saw what I believed to be a real and significant effort to get a handle on a major cause of this catastrophe. Flying over this critical spot again this morning, less than 24 hours later, it became apparent that yesterday we witnessed a hastily prepared stage set for a Presidential photo opportunity; and the desperately needed resources we saw were this morning reduced to a single, lonely piece of equipment." (Think Progress)
 - Bush uses 50 firefighters as props in disaster area photo-op. A group of 1,000 firefighters convened in Atlanta to volunteer with the Katrina relief efforts. Of those, "a team of 50 Monday morning quickly was ushered onto a flight headed for Louisiana. The crew's first assignment: to stand beside President Bush as he tours devastated areas." (Think Progress)
 - 12pm – Bush tours the Gulf area and indicates he is "satisfied with the response". "I am satisfied with the response. I am not satisfied with all the results." (Think Progress and Brookings)
 - More National Guardsmen arrive; 6500 arrive New Orleans, 20,000 by day's end in LA and MS. (Brookings)
 - Congress approves \$10.5 billion for immediate rescue and relief efforts. (Brookings)
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- Fifteen airlines begin flying refugees out of New Orleans to San Antonio. (Brookings)
- 5:01pm Bush speaks at New Orleans airport, saying, "I know the people of this part of the world are suffering, and I want them to know that there's a flow of progress. We're making progress." (Fact Check)

Saturday September 3rd

- Senior Bush Administration official lies to the Washington Post by claiming that Gov. Blanco never declared a state of emergency. The Post reported in their Sunday edition "As of Saturday, Blanco still had not declared a state of emergency, the senior Bush official said." They were forced to issue a correction hours later. (Think Progress)
- 9am – Bush blames state and local officials. "[T]he magnitude of responding to a crisis over a disaster area that is larger than the size of Great Britain has created tremendous problems that have strained state and local capabilities. The result is that many of our citizens simply are not getting the help they need." (Think Progress)
- 10:06am - Bush announces he is ordering additional active duty forces to the Gulf coast. "The enormity of the task requires more resources," he says in his Saturday radio address. "In America we do not abandon our fellow citizens in their hour of need." He says 4,000 active-duty troops are already in the area and 7,000 more will arrive in the next 72 hours. Those will add to some 21,000 National Guard troops already in the region. (Brookings and Fact Check)
- 40,000 National Guardsmen now on Gulf Coast. (Brookings)
- New Orleans police report 200 officers have walked off the job, 2 committed suicide. (Brookings)

Sunday September 4th

- Gov. Blanco declares State of Public Health Emergency. (Brookings)
- The President issues a proclamation ordering the US Flag to be flown at half-staff at all federal building until Sept. 20 "as a mark of respect for the victims of Hurricane Katrina." (Fact Check)

Monday September 5th

- Gap in 17th Street Canal levee closed by Army Corps of Engineers. Still repairing another gap. Army CoE begin to pump water from the city. (Brookings and Fact Check)
- Bush returns to the region. 4,700 more active duty troops dispatched. (Brookings)
- 500 New Orleans officers unaccounted for. (Brookings)

II. Appendix 2 – NRP Designation of Emergency Support Functions

Figure 2. Designation of ESF coordinator and primary and support agencies

Agency	Emergency Support Functions														
	#1 - Transportation	#2 - Communications	#3 - Public Works and Engineering	#4 - Firefighting	#5 - Emergency Management	#6 - Mass Care, Housing, and Human Services	#7 - Resource Support	#8 - Public Health and Medical Services	#9 - Urban Search and Rescue	#10 - Oil and Hazardous Materials Response	#11 - Agriculture and Natural Resources	#12 - Energy	#13 - Public Safety and Security	#14 - Long-term Community Recovery and Mitigation	#15 - External Affairs
USDA			S		S	S		S		S	C/P	S		P	S
USDA/FS	S	S	S	C/P	S	S	S	S		S					
DOC	S	S	S	S	S		S	S		S	S	S		P/S	S
DOD	S	S	S	S	S	S	S	S		S	S	S		S	S
DOD/USACE			C/P	S	S	S	S	S		S	S	S		S	S
ED					S										S
DOE	S		S		S	S	S	S		S	S	C/P	S	S	S
HHS			S		S	S		C/P	S	S	S			P/S	S
DHS	S	S	S		S	S	S	S		S	S	S	C/P/S	S	C
DHS/EPR/FEMA		S	P	S	C/P	C/P			C/P	S				C/P	P
DHS/AIP/INCS		C/P										S			
DHS/USCG	S		S	S				S		P			S		
HUD					S	S								P	S
DOI	S	S	S	S	S	S				S	P	S	S	S	S
DOJ	S				S	S		S		S	S		C/P/S		S
DOL			S		S	S	S	S	S	S	S	S	S	S	S

C = ESF coordinator
 P = Primary agency
 S = Support agency

Note: Unless a specific component of a department or agency is the ESF coordinator or a primary agency, it is not listed in this chart. Refer to the ESF Annexes for detailed support by each of these departments and agencies.

Source: National Response Plan, 2004, p.105

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